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The Cornell Countryman is published monthly, from October through May, by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter at the Post Office, Ithaca, New York. Printing by Art Craft of Ithaca. Subscription rate is $1.75 a year or three years for $2.75; single copies, 25 cents.
Rising Cost and Sinking Students

The recent upsurge in living costs has affected everyone, student and teacher alike.

In matters of finance, the subject of economics enters. From this field comes the word "inflation" and according to economic laws, inflation must be kept within sensible limits. What do economists say about inflation? Two distinct fields of thought exist: some economists put the blame on the government; others (the progressives) accuse industry. These progressives claim that industry controls prices, whereby the ancient law of supply and demand is no longer obeyed. If profits are desired, the big companies will raise prices. Who is to stop them? Consequently, it takes a few large companies to cause a chain reaction in price raising. The government can do little, according to the progressives, for laissez-faire is still the way of economic life. However, our government has been motivated toward finding a solution, and as in all democracies, time (along with Senate investigating committees) will tell the story.

But what of prices in and around the University? Was there a need to raise bus fares, food and prices and are these increases justifiable?

I rode the Ithaca bus yesterday. It took twenty minutes for the bus to arrive and the ride downtown was quite bumpy. Generally speaking, there has been no change in the service; only the fare has changed. Where, then, has the fare increase gone? The public doesn't know—that's for sure.

However, fare increase is but one of our inflation problems. We could use our feet for transportation, but what is to fill our stomachs? I began laughing when I first saw the rise in food prices, a rise shrewdly started this summer so that the freshmen would be unaware of the increases. I laughed again when I tried to comprehend reasons for this rise. The quality of food this year is no different than last year. Menu's contain no new dishes, service is the same, employees have received no salary raises. So, I continue to chuckle and mourn my emptying wallet every time I go to another meal. For, I realize, that hunger (resulting from not eating) is not conducive to academic life on these hills.

The only way to solve the food price increase would be for the University to revise the present meal plan so that everyone could buy a meal book using the tickets at their convenience. Under this system money would be saved by students, and the University would gain a larger guaranteed income.

Book prices still remain a problem. Why have so many books been revised recently? To question I offer two logical answers. First, copyright requirements state that books be revised after a specified period of time. Secondly, new information might make revision imperative. However, in the majority of cases neither copyright nor knowledge accretion can account for a revision. Many of last year's books, with recent copyright dates, were revised this year. Also, upon comparing science books of five years past, with this year's revised books, I found little change in content. Mimeographed sheets can supplement texts when additional information is necessary.

There remains yet another question in the book controversy. With warehouses full of last year's books being sold again this year, why has there been a price increase, considering no new books were printed? To this I remain silent.

But with books we can put up a battle. Those of us who have easy access to the library can use library copies of the text. We could form small groups and purchase one book for the group. But to give the twelve per cent raise in book prices—this is what the increase has been—without a battle is foolish. I wouldn't complain if resale value increased. But this doesn't exist.

The problem of rising costs has been enumerated upon and logical reasons examined. Some will agree with me that explanations ought to be given by the bus company, various eating establishments, book dealers and publishers, as to why prices were raised. To be rational, I know that neither explanation nor student boycott will bring prices down. Our government is trying every method to curb inflation and even big business is coming around to its senses.

As for me, I continue laughing, for its easier to laugh than to shed tears and life is so much more enjoyable when one laughs (even if one's pockets are empty); and who knows I might even get the last laugh.—GPH.
Question:
What is your opinion regarding the general cost of living increases both on campus and in downtown Ithaca?

Answer:
Russell Forbes, Bacteriology '59
"This year the general costs of living on campus have risen out of proportion in respect to the wages students may earn. Thus, the students who need to earn part of their expenses are put at a disadvantage."

Neil Reicher, Dairy Farming '60
"The increase in expenses puts a strain on everybody's pocketbook. For this reason I am living off campus and cooking at home. This is the only way to save money, prices being so ridiculously high on the Hill."

David Lefevre, Ag Economics '60
"I think the cost of living has risen more on this campus than it has in other places. The Ithaca merchants seem to enjoy capitalizing on college students. University costs have gone up in proportion to goods in Ithaca and no end is in sight."

Robert Burt, General Ag '60
"Of course area food and service prices should be expected to increase—nearly all others regularly climb. Even so, as a student, I question the necessity of the latest increases. Are the students with their already high expenses really being considered? I believe a top university such as Cornell should be among the leaders in reversing this unwanted and undesirable trend."

Karen Boardman, Foods Nutrition '59
"The cost of living has gone up but I think it can be balanced by the general inflationary period we are in. No one really favors the increase but if it is balanced, then it is legitimate."

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When you have livestock to market, rely on your nearby stockyards of Empire Livestock Marketing Cooperative where "all men come as equals."
Open Letter to the Class of '61

Professor A. W. Gibson, Director of Resident Instruction at the College of Agriculture, says graduates from the nation's agricultural colleges are "wanted men." Pointing to a national survey, Director Gibson showed that there are 15,000 jobs open every year for only 8500 graduates from the nation's agricultural colleges.

It is my desire, in response to the request of the editor of the Cornell Countryman for a letter to the entering students, to have you feel that we are genuinely pleased to have you as students in the College of Agriculture. You will make up your own minds how well we succeed as the days pass.

The people of the State of New York have given good support to this College. It has permitted the gathering together of a first-class faculty with the teaching of students its primary responsibility. So it is with great hope and expectation that each new class of students is received.

You may be surprised to find the variety of interests that will be represented among your classmates. This results from the scope and diversity of uses to which an agricultural college education may be applied and especially to the freedom of choice that is flexible in recognition of the variety of training that may contribute to a liberal education in terms of plants, animals, the soil, and the relationships of people who depend upon the resources in one way or another.

The general characters of this program, which permits the pursuit of a great range of interests, is nothing new at this College. In his annual report of fifty years ago, the Dean of the College, Liberty Hyde Bailey, wrote: "The College of Agriculture is not a technical institution in the sense of carrying one definite curriculum leading to a profession or a single occupation... The many and diverse pedagogical interests that are represented in a modern college of agriculture make it very difficult to prepare a homogeneous and logically correct curriculum."

If that was the situation fifty years ago, these observations are even more pertinent today with the increasingly complex development of agriculture and its relationship in the world.

With this approach it is possible for you to follow a program of study, within broad guiding limits, that will contribute the maximum to your particular interests, purposes, and development. As you look ahead in your attempt to plan wisely for the future, you are certain to see the increasing emphasis upon science and what it can contribute to a better understanding of everything we do.

You must not be satisfied to acquire the answers to problems of today, but must want an education covering basic knowledge that will be useful in constantly changing situations. In its teaching, the College of Agriculture has always sought to combine the theoretical and the practical for the greatest understanding. You will never regret it if you take full advantage of these opportunities.

You will find, also, that your classmates come from all parts of the United States and from many foreign countries. It is to be hoped that you will make good use of this opportunity to develop a wide acquaintance among them. They will have different points-of-view from yours on many important questions. It is worthwhile to try to understand them. You are likely to find that they have good reasons for their ideas and that as mutual understanding increases so will tolerance on both sides. These associations should contribute much to your education.

One thing I must emphasize is that you have no time to waste in establishing a good academic record. It has been our experience that even potentially good students too often find it difficult to "take it easy" when they are on their own as they are here. You will not have anyone checking up to make sure that you are doing your homework. While we should be able to make the assumption that our entering students have mature judgment and the ability to manage their time and actions successfully, unfortunately does not always work out that way. I cannot emphasize too strongly the urgent necessity of getting down to serious business the very first week in the term. We believe that you and each of your associates in the freshman class have the ability to handle academic work here successfully. It is our sincere hope that it will be used that way.

Director Gibson
indicates hard work as key to college success.

By DIRECTOR A. W. GIBSON
Opportunities Unlimited

15,000 agricultural jobs are available with only 8,500 annual graduates to fill them.

By Mrs. H. S. GABRIEL
(Department of Extension Teaching and Information Radio Services)

Editor's Note: The New York State College of Agriculture at Cornell University receives many inquiries concerning the professional training students may obtain there and the preparation needed by prospective students. This is the first of two articles planned to answer some of the questions asked.

Opportunity unlimited. That is the outlook for qualified graduates of an agricultural college today. Whether they become farmers or turn to a career in one of the allied industries, or in education, the broad agricultural training received on the college campus is a solid foundation on which to build a future.

The American farmer is a key figure in the world-wide struggle to feed and clothe our growing population. He may be a scientist, an engineer, or a businessman and a public-spirited citizen of his community. The agricultural college provides him with the broad education needed for success.

The farmers of the United States are dependent on millions of other Americans for the tools of their trade and markets for their products.

Although the number of farms is decreasing, modern agriculture is basic to more than 500 off-the-farm occupations. As a result, the demand for farm reared young people, trained in agriculture and related sciences, is increasing so fast that there are now some 15,000 jobs open to the 8500 young men and women who graduate annually from agricultural colleges in the United States.

This situation presents a bright prospect to alert young people of New York State whose interests lie along scientific or other lines related to farming. The New York State College of Agriculture at Cornell University ranks among the foremost in the world, and since it is a unit of the State University, tuition is free to residents of New York.

Between 1500 and 1600 students, about 200 of them women, are registered in the College. The undergraduate enrollment could be increased to 200 if that many qualified students should apply for admission. In the classrooms and laboratories Cornell agricultural students acquire training that prepares them to become good farmers, or for careers in professions and occupations on which the modern farmers must depend.

What are these "occupations related to farming?"

Broadly speaking, careers in occupations related to farming fall into three categories. One group provides the raw materials, the equipment and the services farmers need to produce the food and the fiber, another processes and distributes the farm products, and the third group is engaged in agricultural education.

What are the "production" occupations?

Here again we must speak in general terms. Six million Americans are employed by industries which furnish farmers with the goods and services they must have to run their farms. All those industries need men with agricultural college educations. Farm equipment firms need agricultural engineers to design, test and demonstrate the machines. Feed, fertilizer and chemical plants prefer men trained in agriculture as well as chemistry. Seed companies turn to agricultural colleges for men to produce and process the seeds. All these industries need dealers, salesmen and advertising experts to sell their products. The man with a farm and agricultural college background can do the best job for them.

What are the processing and distribution jobs?

Almost every farm product has to be changed in some way and moved to another place before the consumer can use it. Nine million Americans are engaged in this process. They work in the canneries, the food freezing plants, the creameries and the bakeries. They make milk bottles and other containers. They operate storage plants, trucking lines, warehouses, elevators, wholesale markets, food stores, cotton gins, wool pools, milk routes, cooperatives and many other types of business that keep farm products moving.

([turn to page 14])
State legislation allows New York farmers to adopt marketing orders.

STATE legislation enacted early this year allows New York farmers to adopt marketing orders on commodities, including fruits and vegetables. At present, no such orders are operating within the State.

Profs. K. L. Robinson and B. A. Dominick of the State College of Agriculture at Cornell say marketing orders, if supported by fruit and vegetable growers, could:
1. Help to maintain prices in large crop years when prices usually go down, and
2. Over years, improve the growers' reputation and competitive position with handler and housewife.

But, the Cornell professors emphasized, marketing orders will not automatically guarantee permanently high prices for farmers.

Essentially, marketing orders are drawn up by farmers, with government assistance, to regulate the marketing of a commodity. A marketing order may impose regulations on quantity, and size of products going to market.

Specific provisions of individual orders may vary widely.

Ideally, a marketing order offers each grower an equal share of the market but, in practice, it's hard to apply restraints to satisfy all growers.

The agricultural economists said the strength of an order depends on the number of growers participating and the number of exemptions made for individual farmers. "This is true particularly with orders designed to raise prices by withholding part of each producer's crop.

"The smaller the proportion of a crop covered by an order, or the greater the number of exemptions, the less effective the program will be in reducing total supplies and raising prices," the professors explained.

Robinson and Dominick warned that marketing orders won't solve chronic surplus problems, but they said temporary surplus headaches can be alleviated by withholding supplies from the market.

The economists pointed out that New York farmers are now allowed to participate in both State and Federal orders. State orders, which govern produce grown within a state, permit the collecting of money for sales promotion and advertising.

Federal orders, which can regulate areas either within one state or several states, do not allow promotion and advertising assessments.

Stalk Rot

STALK rot, one of the most serious diseases of corn in New York State, is now under intensive investigation at the College of Agriculture.

Plant pathologists, led by Dr. C. W. Boothroyd, are inoculating healthy corn at Cornell's Aurora research farm with the causal fungus, Gibberella zeae, in an effort to find out more about the disease.

To help further the work of conquering stalk rot, GLF has given a $2,000 grant-in-aid to the department of plant pathology.

According to Dr. Boothroyd, the soil and airborne fungus gets into the stalks of mature corn and eats away the pithy tissues. Roots of diseased plants pull easily and are red.

Losses to farmers occur because the weakened stalks topple and corn ears lie on the ground and rot. Most of the loss is in corn for grain. Mechanical pickers have difficulty getting ears from fallen stalks. Silage corn is harvested before most damage is done.

Some varieties, notably Cornell M-4, are highly resistant to stalk rot, Boothroyd said. Plant breeders are developing more resistant varieties.

The plant pathologists will also study the disease under laboratory conditions to find out what there is in the corn plant's anatomy and chemical make-up that makes one plant more resistant than another.

Animal Husbandry

THE Department of Animal Husbandry and the Graduate School of Nutrition of Cornell University will collaborate on a project to investigate the potential usefulness of swine as experimental animals in nutrition research. Dr. Richard H. Barnes, Dean of the Graduate School of Nutrition, and Dr. J. K. Loosli, Professor of Animal Husbandry, have received a grant of $18,817 to support the work from the National Institutes of Health of the U.S. Public Health Service, Dr. Barnes announced today.

Dr. Barnes and Dr. Loosli will study the influence of dietary fat upon blood cholesterol and the development of atherosclerosis, a condition that is believed to precede and contribute to coronary heart disease.

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Secretary Benson Meets the Press

Former Countryman Editor attends agricultural press conference.

[By Natalie L. Gundrey, past Editor of the Cornell Countryman, had the opportunity to attend Secretary of Agriculture Benson's press conference. She records what happened during the 45 minutes that representatives of press, radio, and television besieged Mr. Benson with questions. Among other things, Mr. Benson deals with the New York-New Jersey Milk Marketing orders, Rural Electrification Administration controversies, and even Cornell's philosophy of agricultural economics.—Ed.]

The reception room adjoining Ezra Taft Benson’s office has three glass walls. It’s on a balcony overlooking the lobby of the Administration Building of the United States Department of Agriculture, in Washington, D.C. Government officials have named it “the cage.”

I walked into the cage long before the start of the conference. A few correspondents and reporters were already waiting, and even this early, they seemed impatient and tense. They smoked, thumbed through the agricultural publications that were spread on the table, or talked guardedly. Since they were all rivals, in a sense, there was little talk about the conference, because they did not want to reveal their own story ideas.

Outside the cage, the elevator light flicked on frequently as more and more people arrived, some with cameras and movie equipment. The room was soon filled with 50 or 60 people; the tension was increasing: Mr. Benson had not held a press conference since late June, and there would be plenty of questions to ask him.

One of the Secretary’s aides entered the room and passed out press releases announcing that Mr. Benson would make another speech about the Rural Development Program. The releases were politely pocketed: the pressmen were more interested in the coming conference.

Just before 11 o’clock, people began to cluster around one of the doors leading to the inner offices. A few minutes later, a guard signalled to us, and we went through the door and down a short hall to the Secretary’s office.

At the office door, a man greeted each of us with a handshake. It was Mr. Benson himself. We sat in seats arranged semi-circularly around his desk. Mr. Benson waited until everyone was seated before he came around to his own desk. Photographers circulated immediately.

First, Mr. Benson made a formal statement, announcing that the index of prices paid to farmers had risen three points, and the index of farmers’ costs had dropped one point.

The Secretary had just returned from a tour of some of our national forests, ranges, and experiment stations. He had also seen some low-income farms in northern Idaho.

He emphasized to the press the increasing importance of forest, soil, and watershed protection, as well as good timber management. He was proud to say that the national forests have been producing sustained yields profitably for some time now.

He anticipated a great increase in the number of people who will visit national parks and forests for recreational purposes next year. Mr. Benson emphasized the need to continue “Operation Outdoors,” a program to beautify our national recreation areas, and make them useful to more people.

A period of questions and answers followed. The Secretary asked that each person identify himself each time he spoke. Bailey of the Minneapolis Star and Tribune; Deacon of the St. Louis Post Dispatch; Heerkness of NBC; Monroe of the Albuquerque Journal: name after name was called out, as question after question was posed. One press man interrupted another. (turn to page 14)

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Your Host, Pete Atsedes

October, 1957
In these times of competitive co-existence, we have become quite aware of the never-ending drive by Soviet Russia to catch up with and surpass the United States in all areas of human endeavor.

From jet planes to consumer goods the Soviets have challenged, and in many instances, surpassed us. Agriculture, an enterprise which has caught the Soviet's eye, is a field in which the Russians hope to gain supremacy.

Soviet agriculture is an involved topic and I shall not attempt to tell the entire story. But the part of the story which concerns us—the most recent part—should be told so as to drive home the fact that the Russians are planting far more than a few kernels of corn and using far more than a few tractors and machines. The Soviet agricultural system may be complex but within its complexities there can be uncovered defeats and achievements, nightmares and dreams. In a condensed version, here is how Russian agriculture works.

In Russia, the State controls all means of production. Land machines and, to a great extent, the farmers are owned by the State. The land for livestock and crops is divided into collective farms. Each unit houses many farm families, farm equipment, machine-repair shops, mechanics to operate these shops, and temporary grain storage facilities.

Thus the cooperatives are comparable to having a small up-state New York town throw its entire population into the harvesting of crops on the nearby farmland.

During the harvest season in Russia, agricultural planners and supervisors are able to move the labor force from one area to another so as to satiate the cropland with enough men to enable a rapid harvest. As will be seen later in this article, the movement of the labor force has not been very successful.

Now that we have a general picture of the Soviet farm system, we can move ahead into the realm of statistical data showing the production of such a system.

At first glance the statistics look good, good for the United States, that is. The data shows that our production under a system of private farm operation is nearly twice that of the Russians in most types of agricultural products. But if these statistical charts also quoted the fact that Russian agriculture has just recently come into its own, we would realize that the percentage of advancement of Soviet agricultural on a yearly basis is much greater than is the percentage increase in American agriculture. In other words, we are being overtaken by Russia in agricultural enterprise.

Although Russian agriculture is on its way toward higher production, it is not moving along a smooth path. All is not happy in the land that preaches peaceful co-existence.

There are many problems confronting the collective farmers. But we must keep in mind that these problems are brought about by the installment of a new system of agriculture, a system quite different from our own and quite new to the Russians. Most of these problems are only temporary. Expanding Soviet research, biological and social, in the field of agriculture, will solve most of these problems. In brief then, here are a few of the Russian agricultural difficulties.

It has long been known among followers of Russian agricultures that the mechanic in charge of repairing collective farm machines are poorly trained. A few summers ago, one Russian newspaper, Svetskaya Rossiya, reported that due to imperfect repairs "many machines stood idle for longer than they worked." Aside from the poor quality of the mechanics there is a vast shortage of parts—"spare parts were at a premium" (Selskoye Khozyaistvo, Aug. 19, 1956).

Another costly and time-consuming difficulty centers around gas. Many collective farms have trouble securing gas with which to operate their machines. In the summer of 1956, after the grain was harvested the farmers were not able to transport it to central grain pools because they lacked the necessary fuel.

Aside from the gas shortage and poor quality mechanics, there exists a problem with the Russian farmer who is poorly trained in the usage of machines. Thus he tends to ruin them in a relatively short period of time, a period much shorter than the working capacity of these machines.

Machines are not the only things needed on a cooperative farm. Laborers in great quantities are also needed. For the past two summers we have read in our newspapers about the exodus of Russian students from cities and schools to the farmland to help with the harvest. Money spent by the State to transfer these students was to be regained in the harvest. The student response was reported as very great with both sexes. Russian newspapers stated that many students decided to remain at the farms for the rest of their lives. However, this exodus to the farmland has not solved Soviet problems.

Perhaps some of the most interesting aspects of Soviet agriculture, aspects which present more problems are the methods employed in harvesting and threshing. The Russian farmer has always used the single-phase combine method, a method now outlawed by the Soviet government. In this country we use the two-phase method, a method far superior to the Russian system. Under our two-phase method we first reap the grain with a windrower, then collect and thresh it with a combine. In Russia, the entire process is done in one step using a single machine. Combines are used for the sole purpose of reaping.

Leading Russian agriculturists especially after visiting America and seeing the two-phase method at work, agree that our harvesting system is superior to their own. But many of the Russian collective farmers are obstinately resistant to any change, especially a change which means the end to their single-phase method. It will be some time before every collective...
Agriculture, Also?

similar to the machine now being
farmers.

To sum up briefly the main problems confronting Russian agriculture I shall quote from a report issued a year ago by Radio Liberation, prepared by Wasył Dibert.

1. During the past summers ‘the harvest campaign and state grain purchases proved to be considerably smaller than expected.”

2. “... weather conditions in newly planted lands (steppe areas) ... threaten to create ... enormous difficulties ... in future crops.”

3. “The sparseness of the population in the Steppe made it necessary and will continue to do so for many years to come, to mobilize for the speedy execution of the harvest, large masses of people over even larger areas of the Union Republics, thus removing them for a period form their normal work.” (Factory workers, townspople and merchants, as well as students, work on the collective farms during harvest time—Ed.)

4. “The lack of a well-developed transport network and of a sufficient number of vehicles created and will continue to create chaos on the railroads and at the quay sides, resulting in enormous losses of grain, gathered in at the cost of great effort, and threatening to frustrate the work already done.” (During the past year an extensive program has been carried out whereby roads and railroads have been built in large numbers. More improvement is needed but the Russians are working to overcome these handicaps—Ed.)

As Radio Liberation sums it up, the USSR is as far from solving its grain problems now as when its “final and irrevocable” solution was proclaimed by Malenkov at the XIX Party Congress on October 5, 1952.

But in the wake of all this comes recent news, new competition for the U.S. No longer is Mr. Malenkov (his new book “Life in a Small Siberian Town,” has just been smuggled out of Russia via Outer Mongolia—Ed.) making the agricultural speeches. In Foreign Agriculture, Sept. 1957, the statements of Nikita Khrushchev’s recent agricultural reports were published. This statement read, “the Soviet Union within a few years would not only reach, but might even overtake the U.S. in per capita production of meat and dairy products.” Khrushchev went on to outline his plan which would enable such an advancement.

Though Washington observers (using Russian economic reports) call Khrushchev’s plans mere dreams, we must remember that previous so-called “dreams” turned into realities overnight (Example: satellite, intercontinental ballistic missile—Ed.).

The optimism expressed by Washington observers stems from far more than Russian economic reports, however. Similar to crop production, discussed earlier, the production of dairy products is also plagued by difficulties. As in the rapid introduction of the two-phase method of harvesting, so the introduction of increased corn production was too rapid. It is interesting to note that both harvesting method and increased corn production came about after Soviet agricultural experts visited this country.

Concerning corn, “insufficient preparation was made in terms of research, farmers’ know-how, fertilizers, machinery, and so forth.” Though the corn area in 1955-56 was greatly increased as part of Khrushchev’s plan (from ten million acres to more than seventy million acres), “production results in many cases were far below the original expectations.” Without this corn, of course, the proposed increase in meat production will be greatly handicapped (the basic and most widely used beef feed in both the U.S. and Russia is corn—Ed.)

Aside from the corn shortage there again arises the problem of a labor shortage. ‘For the Soviets, the task is not made easier by the fact that from three to five workers are required to do the job one farm laborer would do in the United States. More than forty per cent of the Soviet population was engaged in agriculture in 1956 as against less than fifteen per cent in the United States.” (Facts compiled from Foreign Agriculture, Sept. 1957.)

But as pointed out by Foreign Agriculture, Mr. Khrushchev’s main aim might be that of instilling in the Soviet farmer the enthusiasm and competitive spirit necessary in any plan aimed at expanding production. Rather than a mechanical increase, there will be a physical increase toward this production expansion.

There is much more to this story of Russian agriculture. The one obvious point to be gained is that the Russians are challenging the United States, aiming to meet and eventually surpass us in the field of agriculture. Obvious too, is the fact that many problems confront the Russian government and farmers, problems which will have to be overcome before the collective farms can compete with the free enterprise system of farming.

As Mr. Khrushchev intends to use us as stimulants for the Russian farmers, so must we use Mr. Khrushchev’s dreams as a stimulant for our own productive desires.

If our government drives ahead by finding new markets both at home and abroad for our present crops, and if scientists strive to discover new uses for surplus crops, then we can lead the way instead of having to be led in the field of agriculture, a field which could very well become, if it has not already done so, a competitive battleground between the United States and Russia.
Death in a Can

Food poisoning may be your unseen enemy at the dinner table

ONE afternoon, a young lady staggered into the University Clinic and collapsed. Within the hour eight or nine came in, and by nightfall, twenty-seven girls had been admitted to the infirmary. All were affected by severe nausea, vomiting, and acute prostration, a few even having diarrhea. The symptoms had occurred within a four hour period between mid afternoon and early evening.

After this explosive outbreak of what was diagnosed as acute gastroenteritis, a County Health Officer was sent to the one dormitory from which all of the girls came. He found that one hundred of the two hundred and forty who had eaten in one of the dining rooms had become ill. Although careful investigation did not conclusively establish the cause, it was believed to be food poisoning.

The most prominent cause of food poisoning may be attributed to effects of bacterial infection. It is acquired by the ingestion of unwholesome food. It provokes an acute illness, often of an epidemic nature, characterized by one or all of the symptoms of nausea, vomiting, diarrhea, and pain.

Food poisoning caused by bacteria able to grow well in foods is of two types; that caused by the ingestion of a toxin which has been preformed in the food by the bacteria, and that produced by active infection of the food by bacteria.

The toxin—formerly organisms belonging generally to the genera Staphylococcus and Clostridium. Staphylococcal poisoning is the most common type, and is caused by a toxic substance deposited by the organism Staphylococcus aureus, in the food before ingestion. Given favorable conditions of temperature, and sufficient time, toxins will be formed.

A food infected with the Staphylococcus bacteria will not give rise to gastrointestinal symptoms if it has been properly refrigerated, but if left unrefrigerated for several hours, toxins will be formed. For example, custard- and cream-filled pastries, readily subject to contamination as prepared, are seldom refrigerated before sale or consumption. The residue of roast turkey after the first meal is generally too large for the refrigerator, and is held over for some time at a temperature favorable to Staphylococcus growth.

The most common source of the organism is a food handler who may carry it in throat, nose, or on his skin. The prevention of contamination of food by Staphylococcus may be accomplished by sanitary handling, healthy, heating, food to kill bacteria, and proper refrigeration conditions.

Botulism caused by the bacteria Clostridium, also results from eating food in which the anaerobic Clostridium spores have grown and produced toxins. Botulism is chiefly caused by the effects of the toxin on the central nervous system. The characteristic symptoms are difficulty in swallowing, double vision, respiratory difficulty, and finally death from paralysis of the respiratory muscles. Mortality averages sixty-five percent of those infected in the United States.

In the U.S., canned foods have been responsible for the greatest number of deaths from Botulism. Fresh foods are not susceptible to spores and are killed by heat. The spores are found in soils throughout the country, and enter the foods from this source. If the container is under-processed, spores will germinate, and toxin is produced.

To prevent Botulism, the experts recommend: 1) the use of approved procedures for the heat processing of canned foods to kill the Clostridium spores, 2) the rejection of all jars or cans of food showing abnormal gas pressures or odors, and 3) the avoidance of foods which have been cooked, held and not reheated.

Infection by species of the genus Salmonella produce symptoms in man typical of food poisoning, but no toxin is deposited in the food. The illness is caused by an infection produced by living organisms, developing after a period of incubation during which time the Salmonella organisms multiply and invade the gastrointestinal tract of the person who has eaten the food containing the organisms.

The symptoms of Salmonella infection are headache, chills, and prostration, followed by nausea, abdominal pain, diarrhea and a low fever.

The presence of infectious Salmonella in the food is necessary for infection. Sources of the organisms in food are meat or milk from infected animals. The disease is spread by human carriers, or by leaving raw or improperly cooked foods uncovered, thereby exposing them to the excreta of rodents. It is also spread by leaving food unrefrigerated, thereby giving the organisms an opportunity to grow.

Preventive measures include cleanliness in the kitchen, sanitary food handling, proper cooking, and refrigeration. Avoidance of uncooked foods at supper clubs or picnics, where the disease is often spread because of a long incubation period in the kitchen, or while in transit, will also prevent Salmonella infection.

If the above procedures had been used at this year's freshman camp the sixty cases of gastroenteritis which occurred could have been prevented. Let us hope that, in the future, food poisoning will be minimized by the proper handling, preservation and preparation of foods.
Dairymen's League - - Fifty Years of Service

League provides dairy farmer with bargaining power and political influence.

To give the dairy farmer a place of dignity in society, to allow him the bargaining power necessary to make his economic status more secure — these were some of the aims of the small band of New York and New Jersey pioneers who created the Dairymen's League, Inc., 50 years ago. Facing there were past failures of other dairymen's organizations which had seen defeat and loss of market. Yet, because of faith in a cause, they went on with their mission.

The years 1907 to 1916 were a time of plodding, heartbreak and discouragement. In 1916, however, the proverbial straw that broke the camel's (in this case the cow's) back was added to the dairymen's burden and the Dairymen's League came into its own. In order to appreciate the situation engineered by fate, let us view the entire scene.

In World War I was in its second year. There was a scarcity of milk in Europe and foreign milk companies were manufacturing in this country. They had to pay prices higher than those paid by city distributors.

Farmers and distributors were also feeling pressure from rising costs. To the distributor, raising his prices would kill his market so, in order to compensate for increasing costs, they reduced prices to farmers. Dairymen were faced with rising costs and falling incomes. They had nowhere to turn. It was then that the Dairymen's League acted. The great dairymen's strike was called.

The objective was to keep the price of milk sold to distributors as high as that which manufacturers were paying. The strike achieved its goal and drew thousands of dairymen into the League.

The end of the War decreased the demand for milk from foreign markets and increased pressure from dealers to lower prices. Another strike was called in 1919 which upheld prices for eleven days but many dairymen found themselves without markets. The farmer was losing his short-lived security and dignity.

Another great pioneering step was then taken by the leaders of the Dairymen's League. The theory of "Classified Price Plan" of selling milk and pooling the proceeds was developed. Although this plan is widely in effect today, in 1919 it was as revolutionary as atomic energy.

The use of this plan required complete reorganization of the League. The status of bargaining organization had to be changed to that of a cooperative. In spite of strong dealer opposition and falling prices, the old Dairymen's League, Inc., became the Dairymen's League Cooperative Association, Inc. A milk contract was drawn up which provided for the sale and handling of milk and the sharing of benefits. Most of the world's market programs are based on the League's contract.

The new League was the only stabilizing force on milk markets for about eight years after its operation began. It bought milk from all farmers in the New York Milkshed, thus offering independence to the depressed farmers. Only half the dairymen in the Milkshed supported the League. Yet, it succeeded in keeping the milk price at least forty cents above manufacturing milk prices.

During the depression of the 1930's prices fell rapidly and unemployment was wide spread. The dairy industry faced the prospect of state milk control. In New York, New Jersey, and Pennsylvania milk control laws were passed. The Dairymen's League tried to point out weaknesses in the legislation but, because it was unable to uphold milk prices, their suggestions went unheeded.

Several weaknesses were apparent in the state control program. Since the dairymen did not share the returns from fluid markets and from manufacturing, they were forced to yield to dealers who had good markets. Law fixed the price and, because of economic difficulty, farmers had to work with dishonest buyers to evade the law. State regulations could not put prices on milk that crossed state lines, so dealers purchased cheap milk from out of the state. Lawlessness prevailed in the Milkshed.

By 1937 the dairy industry in the New York Milkshed grew discouraged with state milk control. The Dairymen's League drafted the Rodgers-Allen Law which replaced state legislation. This law gave regulation only if desired by producers and also provided for Class prices and pooling. Other cooperatives soon began to see the advantages of this plan.

SEVENTEEN years after the Dairymen's League adopted the use of Class pricing, a Federal Marketing Order, which incorporated parts of the League's program, was applied to dealers who bought milk for the New York Metropolitan market. This was only a partial victory since the League wanted all the markets included.

During World War II, milk marketing was a forgotten issue. War demand raised prices and these prices were fairly easy to maintain. As production of milk increased and markets declined, excess milk began to pour into the New York Milk Order Pool. It then poured out into state controlled markets. These markets accused the New York Order of disruption. New Jersey farmers brought suit against the Dairymen's League (turn to page 16)
Will Your Belle Have a Bustle?

The fashion cycle predicts the bustle as the next skirt shape.

By BRENDA L. DERVIN '60

IN modern times and in ancient times, it has been an often heard complaint that women's buying practices are fickle, disorderly, and inconsistent. Statisticians, however, have finally found one phase of female life which has remained unconfused. And this, believe it or not, is fashion.

Outwardly, fashion appears to be the same jumble of tastes and designs that it has been since Cleopatra's time. Yet, when surveyed over a period of years, fashion divides into three sections which repeat in a cycle.

THESE sections are named for the type of skirt which characterized the basic style of that period. For instance, the Civil War Period was a time when women wore wide sweeping bell-shaped skirts starting from tiny waists. Post Civil War days found the bell skirt turning into a bustled skirt, and eventually slimming down into the tubular effect. Thus come three divisions of the fashion cycle: bell, bustle, and tubular.

The earliest positive evidence we have of a basic silhouette that became part of a cycle comes from paintings of the early eighteenth century. The mode or style of the time was the bell-shaped skirt with many crinolines. About 1760, this silhouette disappeared and the bustle took over. Both
Tubular effect

these modes, bell and bustle, were characterized by much ornamentation
and elaborate design. In the early nineteenth century, the final style of
the fashion cycle came in with its tubular effect.

Simplicity paralleled the entrance
of the final basic style. This was the
first successful appearance of the
"classical mode" or "sophisticated
modernism" (simplicity of design had
been introduced earlier but wasn't
accepted). The tubular effect lasted
approximately thirty years until about
1820 when women turned back to
the bell-shaped skirt one hundred years
after its first appearance in 1720.

Therefore, after each style had
reigned for about one-third century a
new style appeared so that about every
one hundred years the cycle repeated
itself. With the bell-shaped reining
until the Civil Wars days the cycle
started again. The bustle again fol-
lowed the bell-shape, and in the early
twentieth century the tubular effect
with its simplicity re-appeared. About
1940 the bell-shaped skirt (labeled
the buffant look in fashion circles)
became the fashion mode for the third
time. At present, fashion is in its
transition period, while women decide
which style will become basic for the
next few decades.

Even fashion experts can not cor-
rectly predict the new basic style. In
the past two centuries, all efforts to
interject any style beside the bell,
bustle, and tubular have failed. Dur-
ing the transition period many differ-
et ideas have been offered. For ex-
ample, efforts were made to bring the
bustle to the sides and slim the skirt
underneath it. This style was worn
for a short time but eventually
was rejected.

CHANGES which occur in fashion
were not impulsive. Each year that a
style reigns, the basic silhouette is
changed slightly to increase sales and
avoid monotony. Actually, people out-
side the fashion industry aren't even
aware of the changes. For example,
with the bell-shaped skirt the conver-
sion to the bustle was a slow uplifting
of the silhouette to the back. In addi-
tion, the details, such as neckline, hem
length, sleeve length, and hip line
vary from year to year but have no di-
rect effect on the basic style.

Many answers have been offered to
questions as to why fashion changes at
all. Some experts say that change in
economic conditions brings on a fash-
ion upheaval. According to records,
economic conditions have influenced
fashion but haven't changed it radi-
cally. Moreover, the reaction to these
economic changes has not been consis-
ten. At one time, a depression
brought on a great influx in decorativ-
clothing. While, in the United
States today where prosperity is high,
women tend to chose simple, sophisti-
cated garments and are spending com-
paratively little for them.

Historical events have also in-
fluenced fashion but not to a great de-
gree. In France's Reign of Terror
preceding the French Revolution,
women adapted the red scarves, which
the condemned wore to the guillotine.
This fad disappeared rapidly, as do
all fashion fads.

PROBABLY the most important
reason for fashion changes is psycho-
logical. Women, naturally, tire of the
"same old style" and tend toward
something new. The newest in fashion
at any given time is the style which
hasn't been around for about sixty
years.

To most observers, fashion still
appears to be confused. According to
the cycle, the next basic style is the
bustle. Who knows, today's women
may reject this and dispense with the
fashion cycle altogether.

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October, 1957 13
from the farm to the person who needs them. Advertising, public relations and selling are important parts of these businesses. All these industries offer good jobs to agricultural college graduates, especially if they are farm reared.

WHAT ARE THE JOBS IN AGRICULTURAL EDUCATION?

Agricultural education offers a wide variety of professional opportunities. Agricultural college graduates become teachers of natural sciences and vocational agricultural in secondary schools, or of specialized subjects at the college level. A College of Agriculture education is basic to research work in an endless number of fields of study related to agriculture. The Extension Service, the Conservation Service and similar governmental agencies offer job opportunities to college trained men and women. Journalism, radio and television courses lead to careers in those professions, or provide training that will be helpful in connection with other jobs.

Hundreds of agricultural college graduates are working in other countries, helping to develop an agriculture that will make the people more self-sustaining. Opportunities for this kind of service will increase. A broad agricultural education is a necessity as preparation for this work.

WHAT KIND OF A JOB DO YOU WANT?

The agriculture-industry-education partnership is not new, but in recent years it has expanded in every direction at a rate of speed that is unprecedented. For every farm worker we now have three people engaged in other phases of agricultural industry. The boy who cannot get established in farming, or who prefers other types of work, is badly needed in these related fields. The New York State College of Agriculture offers training in most of them.

The world needs leaders with vision and broad and thorough education along many lines. The only place where such training is to be found is in the colleges. Students who plan careers in the field of agriculture or of natural science are more likely to find that the College of Agriculture offers exactly the education they need to reach the goal.

Mr. Bailey asked the first question. He mentioned that Senator Humphrey of Minnesota as well as other government officials were displeased because the Secretary was away so long, and thus could not (or would not) appear before Mr. Humphrey's subcommittee, that was investigating the reorganization of the Rural Electrification Administration. Mr. Benson defended himself by saying that he had been doing important work while he was away, and that he had facts that would help Senator Humphrey and his committee.

An investigation had been ordered because of the following circumstances: David Hamil, Administrator of REA, has always had the authority to approve all loans issued by REA. Last June, K. L. Scott, Director of REA, who is Mr. Hamil's superior, asked Mr. Hamil to discuss with him before giving any approval, all loans for over $500,000. The press and the public interpreted this move to be either a reorganization of REA, or an expression of lack of confidence in Mr. Hamil. If reorganization had occurred, it was not done properly, and if the move had been an intimation that Mr. Hamil had been unwise in giving out loans, people wanted proof of the intimation. An investigation was in order.

Today's tight credit restrictions, and great number of loan applications have caused the policy change to be necessary, the Secretary maintained. The change was not a reorganization, and Hamil was still regarded as an able administrator.

One correspondent wanted to know whether pressure might have been applied to someone in REA to approve a loan, or whether a loan might have been issued that Mr. Benson would not have approved. Either circumstance could have prompted the change. Mr. Benson denied both ideas.

Someone changed the subject. "Have you come back with any ideas for a new farm program next year?"

"As yet, I have not turned anything up, but I certainly should have something by the next session."

"What about new concepts, or extensions of present ones?"

The questioner seemed disappointed that the Secretary had no concrete ideas yet. Mr. Benson still said he had nothing new, but mentioned that he wanted to continue trying to remove the escalator clauses which are still used in determining price support. He also wanted to find more ways to expand farm markets both here and abroad. When asked about a food stamp plan, he answered that he was not considering one at this time. He couldn't see how food stamps would work at all in these prosperous times.

"Mr. Secretary, how would you answer Senator Humphrey's inference that you have too many men on your staff who hold to the Cornell University theory of agricultural economics that price supports will not really help farmers, and that the only answer to their problems is to let a large number of them drop out of farming?" The Senator fought against the approval of Dr. Donald Paarlberg as Assistant Secretary of Agriculture because he had this type of Cornell background. The Senator said that Cornell had one of the most backward, misinformed and erroneous systems of agricultural economics he knew of, and that he totally disagreed with the system.

Mr. Benson stated firmly, "I consider Cornell University one of the great land-grant colleges in the country. It has made a great many contributions to agricultural economics. When I select, however, I do not consider the university a man comes from. I judge solely on the basis of character and ability."

In view of the recent New-York-New Jersey milk dealers' strike, do you plan to withdraw or modify the milk marketing orders for that area?"

"Not at all," the Secretary answered. "Milk prices next year will average 50 cents more per hundredweight. That is good enough. Ninety-eight percent of the farmers approved this marketing order. It is a very good one. No change is necessary." Mr. Shannon of the Los Angeles Times asked Mr. Benson about his future plans. Rumors had been circulating that the Secretary was going to resign. But Mr. Benson said that he planned to go back to Utah only after his work was over, and certainly not in the near future.

"Do you think that the new $3,000,000 limit on Soil Bank payments will reduce the number of operators of large farms who will sign up for the Bank? Will this drop account for a loss in soil bank participation?" Mr. Benson thought the new limit would probably cut down the gross acreage in the Soil Bank, and that the improved moisture situation would account also for a drop in the number of participants. He said though, that other factors would balance out these losses.
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October, 1957
Benson Conference (from page 14)

Miss Monroe of the Albuquerque Journal requested that Mr. Benson sum up the accomplishments of Congress as he saw them. The Secretary felt that he could not give a complete answer, but he cited a few things.

He was glad that Public Law 480 providing for funds to pay for the removal of surplus crops (Funds are taken from import taxes) was extended, and that a compulsory poultry inspection law had finally been passed. He was also pleased that progress had been made in investigating the packing industry.

He was disappointed most of all in Congress's failure to enact a corn program. Two-thirds of the farmers wanted a corn stabilization plan, but were not able to get it. He also regretted that no action was taken to remove the rigid formulas still being used to determine price supports for basic commodities.

"Thank you, Mr. Secretary." Everyone rose abruptly. Before another question could be asked, Mr. Bailey had brought the conference to a close. These four words are the customary way for the press to say, "We have finished asking you all the questions we think are most timely." The correspondents and reporters left immediately, each determined to get news to his publication as quickly as possible. The mass media would form the next link in the chain between agriculture and the rest of the nation.

Dairy League (from page 11)
and the United States Department of Agriculture for the collapse of their market without bothering to explore the real cause of their problem.

Through the postwar years, the League has continued to further their marketing program. Recently a proposal was stated which would bring upstate New York and New Jersey markets together under one order. A bitter struggle ensued, but ended in August when a Federal Order was adopted which put League principles into effect for ninety percent of milk in the area.

The way is still open for advancement. The dairymen have still not reached the level of dignity and security deserved by businessmen in twentieth century United States. However, the faith and pioneering spirit which created the Dairymen's League, Inc. in 1907 still lives and thrives today. The simple container of Dairy-leaf milk in the dairy cases of thousands of stores, represents all the past discouragement, and present success of the Dairymen's League Cooperative Association, Inc., in its fiftieth year.

Letters to the Editor

(Reprinted by permission of author)

To the Editor:

The April issue of the Corn Cornell Countryman seemed to be rather preoccupied with articles on Farm Practice, however, the analysis seemed to revolve around cliches which left much unsaid.

The constant jeer seems to be that those who balk at farm work still take advantage of free tuition. If this is its justification or rationale, then Farm Practice is more a punishment than a helpful work system.

The second chapter of the Farm Practice Gospel says that any student in an agricultural school must work on a farm, in order to profit in his vocation, be it dairy husbandry or bacteriology. The sudden equation of agriculture with farm work is quite ludicrous. If agriculture in 1957 is only direct farming, then most of the Ag School's course catalogue is a collection of irrelevant trivia (courses in economics, engineering, food technology and basic sciences.)

I would submit, however, that the value of farm experience is negligible for students studying scientific fields in the Ag School. These students are in the Ag School because the departments of Bacteriology, Biochemistry, Conservation and Food Technology are there. Free tuition has no bearing on an evaluation of Farm Practice.

These science majors have a definite place in the Ag School even if they have little interest in farming. Their value is the value of pure research. The Ag School recognizes this fact when it supports departmental basic research projects.

There is recognition that farm work is not helpful to these science majors is the provision for minimum farm credits. But even this token requirement is objectionable because it is hypocritical. Work experience is useful only when it is directly related to your major. I would suggest a reevaluation of the Farm Practice system so that science majors could satisfy their entire practice requirements in the most ideal way: in work directly related to their fields.

There is another fault springing from Farm Practice: instead of appreciating farm work and life, the city boy often becomes disillusioned or disgusted with it. I would therefore suggest that a more practical, a more effective means of creating an appreciation of farm life be a required freshman year course for non-rural students which would give an introduction to agriculture: its history, its social importance, its current direction and problems. This approach—of a non-technical survey of agriculture—would result in a deeper, more sincere appreciation of its importance and its problems.

The Ag School finds itself in a unique position; where other schools are overcrowded, the Ag School has trouble attracting high caliber students. I would very strongly suggest that the Farm Practice system is responsible for this. With farm population decreasing, there are fewer rural area students. And when the city boy interested in science picks up the Ag School catalogue he usually stops reading at mention of farm work. This is evident if you study the freshman class. In all majors except sciences, boys greatly outnumber girls; the situation is reversed in the science fields. These fields usually attract people from urban areas, but now they only attract girls (who need no farm experience) and an important source of students—boys from the cities—is lost to the Ag School.

Unless the Farm Practice system is questioned, examined and reorganized, there will continue to be talk of discontent that the entire system is designed merely to supply farmers with cheap labor, and to discourage city people from "crowing" out upstate students in competition for entrance.

Farm Practice will continue to discourage qualified, scientifically inclined applicants from the city—students the Ag School desperately needs if it is to retain or perhaps regain its stature and its student body.

There seems to be a generous reluctance to examine this important problem of decreased admissions and its relationship to Farm Practice requirements. I do wish that the Ag School would take its ostrich head out of the farmland soil that it is now embedded in and consider some of the complaints of some of the students.

Martin Bobrowsky '60

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Permit each rustling leaf,
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Each silken murmur
Of the winnowed grass
To be my fervent prayer
Of thanks.

Lend the lightning to me.
Allow it, if You will,
To rend this vaulted soul,
To shatter every selfish thought,
And wither with its heat
Each growing weed
Of petulance.

Command its glowing point
To touch and aggravate to flame
The smouldering kindling
Of my gratefulness.

Let me borrow of the thunder.
Let me steal its strength
And let its rolling loudness
Add volume to the smallness
Of my voice.

From it, let me draw
The courage to withstand
The tempting comforts
Of my passiveness,
And wake me to acute awareness
Of my dependency on You.

And of Your rain and snow
Let me partake.
Let them cleanse
This mind, this heart, this soul
Of the self-imprinted stains
Which are the telltale marks
Of gross conceit.

Permit them to refresh the memories
Of countless blessings,
Of mercies undeserved,
And rewards unmerited.

Put, for just one day,
Your elements within my hand
To magnify and swell
My small and soundless
"Thanks!"

Thanksgiving, 1957

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From the Editor's Desk

The Farm Voice Fades
to a Whisper

The farmer is becoming politically sterile; the strong farm voice which supported the Populist and Greenback movements is dead. There remains only an echo of the once powerful farm voice.

Farm power has slowly ebbed away since the "New Deal" of 1933, when Franklin Roosevelt had depended heavily upon farmers for political support. Harry Truman was supported somewhat by farmers, but President Eisenhower's victory did not depend entirely on the farm belt population.

With this sort of trend, presidential hopefuls will make fewer whistle stops in tobacco chewing towns. A quick glance at the population census illustrates the death of these whistle stops.

The number of farmers in the United States is the same today as it was in 1870. The non-farm population increased from 15 to 150 million. In 1870, farmers were numbered at 22 million; the same number plow the soil today. But population isn't the only factor which softened the bellow of countrymen.

There is among farm groups a great deal of diversity. Some factors advocate rigid price supports, but others would like a flexible system. Policy diversities like this are a block to a solid voting unit.

The American press recognized this diversity in farm organization. Quoting from Newsweek magazine, "A significant political development is going almost unnoticed: the decline in legislative influence of the big farm organizations, The Farm Bureau, National Grange, and The Farmers' Union.

"The reason: existence of powerful conflicting groups within each organization." As a result, these organizations can't speak for all their members.

However, disunity and population aren't the only factors contributing to lessened farm voice. There are over a million farmers with a very low income (below $2,000) whose produce would not be missed if removed from the market. Due to this knowledge there is an increasing drive by the government to rid the nation of these slipshod farmers. Remaining farmers would not stir from their rockers in an effort to aid their "soil brothers," for they benefit from the reduction by subsequent increases in farm prices. The sad part of this reduction would be the loss of a few million farm votes.

If the farm vote continues diminishing, the inevitable will occur—the farmer will lose his political voice. Without a voice, the farmer can do little to prevent the government from dropping farm support—a move which would turn the farmer and his produce into the competitive market. Perhaps a free market is what farming needs.

And what of the small farmer? Without a political voice, he is like a lion tamer without a whip. He will be gured and stepped on. His small farm, incorporated with one or more others, will produce a higher class of farmers (net-income above $7,000 a year). Already the number of farms with annual earnings above $5,000 has increased with a production that is 80% above the entire farm output.

And, as the dust settles, the scene becomes clear. Thousands of farm families have remained in business through the graces of politics. Remove the attraction between agriculture and politics and a lot of farms will go up for sale.

But there remains a small kernel of hope for farmers who don't want to become charity cases. This grain of hope means political survival wherever agriculture will gear its policies toward the urban population. Agriculture must also be careful not to antagonize labor, for there couldn't be a better coalition than that between the farmer and organized labor.

This doesn't mean that agriculture is on the way out. In America, as in England, the farmer will be protected by the government. But agriculture must not wait in changing its policies, for there is no doubt that the farmer is becoming politically sterile—G.P.H.
Inquiring Countryman

Question:
What is your opinion regarding Senator Humphrey's (D-Minnesota) condemnation of the Department of Agricultural Economics in the New York State College of Agriculture?

Answer:

Professor K. L. Robinson—“Senator Humphrey believes that all Cornell professors think alike. It is misleading to make the assumption that all agricultural economics professors are against price supports. Senator Humphrey also implies that anyone who thinks farmers would be better off if fewer people were in agriculture is backward and misinformed. It is very possible that Senator Humphrey is misinformed as to the long run interests of agriculture.”

Professor J. W. Mellor—“Senator Humphrey doesn’t realize that professors are individuals with different views. Cornell doesn’t condemn price supports, it merely tries to point out their implications. While they may help some farmers, others are hurt. Perhaps Senator Humphrey is too concerned with immediate problems. His remarks might even be considered an attack on academic freedom and the freedom to teach. Senator Humphrey vastly underestimates the student’s ability to appraise what he is told, and overestimates the professor’s ability to imprint his views.”

Professor S. W. Warren—“Apparently Senator Humphrey favors an indefinite continuation of high price supports. This means production for government storage rather than for the consumer. I believe in an economic system where production is for purpose of consumption. Senator Humphreys says this is ‘backward, misinformed, and erroneous’.”

Professor L. Spencer—“Before Senator Humphrey’s statements can be interpreted as having real value, he should spend some time studying Cornell’s ‘system of agricultural economics.’ He probably reached his conclusions through incomplete information and chance contacts. While many of the present members of the department disagree with Senator Humphrey, there are a wide range of views. Price supports have been a necessary part of the agricultural program during the period of adjustment from war to peace, but there have been very real problems and disadvantages.”

The Farm Vote
Has farming lost its stride?

The Empire Story

ABOUT DAIRY REPLACEMENTS

Some folks think of the nine stockyards of Empire Livestock Marketing Cooperative as places to market slaughter livestock only.

But on regular weekly marketing days at each stockyards (now held 468 days each year) plus over 40 specially scheduled dairy replacement sales, and through on-the-farm auction sales, in the 12 months from October, 1956 through September, 1957, farmers and dealers consigned and bought 11,690 head of dairy replacement cattle through Empire.

Yes, helping to market dairy cattle which still have years of life left as milk producers, is indeed an important marketing service offered by

Emplre Livestock Marketing Cooperative

Stockyards at
Bath - Bullville
Caledonia - Dryden
Gouverneur - Greene
Oneonta - Watertown
West Winfield

November, 1957
Opportunities Unlimited

(Editor's Note: This is the second of two articles planned to answer the questions of prospective students concerning the opportunities available to graduates of the New York State College of Agriculture at Cornell University and the preparation needed for admission to the College.)

AGRICULTURAL college education may be described as a balanced blending of the practical with the academic. As agriculture has changed from the self-sufficient family farm to a highly specialized operation, the emphasis of the college has kept pace. The need for more highly trained scientists in plant, animal, engineering, and social fields has made it desirable to consider a wide variety of subjects and work experience offered for admission.

The qualifications for admission are flexible to a considerable degree as far as subject matter is concerned. Completion of a secondary school course comprising 16 units of study is required of all applicants. All students must offer four units of English and two of mathematics. A high degree of proficiency in these subjects is a necessity. The ability to read with speed and comprehension and to write clear, well constructed sentences is basic to success in all college courses, as well as in future careers. Many scientific courses require a good, basic knowledge of mathematics. Although two units of mathematics are required, three would give a better preparation.

The remaining ten required units may be selected from a wide variety of high school subjects, including such vocational courses as agriculture, home economics, and industrial arts.

Chemistry or physics should be offered in addition to the unit in general science and three units in science are advisable. With the emphasis upon science throughout modern agriculture, high school students, looking toward admission to the College of Agriculture, should not only include mathematics and science subjects in their preparation, but make a special effort to do well in them.

APPLICANTS usually offer sufficient preparation in social studies. Those who enjoy foreign language studies should be encouraged to continue, especially if they intend to go into graduate work later on.

The standards of the university are high, and the quality of work done in high school has proved to be the best indicator of how a student will get along with the academic work of college. Although no minimum grade has been set for admission to the College of Agriculture, about half of the students accepted come from the top fifth of the graduating class in high school.

Work experience also contributes to success at the College. Some years ago the College Administration found that students with no farm background usually did not make as good academic records as those who had such experience. A higher proportion dropped out before graduation and a smaller proportion found good opportunities after graduation. As a result, applicants who are not farm reared are expected to work on a farm at least one summer before entering college. Additional work experience in fields related to agriculture is also accepted in the case of students planning on special training.

PARTICIPATION in activities outside the classroom is often an indication of all-around development and of ability to work successfully with other people. Such participation receives consideration in applications for admission but cannot be accepted as an offset to a poor scholastic record.

Admission is not restricted to students with farm background, or to residents of New York State. The College does, however, look for students interested in agriculture and who want to prepare for a scientific career that may contribute to its advancement. The whole purpose of the College is to be of service to farmers and to the people of New York State through an improved agriculture. A student who does not share this purpose would not be happy at Cornell.
Happy Thanksgiving
from the
Countryman Staff
Modern Missionaries attend Cornell to gain agricultural backgrounds for rural service.

By WILLIAM H. WINGELL, JR. '60

Cornell's Milestone for Missionaries

OKINAWA! Brazil! The Belgian Congo! To the corners of the earth will go a small number of Agriculture students next June. The purpose of their journeys is to bring Christianity and an improved way of life to people of distant lands.

These are not regular students. In fact, many of them have already received degrees from various colleges and universities. They are studying under a special program at Cornell and have a title, one which has meant salvation and progress to countless individuals. It is the title of missionary!

The program was introduced by the College of Agriculture in 1930, as a one month short-course for missionaries. Its purpose was to provide rural emphasis in the work of missionaries who found themselves in rural areas throughout the world. Offered were courses in sociology, rural education, nutrition and health, and agriculture. The short course is still taught, with the 28th Annual Cornell School for Missionaries commencing in January.

INSTRUMENTAL in forming the one month course and a special one year course was John H. Reisner, former Dean of the College of Agriculture and Forestry at the University of Nanking, China. While there, he recognized the fact that the usual missionary training emphasized theology to such an extent that those workers in rural areas could not cope with practical situations. Returning to the United States in 1930, Mr. Reisner became executive secretary of the Agricultural Missionary Foundation, known today as Agricultural Missions, Inc. This organization has done a grand job sponsoring the program.

Mr. Reisner came to Cornell in 1941 and planned with Professor A. W. Gibson, Director of Resident Instruction, and the staff, a one year course for missionaries, enrolling them as adult special students in the College of Agriculture. At this time, Professor H. S. Tyler was made advisor of the new group, which numbered twenty. He has continued to serve in this capacity and is today guiding the students through their period at Cornell. In the earlier years, the students were given a special technical agricultural course but today are enrolled in courses taught to all students.

At the present time there are nine individuals in the one-year course. They have baccalaureate or theological degrees or both. While here, their schedules are planned according to their previous training, the area in which they will serve, and the type of service they will perform. Courses in the College of Arts and Sciences have been added, including anthropology and foreign language, which have proved invaluable to missionaries now in the field.

In addition to the two previously mentioned plans, two other categories of study are offered here. The first is an enrollment as an undergraduate studying pre-theology in the College of Agriculture or other school at Cornell. Upon graduation, the student will enter a seminary to be trained for the ministry or go directly into the missionary field. The second category includes students who have taken their undergraduate work elsewhere and who are in the graduate school studying rural sociology, extension education, or rural education. These may be persons taking training before going into missionary work or those who are on leave temporarily.

PRESENTLY enrolled in the one-year course is John A. Marshall, a student who plans to devote his life to serving God and the people of the Belgian Congo. Mr. Marshall graduated from the California State Polytechnic College in 1954, receiving a bachelor's degree in field crops. He entered the Eastern Baptist Seminary to study theology and after three years, graduated as a minister with a Bachelor of Divinity degree. When Mr. Marshall completes his work at Cornell in June, he will sail for Brussels, Belgium, to take a colonial course sponsored by the government. This is required of all individuals who plan to reside in the Congo.

Upon arrival in the Congo, Mr. Marshall will set out to develop an agrarian improvement program designed to meet the people's needs. His main task as an agricultural missionary will be to organize an agricul-
tural school where modern methods of farming can be taught. Also included will be an extension program whereby those who cannot attend the school may receive the benefits of scientific farming. The Belgian government will cooperate in developing the plan. The college will be affiliated with a number of secondary schools which are already operating there. There are, at the present time, 90 missionaries, serving in evangelistic, agricultural, and related capacities.

When asked why he had chosen the agricultural aspect, Mr. Marshall replied, "I feel that by working in agriculture you are doing a good work and a good work is that which is an end in itself. An agricultural missionary is not a man who'll say, 'I'll help you if you go to my church,' but a man who wants as an end in itself to help people in their daily living. Such a man cannot help but have great influence in bringing these people into a right relationship with God."

The problems Mr. Marshall will confront shall be many. For instance, a major item is the food eaten by the people. Their chief staple is the manioc root, which consists mainly of starch and furnishes a highly imbalanced diet. Mr. Marshall will show the farmers other products which can be successfully grown and give them better nutritional standards. The farmers themselves will probably present some difficulty, for at the present time it is the women who till the soil in the Belgian Congo, agriculture being considered a men's task. To convince the men that they should do the farming will be a job of no small proportions. Lastly, an irrigation system may have to be set up. The climate in the country is such that during part of the year it rains consistently and for the remainder, drought exists.

As to the duration of his stay in Africa, Mr. Marshall said, "My interest has always been in tropical areas and so I would interpret this as part of what God would have me do. Also, I feel that if I can meet the needs of the people and be of some help in daily life, I would stay there for a lifetime."

To help Mr. Marshall meet the needs of the people is the purpose of Cornell's program. There are more than 2,000 agricultural missionaries in the field and over half of them have taken one of the courses offered here. These facts show the importance the missionary places on this training.

However, the training given here aids not only the agricultural missionary. Mr. Raymond Pittman, an evangelistic missionary, is a man who knows what it means to serve the Lord in this capacity, for he has been doing just that since 1941, when he and his family went to Brazil.

A minister and graduate of Asbury College, Kentucky, and Princeton Theological Seminary, Mr. Pittman defines his work as "rural evangelism," stating that "a great share of the missionary fields are rural in character and it is only natural that missionaries should be interested in that work." He was the first resident missionary to live in the area in which he works and found himself quite often bringing aid to the people, first by horseback and later on, by jeep.

Said Mr. Pittman, "My jeep was one of the first vehicles in the area and from the beginning it was used to bring the sick to town. Frequently I was able to give first aid and medical counseling to people in isolated areas, on a simple basis."

Agriculturally speaking, the main problem in Brazil is the fact that the farmers are "mining" the land. The common practice is to cut down virgin timber, cultivate the soil for several years and then, when it becomes exhausted, move on to another area.

Mr. Pittman explained, "We are trying to reach them that every man has, from God, responsibilities for the land and that it is wrong to take something from the land and not put it back. It is a high ideal and they don't really understand it can be done."

To show the people it is possible to restore the fertility of the land, two demonstration programs have been set up, one near Cuiaba, Mato Grosso, and the other at Sitio do Mato, in the state of Bahia. The missionaries are also developing an extension program. The Brazilian government is actively sponsoring this development program.

Concerning the evangelistic problems confronting missionaries in Brazil, Mr. Pittman said, "I think the greatest difficulty is the superstitious nature of the religious beliefs held by the people. The realism of the Protestant teaching and faith is often difficult to get across. Getting them to think of Christ as a real man who had human problems is our main task."

Yet, of the countries in the world where missionary work is being done, Brazil is the one where the Protestant faith has been most successfully adopted. The work being done by Mr. Pittman is sponsored by the Board of Foreign Missions of the Presbyterian Church. These Boards of the various churches also recommend and sponsor the missionary's study at Cornell.

In telling why he has dedicated his life to missionary work, Mr. Pittman said, "Believing that Jesus Christ is God's answer for every human problem, I committed my life to Him for Christian service and when the opportunity opened to go to Brazil, I felt it was God's will for me to do so."

In the above statement lies the reason for every missionary's undertaking, whether evangelistic or agricultural. Realistically, the two cannot be separated. Even now, the classical theological training of the past is giving way to practical rural emphasis. The College of Agriculture has done its part in promoting this agrarian background for missionaries and will continue to do so in the future.
Points for Farm Practice

In last month's issue there appeared a lengthy letter to the editor concerning farm practice. The Cornell Countryman, in keeping with its policy of being impartial, would like to present the other side of the problem, as given to us by S. R. Shapley, Professor of farm practice at Cornell. Professor Shapley, who is responsible for administration of the requirements as laid down by faculty legislation, indicated that many of the opinions in last month's letter gave the wrong impressions.

To begin with, an introductory orientation course in Agriculture was strongly urged in the letter. But looking at the statistics, in 1956-1958 only 3.7% of entering students had no farm practice, and this percentage has been decreasing each year. Farming is something that cannot be taught as easily with classroom exercises as with practical experience, especially in the case of foreign students.

The suggestion that the College of Agriculture has difficulty in attracting good students was countered by the fact that other schools also have trouble in attracting good timbre, and that industry drains off a lot of the potential students. The farm practice requirement has been requisite in the New York State College of Agriculture for 50 years, and our school has still maintained its position among the leaders.

Let us look at farm practice and why we have it. Although the requirement may discourage a few prospective students, the college is supposed to be a college of agriculture, not of arts and sciences. Professor Shapley emphasized that "the public expects a graduate of the College of Agriculture to know something of farming regardless of his specialization." And there are few fields of study in the College of Agriculture that cannot be fundamentally related to farming. Many industries insist that students working for them have had on the job training in farming, thus a degree from here has more meaning because of the practice requirement. This contradicts the statement in the letter: "Work experience is useful only when it is directly related to your major." It seems obvious that one cannot start building a house with the second floor, regardless of how desirable this floor may seem.

The letter finally concluded that the College of Agriculture should, "Consider some of the complaints of the students," Professor Shapley replied that "From time to time the faculty does review the practice requirement. At the present time all men students are required to have a minimum of 13 points of practice credits, all of which are to be earned from experience on a farm. How the additional 27 required practice credits are to be earned depends on the field of specialization."

But how many students are dissatisfied? Assuming that students have the courage of their convictions, answers to signed questionnaires returned by everyone have shown that approximately 90% liked the farms they worked on, their bosses, the living conditions, and the experience gained. The pay, although low, is no worse than going farm labor rates. Farms are selected, and there are certain farm students with certain abilities. Professor Shapley firmly stated that farm practice is generally accepted by students, employers, and faculty; but in spite of this, "The practice requirement is frequently reviewed."

(Continued on bottom of next page)
Around the 
Upper Quad

Ag-Dom sponsored Ag-Hec Day on October 26. A chicken barbecue preceded a customary dance in Barton Hall. At the dance, the Ag-Hec Day Queen, Betty Wansick '58, the 4-H Club nominee, was crowned. The runner up, Shirley Downs '59, was nominated by the Home Economics Club.

Ag-Dom has already started planning for Farm and Home Week. This year's student chairman, John Porter '58, is assisted by Karl Smiley '59. David Kovitz '60 was elected sophomore representative to Ag-Dom to fill the unexpired term of John Sterling.

This fall, in an effort to acquaint students with clubs in the Schools of Agriculture and Home Economics, Ag-Dom financed the publication "Your Guide to Upper Campus Activities."

The Floriculture Club has initiated the "Big Brother System." Each new member has been given the name of an upperclassman whom he can call on any time for advice about courses, activities, and graduation requirements.

The club has also dedicated a plot of land as a memorial to floriculture students who died in World Wars I and II. The memorial is located off Forest Home Road near the floriculture department's test gardens.

At the first meeting of the Home Economics Club, new members were introduced to the club's purposes and aims. This year the club plans to emphasize a different area of home economics at each meeting.

Dr. R. M. Smock of the Cornell Department of Pomology was the speaker at the first meeting of the Pomology Club. He discussed agriculture in India and illustrated with slides. Dr. Smock has recently returned from India, where he studied the problem of storing mangoes.

This year Pre-Veterinary Society's meetings will be held in Warren Student Lounge. The society's current officers include: Fred Drewes '58, president; Don Reed '58, vice-president; Marcia Sheehan '60, secretary; and Paul Kelley '60, treasurer.

At the first meeting Fred Drewes introduced Dean Hagen of the New York State College of Veterinary Medicine. Dean Hagen discussed the progress of veterinary medicine at Cornell.

Farm Practice (from page 8)

This coming year the farm experience form that is filled out at the time of entrance will be reviewed. At the November meeting of the faculty the following resolution was adopted: "That a committee consisting of one member from each undergraduate department in the College of Agriculture" will be formed. This committee will have "The responsibility of making a thorough review and study of the policies of the College relative to the recruitment, admissions, curriculum, requirements for graduation, farm practice, and such other factors affecting the training of future leaders in Agriculture and science."

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INCORPORATED
312 E. Seneca Street
Ithaca, N. Y.

time of decision

Every day you make decisions which affect your future — how hard and how long you study, what you eat, who you associate with . . .

Likewise, every dairyman is called upon to make frequent decisions, many of which are vital to his future. For example, every time a cow in his herd is bred, a decision is made which affects the future income he will receive from his herd.

Over the past 17 years, a proven program has been developed so the decisions made in herd breeding are more sound and profitable when they are to breed 100 percent to NYABC sires.
Field days sponsored by the College of Agriculture of the University of the Philippines show farmers the results of research findings.

Concrete columns, still remaining, show postwar desolation on the College of Agriculture campus.

Lack of facilities and shortage of staff hinder the large student enrollment.

The extension service quickly reveals the results of research through methods of mass communication.

PHOTOS COURTESY OF DEPARTMENT OF EXTENSION TEACHING AND INFORMATION

"Filipinos are among friendliest people in the world," commented Professor William B. Ward, head of the Department of Extension Teaching and Information at Cornell, in a recent interview. Professor Ward has a fine opinion—a year's work with Philippine extension service from June 1956 to July 1957 he was a Cornell's visiting professors to the College of Agriculture at the University of the Philippines at Los Banos.

His part in the development of Extension Service Training and an Information Service at Philippine College was a result of a much broader program of technical assistance started by the U.S. in 1951. Through program the two governments to rebuild the war-devastated College of Agriculture and its Central Experiment Station at Los Banos in the shortest possible time.

It was in 1952 that the New State College of Agriculture at Cornell entered this picture of mutual assistance to the Philippines. At that time the College was designated by the government as the source of technical assistance for the Cornell-Los Banos contract. A rotation system, in which a dozen Cornell professors at a time worked with the head of the Of Extension and Publications in the College to work with the head of the Of Extension and Publications in the College of Agriculture, and extending other services to mass communication channels and extending other services to mass communication channels and extending other services to mass communication channels and extending other services to mass communication channels.

"The basic philosophy under the Cornell-Los Banos program was that a visiting professor is at the..."
Service Rises
On Los Banos Horizon

By NORMA RUEBMAN '60

To help develop cooperatively with Filipino staff members the resident instruction, research and extension work," explains Professor Ward. A Filipino counterpart was Professor T. G. Flores, head of the Office Extension and Publications at the P. College of Agriculture. Professor Flores received his master's degree at Cornell five years ago.

"In general, the Filipino communications system is good," remarked Professor Ward when questioned by a reporter. In the field of journalism, he designated the Manila Times, the daily paper having the most extensive circulation, but the Philippines 17 other daily newspapers as well as 53 weeklies, 25 general magazines, more than 600 other types of periodicals, and 27 radio stations.

A definite language problem exists." Professor Ward explained, "The majority of older people in rural areas speak many dialects. English, however, would come the closest to being a universal language. The official National language, Tagalog, is spoken in central Luzon and not in other sections of the Philippines.

Most of the magazines read by barrio people (villagers) are of the vernacular type. This, of course, presents tremendous problem to the Office Extension and Publications. The office distributes agricultural information material to all interested papers and magazines, however, if they are published in a dialect, editors do the translating. Newspaper and magazine writers have been urged to visit the college and use their own materials, thus increasing interest in agriculture in the college.

Professor Ward cited radio as a panel of communication that is growing in importance as electricity ads into more areas. Although coverage extends throughout the Philippines, not all barrio people have electric service and many cannot afford to buy battery radios. Those who do own radios, however, share them. He said he rode through barrios many times to the tune of blasting radios.

"I sometimes wondered how the owner could stand it," he commented, "but this was just one example of Filipino generosity." In some cases, this was the only way the rest of the villagers could get rapid reports of news events and other information.

The College Radio Farm News Service, started on December 1, 1956, sends 8 to 10 timely news reports bi-weekly to 22 Philippine radio stations requesting the service. Out of a total of 27 standard broadcasting stations, this allows excellent coverage extending into even the smaller barrios.

When questioned about TV in the Philippines, Professor Ward stated that Manila has a television station and some of the people, mainly in the city, have TV sets. But it is not yet a communications channel that reaches rural people.

During Professor Ward's stay at the college an important publications agreement was signed between the College and the Department of Agriculture and Natural Resources (comparable to the U.S. Department of Agriculture). This agreement called for the College to prepare needed bulletin manuscripts and for the DANK to pay for the printing and handle the major part of the distribution through the Bureau of Agricultural Extension. Two bulletins were published under the agreement and others are now being prepared.

Included in Professor Ward's work at the U.P. College of Agriculture was the teaching of Extension courses in cooperation with his counterpart, Professor Flores. During the year a new course, "Organization and Administration of Agricultural Extension Work," was added to the department. Professor Flores and a committee also developed an extension major for undergraduates.

Professor Ward recounted some of the year's developments, including:

1—The College-DANR publications agreement.
2—The bi-monthly radio farm news manuscript service.
3—Consolidation of all in formation services in the Office of Extension and Publications.
4—Expansion of the audio-visual aids section.
5—Increased use of agricultural research information from the College by newspapers, magazines, and other mass media.
6—Production of a 20-minute color movie entitled, "New Horizons in Philippine Agriculture."

And so the work continues.

Although the Cornell-Las Banos contract continues until 1960, technical assistance for this office terminated as of June 30, 1957. Further developments in the Office, therefore, will be in the hands of the Philippine staff.

"Any Land Grant College in the States would be proud and fortunate to have such a staff in its Extension and Information Department," Professor Ward said. "They are well prepared to go it alone."

He praised the Filipino students for their eagerness for knowledge, the people as a whole for their friendliness and trust. "When you work side by side in the same office day after day with people of another nation, you really get to know each other," he said. Although accomplishments in the College during the year can be listed easily, Professor Ward concluded there were certain personal gains that could not be so easily evaluated. Perhaps the most significant accomplishments at Los Banos have been in human relations and understanding.
Canned meats have become the basis for many modern menus.

CANNED meat is being seen more and more on grocery shelves today. Yet, just thirty years ago, canned meat was almost unheard of and was rarely purchased by the housewife.

Quality of canned meat has been greatly improved within the past thirty years. For example, instead of using the cheapest ingredients available, today more expensive cuts such as ham are canned.

The main purpose of canning meats, preservation, is responsible for the sale of millions of pounds. The armed forces, especially during World War II, were large consumers of canned meats. For those who camp, the can is a necessity.

The convenience of processed meat is another good feature. The housewife need merely open a can of beef stew and heat to have a tasty main dish. Contrast this with the time required to make your own beef stew. It may take several hours to drive into town, find, and purchase meat and vegetables that your palate demands.

The difference in price between canned and fresh meat is due to the low cost of distribution. In shipping meat, one freight car can accommodate 54,000 pounds of canned meat while it can hold only 21,000 to 27,000 pounds of fresh meat. Fresh meat also requires refrigeration.

THE canning of meat and meat products requires much capital. For cutting up the quarters and other heavy butchering, table and blocks are needed. Aluminum or stainless steel cookers are used for processing.

Cleanliness is extremely important in working with meat products. Many factories stop their operation in the middle of the day to give their machines a hot water spray or steam bath. Such cleaning removes thin layers of grease and dried meat juices which act as protective coverings for various harmful micro-organisms.

Since ham is one of the most popular items in this market, it shall be used to illustrate the canning process.

Meat factories either cure hams themselves or receive them already cured. When hams are received already cured, they are subjected to a preliminary cleaning to remove surface dirt and contamination. The hams are scrubbed with a handbrush and then immersed in water which contains eight to ten parts per million of chlorine, for an hour.

Hams are not sterilized in the canning process because they cannot be treated with the same degree of heat as most other meats. Therefore cleanliness is of the utmost importance in all operations of canning ham.

After the hams have been drained for a short period, they are graded.

After boning the ham, it may be treated in one of two ways. It may be cooked without removing the rind or it may be pre-cooked in an open vessel and the rind removed just before canning. The former method is the most common. Here the cooking process takes place entirely in the can. The ham is first placed in a mold shaped like the can to be used and is subjected to high pressure. This pressure must be sufficient to make the uncooked meat retain the shape of the mold after the pressure has been removed. The ham is then transferred to the can and cooked.

The operation of fitting the ham into the can is important. The canner wants as near a fit as possible. The side of the ham must be in contact with the can sides. If the can is too large, it may collapse when vacuumized or cooled after processing.

After the ham is canned, it passes through a seaming machine. The can is then subjected to a vacuum exhaust. A can is processed in a retort or water tank. This is to make the product sterile and to kill any bacteria that may exist. The temperature during this process is approximately 180 degrees Fahrenheit and the can is heated for five to five and a half hours.

After the heat processing is completed, the canned ham is cooled under cold water sprays.

THE finished product is now ready for shipping. Meat products which are shipped among states are controlled by the Meat Inspection Branch of the United States Department of Agriculture. A canning company cannot ship interstate without first obtaining this permit from the proper federal authorities. Before obtaining this permit, the applicant must describe the company, its operations, equipment, character of products, formula used, and methods followed. He must then promise to subscribe to all the rules and regulations set down by this service and make any changes in the inspection service deems necessary.

The federal inspectors are concerned with three things: the animals must be healthy; all subsequent handling must be under sanitary conditions; and finally, the end product must be truthfully labeled. These are reasonable requirements and every respectable canner should be able to adhere to them.

The canned meat industry has succeeded in greatly simplifying the menu, and the time problem of the American housewife. Main courses can be prepared in a matter of minutes and the cost per serving is low. Processed meat has given women more free time and increased the meaning of economics in the home.
The Red Race for Supremacy

Communist China is rapidly gaining supremacy in agricultural production and trade.

COMMUNIST China is rapidly taking the lead in Asian agriculture. In the eight years of its existence, this government has brought China close to regaining her pre-World War II supremacy in production and trade.

In addition to added domestic production, China is making an increasing effort to enlarge her agricultural export volume. She is concentrating on intracontinental trade, giving impetus to the theory of "Asia for the Asians." An outstanding example of this is her bid to regain her share of the Japanese soybean market. (Prior to World War II, China and Manchuria supplied most of Japan's soybean needs, but, since 1945, her main supplier has been the United States.)

At a recent Japanese trade fair, Communist China's exhibit was devoted primarily to a display of soybeans and their products. Japan's announcement of resumed trade relations with China may be an indication that she is accepting this bid.

Perhaps the main change in Chinese agriculture has been the rise of the cooperatives to replace the small, peasant-owned farms. Farmers have been organized into three types of cooperatives: credit, supply-market and farming. The supply-market co-ops were established first and are now the only place where the farmer can supply his needs and market his produce. These were followed by credit cooperatives which, along with the agricultural banks, are the farmer's sole source of loans. When these two agencies were followed by farming cooperatives, the Chinese farmer found himself with little choice but to join.

This reorganization was gradual. Uncultivated land was taken from its owners and given to laborers without land and to farmers with poor or marginal lands. These farmers were then organized into mutual aid teams and encouraged to further organize into cooperative farming societies. Some small land holdings were pooled to form these societies and the farmers were compensated for this land as well as for their labor. The Chinese government hopes that all farming will soon operate under this plan.

This cooperative movement is considered vital to the survival of Communism. On a more practical level, it makes crop planning and the feeding of China's expanding urban population more efficient. With communication, each farm can be made to conform to a set overall plan—an impossible goal to achieve when dealing with millions of individual farms.

However, more than an increase in efficiency is responsible for China's great strides in the field of agriculture. There has been an increase in the application of science and technology. One of the most important of these increases is the use of irrigation. Rather than being a new novation, irrigation has been in use in China for thousands of years, but, recently, the practice has been extended. The number of acres under irrigation has increased 29% from 50 million acres in 1949 to 64.5 million in 1955, by Chinese government estimates. Most of this increase is attributable to minor canals and dams and similar small-scale projects.

The use of farm machinery, on the other hand, has been restricted. Tractors are now used on some state farms and improvements have been made in plows and other implements, but the principal source of power is still the Chinese peasant. Because of the number of people engaged in farming, large scale mechanization would be extremely costly. In addition, Chinese industry is not developed fully enough to absorb the people put out of work by automation.

Increased application of natural science has also aided the growth of this nation's agriculture. Greater stress has been put on the use of commercial fertilizers and animal and vegetable manures. China, however, produces only a small part of her commercial fertilizer needs and has been forced to import many supplies necessary for the production she does carry on.

They are also getting greater use out of available land resources. The Chinese claim that they have substantially increased arable acreage through land reclamation projects, but foreign agricultural experts tend to disagree, saying that the reclaimed land is mainly marginal land which will be among the first to be affected by price drops. Emphasis on high yielding crops like potatoes and corn has increased income per acre of land. Limited use of insecticides and fungicides has reduced annual crop loss due to fungus and insect diseases to 10% of total production. If not for the scarcity of spraying and dusting equipment, these practices would probably be further extended.

More important than any of these methods is the nation's most abundant resources: the Chinese peasant, an excellent cultivator who, in spite of China's overpopulation, has managed to make his tiny plot of land produce enough to keep him and the non-farm population alive. In an attempt to make the farmer even more productive, the whole nation has been at work building up China's agriculture and industry, an unemployed man being considered a waste of national assets. A great deal of teaching and training is going on and the education force is being increased.

In addition to all these factors, much of the increase may be due to normal post-war recovery. However, close attention should be paid to Communist China, for she is effecting our export markets in Asia. We may not recognize Communist China as a political power, but her economic importance cannot be denied.

November, 1957

By JILL H. BECKOFF '61
The Soup Bone: From the Bowl to the Body

Animal bones are being used to rebuild the human skeleton.

By ARTHUR SMITH '59

A new use has been found for the common soup bone, which may be a boon to the fields of orthopedic and dental surgery. Research conducted at the Naval Research Institute at Bethesda, Maryland has shown that there may be an inexpensive way of processing animal bone of any kind so that it may be used by grafting and for rebuilding parts of the human skeleton.

Samples of this new type of bone, termed "anorganic bone", have been sent for testing to scientists in the United States and in several foreign nations. Armour and Company, a Chicago meat packing firm, is planning large scale production of the processed bone for human usage.

The preparation of anorganic bone was developed by Captain Fred Losse of the United States Navy while studying the development of cavities in human tooth enamel. The adaptation to orthopedic surgery was suggested by Dr. Lloyd A. Hurley, now a Resident at the New York Orthopedic Hospital, Columbia Presbyterian Medical Center, New York City.

ANORGANIC bone is prepared by boiling bone samples in a norganic solvent called ethylenediamine. All of the organic matter, or that matter subject to decay (protein, starch, sugar, fat, etc. within the bone, is consequently removed, leaving the crystalline, lattice work structure or skeleton of the bone untouched. The organic substances removed are believed to cause the undesirable reaction that occasionally prevents bone grafts from "taking" or integrating into the structures into which they are placed.

These organic substances which include the blood vessels, lymph capillaries, nerves, and many other tissues, may also carry viruses which, if retained in the grated bone, may cause infection in the receiver of the graft. The resulting bone is very white, extremely porous, resistant to decay and can be carved easily with a scalpel, thus allowing it to be shaped to fill the space it is to occupy.

ONCE prepared, anorganic bone needs no refrigeration, sterile handling or other special preservation procedures which complicate the storage of whole human bone kept in "Bone Banks." In the event of a national emergency, anorganic bone from animals can be used instead of human bone in surgery, when none of the other is available. Because of the easier handling methods and greater availability of the new material, not only large medical centers, but small outlying hospitals will be able to keep large stocks of prepared bone on hand for any sudden necessity.

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(continued on page 17)
Research improves agriculture products by combating plant pestilence.

Pathologist, Save My Plant

PLANTS, like people, are plagued by many diseases for which cures and preventions are continually being sought. The job of administering to the medical needs of plants has been assigned to Cornell plant pathologists.

This department began in the early 1880's as the Plant Pathology Division of the Botany Department and was headed by Professor George Atkinson. In 1907 the Plant Pathology Department came into being under the supervision of Dr. H. H. Whetzel. The golden anniversary of the department was observed last September with a reunion of many former staff members and students. Dr. G. C. Kent is now serving his seventh year as head of the department's 25 staff members and 40 graduate students.

The department is composed of three major independent divisions: teaching, research, and extension.

THE teaching division is characterized by individual study, and accomplishment at a rate the student sets for himself. There are no textbooks for the pathology courses; the department writes its own material to serve as a guide to the student. The department is mainly interested in graduate students specializing in plant pathology or mycology. There are, however, several undergraduates in the department. They are taught the basic plant sciences which later lead to graduate work in pathology.

Research is perhaps the largest in scope of operation. All the staff members and most of the graduate students are conducting their own research. This research is carried on at different levels: one in disease-causing organisms and the other in the relationship between the plants and the organisms. This specialization of research leads to more cooperation as well as benefiting the farmer.

The project of Dr. W. A. Dimock on disease prevention in chrysanthemums is an example of the work done by the Plant Pathology Department. Fifteen years ago the chrysanthemum business was on the verge of collapse due to many diseases, but because of the work of Dr. Dimock, the business is now stable and profitable. His research developed a method of breeding resistance to many diseases into the plants. Now nearly all major growers follow the pattern laid down by this Cornell pathologist.

Another important project being carried on is that of Dr. W. F. Mai on the control of the golden nematode of potatoes. Cornell is the only university in the country doing work on this, the greatest potential parasite in the potato industry. Cooperation between the United States Department of Agriculture and the State of New York has greatly reduced the spread of the nematode.

THE third division of the department is extension. Its job is to report the latest research findings to the growers as soon as possible. This is done either by working with the grower directly or through the county agent. The research findings must be adapted to meet the local conditions of soil, temperature, growing season, and moisture.

Nearly all the plants we use have been studied by plant pathologists to improve the marketable product.

As a result of their research we have higher quality foods and clothing. Since new plant diseases are being found, we will always be partially dependent upon the plant pathologists to find ways to prevent or treat these diseases and to improve our agricultural products.

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By LARRY LITTLEFIELD ’58

November, 1957
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COOPERATIVE G.L.F. EXCHANGE, INC. ITHACA, N. Y.
Bones (continued from page 14)

WHEN the shaped piece of anorganic bone has been put in place, a process called revascularization occurs in which the body sends minute blood vessels through the thousands of tiny tunnels and crevasses of the newly grafted bone, and floods it with a rich supply of new blood. When regular human bone from the Bone Bank is used as the graft, the body must first clean out all of the organic tissue before it can establish revascularization.

After a fine network of blood vessels has been formed around and within the piece of anorganic bone, tubular tunnels are “eaten out” in the bone by osteoclasts, tiny bone destroying cells. Into these tunnels pass little bone forming cells called osteoblasts which lay down layers of bone and fill up the tunnels around the blood vessels. Gradually, the anorganic grafted material is absorbed by the body and replaced by living body which mineralized bonded to surrounding bone. This is known as “remodeling.”

In the field of dental surgery, anorganic bone is used in the repair of punctured and shattered jawbones. It is used to fill spaces in jawbones after extensive extraction of teeth, to make a firm base for dentures. The dentists graft the anorganic material to impacted teeth, cell tumors, and root canals, filling in openings and stimulating the healing process. The scientists are even considering the idea of applying the anorganic bone in dust form in cases where deep cavities require extensive drilling, and where the pulp becomes exposed due to loss of the dentin. They hope that the application of this dust will stimulate the growth of a new solid dentin coating on the tooth.

THE first successful human orthopedic experiment occurred in 1956, when a crushed heel bone was reconstructed with anorganic bone. Experiments are now being conducted at the Neurological Institute, Columbia Presbyterian Medical Center, New York City by Doctors Rosomoff and Hurley, concerning the value of anorganic bone “plugs” in rebuilding damaged areas of the human skull. The value of anorganic bone in orthopedic surgery is also being evaluated at the Orthopedic Hospital of the Columbia Presbyterian Medical Center.

There is one disadvantage to the use of anorganic bone. This occurs in cases where strong bone is needed. In the ethylenediamine process, some of the strength giving collagen fibers of the bone are removed, and the bone lose a good deal of its tensile strength.

An interesting sidelight to the tale of the anorganic bone may be seen in the case of some pieces of bone obtained from an Egyptian burial ground approximately seven thousand years old. This bone was grafted into the hind leg of a dog, and it consequently became revascularized, remodelled, and incorporated, in a manner similar to anorganic transplants. Nature, during this time, accomplished the same end result (removal of the organic material) as that accomplished by an ethylenediamine extraction. Consequently, the dog became the only animal in history to possess a seven thousand year old hind leg.

THE use of animal bones as a replacement for those of humans has thus marked another stage in the forward progression of medical science. Let us hope that in the future, other materials derived from animal sources may be adapted by science, so as to prevent the disfigurement and to prolong the lifespan, of human beings.

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November, 1957
RESULTS of research conducted at the University of Nebraska, Purdue University, Texas A&M, and Ohio Experiment Stations all indicate that unidentified factors or combination of identified and unidentified factors in dehydrated alfalfa stimulate rumen functions contributing to cattle and sheep welfare.

In Purdue University experiments, soybean oilmeal and "supplement A," which contained 14 percent dehydrated alfalfa were used separately as supplements to full feeds of ground ear corn. Steer calves fed rations containing supplement A gained weight 33 percent more rapidly than those fed soybean supplement. Dr. T. W. Perry, Purdue University professor of animal husbandry, says that it is reasonable to believe that at least a part of the superior performance of the calves fed supplement A was due to the dehydrated alfalfa meal present.

In Texas, the addition of dehydrated alfalfa meal to beef cattle rations has resulted in a 15.4 percent increase in grains and a 15.2 percent decrease in feed requirements per unit of gain. In Ohio, supplementing calf fattening rations of ground corn, hay, and soybean oilmeal with dehydrated alfalfa meal increased gains from 1.81 pounds to 1.90 and 1.93 pounds per day. It also increased the digestibility of the feed consumed.

**Dehydrated alfalfa boosts rate of grain.**

**By MARTIN U. OWOREN '60**

**Phosphorus Content in Livestock rations**

Professor S. E. Smith and Mr. M. B. Wise have recently contributed to our stock of knowledge of the phosphorus requirements of livestock. They experimented with Holstein male calves chosen and assigned shortly after birth to experimental groups of five calves each. The calves were fed natural feedstuffs containing 0.09 percent phosphorus on a dry weight basis. During the six-week test period, the phosphorus content of the rations was raised to 0.12, 0.18, and 0.30 percent respectively, by the addition of dicalcium phosphate.

Such symptoms of phosphorus deficiency as poor appetite, slow rates of gain, and poorly calcified bones were observed in calves receiving the lowest levels of phosphorus. The other calves increased their rates of gain with increased phosphorus intake. The experiments indicated that the phosphorus requirements of calves was greater than the 0.09-0.18 percent.

In a similar experiment with increased phosphorus content of the rations, Smith and Wise found that the minimum phosphorus requirement of the calves, aged 12-18 weeks and weighing 200-275 pounds, was 0.22 percent. With due appreciation of physiological and environmental differences between calves and the possible detrimental effect of excess phosphorus, the Cornell scientists recommend to the farmers a phosphorus level of 0.30 per cent or 1.5 ounces of the usual feeding grade of dicalcium phosphate per calf per day.

**Professor G. G. Bradt of the State College of Agriculture at Cornell predicts that by 1960 Brucellosis will have disappeared almost entirely from the New York state scene.** He reports a 14 percent decrease in the number of cows carrying the disease in the past twenty years. This decrease has been brought about by the anti-Brucellosis program, which among other things, involves testing of milk and periodic testing of cattle blood.

Brucellosis has been known to cause a 20 percent decrease in milk production, temporary or permanent infertility of cattle, and stillborn calves.

**Beta-Carotene Addition**

The United States Department of Agriculture has recently announced that beta-carotene (pro-vitamin A) has been produced by a fermentation process. The process is being further developed under the direction of Dr. R. D. Anderson of the Northern Regional Research Laboratory in Peoria. It utilizes the technique of microbiological mating discovered by West Virginia's mycologists. The mated moulds are grown in nutrient solutions of ground cereal grains which are treated with acid and fermented in aerated fermentors for several days. The carotene which is produced and stored in the cells of the moulds can be concentrated by filtration.

One implication of the discovery is that the farmer may soon increase the carotenoid content of his livestock rations at an appreciably low cost. This increase should result in an intensification of the desirable yellow-orange color that we find in poultry tissues, eggs, dairy products, and beef fat.
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November, 1957
Exchange Student Reviews Experience

(Editors Note: Mr. Koennecke was sent to Sweden at the end of last term. His visit is part of the Swedish Exchange Program which allows students of agriculture the opportunity to live in a foreign land. Fritz is a junior at the University of Uppsala in Sweden.)

Summer has come and gone and the cold Swedish winter is fast approaching. I took time, a few days ago, to look back on the past three months I have spent here and to organize my impressions. The most obvious characteristic of the Swedish people is their similarity to Americans. The people look, dress and almost think like us. This is due, in great part, to the background of the Swedes, one of democratic government and independent thinking.

In spite of their similarity to us, the Swedes have not lost their individuality. During the past few months I got to see festivals and celebrations which could have taken place nowhere else.

The Swedes love their holidays. Barely a summer weekend passed without an occasion for celebration. Everything from athletic games and meets to the opening of the crayfish season has some traditional significance. The biggest and most interesting festival is known as “Midsommar.” I was lucky enough to attend this ancient fest at its best in the rural province of Dalarna (Dalacaria) in central Sweden. Here Ken Wing, last year’s exchange student, and I, along with some 30,000 tourists of all descriptions, watched the locals perform the ceremonies as their ancestors have done since early Christian days.

The ceremonies consist of bringing fir and poplar branches, bent into circular, square or triangular wreaths, up the rivers on “Church Boats,” and placing these wreaths on a tall maypole. The pole is then laboriously, but enthusiastically, raised to a vertical position. All this is accompanied by a half-dozen violins playing fast Swedish waltzes and polkas. With the bedecked pole upright, the local worthies say their pieces, amidst cheering and gaiety; the national anthem is followed by four cheers for the king.

Then the fun begins. The fiddles strike out with a fast polka. Everyone starts circling the pole, hands joined, alternate rows moving in opposite directions, singing. With nearly 10,000 people participating, this becomes quite a spectacle. The dancing, which later becomes more modern and conventional, continues all night with time for occasional church services.

This affair is one which stays in one’s memory as a unique experience—unique, not so much for its gaiety and celebration, but for the meaning it held, and still holds, for many Swedes. There is none of the gaudy pomposity which so often accompanies traditional activities. These are the plain and simple actions of a plain and simple-living folk. The festival started in the early days of Swedish Catholicism as a time of thanks and appreciation for a good summer, and to this day has always been held near the time of the summer solstice, when the sky is never dark. It has become so popular an event that the Lutherans, the national church since the 16th century, adopted it.

Today most Swedes enjoy “Midsommar” as a summer holiday, but to the Dalecarlians it still holds much of its old meaning, and despite exploitation as a tourist “must” by some organizations, it is still most interesting with all the bright folk costumes and very provincial atmosphere.

I hope to be able to return someday and see this festival celebrated again.

With best wishes for the coming school year.

Sincerely yours,

Fritz Koennecke
Swedish Exchange Student

Cornell Countryman
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"One moment, Wise Men . . .
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This journey that you undertake—
I know its secrets, every one.

I know the star you chase,
The gifts you bear,
And Whom it is you seek.

Believe me, Wise Men . . .
I wish I rode beside you,
But since I cannot,
I ask of you this favor—
Pray, take my gift along.

'Tis a humbler gift by far,
Than the very least of yours—
A poor vessel,
Formed of common clay
And much the worse for lack of use.

But notice, Wise Men . . .
The fullness of it now!
Brimful, it is,
Of a rare and priceless compound
No magician can concoct . . .
Of a mixture, brewed in heaven,
That all the wealth of ages
Cannot buy.

So, Wise Men . . .
I beg you, take my gift . . .
Offer it with all the treasures of your own,
And as you offer it,
Recite for me this greeting:

"Here, King, is a beggar's gift;"
"An earthen vessel . . . crude, misshapen,"
"And of meager worth at best."

"Still . . . it's all I have to give,"
"And, bidding You accept it, King,"
"I send You this . . . ,"

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[From the Editor's Desk]

Time for a Change!

"Farm practice needs revision", is the opinion of 85% of the 407 agricultural students who voted on farm practice issue last month.

But, that farm practice is both valuable and necessary was upheld by a large percentage of the voters. One can therefore see that the vote presents a two-fold problem. How can the farm practice program be revised so that the students and faculty are satisfied with it and how can this revision be made without destroying its value?

Before making revision suggestions we should review faculty opinion concerning the present practice requirement.

A. W. Gibson, Director of Resident Instruction and Professor of Personal Administration, and most college administrators, see the need for a "high quality" farm practice system. They contend that, this being an agricultural, state supported, college, students registered in it should have some practical working knowledge of agriculture. The most beneficial and perhaps the only way to acquire this knowledge is through actual farm work. Though the administrators are in favor of this system, they do recognize the need for revision.

Faculty members of the science departments (biological, mathematical, and chemical) find little value in the farm practice system. They would rather see the student working in his major scientific field than on some "cow" farm.

The agricultural economics department and the social science departments are doubtful about the system's value as it relates to their departments. That the student is afforded little time to observe economic and social aspects of rural or farm life is the reason for condemnation of the system.

However, opposed to this argument of "little direct value," is W. A. Hagen, Dean of the New York State Veterinary College. Doctor Hagan offered a comprehensive view of the entire system. He felt that the Professor of Farm Practice was doing a fine job considering the difficulty of the task. The dean emphasized that farm practice is an "important factor" in judging a candidate for veterinary school. Though advocating continuation of the farm practice system, Dean Hagen recognized the need for revision. He stated that the mere fact that there was dissention means that the system has faults.

Thus the problem becomes extensive. We must consider both undergraduate and graduate school viewpoints. We must realize that although one could conceivably master botany without farm practice it would be impossible to do the same in animal husbandry.

Considering the earnest desire for practical improvements, as written on the ballots by students, these points should be considered:

1. Increased work in major field of study. (If studying botany, for example, one should work in laboratories and green houses.)

2. Improved selection of farms for students. (Both American and foreign students have registered complaints concerning disinterested farmers for whom they worked.)

3. Less emphasis on dairy farming. (Though this statement had widespread support on the ballot, it is theoretically impossible to de-emphasize dairy farming since New York State is, in the main, concerned with the dairy industry.)

4. Committee evaluation of farm practice credits. (Few question the integrity of a one-man review, but where so much hinges on a few points, it is psychologically advisable to have a committee.)

Presented above, is a partial list of student recommendations for improvement of the present farm practice system. That improvement is needed cannot be denied. But when shall improvements be made and who shall make them?

The newly formed faculty committee should undertake the review of this system. This review and subsequent suggestion for change should be started as soon as possible—GPH
Around the Upper Quad

Newly elected freshman representatives to Ag Dom are: Jeanne Bammesberger, Home Economics; Ralph Harper and Margaret Allen, Agriculture.

November 20th there was a joint meeting of Ag Dom and the officers of upper campus clubs. The guest speaker at this meeting was Professor Reeder whose topic was "How to promote more students joining clubs and how to keep them after they join." An important question for discussion was "Why do we join certain clubs and not others, and once we have joined why are we active or inactive?"

A group of eight members from Cornell Grange started this fall's activities with two installation dates. On November 5th they installed the officers of Auburn and Senate Granges, at Auburn, New York. These Cornellians also installed officers at Enfield Valley Grange on November 12th.

Dr. Main of the Plant Pathology Department was the guest speaker at a recent meeting of the Pomology Club. He discussed the characteristics, behavior, and control of orchard nematodes.

Newly elected officers of Veg Crops Club are Ann Marie Behling '59, president; Stan Comstock, grad., vice-president; Carol Hencile, secretary-treasurer.

The Floriculture Club will give its annual Christmas party on Tuesday, December 17th, in the Plant Science Seminar Room at 8:00 p.m. The party is open to all floriculture students and their dates, and all of the faculty and staff in the floriculture department, and their friends and families. There will be games, music, and refreshments.

Life Without Farm Practice?

The Empire Story

TWO MILLION HEAD HANDLED

On the last day of November, 1957, 131 months after Empire Livestock Marketing Cooperative was founded, the two millionth head of livestock handled by the organization was consigned and sold at a dairy herd dispersal on the farm of Joseph Triumpho, near St. Johnsville, New York.

To mark this important event in New York State livestock marketing, both the consignor and the buyer received $100, five percent Empire Income Debenture Bonds.

In the picture, O. C. Koenig, Empire’s Sales Supervisor, presents a bond to consignor Joseph Triumpho. The two men in the center are Sidney and Darwin Putnam of Frankfort, who bought the two millionth animal shown in the foreground for $480, top price paid the 54 cow sale. Far right is Howard Mattice, Manager of Empire’s West Winfield Stockyards, who was ring clerk at this special sale, and presented their bond to the Putnam Brothers.

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December, 1957
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Mary Had a Little Lamb . . .

By ROBERT D. LOEB '61

Mary's little lamb has found a home in Cornell's Department of Animal Husbandry.

THE story of Mary and her lamb is an old one, but have you ever thought of the research which goes into producing the not so little lambs of today? At the Cornell Department of Sheep Husbandry, the benefits of sheep research are being brought to farmers throughout the United States.

Cornell University's Department of Animal Husbandry was founded under the Morrill Act. The sheep section grew rapidly under Professor J. P. Willman, head of the department from 1929 to 1957. As stated by Professor D. Hogue, the new head of the department, the purpose of the sheep department is, "teaching and research in sheep husbandry."

Research is both basic and applied at Cornell. Applied research involves the New York State farmers. Basic research includes sheep throughout the world. Much of the research is being done on sheep feeding. The department now works on breeding and plans to increase its experiments in this field. Some work is being done on parasite control in cooperation with the New York State College of Veterinary Medicine at Cornell. Information on sheep herding is made available to farmers through bulletins and visits from the county agents. The county agents receive information from the extension specialist at Cornell, Professor W. Brannon.

The Cornell sheep department operates an independent farm, hiring three full time shepherds and one student. It uses the Waite farm, located nearby, as the base for operation.

In the summer the sheep are pasture fed and in the winter they are kept in the barns and fed hay and silage. The breeds of ewes kept consist of Dorset, Corridale, Hampshire, Shropshire, Southdown, and crossbreeds. There are 250 ewes, 320 feeder lambs that are used for experimental purposes, and 8 breeding rams. 110 ewe lambs will be slaughtered for meat or used for replacement purposes this year.

The sheep raised at Cornell are sold as either fat lambs or purebred rams. Most of the fat lambs go through the meat shop at Cornell except when large numbers are to be sold. Then they are sold through local markets. Rams are usually sold to New York State commercial men. About 75% of the department financing comes from its own returns. The remainder is obtained from State and other funds.

The department of Sheep Husbandry is carrying on four main groups of experiments. First and most important is the experimental work in muscular distrophy (stiff lamb disease). It was started in 1933 and is the longest project in existence in the department. The disease is of dietary origin, and in 1945-1946 Professor Willman connected it with a vitamin E deficiency. It is now evident that other factors are involved. Current research is involved with these factors. Another field of experimentation is the fattening of lambs using hormones. Usually there is an increased growth rate and some rise in feed efficiency when the hormones are included in the feed or implanted under the skin.

In the future many farmers may be using hormones for fattening lambs.

The department has recently initiated genetic research, which will become a large program once it gets under way. The department is also working on types of hay grown in New York State. Experiments are concerned with the storage, curing and time of cutting hay.

Although some wool breeds are raised in the United States, most sheep are used for meat purposes. Therefore the program at Cornell is concerned with mutton breeds.

The research which has been carried on in the past at the Cornell Sheep Husbandry Department has been successful in aiding the sheep raiser, and will continue to bring the benefits of scientific advancements.
Sweet Smell of Spruce

Each year, around Christmas time, a bit of the country is brought to the city. Christmas trees are lined up on both sides of the streets and, with a little imagination, the stroller can be walking in the woods. For a few weeks, the smells of the city are masked by the fresh scent of spruce.

The trees have been brought into the city stacked high on the backs of trucks, each tree tied up to form its own little bundle, taking up as little space as possible. Once in the city they go to nurseries and grocery stores, drug stores, candy stores, and five-and-ten-cent stores, to be sold.

Trees which were once rooted in the earth seem imbedded in the concrete, standing at attention, waiting for someone to point and say “That one.” A tree may remain for weeks, being moved only when the salesman closes his store for the night, or it may be sold and carried home by a man and his son.

As Christmas nears, last minute shoppers start searching for the trees they want and, on Christmas Eve, the last straggler brings his plant home.

Once bought, a tree has several days of glory ahead of it. It becomes the center of interest, the bright spot in the corner of the living room or the middle of the lawn. It is lit up and laden down with decorations: tinsel, bulbs, stars, and strings of beads, and blanketed by a layer of artificial snow.

Each day the tree is touched up a little: something is added; something else taken away; a candy cane is straightened out; a bubble lamp blows and has to be replaced. Each night a show is put on for the neighbors: all the tree lights are lit and the rest of the room is darkened, so that, from the window, all that can be seen is a string of bright lights and bits of tree basking in its glow. The Christmas tree is a thing to be admired, to stop and look at for a minute or two before continuing on one’s way.

Not every tree goes to a home. There are community trees in schools and office buildings and on church lawns, which serve as sites of tree-trimming parties and starting points for carollers. And there is the huge tree in Rockefeller Plaza, the pride of New York City Christmases. Hospitals use gaily decorated trees to cheer up the patients and apartment superintendents brighten up their lobbies with them.

The tree no longer resembles the spruce once in the midst of the woods. It has become a symbol of Christmas. Lights are strung in the shape of the Christmas tree and gifts are wrapped in tree-adorned paper. The tree has become so much a part of the holiday that it now means Christmas.

As the holiday draws near and safety hints are interspersed with Christmas cards, the trees are put into pots of water or sand, electric cords are checked, people are careful with their cigarettes, and the fallen needles are swept off the floor.

On Christmas Eve, the trunk of the tree and several bottom branches are hidden behind a stack of gaily wrapped packages, while the children, upstairs, obediently pretending to be waiting for Santa Claus, compare research notes and try to decide just what is in those packages.

This burst of glory is followed by Christmas morning when the gifts are removed. New Year’s Day when the decorations are removed, and the next day when the tree is removed.

If a tree is discarded before the children return to school, chances are that it will be reused in any one of a hundred children’s games. It may be redecorated with salvaged tinsel or decorations, or it can be turned into a rocket ship, automobile, forest, or anything else that catches the fancy of a child. Only after the players have tired of a tree does it return to its post waiting for the garbage men.

Many ex-Christmas trees, however, never get to see the back of the Department of Sanitation truck they were intended for. Early in January, little boys run around the streets looking for used trees to drag to a vacant lot and contribute to the neighborhood bonfire. These fires blazes for hours, new fuel being added periodically as each boy brings in his latest trophy. The fires are a blazing farewell to Christmas and the Christmas tree.
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December, 1957
India - - Fakir to 4-H

We hear a lot about the so-called underdeveloped nations of the world. Their problems are usually presented very dramatically and the question left in our minds is “Why doesn't anyone do anything about it?” In many areas of Asia something is being done to improve the peoples' economic and social status. Work is being done to raise incomes, improve housing conditions, and wipe out illiteracy and disease.

SINCE most of the countries are agricultural, the brunt of this program is being borne by the rural extension programs. These programs attempt to educate the farmers in practical and scientific methods of agriculture, mainly through demonstration.

The job of these extension teachers is much harder than it may seem. The societies in which they work have been static for years and are just starting to break away from rigid traditions.

It has been found that the most effective way of getting ideas across is to work with the young people of an area. If the prospective farmer can be trained in modern methods before he gets used to the ways of his ancestors he will generally stick to the new ideas. These boys can also demonstrate modern day farming to the rest of the village.

In setting up such a program, however, one must keep in mind the peculiar needs of these areas. For example, the Eastern nations have taboos that make separate clubs for boys and girls preferable to coed groups.

Another is that most of these organizations will have to work on a small scale. In these countries land is scarce, incomes small, and farming methods primitive. Therefore agricultural projects must be chosen accordingly.

The third thing to be kept in mind is that emphasis should be put upon training and education of the boys rather than immediate economic gains. Since the family is a strong organic unit of production, and poverty is widespread, the idea that the member should keep the money earned from his projects should be discouraged.

The program should be linked with the existing extension system. In many countries this would place the responsibility for developing a youth extension program with departments of agriculture. However, in India, the example to be discussed here, the job is assigned to the Ministry of Community Development.

A typical set-up in India is that of the State of Punjab. There is a Young Farmers' Association supplying vocational, physical, and cultural training to teen-aged boys in the area.

The goals of the Association are: 1. teaching more efficient and productive farming methods; 2. affording an opportunity for members to plan, work, and play together; 3. developing a sense of community responsibility in the boys; and 4. training the boys in personal hygiene.

Each club has a membership of from ten to fifteen boys, about a third of them students. They have an adult leader, usually one of the village's more progressive farmers.

The vocational aspect of the Club's program is, by far, the most important. Through it, each member is assigned a scientific project to work on during the year. In completing this he is expected to use improved practices and, to a great extent as possible, modern methods. The choice of projects runs the gamut of the agricultural field: crop raising, fruit or vegetable gardening, animal husbandry, poultry keeping, etc.

The growth of this organization seems to attest to its popularity. The membership in Pepsu has passed the 12,000 mark already and the idea of the Young Farmers' Association is spreading to other parts of India.

THE Young Farmers' Association is just the beginning of India's drive to improve her people's economic and social status. Many Indian students studying here and at other universities are part of the new movement. No longer should you ask “Why doesn't someone do something about these underdeveloped nations?” Something is being done and time will show the result of these efforts.
Color in the Land of Kipling

Mechanization is threatening India's 2000 year old history of design.

By BRENDI L. DERVIN '60

TRAVELING in India is like being in a fairy tale world of color and creativity. The women, particularly, wear a large variety of vividly colored saris that reflect India's 2000 year old eminence as an artistic creator of design and dyeing.

INDIAN textile design is completely the result of creativity. Creativity, in turn, is the result of the Indian's very existence, his feelings for life, and his religion. Creativity is essential to the Indian and textile design has been one facet of creativity in which the Indian has excelled.

Yet, now with the advancement of specialization and technology, the Indian textile artist is losing ground. To understand his position in the complex world of today, one must look back into Rudyard Kipling's India of Kim and Gunga Din.

India's supremacy in textile design probably resulted from the abundance and cheapness of raw materials. There has been no recorded time in India's history when cotton wasn't grown or woven. Silk came from China to India in 3 B.C. Since that time, India's textile concentration has been on silk and cotton.

In addition, the caste system of India, which distinctly divides persons into professions, allowed for hereditary accumulations of skills and lifelong practice in the art of weaving and design.

Among the other things which influenced the Indian development of weaving and design, was the court nobility of the rajah era. The emphasis of this time was on luxurious, decorative fabrics. At the same time, the aboriginal tribes throughout India were developing their own weaving and design methods, and the regions of India were progressing toward embroidery, distinctive only to them.

Thus, we have the three main classifications of fabrics in India: the articles of luxury, the regional embroidery, and the fabrics created by the various aboriginal tribes. In all three cases, the caste system of the nation designated a certain group of people to do textile design and production.

WHILE the Indians were developing these various types of fabrics, they were also advancing in their dyeing techniques. It is India that holds claim to the first utilization of dyeing and advancement of the methods to produce beautiful creations.

Four methods of dyeing were developed over the centuries. The most commonly heard of is block dyeing where a design is cut into wood, paint is rolled over the surfaces of the design, the block is pressed against the fabric transferring the impression.

Tie-dyeing is another of the famous methods of color design. Portions of the fabric are wound tightly and tied with a string. The fabric is then dipped in dye so that the untied parts absorb color and the tied parts don't.

The result is a subtle design of gradual color variation.

Resist dyeing is also a time developed method. Parts of the fabric are treated with a substance that prevents dye or color from seeping through. The color is applied to the whole cloth, while this substance keeps the designated areas free, producing the creator's design.

Finally, the mordant dyeing method uses chemicals that bring out unusual colors when combined with dyes and different type fabrics.

These dyeing methods have resulted in a use of color that lends grace and beauty to Indian textiles. It is in this grace and beauty that the chief charm of Indian design rests. Colors don't just lie on the surface of the fabric; they permeate into the material. Thus, they seem to mature with the sun rays. Instead of fading the colors develop soft tones, so clothes don't look drab, they just become old with the body.

All these dyeing methods have been an outstanding development of Indian creativity—a creativity which results from the Indians beliefs of life.

In the past the Indian textile worker and designer could follow his beliefs on life in his work. Now mechanization is breaking the link between creativity and livelihood. The textile worker can't return to the past because it is impractical, nor can he go forward for it is against his way of life. India must develop a new system of textile creativity—one that conforms to both the past and the present, yet still allows the Indian his way of life.
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Aggies Flex Their Muscles

Upper Campus students participate in wrestling, hockey, polo, and swimming.

By MELINDA L. EVERITT '61

The old adage that a sound mind and a sound body leads to a well rounded individual has had effect on the upper campus. Many "ag" students have combined muscles with brains to get as much out of college life as possible.

A comparatively new sport to the campus because of the former undependable ice surface of Beebe Lake, hockey is starting its first year of organized play under Coach Patton on the artificial ice surface of the James E. Lynah ice rink. There are four "aggies" on the team.

Manager Brian Curtis became interested in ice hockey by watching the Reds of Providence, Rhode Island, an American Hockey Team near his home in Warwick. A senior, he is majoring in agricultural economics.

Mike Burns, a native of King, Ontario, has been playing hockey for 13 years. Although formerly a defense-man, Mike is now tending goal for Cornell's varsity team. A sophomore in Agriculture, he expects to major in animal husbandry.

Ed Vaughn first played organized hockey at a New Haven high school near his home in Orange, Connecticut. His interest developed from this start in one of the leading centers of American ice hockey. A varsity defense-man, Ed is a senior in Agriculture, majoring in landscape design.

Paul Marcus, the only junior on the team, is majoring in marketing. A forward on the team he became interested in hockey by watching the New York Rangers of the National Hockey League play in his home town of New York City. Although he has been playing since he was 12, this represents his first start in organized play.

Larry Kaufman is the lone "Aggie" representative on Coach Little's varsity swimming team. A free style distance swimmer, he has

Michael Burns
Ed Vaughn
Larry Kaufman

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been swimming since the age of three. A senior, Larry's major is food technology. He comes from Bronx, N. Y.

The polo team, coached by Dr. Roberts of the Veterinary School, is one of the most highly rated spectator sports on campus. This year's team earned its rating by their clean sweep of opponents in games so far this year. With four members on varsity, the "ag" school is again well represented.

Although Mike Drew has been riding horses for the past twelve years at his home in Gorham, Maine, he had never played polo or even seen a polo game until he came to Cornell. A varsity player, Mike is a sophomore majoring in science education.

Riding and hunting experience from the age of six got Bill Speiden interested in polo, although he too had never played. Now the forward, number one position on the varsity, Bill is a junior majoring in animal husbandry. His home is in Sumerset, Va.

Pablo Toro, a native of Bogata, Colombia, played polo for three years before coming to Cornell. In his fourth year of polo at Cornell, he is captain of the team and plays the number three position. A fourth year student in agricultural engineering, he will graduate in 1959.

Nat Grew acquired an interest in riding from fox hunting, showing horses, and horse racing. As a freshman this attraction drew him to Cornell's polo team. A sophomore, Nat is playing his first year of varsity polo. Majoring in veterinary medicine, his home is in Dover, Massachusetts.

Wrestling is one of the most active individual winter sports on campus and its varsity includes six "ag"gies. Dick Vincent is the captain of the team and has been wrestling for over eight years. He became interested in wrestling while a fresh man in high school at Castile, New York. A major in agricultural engineering, he will graduate in 1959.

Dave Auble, a native of Ithaca, became interested in wrestling while in high school through the efforts of Bill Leyton. A sophomore, this is his first year of varsity wrestling. He is majoring in agricultural business.

Carmen Molino also became interested in wrestling in high school. A senior, this is his eighth year of competition. Carmen, from Ontario, New York, is majoring in rural education.

Jimmy Carter's interest in wrestling started in junior high school with intramural competition. A sophomore, this is his first year of varsity wrestling. A major in science teaching, he is a native of Ithaca.

Dave Kitts, an economics and dairy husbandry major, is in his fifth year of competitive wrestling. A sophomore, he hails from St. Paul, Minn.
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The farmer turns ditch digger for fun and profit.

A farm pond in upper state New York.

By MICHAEL D. MARIEN '59

Fishing in Your Own Backyard

The sun sets in the west, ending your working day, but you still have to get the dinner. To some this may seem a tedious chore, but who can classify fishing as work? A worm, minnow, grasshopper, or some artificial bait, and a few minutes of your time, and out of your farm pond comes the makings of a delicious dinner which has only to be cleaned and tossed into a skillet.

LATER in the evening you sit back and drink in the vastness of the outdoors, flavored by the character of a pond. A duck or heron may pay a brief visit, evoking interest or exclamation. An occasional fish breaks the surface of the water. You feel like a tycoon—you have invested in a farm pond, fast becoming your most valuable acre.

How much of an investment is this? Costs run from four to six hundred dollars. This state doesn't subsidize any phase of construction as some with a greater need for water conservation do, but the State Extension Service will finance the planning.

First the choice must be made between the dugout pond and one with a dam. The two are equally popular.

A dugout or excavated pond, the simplest to build, is best suited to an area with level ground and either soil with a lot of water-holding ability or a permanently high water table. Although it is vital to have a good watershed, precautions should be taken against flooding. The capacity of a dugout pond depends on the amount of excavation, so it is wise to make the pond deep and to limit the surface area in order to insure against too much evaporation.

A dammed pool holds more water and is adapted to a sloping topography. Because of its sloping nature, the size and condition of the watershed becomes the most important consideration in building a pond of this type. Generally, a five-acre drainage area is sufficient to supply a million gallon pond. Depth and texture of subsoil are also important. A bottom deep to bedrock and containing a high proportion of clay is best.

Runoff is an important problem of a pond of this sort since water is stored above ground. This problem is solved by constructing a spillway or trickle tube-spillway combination. Construction of runoff facilities is important, and necessary precautions should be taken. Unless the spillway is of concrete or masonry, both costly methods, a trickle tube should be provided. The purpose of the trickle tube is keeping the spillway dry. This tube may run through the lowest part of the dam's base, with a vertical pipe draining the overflow at the intended surface level, or it may be on the side of the pond horizontal to water level. If the vertical pipe is used it can also serve as a water level marker.

(Continued on page 15)

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Irradiation .......

Man's future hamburger—twenty-five years old.

The versatile gamma, cathode and X-rays may soon be put to still another use, that of preserving foods. There are now several means of preserving foods: dehydration, heating, freezing, and chemical preservation, but all have disadvantages.

The high temperatures used in canning cause undesirable changes in foods. Radiation, on the other hand, will kill the most resistant micro-organisms with only a small rise in temperature. In some areas, refrigeration is expensive and hard to obtain. Irradiation, though it would solve these problems, presents some of its own.

X-rays were discovered in 1895 by the German professor Wilhelm Roentgen. Gamma rays are similar to X-rays but of a shorter wave length. Cathode rays are made up of high-speed electrons originating at the negative pole of an electrically-charged vacuum tube.

Experimentation showed that these rays would kill molds, bacteria and, if strong enough, inactive enzymes. But when some foods were treated with enough of a dosage to insure complete sterilization, changes in flavor, color and texture resulted. Some of the food developed a scorched or “goaty” flavor, cereal products and milk occasionally browned, meat and vegetables looked bleached, and some fruits and vegetables became soft in texture.

What causes these changes in foods? They are due partially to the fact that most foods are organic compounds and radiation causes the particles to ionize or break down into their positive and negative portions. This increase in activity causes the damage.

Each component of the molecule is affected differently, but most reactions are oxidations. Other changes may lower the nutritional value of the foods. A completely safe method of irradiating foods must be devised before large-scale consumer production can be started.

In an experiment conducted at Indiana’s Notre Dame University three generations of mice were fed a sterilized diet. The researchers found no acute toxicity due to gamma ray treatment of the feeds. Additional research is being conducted in order to find out more about these changes and their effects.

While high dose applications seem impractical, there are several low dosage uses for irradiation. One of the most important of these is the prevention of potato sprouting, during storage. A small dosage of radiation will prevent this sprouting. Gamma rays are generally used for this purpose since they check growth.

The Brookhaven National Laboratories recently conducted a series of tests to determine the amount of radiation that would be most useful in this prevention. These
tests disclosed that the taste and texture of the irradiated potatoes were satisfactory even after 18 months. Use of irradiation would mean tremendous savings to potato and onion growers and handlers.

Another feasible use for these rays is in the killing of insects that infest grain and cereal products. Millions of dollars are lost annually through insect damage to these products. Experiments have demonstrated that relatively small doses of radiation will destroy all of the metamorphic forms of insects responsible for the damage.

Irradiation can extend the storage life of a number of food products when it is used in combination with refrigeration. For example, meat can be "pasteurized" with sub-lethal doses. In this case the radiation is not strong enough to insure complete sterilization, but it does reduce the bacteria count.

There is still much work to be done before irradiated foods can be put on the market. When this process is perfected, it will be a new and economical means of preserving food, a method that will complement, rather than replace, existing processes of preserving food.

Farm Ponds (from page 13)

These constructional features determine the usefulness of the pond, as does location, size, depth, and source of water supply. By manipulating these factors, a pond can be built with one or more specific purposes in mind.

A pond built as a wildlife area, for instance, should be shallow enough to allow for growth of food and cover for the animals and birds. Strategically located deep ponds are needed for irrigation, fire protection, and spray-water purposes. A livestock watering pond should hold six times the anticipated seasonal needs, and should be situated near pasture and buildings. It is preferable to make the pond inaccessible to the livestock to prevent them from contaminating the water, and to have an adjoining water tank connected to the pond.

For a general purpose pond, at least a third of the area should be eight feet deep or more. For ordinary farm use, a surface area of one quarter to one acre and a capacity of 400,000 to 1,000,000 gallons is sufficient.

Enjoyment is one of the prime uses of a pond and this can be gained through swimming, ice skating, nature study, and similar activities. Thus, because of esthetic and practical values an increasing number of farmers will build ponds—a wise choice, indeed.
New hormone discovery, "Coumestrol", has been isolated from Ladino Clover.

Scientists of the USDA's Western Utilization Research and Development Division have recently isolated from Ladino Clover, a new potentially valuable estrogen called "Coumestrol." Estrogens belong to a class of chemical compounds which are called hormones. They occur in plants and can be synthesized.

The new compound is known to be present in strawberries, clover, and alfalfa. It is structurally different from all known estrogens. Although it has considerably less stimulating effect on animals than stilbestrol, it is about 30 times more active than genistein.

Ensilage Tests

Results of silage tests conducted by Professor W. K. Kennedy of the Cornell Department of Agronomy show that when the kind and initial quality of ensilage is good, the quality of the final product is proportional to a combination of factors. These factors are: rate of ensilage, the evenness of silage distribution and the pressure per square inch of silage. In one of the tests, a batch of silage was given a pressure of five pounds per square inch immediately after ensilage, and a second batch was given the same pressure two days after ensilage. The end product of the first batch contained more nutrients than that of the second. Also, the alfalfa leaves in it could be recognized whereas those in the second batch felt slimy and were literally inseparable.

Factors, not readily observable which affect silage quality are the types and quantities of fermentation acids produced by the forage plants.

By MARTIN U. OWOREN '60

SCIENTISTS of the USDA's Western Utilization Research and Development Division have recently isolated from Ladino Clover, a new potentially valuable estrogen called "Coumestrol." Estrogens belong to a class of chemical compounds which are called hormones. They occur in plants and can be synthesized.

The new compound is known to be present in strawberries, clover, and alfalfa. It is structurally different from all known estrogens. Although it has considerably less stimulating effect on animals than stilbestrol, it is about 30 times more active than genistein.

Ensilage Tests

RESULTS of silage tests conducted by Professor W. K. Kennedy of the Cornell Department of Agronomy show that when the kind and initial quality of ensilage is good, the quality of the final product is proportional to a combination of factors. These factors are: rate of ensilage, the evenness of silage distribution and the pressure per square inch of silage. In one of the tests, a batch of silage was given a pressure of five pounds per square inch immediately after ensilage, and a second batch was given the same pressure two days after ensilage. The end product of the first batch contained more nutrients than that of the second. Also, the alfalfa leaves in it could be recognized whereas those in the second batch felt slimy and were literally inseparable.

Factors, not readily observable which affect silage quality are the types and quantities of fermentation acids produced by the forage plants.

The foregoing factors provide suitable conditions for the conversion of sugars (by lactic acid bacteria) into such effective preservatives as lactic, acetic, and succinic acids. In their absence, spore forming bacteria develop rapidly and convert lactic acid, butyric acid, and plant proteins into ammonia, hydrogen sulfide, and other compounds associated with spoilage.

Grape Pruning

The period between leaf fall and the opening of the buds in the spring is usually considered the best time for grape pruning. However, experiments conducted at the Geneva Experiment Station over many years show that fall-pruned trees may suffer severe injuries if winter temperatures drop to 18 degrees below zero.

According to Dr. Nelson Shaulis, a Cornell Pomologist, there is something to be gained by not pruning grapes until after the first really hard freeze. "This," he says, "makes cane selection easier because immature canes will be frozen and withered." He advises the fruit grower to prune the more hardy grape varieties first, and to leave the Delaware and the Duchess until early spring if necessary.

Farm Wages

Cost. Account experts of the College of Agriculture at Cornell report the N. Y. State farm labor averaged $1.29 an hour in 1956. This figure is based on accounts kept on forty farms, and includes wages paid to hired farm help, members of the operator's family, and those paid by the farmer for his own work. Men hired by the month or year received wages varying from $267 to $377 per month, plus social security tax and compensation insurance of $15. The monthly wages of men boarding with the farmer's family average $151. Board was valued at $36. Labor hired by the day or hour received wages ranging from 73 cents to $1.38 per hour. The account experts explain that the study included all sorts of well-run, full time commercial farm business representative of good farms in the state.

Milking Hours

Dr. Kenneth Turk, Head of the Animal Husbandry Department at Cornell, says that recent research in New Zealand and at the University of Minnesota has challenged the necessity of regular milking hours. "In these experiments," he says, "cows milked at intervals of eight or 16 hours in New Zealand and 10 and 14 in Minnesota, produced as much milk and butterfat as those milked every 12 hours." Dr. Turk wonders if the same results would have been achieved with the average New York State herd. However, he remarks that "... we've been milking our Cornell herd at 11 and 13 hour intervals for many years and we don't think milk production has been affected. This procedure allows our men to finish the job before six o'clock." He further remarked that a decrease in milk production following irregularity in milking intervals might be compensated by later saving, convenience, and a richer fat and total solid content of the afternoon milk.
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Home Economics--"... the courses in home economics do not teach one how to think."

The aims of the New York State College of Home Economics are "to guide the student toward effective functioning (1) in homemaking (2) in a vocation other than homemaking to which home economics has a major contribution and (3) in her individual living and as a member of society as a whole." These are excellent aims, broad in scope, and if obtained, would produce a well-rounded person. But not all these aims have been concentrated on and developed to the same extent.

The college does aid in preparing the student for homemaking. By the time the student is finished with the 24 hours of required home economics core courses, she has a good practical background for homemaking.

The college does aid in preparing for a career. The home economics student can become a nutritionist, journalist, promotionist, demonstrator, dietitian, interior decorator, institutional manager, research and laboratory technician, designer, teacher, extension agent, or personnel worker. She would have no trouble in obtaining a job.

But the college does not aid all it could or should in preparing the student as a member of society as a whole. Yet this is the college's most important function, for if an individual cannot think and act as a creative member of a group, she is useless. A college education is supposed to teach one how to think, but, the courses in home economics do not. For example, in the course in clothing required of all the home economics students, one learns how to make a skirt, weave patches, and remove stains. Is this why one goes to college? If a person does not know how to read well enough to follow directions to make a skirt or weave patches, one certainly does not belong in college. This course does not stimulate one's mind, on the contrary, it stagnates it with boring details and time consuming nonsense.

It would not be so bad, if this were the only course that was so stifling, but many of the home ec. courses are this way. The material is usually watered down, and presented in a way that discourages independent, creative thought.

The college must change its method of presentation of subject matter in order to help the student's mind develop its fullest potentialities. The subject of home economics was conceived of as one worthy to be studied in college.

There is a difference (or at least there should be a difference) between a mind of a college student and that of a person reading an extension bulletin to pick up some additional information. However, how many courses are taught using extension bulletins instead of college-level textbooks? There is nothing wrong with extension bulletins, but the college student should be taught the subject matter more deeply. Perhaps teachers should be reminded that they are teaching college students.

Perhaps less emphasis should be placed on the memorization of details, and more on the understanding of basic principles. Perhaps the student should be encouraged to question the ideas in the material presented, rather than accept them blindly. Sometimes, people say that the subject matter of home economics is such that it can only be presented in the manner it is. If this is so, why aren't the students encouraged more strongly to take courses in the Arts school, where the subject-matter is not so limited? The college of Home Economics must not be satisfied that two out of its three goals are realized, it must try to complete the third and most important, the development of the student's mind.
Home Economics--“...it can not be said that home economics courses are stifling.”

THE required courses for a Bachelor of Science in the College of Home Economics are planned according to the three objectives of the college. Most criticisms of the Home Ec. school are directed at the eight core courses, which are designed to give preparation for homemaking.

The trouble, however, is that this home economics material is common. Thus, the student feels that she knows the material, slides through most of these eight courses, and comes out with absolutely nothing but a dull semester. It almost goes without saying that a student who digs deep enough into any course will find something worth her time and effort.

Certainly, if all these core courses required such little thought, the averages would be sky high. However, it’s frequent talk about Martha Van Rensselaer that more than two of these basic courses are as hard or harder than any arts school course. Even in Textiles and Clothing 101 (a course which offers a wealth of practical information to either the future homemaker or professional home economist), students take several days learning patch weaving from “simple” extension bulletins. And, at this many have a hard time mastering the skill.

Skills are an essential part of any professional school; they can’t be learned just from text books. They have to be taught through demonstrations and practice.

Some students will always complain about required courses (e.g. arts students do all the time); some students will always feel they could spend their time elsewhere; there are home economics courses which could stand improvement (a faculty committee is working on this now); but it can not be said that all these courses are stifling and require no thought.

On top of this the home economics student is required to take only 40 credits in the College of Home Economics—26 are set out for her, 14 she may choose, generally in her major. Beyond this, the student may take 50 credit hours (including both electives and required courses) in the endowed colleges. The remaining 20 hours, she may take in the state colleges other than home economics. Many students, even with this freedom, voluntarily take over half their subjects in the Home Ec. school.

However, if these 40 required hours of Home Economics are too much and the student still wants courses elsewhere, she just doesn’t belong in the College of Home Economics—she is wasting her time. BLD.

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50 Years of Progress for Cornell Veterinarians

MORE than 500 veterinarians from northeastern U.S. and Canada attended the 50th annual conference for Veterinarians held in the new 19-building unit of the New York State Veterinary College, Cornell University, January 8-10.

Dean W. A. Hagan said, "The Conference is aimed to keep veterinarians abreast with recent progress made in veterinary science and practice."

In referring to the first conference held at Cornell in 1907, he pointed out that discussions centered only around the treatment of cattle and horses. Today, however, emphasis is placed upon the humane treatment of small animals as well as large animals with the most modern procedures of veterinary science. Topics ranged from a discussion on the uses and limitations of electrocardiography in diagnosing heart disease in animals to the effects of radioactive material upon food producing animals.

THE first-day session, Wednesday, January 8, was devoted largely to treatment and care of small animals, primarily cats and dogs. Dr. J. H. Gans, recently appointed head of the department of pharmacology at the College, discussed the latest techniques in administering anesthesia to pets, and Dr. J. A. Baker, director of the Veterinary Virus Research Institute at Cornell, lectured on the dual topic: radioactivity and food.

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The Ladies of the Veterinary Circle held open house for the women who attended the conference Wednesday afternoon.

At 4 p.m. the same day the Veterinary Alumni Association held its annual meeting and election of officers.

Thursday, D. J. O. Knowles, co-director of James Donn Research Foundation, Miami, Florida, demonstrated simple hospital procedures and a new type of hospital gown that can be put on without the aid of an assistant. Dr. C. C. Poppsieck reported on new research findings at the Plum Island Animal Disease Laboratory, Greenport, Long Island. Also, a field practitioner of Camden, N. Y., Dr. J. K. Booshart, discussed the challenge of field surgery.

At the conference dinner in Statler Hall, Thursday evening, a portrait of Dean W. A. Hagan was presented to the University on behalf of the Alumni Association of the New York State Veterinary College. Also, in observance of the Golden Anniversary of the Veterinary Conference, H. C. Stephenson, professor emeritus of therapeutics and small animal diseases, reviewed highlights of the 50 veterinary conferences held on the Cornell campus.

The closing day's program was devoted to diseases and treatment of large animals.

Practitioners attending the conference had an opportunity to see several exhibits of the newest drugs and equipment used by veterinarians.

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Danger -- Hot Milk!

Leukemia and bone cancer caused by Strontium 90 from atomic fallout in cows' milk is hazard to population.

By JILL H. BECKOFF ’61

Testing of atomic weapons could be continued at the present rate for the next 20 to 30 years before the present acceptable levels from active radiation would be exceeded. The above was the theme of a speech by Dr. C. L. Comar, radiation biologist at the New York State Veterinary College.

Dr. Comar pointed out that any quantity of radiation is undesirable. It is with this thought in mind, that we print this article of the possible effects of radio active materials on our milk supply.

When an atomic or hydrogen bomb is exploded the gas krypton-90 remains as part of the debris. This gas floats into the stratosphere where it remains from four to seven years. It decays to form strontium-90 which returns to earth with rain, snow, and fog. This means that wherever there is precipitation, i.e., wherever man's food supply comes from, the incidence of radioactive strontium is high. The amount of it is especially high in the North Temperate zone, the area of greatest population density. Evidence of fallout, however, has been found in virtually every part of the world.

Strontium-90 is the fallout element thought to cause the most long range damage. One reason for this is its long half life: twenty-eight years. (This means that it keeps one half of its radioactive strength for twenty-eight years, one-eight for the next, etc.) Some of the strontium decomposes to form yttrium-90, the most potent member of the krypton-strontium-yttrium family. Together with strontium-90, the radioactive yttrium invades the soil.

These two elements are closely related to calcium, and as such, are taken up by plants. There is, however, some evidence that plants discriminate against strontium-90 in favor of calcium. Therefore, there is some chance that calcium rich soils provide an element of safety. This factor should not be counted on too heavily though, first, because not all soils are rich in calcium and, second, because even with an abundance of calcium, radioactive elements are absorbed.

Once part of a plant, strontium has only a short way to go before it enters the human body. Plants may be used as vegetables or they may become forage. In the latter case much of the radioactive grasses are eaten by dairy cattle and assimilated by them into their milk.

Milk is an infant's first food and our best known source of calcium. Calcium is absorbed by bones and teeth, especially young growing ones. Strontium-90, a close relative of calcium, is also absorbed, especially by young growing bones and teeth. In the bones, strontium-90 and its daughter yttrium-90, lodge in the blood-forming marrow and cause the overproduction of white blood cells, a condition known as leukemia or blood cancer. They also cluster in other parts of the bone and are believed to cause bone cancer. No cure has been found for either of these diseases.

In addition to strontium-90, much milk contains cesium-137. This element enters milk and muscle tissue along with potassium, a component of most meat proteins. A third element, iodine-131, affects the thyroid, which regulates metabolism. Little is known of how this element enters the body.

The effects of the first atomic bombs are still being felt. Much of the strontium-90 in today's milk can be traced back to Hiroshima and Nagasaki. With each new test, more people are condemned to die. The full impact of the most recent tests will not be felt for ten or fifteen years. If tests are continued at the present rate we may soon reach the "maximum permissible level of radioactivity." What then?
Old World Jewish recipes enrich United States gourmet menues.

By SHELLEY LEFFERT '59

Sabbath night dinner.

Knishes, Blintzes, Bagels, and Lox

M Y eyes closed, I can see the kitchen of my home on Friday evening. The table is covered with a white linen tablecloth and set with delicate china and sparkling glassware. Sitting in the position of honor, in the middle of the table is the chal leh, or white bread. My mother says a blessing over the candles, and as she does, the light adds to the deep, serene glow she already possesses. For that moment, our house, normally so full of noise and excitement, is peaceful and quiet. The two candles burn with an even flame, lending the room a warm and beautiful light. The room is full of the aromas of food my mother prepared in the afternoon: chopped liver, chicken soup, potato pudding, and sweetened carrots. In a little while my father walks in, carrying under his arm, if we are lucky, a large package containing strudel. This pastry, made with an extremely thin dough filled with fruit, nuts, and spices, makes Friday night complete. My mother places it in a crystal dish on the table. Then we thank God for our good food and good life.

F riday night dinner, with its traditional Sabbath dishes, is an essential part of the Sabbath, which continues from sundown Friday evening to sundown Saturday. One is able to see God in the kitchen of the Jewish home, as well as at the Synagogue, for the Jew believes that one of the functions of religion is to take the crude material of life and master it by religious discipline. The dietary laws are one example.

There are many explanations of the Jewish Dietary Laws. First, they are health laws. Secondly, they are custom, a means of enriching Jewish living. Last and most important is a Biblical reason: Jews are forbidden to eat pork, fish without scales, and certain parts of lamb and beef.

Many foods are associated with the holidays. The matzo (unleavened bread) is a good example. It is inseparably linked with Passover, which celebrates the deliverance of the Hebrews from Egyptian slavery. When the Hebrews left Egypt they had no time to prepare leavened bread, therefore, no leavened bread may be eaten during the Passover. A favorite dish made from matzos is "Macabre", which is matzos and scrambled eggs mixed together.

MUCH of the food eaten has religious significance. Charoset symbolizes the bricks and mortar that the Hebrews were forced to make for the pyramids and cities of Egypt. It is made from tart apples, walnuts, cinnamon, honey, and wine, chopped together to form a type of paste.

Many typically Jewish foods are now a common part of the American diet. There are borsh, a beet soup; knishes, a dough filled with cheese, potato, meat or buckwheat groats; or blintzes, a pancake-like batter filled with cheese or blueberries. One of the particular favorites is gefilte (stuffed fish). It is usually made with a fatty fish, a lean fish, onions, eggs, seasoning, and matzo meal chopped together. The mixture is shaped into balls and boiled as a first course. Potato latkes, or potato pancakes, are another delicacy. Bagels are a doughnut shaped, hard roll, often eaten with lox (smoked salmon) and cream cheese for breakfast.

C HEESecake, levah or honey cake, macaroons, mandelbrot or almond cakes and Hamentaschen are other Jewish contributions to the American menu. The last named is a filled cookie, made in the shape of a three cornered hat and connected with the holiday of Purim. The Bible states, that an evil man, named Hamen was about to persuade the King to killing the Jews, but was stopped in time by the King's Hebrew wife, Esther. The cookie represents Hamen's hat.

Because the Jews were scattered throughout many countries for many centuries, the typical American Jewish diet is a conglomeration of many national dishes. These have added considerably to the cuisine of the American Gourmet.
Editor's Note: "1957 made education more dramatic news than it had ever been before in this country. Sputnik, of course, made the difference, but all the ingredients for a big story were there even before the end of the year." This statement was made by Henry Toy Jr., President of the National Citizens Council for Better Schools. In view of this increased interest in education, the Cornell Countryman is starting a series dealing with various facets of education. This month's article concerns the dispersement of industry into poor rural areas.

"Teacher Supply Drying up at Source," "U.S. Plan for More Scientists Beginning To Take Final Shape." These and similar headlines recently appeared in newspapers and magazines across America. This drive for increased educational facilities is being made in order to speed up our scientific advances.

Plans, comparisons, and suggestions have been made by educators and politicians in the hope of bettering our educational system. But all of these plans and systems have boiled down to two main points. First, we must induce more people now working in other occupations to move into science and related fields. Secondly, we must encourage more people to get the education and training to qualify them as educators, scientists, engineers, technicians, and skilled laboratory workers.

One of the places where we can look for people to fill this need is on the low-income farms in this country. There are nearly one and a half million farm families with incomes of $1,000 or less per farm per year.

Most of these families are seriously underemployed, working productively only a small part of the year. Their education is near the seventh grade level. Considering the objectives of the President's Commission to Encourage Education Beyond the High School, these are staggering facts. Too many young people in areas of low farm income are not even entering high school.

How can we educate such a great mass of people without placing undue stress on federal and local resources? The answer might be dispersal of homes, factories, laboratories, and industrial jobs through these areas.

With increased opportunities the poorer farmer will be encouraged to leave his land and take advantage of new industrial and educational facilities. Thus, a new resource of educated young people could be built up in supposedly uneducated areas. With increased incomes, higher standards of living, and sound employment the once poor farmer will come to want education. Farm youth will no longer have to work the land in order to beat out a subsistence level of life.

An additional impetus to the farmer to give up farming entirely would be government legislation similar to the Soil Bank, applying to farms whose owners have gone to
Wasting Rural Labor

Indirectly, we shall have hit the problems of farm surpluses, low farm incomes, and inferior education in rural areas. Farm families may be divided into no categories: 1) those operating farms with annual sales of $2,500 or more (i.e., medium-to-high-production farms), and 2) those who operate farms with annual sales of less than $2,500 (low-production farms). There are about two million medium-to-high-production farms. Medium-to-high-production farms supply over 90% of all farm products and thus receive the major share of the total farm income in this country. The number of farms in this category has remained fairly stable in the last decade. However, the number of farms in the $2,500 to $5,000 income group has declined 20% in the last ten years.

This data is meant to demonstrate the rapidly growing importance of the farm family's off-farm income. Even in the case of the more prosperous farms, non-farm income now accounts for about one fourth of the total farm family income.

The trend seems to be going in the right direction. The small farmer is willing to leave his land when he finds good employment elsewhere. This has been shown in the industrial development of the South and other areas where farms are small and soil productivity low.

However, we are aware of the fact that industry and good employment will not by themselves raise the standard of education of the rural families. State and federal governments must enter the picture as soon as the farmer leaves his farm. Incentives such as scholarships for merit and need must be offered.

This increased source of teachable material will aid greatly in fulfilling the need for more teachers, scientists, engineers, technicians, and skilled laboratory workers. By getting the marginal farmer off his land we will be aiding agriculture by reducing the great source of surplus which has tended to deplete prices.

One might argue that these measures would turn agriculture into big business, but why shouldn't agriculture be big business with everything else in the country becoming big? It is time that we faced the reality that the $1,000-per-year farmer is holding back progress in education and agriculture. The small farmer is being pushed out of agriculture anyway, and unless a path is made for him, he will fall by the wayside and his talents will go to waste.

Industry must spread into small farm areas; farm youth must be educated; incentives must be created to bring educated youth with the necessary ability into the science fields. Through such a program America can go a long way toward achieving the scientific and technical supremacy she seeks.

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Chilean Entomologist at Cornell

By ELEANOR BILLYER

A tiny creature called the white grub was the cause of a long trip for Ricardo Isla, entomologist on leave from the Institute of Inter-American Affairs to study at Cornell University under a Point 4 grant.

Isla is learning about general research and experimental methods in the United States, and especially about techniques developed here to control the white grub, a serious hazard to crops.

Isla says that the United States has more elaborate equipment than the Institute in Chile can procure now, but that the methods he had learned here will be invaluable when he returns home.

He came to this country last January and spent three months in a course on plant protection at the U.S. agriculture department's experiment station at Beltsville, Maryland.

This session was especially designed for visitors from other countries, to acquaint them with laboratory equipment and methods they would use in their studies here.

Isla spent another month at Beltsville learning about ways of micro-organism control of white grubs, using bacteria and nematodes hostile to the grubs.

Isla spent the months of May, June and July at Cornell's New York State Agricultural Experiment Station at Geneva, N. Y., on three types of grub control—micro-organism control (using organisms imported from France), biological control (with parasites that live off the grubs), and chemical control (with insecticides).

The laboratory's comparative studies on the three methods, Isla says, showed that insecticides are the most effective in the short run and the fastest method, but are more expensive than the other controls.

While at Geneva, he worked on a beetle trapping program in June and July, which showed him how to measure animal "populations," to estimate the number in a given area. The traps were baited with chemicals that attracted particular beetles.

He came to Cornell's central campus in Ithaca in August, and is taking three courses in the entomology department; general economic entomology; insect ecology—about factors that limit insect populations; and "special topics in economic entomology," a course that includes training in setting up experiments and interpreting the results.

Isla says that his visit, scheduled to end January 31, is proving very stimulating, and he finds U.S. students and faculty very friendly and serious about their work. He looks forward to applying his new knowledge at home, but also hopes to return to the United States sometime for even more study.

Headquarters for A Revolution

During the period of your lifetime or less, just 17 and a half years, there's been a tremendous change in dairy breeding practices in New York State.

Through increasing reliance on top sires, selected and resorted through their own artificial breeding program, thousands of dairymen have created a service which has built production, improved type and increased their net income.

That dairy breeding revolution is headquartered right next door to the Cornell campus. Drop in and visit the operations of NEW YORK ARTIFICIAL BREEDERS' COOPERATIVE, INC.

Can't read your writing? . . .

Have it put in type at

ART CRAFT OF ITHACA INCORPORATED

312 E. Seneca Street
Ithaca, N. Y.
FOR several years the United States has been exporting dairy cattle to South American countries. Venezuela has always ranked as an important market for registered Holstein seedstock from this country. So far this year, 95 animals have been transferred to new owners there.

THE registration of the animals in Venezuela is conducted by the Ministry of Agriculture which during the past four years has registered more than 17,000 Holsteins. Under this program, there are two categories of registration. One is for animals and their offspring from a registered Herd Book and the other is for graded up cattle. The latter category could be compared to the so-called "open herd book" used by some of the other breeds in this country.

AT the moment a program of production testing, closely paralleling our own Dairy Herd Improvement Association, is being established in Venezuela. Like most programs in this country, top dairymen are interested in improving the calibre of their herds. Mr. Robert H. Rumler, Executive Secretary of the Holstein Friesian Association of America, visited Venezuela last summer and reports that in addition to the demand for registered seedstock, there is a demand for commercial type Holsteins.

ONE importer is working out a plan for importing registered calves and acclimating them on his own ranch for resale as bred heifers. This policy of exporting dairy cattle to Venezuela not only aids in building up the agricultural economy of the country, but also serves to favorably influence our Good Neighbor Policy with South American countries.

Tired of washing
Your own clothes?

Bring them to
STUDENT LAUNDROMAT
402½ College Ave.

Around the Upper Quad

Foreign students from England, Greece, Sweden, and Thailand, in Home Economics, prepared foods from their native countries, at the December meeting of Home Economics Club. Every girl tasted the different foods and was given the opportunity to ask questions about them.

4-H Club and Pre-Vet Club held a joint Christmas party December 11. There were dancing, games, and refreshments.

Pomology Club held its second annual banquet at Taughannock Farms Inn in December. Besides the club members, those present included faculty members and graduate students. The group was entertained by students doing "take-offs" on professors.

Veg Crops Club sent Betty Wansink '58, Fred Brueck '58, Bruce Keeney '58, and Paul Gavitt '58 to the Intercollegiate Judging Contest at the National Vegetable Growers Association, held in New Orleans, Louisiana. Ann Marie Behling '59, club president, attended the Junior Vegetable Growers Convention in Springfield, Illinois. Dr. Pratt, professor in vegetable crops, also attended the New Orleans contest, and then flew to Springfield.

At the last meeting of Veg Crops Club, Mr. John Baker, from Cayuga Products Coop, spoke on cooperatives in the vegetable business.
COULD you use an extra $100? If you’re an average agricultural student, I’m sure that you could. Only a few hundred words are needed to put you in the running for the Samuel L. Stewart Prize of $100.

This award is offered to promote the distribution of high-quality milk and to acquaint producers and handlers of milk with the factors which may increase or decrease its palatability. It is given annually to the winner of an essay contest subject to the following rules:

1) Essays are judged in regard to their effectiveness in furthering the aims of the contest.

2) Each contestant must be enrolled as an undergraduate in the New York State College of Agriculture at Cornell University.

3) The essay of 600 to 800 words must be filed with the Director of Resident Instruction not later than April 1, 1958. The student should use a fictitious name on his essay and put this same name on an envelope containing a slip of paper with his real name on it.

4) Essays will be judged by a three-man committee appointed by the Dean of the College of Agriculture. At least one member shall be from the Department of Dairy Industry and one from the Department of Extension Teaching and Information. This committee is to make suggestions to the faculty from time to time for the administration of the contest and has the right to reject any or all essays if they are judged unworthy of the prize.

5) The winning essay and those receiving honorable mention may be published.

Additional information concerning this contest may be gotten from Professor B. L. Harrington of the Department of Dairy Industry.

The Cornell Countryman wishes you the best of luck.

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**Inquiring Countryman**

By CHARLOTTE SCHEMPP ’60

**Question:**

What is your main gripe against your students? (Answers from instructors)

**Answer:**

David Thompson, Plant Breeding

“Many of them seem to lack a critical and inquiring mind. They accept their assignments as things to be done, rather than things from which to learn. A large number of college undergraduates maintain a schizophrenic attitude regarding their education. They (or more likely their parents) pay a large sum of money to attend a university, while they passively resist attempts to give them an education in exchange. The distinction between knowledge and wisdom is fast disappearing. Part of the problem lies not with the students but with their previous subjection to objective education.”

Neil Clark, Chemistry

“In their study habits, they insist upon following my example, not my advice. Seriously, most students need to have a little talk with themselves about why they are here. Shouldn’t learning be the primary reasons and not just a disagreeable but necessary handicap for a full college career”.

Joan White, Zoology

“The fact that, in general, students are very “grade conscious” is disturbing to me. This usually means that they adjust their intellectual efforts to meet a variety of practical objectives, frequently discarding their own personal and genuine interests in different areas of learning. This fault lies in great part with the parents and the educational system, both of which stress the end rather than the means. Nevertheless, it is heartening to see the occasional student who displays an interest in learning in order to satisfy himself and who is comparatively unconcerned about the short term results in his learning.”

Daniel B. Ward, Botany

“During laboratory quizzes it is quite common to see students look at each other’s papers or whisper answers to one another. The student fails to realize that the one or two points gained through cheating is not worth the consequences of being caught. The student deludes himself further by believing that the instructor does not see what is going on.

The other day a botany student was caught trying to change a grade in his instructor’s grade book. The student’s gamble was a poor one. It is easier to get a few points by studying than by cheating.”

---

. . . it’s a pleasure at the new

**Treat Out More Often**

**COLLEGE SPA**

216 EAST STATE STREET

Your Host, Pete Atsedes

January, 1958
Canine Capers

Cornell Canines are receiving a well rounded education.

By MICHAEL D. MARIEN '59

When the halls of knowledge, old and new, the ivied towers, the pranked statues on the quad, the breathless gorges, and the Ivy Room have all escaped our vivid memories, in all probability we will longest remember the Cornell canines. We will remember them because our four-legged friends have one outstanding quality in that they are omnipresent.

Lecture rooms, labs, libraries, drill halls, and dining halls are seldom shy of an intruding pooch. There is one dog that bravely accepts the risk of being drafted into the K-9 Corps by always following his master to the fourth floor of Barton Hall for classes.

What this campus needs is more dogs.

But this one is the exception, for most dogs prefer to circulate in order to broaden their knowledge, friendships, and reputation.

Denizens from the land of Red Heart and fire hydrants have had Cornell's liberal policies extended to them, and the resulting commensalism between man and beast perhaps is unique among American universities.

The dogs at Cornell have almost superseded the tradition of the Big Red Bears, for they, too, appear at every football game, and usually create more attention than the fuzzy mascots when they are evicted during the game on an off-sides count by an unsympathetic referee.

In addition to local dogs that feel the need of an education, many pooches are sponsored by some campus living unit. Introduction to Cornell is typified by "Susy," a young and innocent Cocker Spaniel who was recently brought to live at the Phi Kappa Tau house. Although showered with affection and warned against leaving the premises, she instinctively felt the spirit of the Cornell canine, and soon made her first public appearance in the Willard Straight Hall Game Room.

Specimens that can be classified as Great Dane, St. Bernard, Houndawg, Cocker Spaniel, Daschound, Collie, All American (or Heinz "57"), Husky, and others can be seen at practically any time of day, pursuing their social duties around the campus.

Without a doubt, the most distinguished of the crew is "Chinook," or "Tripod" as he is colloquially called, Cornell's only three-legged dog. "Chinook," who left his native Alaska to live at the Kappa Delta Rho house, is most commonly seen in the Mann Library or hopping across the Ag quad. His missing leg is the result of an auto accident that occurred after he came to Cornell; the patching was applied here at the Cornell Small Animal Clinic. "Chinook" is a genuine Siberian Husky, and was brought to Ithaca in 1953 by Roger Burggraf.

Bow your head the next time a profes-  
sor evicts some pooch. We should remember that this professor is evicting an institution—the Cornell canine.
Cool your pigs for more pork per penny.

By MARTIN U. OWOREN '60

Swine have a lower ability to regulate their body temperature under stress than do other livestock. Their efficiency of surplus heat dissipation is reduced by such factors as a thick layer of subcutaneous fat, greater feed requirement per unit of weight during the growing stage, greater mass per unit of surface area, and less lung capacity per unit of weight. Experiments conducted in Hawaii show that the optimum temperature for growing and fattening swine lies somewhere between 60 and 70 degrees. Above this temperature performance is reduced because the animal expends energy in dissipating excess heat generated during increased metabolism. In Hawaii an experiment was designed to test the effectiveness of a water wallow or fine mist spray in improving the environment for growing market hogs. Twenty-four thrifty growing pigs ranging in weight from 50 to 100 pounds at the start of the experiment were used. They were divided into lots of eight, and were fed the same type of rations throughout the study. One lot was provided with a fine mist spray during the daytime, the second had access to a water bath, and the third served as control.

Professor Wayman and junior scientist Iwanaga of the Hawaiian University Department of Animal Husbandry report that the water mist device alleviated heat stress and increased the rate of gain by 1.40 to 1.51 pounds per day without increasing feed requirement per unit of weight. The hogs in the second experimental lot increased their rate of gain by 1.45 pounds per day and also increased their feed intake. Two of the hogs in this lot fell sick during the experiment. The scientists point out that bath and spray treatments must be considered an additional cost, and that extension of the data to herd size is but theoretical. In many areas, good results should be obtained with good shade and adequate air circulation.

Some 250,000 to 500,000 tons of cottonseed meal went into poultry rations last year. "Swine, poultry, and young calves", you remember, "are injured by an appreciable amount of gossypol in the ration." How has the increase in poultry consumption of cottonseed meal, which is normally a rich source of gossypol, come about? A partial answer to this question is that the gossypol content of the meal now in use in poultry rations is very low. Much free gossypol is removed through better processing methods based on research conducted by the United States Department of Agriculture, State Experiment Stations and other co-operating bodies.

The researchers show that chick and broiler rations containing equal amounts of the improved meal and soybean meal produce the same growth and feed efficiency as soybean meal alone. Most mixed poultry rations which are not for laying hens now contain the improved meal. The scientists are currently trying to produce a meal that will not adversely affect egg quality.

The meal has been successfully used in experimental swine and calf rations. In North Carolina experiments, calves fed rations containing 40% of the meal were not unduly affected. Other experiments show that pigs eight weeks old are not appreciably harmed by consumption of rations containing 20% of the meal. The effects of feeding the meal in milk substitutes for dairy calves are being investigated.
THE class of 1957 of the Cornell's College of Agriculture is engaged in many different occupations. Approximately 25 per cent of the men are doing graduate work, either at Cornell or at some other school. Twenty-two per cent are in some branch of the armed forces. Thirteen per cent are engaged in farm business of some kind, including food sales and nursery operation.

Alumni in this field include Robert Butler, a dairy industry supply company employee; Thomas E. Caulfield, a buyer for the Great Atlantic and Pacific Tea Company; Milton A. Fullerton, Jr., who is working for the Eastern States Farmer Exchange; and William Saurer, who is employed by the Ice Cream Division of Sealtest.

TWELVE percent of the male class members are either working on farms or, as in the case of Neil Baker, are operating their own farms.

Eight per cent of the men are in public jobs such as assistant county agents, vocational agricultural teachers, 4-H agents, and conservation service employees. Some graduates in this field are Paul A. Garrett, a manager trainee at the G.L.F. Service Agency; and Robert A. Francis and Lawyer Davis, both working in the soil conservation field.

Five per cent of the men are in non-farm occupations, and the occupations of the rest are unknown.

The women's vocations are just as diversified, ranging from lab technicians and research workers to housewives. Two of the girls are studying abroad this school year. Karen G. Anderson, recipient of the William F. Dreer award, is in Stockholm, Sweden, working for her MLA degree. Sharen Flynn, winner of the Rotary International Fellowship, is studying science teaching at the University of the Philippines in Manila. This fellowship provides Karen with all her living expenses and transportation costs while she is studying.

Two graduates spent the summer in foreign countries. Fred W. Carpenter worked on the Cornell Greek Project in Salonika, Greece, and Sanford Shapley worked for the Alaskan Fisheries Research Department.

Former Cornell Countryman Business Manager, Fred Belden, is in Costa Rica now as an international farm youth exchange delegate. He will be studying there until next April.

(Ed. Note: This article revives alumni news as a Countryman feature. If you have any news about the activities of our alumni or their addresses, this information would be appreciated by the staff.)
The Spreaders With Built-In Extra Years

Good reasons why successful farmers prefer New Idea spreaders

For nearly sixty years, New Idea spreaders have been first choice of experienced farmers because they last longer, do the best job.

Last longer. Today, New Idea spreaders are built to rigid standards after being tested and re-tested to the breaking point on the New Idea torture track. On-farm testing proves both long life and performance. With New Idea spreaders, you lower upkeep, many added years of spreading service.

Spread better. Every New Idea spreader shreds finer because the blade-like U-teeth are triple staggered to tear up the manure thoroughly. Famous New Idea replaceable paddles are scientifically designed to slice through manure and deliver a wider, more uniform pattern.

Most popular. Experienced farmers know there's nothing like a New Idea spreader to help them do a better job of soil conditioning. That's why more farmers use New Idea spreaders than any other make.

Extra years are added. Sturdy "A" hitch of deep formed steel members extends back and ties into the main frame for extra stability.

Extra years of slam-bang loading. Heavy gauge steel flares strengthen box, withstand shocks of mechanical loading.

Extra years added to business end. Larger tubular distributor shaft is stronger and takes shock loads with less danger of damage.

Extra years of built-in strength. Rugged, one-piece steel end-gate helps resist twisting. Protects against hydraulic loader damage.

See the newest New Idea spreaders at your New Idea dealer's.

Look at New Idea before you buy

New Idea Farm Equipment Co., Division Arco Distributing Corp.
Dept. 376, Coldwater, Ohio

Please send free literature on the spreaders checked:

- 125-bu. PTO
- 75-bu.
- 95-bu. PTO
- 125-bu. PTO
- 75-bu. 4-wheel
- Booklet "Manure Handling"

Name: ________________________
Address: _______________________
Town: __________________________
State: _________________________
And new 70-bushel McCormick No. 21 spreads this big load in a hurry, too! It rips hard-packed manure to pieces and spreads it uniformly. Treated wood box with steel flares and rugged frame for long life.

Quick drive-in mounting . . .
BIG LIFT at LOW COST
with the New McCormick No. 33 Loader!

Ram-in loading—even with a 50 hp tractor—doesn't strain this new low-cost McCormick No. 33 loader. And all-welded frame, sturdy bracing, and closer-coupled, single-unit design also give the No. 33 loader strength to lift a ton nearly 10 feet high. Split-second control, 3,000-lb breakaway lift, and big 9-cubic-foot fork help you load 70 bushels in only 9 or 10 passes to cut manure moving time.

And you just drive in to mount the No. 33 loader in about 12 minutes. Parking legs, which hold the loader at proper height for fast mounting, become front braces. The rugged No. 33 loader mounts on International® 350 and 330 Utility tractors; Farmall 450, 350 and earlier models.

Save trips with new McCormick 95-bushel spreader. 108 self-cleaning beater teeth help new McCormick No. 30 spreader shred manure more thoroughly. Your choice of ground or pto drive.
Make Your Hay the One-Man Way . . . Go John Deere
You’ll Cut Costs and Work at Least in Half!

NEW Bale Ejector Attachment
Loads Wagons Automatically!

One man can now mow, condition, rake, bale, and store hay and straw crops alone, thanks to John Deere's revolutionary new system.

The new Bale Ejector Attachment for John Deere 14-T and 214-T Twine-Tie Balers tosses half-size bales directly into the trailing, high-sided wagon. No more men on the wagon . . . no more picking up of bales in the field. No more lifting and stacking of heavy bales. ONE MAN does the job.

Offers Many Advantages

The new Bale Ejector Attachment is simple, rugged, and completely dependable. It speeds haying operations . . . assures better hay in the barn . . . eliminates back-breaking work. Most important, it cuts baling costs at least in half.

It's the biggest forward step in materials handling on the farm—better see your John Deere dealer right away.

Elevator and NEW Barn Bale Conveyor
Store Bales Automatically!

One man stores half-size bales! Handling bales easily with a pitchfork, you simply guide bales into the new, 8-foot, general-purpose hopper on the John Deere Bale-Size Elevator. The elevator delivers bales to the new Barn Bale Conveyor hung from the hay track or ridge pole of the barn. The conveyor distributes bales through the full length of the mow. No stacking is required—half-size bales tumble into place. You eliminate help in the barn at a cost anyone can afford.

Write today for free descriptive literature.

JOHN DEERE
Moline, Illinois

"WHEREVER CROPS GROW, THERE'S A GROWING DEMAND FOR JOHN DEERE FARM EQUIPMENT"
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217 Strangers -- Must They Remain So?

A course is available on campus called “Know Your Fellow Man.” Shouldn’t this course attract overwhelming registration and student approval? Yes, but on the contrary, it has been a complete failure.

Don’t bother looking in the college catalog for the number of this course. It isn’t listed—it has no hours, no professor teaching it.

You say this is a tall tale and no such course exists? Stop a minute and think. There are, on the upper campus, more than 217 foreign students representing over 30 foreign countries. The customs, ideas, and philosophies of these students are numerous. These students are the basis of the course “Know Your Fellow Man.”

But we Americans appear to be a sorrowful lot. We let the foreign student spend from two to five years living and working on campus without asking his name, country, or future plans. It’s a wonder that we even know that countries really exist outside the United States.

Upon talking with many foreign students, I was told that most Cornellians are just not interested in life beyond their textbooks and Ivied Towers. A graduate student from India said that I was the first student to speak to him on friendly personal terms. This student has been on campus for over three months. Further inquiries provided answers that echoed the words of this man.

Today, as never before, our world is faced with problems that are difficult to solve. Misunderstandings exist, both national and international, due to lack of knowledge concerning our fellow men.

Here at our university where political boundaries are removed, where the opportunities exist to gain an understanding of our fellow man unhindered by social pressures, we find few who make the attempt.

We are the hosts and as such we should make introductions and extend invitations. The unlimited supply of knowledge concerning foreign life is waiting for the ambitious student. A mere “Hello, what is your name?” could be the key to a lifetime friendship.

Never again will you have the opportunity to receive two educations simultaneously, the most valuable one costing but a few hours of spare time (better than poker or bridge). Our world craves peace, and only through understanding can it be gained.

As one foreign student studying here under a State Department scholarship said, “Your State Department told me that the American student would be warm, interesting and friendly. I have not found this to be so. If this campus is an example, the American is cold, aloof, and disinterested in world affairs and problems.” The student went on to explain the mistake we are making by not being friendly. Most foreign students studying here will some day return to their native lands and lead their people. “Many of these students,” he concluded, “are going away with a low regard for the American student and with memories of a very uninteresting visit.”

Many foreign students take this dim view. No catalog lists “Know Your Fellow Man,” but this should not stop us from creating friendships with the students who have come to the United States to learn and to teach. Perhaps some day we will live in an understanding world. We must help create this world.

G.P.H.
Future Science Teachers Score Farm Practice.

by CAREY W. FLETCHER '58

I am a science education major and have worked 34 weeks on a farm. The experience I have gained will be of little value to me as a ninth grade general science teacher. My time could have been much better spent working with children or in a laboratory.

In an attempt to get other views on the subject, I distributed a questionnaire to 76 science education majors. Some of the significant responses I received follow:

Aspect of Evaluation

<table>
<thead>
<tr>
<th>Helpfulness (%)</th>
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<tr>
<td>low</td>
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<tr>
<td>1. 13 weeks of farm experience for students interested in science teaching.</td>
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<tr>
<td>2. 27 weeks of farm work.</td>
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<td>3. 40 weeks of farm work.</td>
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<tr>
<td>4. A committee set up to serve as an appeals board.</td>
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<tr>
<td>5. Allowing science teachers, after fulfilling the 13 credit requirement, to obtain credit for work more closely related to science teaching, e.g. nature councillor.</td>
</tr>
<tr>
<td>6. The requirement as a means of attracting science teachers to Cornell.</td>
</tr>
<tr>
<td>7. A requirement set up and administered by the Science Education department to replace this system.</td>
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At the end of the questionnaire was space for "any other specific criticisms of our present farm practice system." These are some of the replies:

"I lack knowledge in science teaching and need more experience working with children." "Farm practice eliminates many prospective science teachers from the Ag. School." "The idea of farm practice is good; but the system needs reevaluating, and more leniency must be given to majors not related to agriculture.""Give the choice of summer job to the student."

I would suggest that 13 farm practice credits be required of science education majors in order to give them a taste of rural life. An additional 27 credits should be required (of both men and women) in fields closely related to teaching and administered by the education department.

The EMPIRE Story

A STORY OF GROWTH . . .

Livestock marketing in New State represents a large and important part of rural income.

For 11 years, the part played by Empire Livestock Marketing Cooperative has grown each year in total volume. Sound marketing practices adopted first by Empire Stockyards, then by others, have vastly improved the marketing of livestock for farmers, dealers, packers and buyers.

During 1957, a total of 244,109 head of livestock of all kinds were voluntarily consigned to and sold through Empire Stockyards, the greatest number in Empire's 11 year history. Dollar volume for 1957 added up to more than 13½ million dollars.

Other important milestones in 1957 were the acquisition of two more Empire Stockyards, one at Dryden, and one at Watertown, and the sale of the 2,000,000th animal.

In the large and important business of livestock marketing in New York State, Empire is proud of the growing number of folks who recognize that it's good business to do business with.

EMPIRE Livestock Marketing Cooperative

Stockyards at

Bath - Bullville
Caledonia - Dryden
Gouverneur - Greene
Oneonta - Watertown
West Winfield


THE red and white bobber sits placidly on the surface of the water. You look around, concentrating on the darting of a little brown bat, chasing insects in the gathering dusk. But you are actively engaged in fishing and your mind shouldn't wander. You try to locate the bobber where you had last thrown it. It is gone. Your pulse quickens as you pull your line taut; the battle begins. Finally, the blue gill concedes, lying on his side on the shore, gasping for oxygen. His only hope lies in a few last flip-flops, when you take him off the hook. Barring a getaway, this is dinner and a good one!

Is this Canada? The Adirondacks? The Catskills? No, this can be happening in your own back yard.

If you already have or are planning to have a farm pond, you should reap as many benefits from your most valuable acre as you possibly can. And one of the best ways to do this is stocking the pond with fish. Underwater farming involves the same processes as farming on land—planting, maintenance, and harvesting.

The three most successful stocking patterns are large mouth black bass and bluegills, stocked at 100 bass to 1,000 bluegills per acre, trout at 400 per acre, and baitfish stocked at 200 to 800 pounds per acre. These figures vary as the fertility of the water varies. Other fish that can be stocked are channel catfish, bass (alone), and bass with golden shiners. The latter pattern may become a good prospect in the future.

The fish can be obtained free from the U.S. Fish and Wildlife Service or may be bought from private hatcheries. The price depends on the size of the fish. In addition the New York State Conservation Department will furnish free fish if the waters to be stocked will be open to the public.

The bass-bluegill relationship is the most popular throughout the country, especially in the Southeast. Although both species belong to the sunfish family, the bass feed on the smaller bluegills (or bream as they are known in the South) which in turn feed on small organisms that are propagated by adding fertilizer to the water. Both species are hardy, sporty, and tasty.

LIKE sweet corn, a predator-forage fish such as the bass-bluegill relationship must be thinned out in addition to maintaining the proper ratio. Thus there must be regular fishing, which is bad news for the wife who wants her spouse to mow the lawn when he is finished with his daily work. This ratio must be maintained or the surviving species will eat itself into stunted oblivion. For example there is the game fisherman who concentrates on the glamorous game fish like bass, pike, muskelunge, and trout and leaves the little "pan" fish such as the rock bass, crappies and pumpkinseeds to over-populate an area. Practically any fisherman has complained at times about either catching nothing or catching only the very little ones. This causes some very sarcastic comments such as "Send your grandpappy up here" or "Come back in a few years." But—grandpappy may be as small as junior due to the overcrowding. It is easy to see that a given amount of water with a certain fertility can support a certain number of fish. When fishing an overpopulated area it is a good conservation practice to kill stunted fish instead of throwing them back. This leaves room for others to grow.

The second type of stocking is the trout pond. This requires a water temperature under 70° for survival. 58-64° is the best. Because of this only one third of the New York State ponds can support trout. Unlike the bass and bluegills, trout cannot reproduce in ponds and a high rate of mortality begins in the third year. To get a maximum yield 2-3" trout fingerlings are stocked in the fall. Then 50% of the trout should be removed in the first year when they are 9" long and all should be removed in the second year and the pond restocked.

TROUT feed mainly on insects, so it is not as important to fertilize the water to aid the growth of the small organisms that fish feed on. Brook, rainbow, or brown trout may be stocked. Brook trout are the hardest.

Bait fish ponds are becoming a thriving business throughout the country. There is a high demand for bait fish, and producing them in ponds instead of seining natural waters can save money, produce better quality bait, and provide a ready bait supply at any season. Young fish or fingerlings of different species, colloquially and incorrectly called "minnows," do not come under the heading of bait fish. Commercial bait fish include the white sucker, a member of the sucker family, Catostomidae, and the creek chub, fathead minnow, golden shiner, and goldfish that are members of the minnow family, Cyprinidae. In the South, goldfish are the most popular bait, while the fathead minnow, golden shiner, and white sucker share the honor in the North. A thorough study of bait fish raising may be had by obtaining the Cornell University extension bulletin, No. 968: Raising Bait Fish and Grayfish in New York State Ponds.

Fishing is one of the most popular sports in America and there is no reason why everyone shouldn't get into the fun. There is no doubt that underwater farming is here to stay.
Make Your Cubicle Livable

SHOCKED and forlorn is the freshman confronted with a postage stamp sized cubicle instead of the one-room apartment she had fancied for her dorm residence. Yet, this barren room can be turned into a one-year paradise with some imagination, elbow grease, and little money.

PERSONALITY is the cue to your decorating problem, so its best to start off with a self-analysis—what do you want your room to say about you? Perhaps, you’d like to live in a California caravan, a Parisian café, a country carnival. Whatever your room turns out to be, you’ll enjoy it more if it has your personal signature.

After you’ve decided your theme, jot down what activities will take place in this one-room apartment—studying, storage, sleeping, entertaining, and just plain loafing. Chart your space and furniture arrangement according to these activities. The college room is best suited to the sitting room arrangement where beds double as sofas, placed horizontal along the walls. Skillfully arranged furniture kept from protruding into the center of the room as much as possible does wonders for a small room.

So far, the furniture is arranged and the storage organized. Now comes the real job—color.

Color schemes are based on the color of your walls. This rarely presents a problem, however, as most dorms have neutral pastel walls. From here on, the sky's the limit — Van Gogh, a Dutch costume, a fashion plate, a symphony—all can inspire.

The best color schemes have one, two, or three hues with one predominant shade or color. The predominant color should be one of the more neutral and darker tones of your scheme, so that as the items get smaller the intensity or brightness of color may increase. A good example of this is a bright red throw pillow as an accent for dark green and blue plaid spreads.

If your room is really small, some value of yellow or even orange would give an illusion of space. Pale blues and greens are also good. Don’t stress very dark colors unless your room gets a lot of light.

You haven’t spent a penny yet. But from here on, thought and invention save the budget. However, there is no end to the economical possibilities for room decoration.

FABRICS for curtains and spreads should be washable and serviceable. Usually, the bed-spread wears better if it’s darker. Corduroys, denims, and monk’s cloth are all good. For curtains, you can either duplicate the spread fabric or introduce a new texture with percale, gingham, marquisette, or even burlap. All can be purchased either ready-made or in yard goods and vary from inexpensive to moderate price.

Every college room needs a bulletin board or two—both for wall decoration and as a hanging place for all those little odds and ends that collect. Standard bulletin board can be purchased cheaply and in all shades. Or, you can use your spread fabric or burlap as a pin cloth to hang from the wall molding.

Collapsible deck or sling chairs, and coffee trays and stands also add character to your room. Today’s modern co-eds like those larger square pillows that pile on top of each other to form an ottoman or separate to serve as cushions for that Tuesday afternoon bridge four-some. These can all be purchased at any five and dime at relatively inexpensive costs.

The curtains are up, the bed-spreads made, the bulletin boards hung, but the walls are otherwise bare and empty. Here, you add your final personality touch to that theme with which you started.

For the travel-minded co-ed every travel agency has posters from Mexico, Spain, or just anywhere. Haiti offers a wealth of ideas — Sombrero hats pinned to the corners of the bulletin board, miniature bongo drums hung from the wall-molding, and a Harry Belafonte album upright on the record table. Burlap draperies and slat bamboo shades reaching from the floor to the ceiling would complete this Latin American scene. All the fixtures are inexpensive, attractive, and give a small college room a feeling of height and grandeur.

ANOTHER example is the carnival room with a toy managerie, halloween masks, candy-striped curtains, and paper fish mobiles. The Orient is also a possible theme with its coolie hats, kites, and low pillow seats. In this one theme, a five and dime offers many ideas with its imported gadgets from Japan and China.

Thus comes the distinctively different college room: the room that doesn’t become dull after a month’s time; the room that belongs to its occupant: the room that didn’t cost much money, but came from imagination, elbow grease, and personality.
The faithful workhorse is almost entirely swallowed up by tractor power.

**End of a Reign**

FIFTY-thousand reigning years have ended for the workhorse. He was once the major source of power for transportation and work; now little is left but the horsepower we have built into our machines.

We get as sick as a horse, warn each other not to put the cart before the horse, and are careful not to spur an unbroken horse. Horses are ridden for pleasure and used in cowboy movies and television shows; but rarely do farm work anymore.

The main reason for the abandonment of the original source of horsepower is its inefficiency—the same factor that delayed its original adoption. Until the Middle Ages a horse in Europe ate four times as much as a man and could pull only four times as much, or less. In addition, a man lives longer. Therefore, man used his fellow beings to do his work; either as a wife who did the heavy work while he went out hunting or, when civilization advanced, as slaves.

THE biggest impetus to the development of horsepower was the invention of the harness. Until that time, the only pulling a horse had to do was on a chariot. These were light encumbrances—a platform with two wheels on which a man or two could stand. The horse was attached to a single pole by a breastband.

This was all well and good for a flimsy little chariot but with a heavy wagon it was disastrous. Were the horse to pull hard on a breastband, it would slide up his neck, cut off his blood pressure, and choke him. This was uneconomical use of power.

This problem, obviously, was solved. Someone, probably in China, discovered that if he put one pole on each side of the horse, the horse would use his shoulders instead of his neck in pulling heavy vehicles. Thus, the horse was not only kept alive, but was enabled to pull about fifteen times its own weight.

About one thousand years after its discovery this innovation came west. When it did, the breastband, attached to the shaft on either side, was made looser and more comfortable. Gradually, during the Middle Ages, the modern horse collar, padded and fitted to the horse’s chest and shoulders, came into being.

At about the time the workhorse was being outfitted, the riding horse was in vogue. During the Dark Ages and throughout much of the Middle Ages all the real secular power lay with the man on horseback. The mounted knight, spear or lance in hand, was the very symbol of chivalry. He was the core of the feudal system and it was his code of civil and military manners that forms the basis of European manners. In Spanish-speaking countries caballero, man on horseback, still means gentleman and man of honor.

THE means of riding on a horse’s back didn’t arise overnight any more than did the means of getting horses to do heavy work. The saddle, like the harness, is believed to have come from China.

Not too long after the saddle came the stiff stirrup. Until the Dark Ages, stirrups were made of leather. These leather loops were useful in mounting the horse but undesirable in a fighting situation because a wounded or thrown rider could hardly get his feet out of the stirrups in time to avoid being dragged.

Hard metal stirrups from which the rider could withdraw his feet easily and on which he could rest when tired, were brought to Rome by the barbarian immigrants who came through in the declining empire in the sixth and seventh centuries.

However, all the history in the world is not going to make the farmer, practical fellow that he is, stick to using a team of horses when he can use a tractor. After all, a tractor eats less than a horse and can pull many more times its own weight.
Starfish--Bandits of the Oyster Field

By CHARLOTTE A. SCHEMPP '60

On a diet of five oysters a day, starfish wipe out oyster beds.

STARFISH have plagued New England oystermen since the industry began over one hundred years ago. At times extensive control efforts have been made, but the oystermen grew lax, giving the starfish time to replenish their numbers to carrying capacity. And since starfish have a tendency to migrate to regions where no control measures exist, the population has remained stable.

The lives of the oyster and starfish are inter-related, the starfish spawning two weeks earlier than the oyster, and normally in the same waters. Both go through a free-swimming larval stage, but being older, the starfish is the first to settle to the bottom as a young adult. When first changed, the starfish may be only one millimeter in diameter, but it has a tremendous appetite and grows rapidly. It may wipe out the newly-set spat of the entire area.

The seed oyster grower is most concerned with starfish control, since small oysters are most susceptible to starfish attack. A single regular sized starfish may kill five oysters per day. The large muscle controlling the opening of the oyster shell is weakened by the "tube feet" lining the starfish rays and which exert a constant pull on the oyster shell. The starfish also secretes a narcotizing substance which prevents the oyster from closing its shell. Then the starfish turns its stomach inside out to eat the oyster meat.

HEAVIEST concentration of the starfish occurs, as you would expect, where food is most abundant. There do not seem to be seasonal changes in the starfish population of an area. In the wintertime, though, the starfish almost invariably loses its voracious appetite, and after the water drops below 41 degrees, it may stop feeding. The starfish is also very susceptible to changes in salinity.

If the salt content of the water goes down during any part of the year, they are sure to migrate. This controlling factor assures oyster growers south of Chesapeake Bay a life free from the pest, but does not help Long Island oystermen.

Liming, mopping, and dredging are the methods used for starfish control.

Mopping is used the most, as a mop causes very little damage to seed oysters. It is most effective in areas where the starfish population is small. The starfish tangle, or mop, operates on a very simple principle. It is usually a long bar on which is attached, at regular spaces, six or eight lengths of chain. Bunches of string or twine are tied along the chains. Two mops, one on each side of the boat, are slowly dragged over the bed, at the edge of the dredge cable. When the mop is hauled up, the starfish are gotten rid of by plunging it into water over 150 degrees. The starfish are killed, and loosened by this method.

LIMING can kill starfish brought up in regular oyster takes. It is also used, though not extensively, as a spray type effect over the water. Lime kills starfish even when a few particles settle on their surfaces, but water currents and tide always inhibit effective coverage. A distributing pipe could be used at the bottom directly over the bed, but the equipment has not been produced on a mass scale, and is expensive and difficult to obtain.

Dredging can be used for uncultivated areas free of oysters, but the population rate is small where the oyster is not numerous. More starfish are captured in an oyster drag than by dredging oyster free areas. A vacuum cleaner type of dredge called the Flower suction dredge is used when starfish are abundant. It is a wide funnel-shaped collector on wheels, operated close to the water's bottom. The difficulty is with the selection of materials sucked in. It would not be profitable to suck in one ton of sand for every two starfish eliminated.

The reason for lax control efforts, or ineffective removal of starfish, is that presently no practical or profitable use for the starfish exists. The creation of a market would cut control costs, and lead to independent efforts toward starfish capture. There would be a reduction of the population to an extent where there would be no peaks.

At present, sporadic supplies of starfish due to control methods, and the low quality of meat produced by earlier attempts at commercialization, have practically stopped individual efforts. The development of a method of separating proteins out of the body substances might produce a high priced product attracting enough people to induce the creation of a new industry.

February, 1958
Last year saw many research contributions from the United States Department of Agriculture, state experiment stations, and others working to advance agriculture in this country. In this issue of the Countryman, Martin Oworen will attempt to show the scope rather than the details of these contributions.—Ed.

Cattle Nutrition

RESULTS of dairy cattle nutrition tests showed that dairy heifers fed large quantities of forage, part of which ought to be hay, need not be fed more than 560 pounds of grain to acquire normal weights at two years of age. Prior to this discovery, dairy heifers were fed 2,000 to 3,000 pounds of grain before first calving.

"Beltsville scientists corrected the long-held misconception that calves must be kept gaining steadily by at least a half pound a day, in order to grow and flesh out economically later." The scientists discovered that calves which received just enough proteins and other nutrients to insure health for several months could make economic gains later.

"Crooked Snout"

OTHER Beltsville tests revealed that atrophic rhinitis, alias "Crooked Snout" of swine is carried by rats and that parakeratosis, a non-infectious mange-like disease of swine, can be cured by the addition of 50 parts per million zine to diets high in calcium.

Vesicular Exanthema

FOR the first time since 1939, no case of the dreadful swine disease, vesicular exanthema, was found in this country. This disease is characterized by the appearance of vesicles of varying sizes on the snout, nose, lips, gums, tongue, or feet. In nursing sows, it may take the form of lesions on the udder or teats. The eruptions are usually preceded or accompanied by a rise in body temperature. Often this resembles hoof and mouth disease.

Sorghum

EARLY in 1957, the United States Department of Agriculture released nine new hybrid sorghum varieties to growers, for planting as replacement crops on wheat and cotton land. These hybrids were superior to older varieties, but inferior to hybrids that will be released shortly.

Surface Tillage

UNITED STATES Department of Agriculture soil and water conservation specialists discovered a side-effect of surface tillage, alias "stubble-mulching." Surface tillage, while being an effective measure of erosion control, usually results in a decrease in the nutrient uptake of corn, oats, and wheat. This slight decrease, the scientists point out, can be overcome by fertilizer application.

Forage Production

RESEARCHERS discovered that placing fertilizer and forage seeds in separate "bands" within the seed beds
in Retrospect

doubles the efficiency of forage production in some cases. It also enables farmers to plant forage crops before or after previously recommended times.

Sugar Harvester

OTHER USDA scientists developed a self-propelled sugar harvester which cuts, strips, and loads erect cane stands. This development made possible the replacement of the larger crew needed for cane harvesting by hand, by a two man crew operating the harvester, and tractor drivers hauling cane wagons.

Brucellosis

BY December 10, 1957, four states, Puerto Rico, and 244 counties in 27 states had been declared “modified-certified brucellosis free.” This represented the largest number of such certifications in any one year. An area is certified when not over 1 percent of its cattle and 5 percent of its herds are infected. Brucellosis, also called bang's disease in cattle, and Traum's disease in swine, is a chronic infectious disease. In cattle, it is caused by the micro-organism, Brucella abortus. Infection is principally through the digestive tract, but cattle may also be infected through the skin, the teat canals in contact with infective material, or the placement of the organism in the vagina by the infected male. Some symptoms of the disease are abortion in females, testicular inflammation, and sterility in males.

Pest Control

THE year 1957 marked the beginning of a new era in pest control in the United States. Atomic energy by-products and harmless irradiated screwworm flies were used to eliminate screwworms from Southeastern United States.

Leather Tanning

THE use of imported tanning agents, which presently form the bulk of tanning agents used in this country, may soon be curtailed. Wyndmoor scientists demonstrated that dialdehyde starch, made by chemically modifying starch, is a good training agent. It produced easy-to-dye, off-white leather and washable perspiration-resistant leather.

These cows may be free from brucellosis.

1957 yielded suggestions for diet changes in cattle.
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Neither Sleet nor Snow

Aggies warm up with winter sports.

By MELINDA L. EVERITT '61

To the students at Cornell, winter brings a season of
exciting sports contests which can't be cooled by the
cold weather. The upper campus students make a valuable
contribution to all of these winter sports teams.

The basketball team, enjoying one of the finest records
this year, is one of the most popular among the aggies.

Edwin Engman, an agricultural engineering major,
is playing on Cornell's basketball team for the third year.
Ed has a background of frosh and prep school play.

Senior John Nelson has played basketball all through
high school and college and also plays on the Cornell soccer
team. He is an animal husbandry major and hopes to
go into dairy farming.

The rifle team has the second largest number of ag students participating for the winter season.

John Ritrosky had a background of competitive
shooting before coming to Cornell. He competed for three
years on high school and junior rifle teams. This is John's
second year of competition at Cornell, and he has already
received one numeral.

A high school scout team and the Frosh and R.O.T.C.
rifle teams at Cornell prepared David Wright for shooting.
A junior in agricultural engineering, Dave is in his
second year of varsity competition.

Hunting and two years of competitive shooting experience got John Schaub interested in the rifle team. He is a
sophomore, majoring in animal husbandry.

James Keenen is another aggie with a background in
competitive shooting. A two year student in dairy, Jim is
starting his first year on varsity.

David Mahar began hunting with his relatives about
ten years ago. After coming to Cornell he shot for the
Frosh rifle team and then moved to the varsity. Dave is a
junior majoring in extension.

Herman Meisener, a pre-vet student, is another busy
aggie. He is on both the rifle and the track teams. He
shot for the Frosh team and has earned numerals in his
two years of varsity competition.
ANOTHER track and field man is Bruce Davis, a sophomore student in agricultural engineering.

George Gellert, a broad jumper with high school and Fresh experience is in his first year with the varsity. George is a sophomore majoring in agricultural economics. He also plays varsity football.

Another track member is Barry Tharp, a second year vet student. On his high school team in Auburn, New York, Barry competed in the high jump. He is now a runner in the 1000 yard and 440 indoor events and the half-mile in the outdoor season.

David Cadiz competes in the 1000 yard dash and the 600 yard indoors and in the 880 and the quarter mile outdoors. He is a senior majoring in landscape architecture and has been on the varsity for three years.

Competing in the 440 yard dash is Roger Hackson. A sophomore in economics, Roger started track in high school and also plays varsity football here at Cornell.

Sophomore Ted Voight is in his second year of competition as a varsity quarter miler. Peter Eichhorn is another quarter-miler as well as a 600 yard man. A sophomore in general ag, Peter started track in high school.

Glenn Benjamin is a sophomore pre-vet who specializes in the mile and two mile run. Another sophomore competing on the varsity team in the two mile run is Richard Hemmings, a landscape major.

Last on the list of track men in Agriculture is senior Kirk McCreary. He is a general agricultural student and has been a varsity letter man on the track and cross country teams for the past three years.

FENCING is one of the most unusual of the winter sports on campus and one of the most interesting to watch. This sport requires quick movement and much agility. Again agriculture is well-represented with three members on the team.

Co-Captain Roger Wiley, number one saber man on the team is a senior in ag economics with three years of fencing experience.

David Crasson, participating in the foil events, is a sophomore pre-vet who just started fencing as a freshman. David's room-mate Dan Rosenberg, is another foil-fencer and a sophomore pre-vet.
Invasion of Fireants

Mound building stowaways are destroying U. S. farmland.

By MARTIN A. OWOREN ’60

THE fire ant is a reddish black mound-building ant, believed to have entered the United States in 1918 as a stowaway from a South American port. The ant first infested fields near Mobile, Alabama, and then spread to other areas of the South, slowly at first, but very rapidly in recent years.

THE ant exists in three adult forms: the winged queens, which lay eggs; the winged males which mate with the females; and the work ants, usually wingless and sterile females.

The work ants are the most numerous of the ants. They may vary markedly in color from colony to colony. They are usually dark brown to blackish with an orange band at the base of the abdomen. They may also vary in length from one-eighth to one-fourth of an inch with the smaller ones from the queen’s first brood.

The males and females usually live in seclusion until spring when they leave the mounds for their only mating flights. After the mating, the queen finds a nesting place, sheds her wings, digs an underground chamber, and lays eggs. The eggs in each cluster increase in number from about ten at the start to 100 or more later.

THE workers of the queen’s first brood form a mound by enlarging their underground quarters. Those of the following broods help make the mound firmer, and the underground passages more numerous. The subterranean galleries, which may be three feet deep, may contain 2,500 workers and only a few dozen queens and kings. The mounds can be formed in most kinds of soils. They are about a foot high and two feet in diameter. In heavily infested areas, 100 mounds to an acre aren’t uncommon.

The ant is a destructive and annoying pest whose vicious bite or sting is harmful to man, bird, and beast. Its appetite for seeds, plants, and trees renders it destructive to many agricultural crops. Its high, hard-crusted mound interferes with crop cultivation and the full utilization of pastures. Its unsightly nest disfigures lawns, gardens, and parks.

The battle against the ant involves three basic measures: 1) surveying to determine the distribution, relative abundance and rate of spread of the pest; 2) progressive treatment of infested areas with the most effective treatments available, and 3) control of the movement of materials that might carry the pest.

TWO of the commonly used battle implements are dieldrin and heptachlor, insecticides whose residual effects normally last for three years. Treatment of infested areas is by airplane, motorized ground equipment, and hand applicators. The current estimated cost of the treatment is 5 dollars per acre. It will be paid by the co-operators, the state and federal government. Meanwhile, researchers are testing the short-run and long-run effects of the application of various insecticides. They are also trying to make the insecticides appealing to the pests, and to find ways of reducing the cost of the treatments.

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CORNELL COUNTRYMAN
Students work closely with faculty and experts in their fields.

By ROCHELLE S. LEFFERT '59

Practical experience is part of the Merrill-Palmer curriculum.

Merrill-Palmer -- "Living Laboratory"

The students are able to get to know these people personally, and discuss ideas and theories with them.

In addition to the classes, there are "living laboratories." These are places where the student applies theories learned to actual situations. These laboratories are various, and include the infant service program, nursery school, and clubs for children and teenagers. There are also programs dealing with the family, such as the family camp and the family club program. Here, the student concentrates on one family and gets to know it intimately. Personal and family counseling and group study services are available for all age groups.

In addition to the teaching program, the school provides services to the community, cooperating with neighboring educational institutions, social agencies, recreation centers, hospitals, clinics, business and labor unions. There are also lecture series and publications which extend the school's program to the community.

The organizational setup of the school is different too. The undergraduate may be either a junior or a senior, who has majored in education, psychology, or home economics, and was selected by her respective university. The student studies at Merrill-Palmer for one term and receives full course credit for the work done there. There are now 45 American and foreign universities cooperating with Merrill-Palmer in this way.

The College of Home Economics at Cornell is a cooperating school. Four students, selected by a faculty committee, are sent each year. There is a similar program for graduate students, who are selected by the Merrill-Palmer School itself. A student interested in graduate work may apply independently or through a cooperating university.

The school believes that people get to know each other by living together. There are three residences for girls, each one an old, mansion-type home, housing about fifteen girls. There is a house resident, and a cook, but the students have most of the responsibility for running the house. They plan the meals, buy the food, and handle the budget. The jobs of waitress, food manager, hostess, etc., are shifted around, so that each girl receives a variety of experience.

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FEBRUARY, 1958
Cows, Sows, and Beauty Queens

By NORMA J. RUEBMAN '60

THE week of March 24-28 will be the 47th annual Farm and Home Week at Cornell University. Much hard work on the part of the ag. and home ec. students goes into making Farm and Home Week a success, and several committees attend to the various phases of the program. This year's committees are publicity, registration, ushering, attendance, club concession's coordinating committee, Swedish exchange, and dance.

SIGN-up sheets for these committees will be in the lobby of Mann Library from March 10-14. A mass meeting will then be held on Sunday, to further acquaint members with their jobs and lay out definite schedules and plans for each committee.

All students of the upper campus are urged to participate in the Farm and Home Week program. Not only will a tremendous service be rendered to visitors on campus, but students working on these committees are guaranteed a good time as well.

SEVERAL of the annual features of Farm and Home Week will be back this year. The annual dance will be held at Barton Hall on Thursday, March 27. The "Country Vagabonds" of Marion's Big Top in Dryden will provide music for square and round dancing. The Farm and Home Week queen will be crowned at this dance. Ag-Domecon, sponsoring this event, has announced that all upper campus clubs may enter candidates.

The Rice Debate and Eastman Stages will be big attractions. The Rice Debate Stage is to be held on Monday, March 24, at 8 p.m. in Warren 45. Prizes of $100 and $25 are offered to the first and second place winners in each contest.

Rice finalists this year are Sieglinde M. Dieken '58, James P. Doyle '58, Gerald P. Hirsch '59, and Douglas D. Innes '59 with Lawrence W. Dries '59 and Robert B. Hunter '59 as the alternates.

On Thursday, March 27, the Eastman Stage will be held at 8 p.m. in Warren 45. Six finalists are entered in this stage: Abigail A. Stimson '60, Herbert H. Stoeven '58, James P. Doyle '58, John T. Porter '58, Donald C. Taylor '59, and Jonas Weil '58. Thomas A. Brewer '58 has been named as alternate.

Much planning and hard work has already gone into Farm and Home Week. A more varied and interesting program than ever is promised.

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New York Indian's
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"We are old when we are born" is the theory of Dr. Erl Augustus Bates, an outstanding American ethnologist. To support this theory he points out that almost all of our physiological and psychological characteristics are inherited.

He feels, in addition, that "we are civilized only from the ears up." There are differences between men and animals but these are in degree rather than in kind. Men live in houses instead of trees, are kept warm by clothes instead of hair. However, the most important differences, the use of tools and the possession of language, are manifest only from the ears up.

Of special interest to Dr. Bates in formulating his theories have been New York State's Indians. "The American Indian," he says, "must be considered one homotype. While his close relationship to the nearest true Asiatic must be recognized, certain uniform physical characteristics of this race of intensely pigmented red-brown men characterize him as peculiar to this continent and a product of its own environment."

Dr. Bates became interested in Indians while he was working as a physician among them. Since then he has devoted much of his time to the improvement of the Indians of New York State.

When Dr. Bates talks of these Indians all his feelings for them come through. He speaks in a clear distinct tone which demands complete attention and admiration. The Indians call him "Little White Father." He speaks of them as "My Indians."

One of the stories he likes to tell is the legend of the coming of New York's Indians as related by the Cayuga tribe:

"The Great Spirit told us in the fabled cradle of civilization that he has created a land of hill and dale where game and fish were aplenty; where the three sisters (corn, beans, and squash) would grow easily; where we would find happiness and contentment in gratitude to the Great Spirit and where we would find peace with our neighbors. We left the Garden of Eden and traveled many moons and at last came to the land of Tra. We found not our promised land in China and so we went northward across a bridge of land (Bering Strait) beside a still water (Pacific) and come to the land of the ice and big white bears. (Some of the Indians remained there and their descendants are today's Alaskan eskimos.)

"The larger group continued to travel and came after many moons to the land of the big red trees. (Some of these Indians stayed to become the Digger Indians of California.) A great group continued south and were lost. These became the Indians of Latin America.)

"... Most of them grew tired and lost faith in the promise of the Great Spirit but a stronger, more virile group continued to travel east and came at length to New York State." The State of New York is, then, the promised land of the Indians. It is our job to help make the state live up to its promise.
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Here's a big farm tractor with a new feel of authority. You'll like its commanding all-new Power-Crater engine — its new comfort with center-ride seat, roomy platform, convenient new controls and instruments.

The new Power Director (The Big Stick) lets you select the right working speed without clutching or affecting PTO speed. The automatic Traction Booster system provides the extra traction to get you through those tough places.

You'll want to see and try this all-new big Allis-Chalmers D-17, gasoline or diesel. Stop in at your Allis-Chalmers dealer.

ALLIS-CHALMERS, FARM EQUIPMENT DIVISION, MILWAUKEE 1, WISCONSIN

First tractors with
LOW-LINE HIGH-CROP design

The new D-17 and new D-14 span tall crops. New-type 4-row "swing-in" cultivators are mounted in an all-new way.

Both tractors have new Roll-Shift front wheels and Power-Shift rear wheels that space without a jack. SNAP-COUPLE hitch — of course!

Power-Crater, Traction Booster and Snap-Coupler are Allis-Chalmers trademarks.
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You’ll save minutes and movements on every turn
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30% for safer, full-power turns, then release the TA lever to
resume top cultivating speed.

Pull TA lever to take bunched windrows in stride.
TA reduces forward travel instantly, yet keeps pto machines at
full-rated rpm to handle sudden overloads. There’s no clutch
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Name any job—plowing, planting, cultivating, baling, hauling! You can do it faster,
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and all other IH features.

International Harvester Products pay for themselves in use—Farm Tractors and
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Equipment—General Office, Chicago 1, Illinois.
It's here—a new way of farming that permits cotton farmers to meet and whip the bugs of bad weather, limited working time, and mounting labor and fuel costs by “going 6-row” with John Deere.

Now—with the eager, aggressive power of modern John Deere Tractors and the wide, hungry span of John Deere 6-Row Equipment—cotton farmers are right in the forefront of today's stepped-up farming pace. They can count on cutting fuel costs and working hours by as much as 1/3 and on increasing the efficiency of power and labor by as much as 50 per cent. And they are finding that it all shows up with a bigger figure on the profit side when tally is taken at the season's end.

It's Another John Deere First

The first in the field, the new John Deere line of 6-row equipment is a complete line which, for southland farmers, includes 6-row corn and cotton planters, 6-row bedders, and 6-row cultivators—each a part of the continued John Deere policy of “being there with the tools when they are needed”—each designed to carry on in the great tradition established in their John Deere 4-row counterparts.

Of course the big power and economy built into modern John Deere Tractors with the unmatched combination of modern features make them take naturally to 6-row farming, insure new savings in time, labor, and fuel for the farmer who “goes 6-row” with John Deere.

The John Deere 870 6-Row Bedder, shown here, "eats up the acres" with a broad, 6-row spread and leaves strip after strip of efficiently bedded or listed land behind.

The 684 Cotton and Corn Planter, shown here, does an accurate job of drilling or hill-dropping on flatland, on beds, or in furrows, planting six rows on every trip across the field.
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LABORATORY CONTROL assures you that each chain meets rigid uniformity specifications. Our modern laboratory continuously explores new refinements to increase chain life.

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What it is... What it offers


established: 1920

employs: 4200 in nine divisions and general offices

products and services: Feeds and fertilizers, seeds, pesticides and farm chemicals, farm hardware, lawn and garden items, and petroleum products. Service to farmers and rural home owners, such as bulk feed and fertilizer delivery, and oil burner installation and maintenance. Marketing of eggs, poultry, grain, beans and a variety of other commodities for the northeastern farmer.

Management: retail outlet management, petroleum plant management, and egg processing plant management. Opportunities for advancement to territory and division management positions.

Sales and Technical Service: retail outlet salesmen and sales managers. Opportunities for advancement to territory salesmen, sales managers, division sales managers’ positions. Technical field service work requiring specialized training in certain phases of agriculture.

Staff Departments and Services: accountants and auditors to enter the Controller’s Department, occasional openings for people trained in advertising, industrial engineering, and agricultural research. Occasional openings for chemists and bacteriologists in the cooperative’s quality control laboratories.

qualifications and training: Training and/or experience in fields related to opportunities outlined above. Each year G.L.F. hires 4-year and 2-year college graduates for placement in training programs in retail management, egg plant management, sales, and accounting. On-the-job training is the basic method followed in these programs, supplemented by special schools and conferences.

for an interview: G.L.F. representatives visit a number of schools, colleges, and universities in the Northeast to interview men seeking careers in agriculture. See your Placement Counsellor or Director for details. Otherwise, write or phone Selection Supervisor, Personnel Relations Department, Cooperative G.L.F. Exchange, Inc., Ithaca, New York.

Cooperative Grange League Federation Exchange, Inc.
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Cover Story:
Farm and Home Week's big event—the Annual Student Livestock Show sponsored by Cornell's Round-up Club.

—the photograph by Cornell Round-up Club

The Cornell Countryman is published monthly from October to May by students in the New York State College of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second class matter at the Post Office, Ithaca, New York. Printing by Art Craft of Ithaca, Inc. Subscription rate is $1.75 a year or three years for $2.75; single copies, 25 cents.
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Editorials

As we go to press:
the editor's last words.

Gerald P. Hirsch, being of sound mind and body (after eight publications), leave the following to those who will continue long after I am gone:

To next year's editor, "Bunnie" Dervin, I leave all my problems, headaches, and leaky skylight. Drip...drip.

To Buildings and Grounds I leave the pumpkin on top of Roberts Hall and the stone eagle perched on a chair.

To the visual aids department I leave a few minutes of silence and the dozen photos we never returned.

To the girls behind the desk in Mann Library I leave a table on wheels that unfolds upon command.

To our board of directors I leave an alarm clock so that meetings will end on time.

To the head librarian at Mann I leave one week's notice of circulation.

To Professor Shapley I leave thanks for his patience plus a few hundred farm practice balls.

To Secretary Benson I leave all the farmers' problems plus a few million dollars to see his soil conservation program through.

To next year's business manager I leave this year's unpaid bills and an autographed picture of Elvis Presley.

To Martin Owren, research editor, I leave a crystal ball and an inside line to the pentagon.

To the graduate students in the biology office I leave a book of matches.

To the Commission on Increased Industrial Use of Agricultural Products I leave a down payment on the first car made out of corn cobs.

To our advertisers I leave my thanks for their much needed financial aid.

To the students who have read the Countryman I leave my thanks... for their patience.

To the Commodity Credit Corporation I leave a list of products that the future market of Antarctica will need.

And to all who have aided the Countryman with criticism, advice, more criticism, pictures, more criticism...I leave a staff that will leave little peace for those who love peace.—G.P.H.

Welcome!

Welcome to Farm and Home Week, 1958. This week is made for you, the farmers, homemakers, and students of New York State. Cornell has been preparing for your visit for many months: we have braced ourselves for an invasion of blue-jacketed teen-agers; the barns and judging pavilion have been newly cleaned and sawdusted; all the doors have been opened in the buildings of the Ag., Home Ec., and Vet. Schools.

Lectures, exhibits, shows, contests, all sorts of things are waiting for you. There are people from all over who have come to talk to you: professors, fellow visitors, students, debate contestants talking their poor little hearts out, lecturers on topics of interest to farmers and homemakers.

Everything is here awaiting your inspection and participation. All you have to do is enjoy it all. Happy Farm and Home Week.—J.H.B.
What Now, Ezra D.?

By GERALD P. HIRSCH

Ezra Taft Benson prophesied in 1955 that the agricultural road ahead “will be smoother than the one we have been traveling.” As yet agriculture hasn’t found a smooth road. However, this could prove true in the future. But farmers are interested in the present. The influences of past and present government programs on farm prosperity have been analyzed and interpreted by economists. The results follow:

LOWER SUPPORTS—Secretary Benson’s most recent plan was to reduce support prices. Advocates of low supports envision a decrease in production, due to lower prices, leading to free markets for farm products. The fallacy of this program is that wheat and cotton reductions are due to acreage allotments and not price. Lower price supports will not solve the problem of surplus or low incomes in the near future.

ALLOTMENTS—This program partially solved the problem of surplus. Wheat and cotton production decreased, but an increase in feed grains occurred. Furthermore, there is strong resistance to further land reduction.

SOIL BANK—The Soil Bank was an effort to further reduce allotments, but a great deal of political resistance is present due to the program’s high cost. The merchants oppose the program due to a forecasted reduction in fertilizer and equipment sales. The most recent failure has been the conservation reserve. The reserve aims to pull entire farms out of production by paying the farmer for planting his land with trees. This hasn’t worked due to the high prices that farmers ask for taking their land out of production.

STORAGE AND EXPORT DUMPING—This is the least unpopular of programs and will receive much future consideration. Though this program doesn’t attack the problems of surplus or income it does help to alleviate it. The program’s shortcomings are not enough foreign markets, and increased competition from other countries in existing markets.

FARM AND HOME PLANNING—Nothing has been accomplished due to limited scope.

SELF HELP AND BARGAINING ASSOCIATIONS—There is some sign of government approval, but collective bargaining is useless unless the government intervenes.

It is evident that present agricultural programs offer no solution to the existing farm problem. Hope may be seen through a free market or in the expanded demand for agricultural products aimed at particular markets. It is every farmer’s responsibility, however, to guide his production and increase his efficiency so that the prophetic future of farm prosperity may be realized.

The EMPIRE Story

Anybody Can Consign To An Empire Auction!

You do not have to be a member of Empire Livestock Marketing Cooperative to use its services. You can consign to any Empire auction just as you would to any other livestock auction! You will receive all the benefits of doing business with an outfit operated strictly to serve its users.

You see, the common stock at Empire is owned by six farm organizations. They elect the Board of Directors who set policies which will benefit everyone who uses Empire, even though they may not belong to any farm organization!

Many farmers do own preferred stock and FIVE PERCENT INCOME DEBENTURE BONDS of Empire but they do not have to own these in order to use Empire.

More than 25,000 regular consignors are represented at each Empire stockyard by local advisory committees elected by those who use the markets. These elected advisory committees of farmers help market management by recommending local operating policies for the markets which will provide the best possible facilities and services to all market users.

The skilled and experienced marketing specialists who form the Empire working team are dedicated to making sure that you will always find that “it’s good business to do business with Empire Livestock Marketing Cooperative”!

Remember, you do not have to belong to anything to consign your livestock to any auction operated by

EMPIRE Livestock Marketing Cooperative

Stockyards at

Bath - Bullville
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March, 1958
Dean Myers reminisces about old Farm and Home Week.

By DEAN W. I. MYERS, College of Agriculture

In Days Gone By

ON behalf of the State College of Agriculture at Cornell, I am happy to welcome you to this 47th Farm and Home Week. Staff and students alike have set aside this time to show you personally the work of your College in research, resident teaching, and extension.

You are invited to take advantage of all the facilities, to see the exhibits, watch research in progress, attend lectures, take part in discussions, and talk over your interests and problems with the staff.

THIS year, Farm and Home Week has special significance because 1958 is the centenary of the birth of Liberty Hyde Bailey who initiated Farm and Home Week at Cornell in 1908. Dean Bailey felt that the people should come and see for themselves what their College does to help them.

Farmers' Week, as it was called in those days, had its beginnings when farmers who carried out experiments in cooperation with the College came together to discuss the results of their voluntary efforts with the College staff. Dean Bailey conceived the idea of opening these meetings to all people. Farmers' Week in 1908, with its 99 attractions, was the first such event in the east and among the first in the United States.

THE State College of Agriculture is the only State supported research agency for an industry with sales of $900 million in 1937 and with total assets of two and one-half billion dollars. The College helps to solve problems of all important farm products through its 18 departments at Ithaca and the six at Geneva. A full-time academic staff of 400 plus 250 graduate assistants work for New York agriculture through research, teaching, and extension work.

Research to help agriculture and rural living is carried out not only in laboratories but also on more than 500,000 plots at Ithaca and Geneva and on 27,000 more plots on farms throughout the State.

THIS year, in accordance with the growth, complexity, and importance of New York agriculture, approximately 75 exhibits and more than 100 different events and activities have been scheduled each day.

Today, New York agriculture is big business—nearly a billion dollar business. New York State has more farms and farm output than all six New England States combined. The State's
105,000 farms cover more than 15 million acres. Five and one-half million acres produce harvested crops. Nearly 10 million more acres make the State a dairyland.

A recent study of 342 dairy farms in the State shows an average investment of more than $40,000 a farm, compared with less than half of that figure in the late '20s. Moreover, average investment per man is $22,500, nearly double the capital investment per worker in many industries.

The State's one and one-third million cows produce products valued at more than $100 million annually. The $150 million poultry industry, which ranks second only to dairy, annually produces, in addition to eggs, about 10 million broilers, one million turkeys, and seven million ducks. Third place in New York agriculture goes to potatoes and truck crops, with fruit in fourth place.

New York agriculture ranks first in the country in production of buckwheat, cabbage, ducks and onions. It ranks second in production of milk, ice cream, apples, grapes, sour cherries, beets for processing, cauliflower, maple sugar and syrup, and greenhouse and nursery products.

Through the Extension Service, results of this research are carried into every community in New York State. Last year, it was estimated that more than 600,000 families were assisted by Extension programs.

In the classrooms and laboratories of the College, more than 2,000 full-time students study to become tomorrow's leaders in farming and agricultural sciences, industries allied with agriculture, education, and government.

FROM a consumer's point of view, New York farmers and their families, backed by research, have enabled everyone to eat better for less money. In 1925, an hourly take-home pay, on the average, bought 5½ loaves of bread, or 1½ pounds of steak, or 3½ quarts of milk. In 1956, an hour's take-home pay, on the average, bought 11 loaves of bread, or 2 pounds of steak, or 8 quarts of milk. In 1830, the average farm worker produced enough for himself and three others; today's produces food and fiber for himself and 20 others.

N. Y. State ranks second in country for nursery and greenhouse products.

Farm and Home Week has something of interest for farmers, homemakers, rural residents, suburbanites, truckers, processors, marketing men, and others. All are represented in some phase of this vast open house.

THIS Farm and Home Week may be much larger than the event I attended as a Chemung County farm boy, but its purpose is the same. It was at the second Farmers' Week that I gained a greater appreciation of agriculture, a healthy respect for the problems of the farmer, and a pride in my association with this basic industry.

Our society, as well as our agriculture, is highly competitive and is becoming even more so. It is the job of the College to help people look ahead at the opportunities and challenges awaiting them. It is at an event such as this that people get new ideas and inspiration for a more efficient agriculture and a better rural life.

The founder of this University would have liked Farm and Home Week and the relationship between the people and the College, for it was Ezra Cornell's profound conviction that agriculture needs science, that education is essential for the farmer, and that men and women should share equally in the educational opportunities of their College.
Dean W. A. Hagen invites Farm and Home Week visitors to the Vet Open House.

By DEAN W. A. HAGAN, College of Veterinary Medicine

Our Doors are Open

I am glad to accept the opportunity offered by the Cornell Countryman to welcome you, our Farm and Home Weeks guests. The State Colleges at Cornell are your colleges. They are supported by your taxes. You have a right to see your property and get acquainted with your “hired” men. We are glad to have you visit us and see what we are doing. We welcome your comments and criticisms.

This year the Veterinary College plans to show you its fine new plant. Please check your program for the conducted tours that we have planned. You will see more and learn more about us by joining one of these tours than in any other way. You may visit at other times, of course, but since our teaching work will continue during the week we will not be able to conduct individual tours.

The Veterinary College was authorized by the Legislature of 1893 and began operating in 1896. The old buildings near the center of the campus were mostly outmoded and ill-suited to modern teaching and research in the medical sciences. Since we built not for today alone but for the future, the new plant, occupied last August, is undoubtedly the finest and most modern in the world.

A field station of 133 acres is also operated by the Veterinary College and it also leases several lots of land nearby. On these we house most of our larger experimental animals. At our field station we have several well equipped laboratories, notably our Virus Disease Research Institute. In other parts of the State — at East Aurora, Canton, Earlville, Oneonta, Kingston, Farmingdale, and Eastport — we operate regional diagnostic and service laboratories.

The Veterinary College is a professional school. One of its primary jobs is to train young men (and a few young women) to serve as private veterinary practitioners. Through these people we reach all animal owners of the State. About two-thirds of our graduates become private practitioners. The other third engage in a wide variety of occupations including teachers, research workers, Army and Air Force officers, officers in the U.S. Public Health Service, employees of pharmaceutical and biological manufacturing companies, meat inspectors for governments from the national to the local level, veterinarians for zoological parks, staff members of medical schools, and extension service veterinarians. For many years we have not been able to meet the demand for our graduates.

... it's a pleasure at the new COLLEGE SPA

216 EAST STATE STREET

Your Host, Pete Atsedes
We estimate that the teaching of young people to become veterinarians is less than half the job that we do. Like the other State-supported schools here, we do a great deal of research and a substantial amount of extension teaching. Many of the new facilities that you will see are primarily for research work. Our extension activities are, in part, like those of the other colleges in that we send faculty members to appear on many programs arranged through the extension services of the College of Agriculture, or directly through the County Agents, in which the contacts are with farmers and livestock owners. We do an even greater amount of work with the practicing veterinarians whom we support by supplying help whenever they face serious problems which they feel incompetent to handle, and for whom we also supply help to aid them in keeping abreast of advancing knowledge by conferences, short-courses, and a supply of printed information.

The word seems to have gone out that it is very difficult for students to get into the Veterinary College. Probably this idea has been somewhat exaggerated. It is true that the veterinary curriculum, like that of most of the professions, is more difficult and exacting than some others, but it isn't necessary that applicants have a straight-A record in their previous scholastic experience to have a chance of acceptance. For more than 20 years we have had more applicants each year than we have been able to accept, and acceptances have been on a selective basis. Under these conditions it is not surprising that those who present scholastic records that are poorer than average are turned down quite automatically without reference to any other qualifications.

We know from past experience that most of these people would not succeed in our curriculum and we would not be doing them a service to accept them even if we had plenty of room for them. Those who have scholastic records that are average or a little above are given careful consideration and are interviewed by our faculty Committee on Admissions. We are interested in personal qualifications, for it is well-known that these are particularly important in the professions. We are also interested in the motivation of our students. Generally speaking, we prefer farm-raised boys since these generally have an intimate acquaintance with farm livestock and approach the study of veterinary medicine from a more practical viewpoint than do those who lack this background. We do not exclude city-raised applicants, providing they have shown their willingness to meet our Farm Practice Requirement by spending at least two full summers working full-time on farms or in good farms where livestock plays an important role in the operation. Each year we accept a considerable number of students with good background training, good motivation, and good personalities but with only average scholastic ability, and we reject as many more with brilliant scholastic records but with deficiencies in the other qualities desired.

This and all of the other 16 veterinary colleges in the United States require at least two years of general college work for admission, and these years must include specific requirements in chemistry, physics, zoology or biology, and English. Generally about one-half of our successful applicants each year have completed their requirements in the College of Agriculture at Cornell.

I hope you will enjoy your stay on the campus. If you happen to know of any young man who is interested in becoming a veterinarian and you believe he has the qualifications to make good in this field, please tell him I shall be glad to correspond with him, or see him if he is in Ithaca.

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Charcoal-Broiled Steaks
Good Eating
Students Welcome
of
Zinck's
On the Domestic Side

Dean Canoyer reviews the role of home economics today and tomorrow.

By DEAN HELEN CANOYER, College of Home Economics

UNFORTUNATELY I do not have a crystal ball nor do I have the ability to foresee just what conditions will be in the future. However, because of the scope and focus of Home Economics it will always have a future so long as it adjusts to the changing needs of society.

HOME Economics focuses attention on the well-being of the home and family in the current environment and implements the contributions of some of the natural and social sciences and the arts to this end. It stands between producers and consumers, between the individual and social groups and between the home and the community, state and nation. Home Economics is composed of many and quite different specializations. But the unifying force is its focus: on the home and family.

The world we live in is characterized by continual change. There have been great technological changes, increasing population with shifting urbanization and explosive suburbanization, economic depressions and recessions, wars and changing fashions and standards and levels of living. Home Economics, if it is to do its job, must also change and it has over the years. It has moved from the early “cooking and sewing” stage to its present broad type of education in which value concepts are emphasized in an attempt to provide to the young man or young woman the type of university education appropriate in our present society.

AN example of the contribution which Home Economics can make in the near future is found in Marketing Research in Business. Both business and home economics center their interest on the Consumer, the home, the family. Whereas business wants to know the temper of consumer acceptance in order to make more money, Home Economics wants to know what actually motivates the consumer and what are the short-run and long-run effects of choices, actions, value systems, etc. I believe that in the future Home Economics will be an increasingly more effective part of the research team in business, government and education.

It is not possible to forecast just what the changes will be in number, kind and importance in the future. Nor is it possible to state in what ways such changes will cause Home Economics to change. However, it appears that our population will be larger and unbalanced, that is, more women than men and the younger and older people will dominate the middle aged group. Automation will have inspired and forced many changes including those in schools and colleges. Research will have provided us with new and different food, clothing, housing, fuel, transportation, etc. New frontiers will be opened up in outer-space. There may be other and more important changes. But of this we can be certain, there will be changes in any future. Those very changes create a rosy future for Home Economics.

At the moment, hovering on the verge of the “space age” and with the emphasis on defense and scientists needed to furnish the “know how” with which to build implements for physical protection, it seems that Home Economics has a greater and more challenging job to do than at any time in its short history. No matter how much money we spend on defense, no matter how many trained scientists we educate, no matter how many satellites we launch, if our citizens are not well educated and do not understand and appreciate the basic values in life and if we do not have strong and healthy families, our strong defenses, earth satellites and trained scientists will not be of final help to us. Any program such as the one in the New York State College of Home Economics at Cornell which aims to prepare individuals to play an important role in building strong families, and communities in their homes and on the job is one of the most important programs in any university or college.
Extension Publishing is big business at Cornell.

By THOMAS J. O’NEILL ’60

Extending Cornell to You

PUBLISHING more than 2,000,000 publications a year—10,039,294 in the past five years—is big publishing business in anyone’s language. And that’s the publishing volume of Cornell’s Colleges of Agriculture and Home Economics.

For 70 years the colleges have been distributing all types of information through many channels and media to the people of New York State with extension bulletins high up on the popularity list. The great variety of subjects covered by these extension bulletins makes it possible for almost anyone to find a bulletin to fit his needs. For example, many give useful and practical ideas on scores of farming and homemaking problems; one may even start budding young stars on the way to stardom: “How to Prepare and Act a Part.” Another, “As Others See You,” deals with etiquette.

How and when did this vast publication business start? Director Isaac Phillips Roberts wrote the first experiment station bulletin at Cornell University in 1888. In his six page bulletin, Director Roberts described some new features of constructing a dairy house which doubled as a fruit storage or dwelling place in cold, windy locations.

In 1916 extension bulletins as we know them came into being. They were written in a simple, clear style for farmers and homemakers, although many were based on the more technical experiment station bulletins.

During the war years extension publications became priceless. Such bulletins as “Potatoes for Patriotism,” “Make Every Crumb Count,” and “The Victory Wheat Plan” were prepared. These and many others helped families endure the long, difficult years of the world wars.

Cornell’s agricultural and home economics publications have not only helped to win wars; they may also be contributing to peace. Through its foreign exchange mailing list, Cornell sends research publications to 554 institutions in all parts of the world, including behind the iron curtain. Through the exchange of scientific information, Cornell and other institutions are keeping a strong bond with agricultural scientists in all nations.

In addition to the foreign exchange mailing list, a general mailing list is maintained for distributing the list of publications. This is revised annually and is sent to a special group of people. The greatest number of publications—about 75 percent—are distributed by county extension agents throughout New York State.

Thousands of people request these publications. At times, 300 to 400 letters a day come into the mailing room in Stone Hall, and 60,000 a year is a conservative number.

With such an extensive number of letters, there are bound to be a few peculiar requests. Perhaps, one of the most unusual came from a perfume manufacturer who sent a letter requesting advertising space on the back page of extension bulletins. Enclosed in the letter was a sample of the advertising copy. It was a good try but it didn’t work. Can you picture a perfume advertisement on the back of a bulletin: “Onion Production on Muck Soils”? Also, colleges cannot favor commercial concerns.

Letters such as these are few and far between, for most of the requests are for information to solve problems. Sometimes bulletins won’t solve all the problems posed in a letter and one or more of the 25 departments in the two colleges is turned to. Some requests may be answered by one of the many mimeographed letters; bulletins are sent to cover the needed information in the remaining requests. In some way, all letters are answered. And, to be sure, these answers are welcomed by kind words of thanks.

EXTENSION Bulletin No. 1000, “Let’s Have Milk,” now in the process of being printed, is a milestone in the long history of preparing bulletins that help people make more money and make work easier and lives happier.

It’s been big business—these 70 years of supplying agricultural and home economics information to millions of people.
From Quad to Quad:

- Will Suspension bridge fail?
- Do the Statues Walk?
- Does Beebe Spell Marriage?

MANN Library is headquarters for Farm and Home Week visitors and studious Cornellians. It is one of the newest additions to the Colleges of Agriculture and Home Economics and among the most modern buildings on the campus.

ALBERT R. Mann, for whom this library is named was dean of the College of Agriculture from 1916 to 1931. For the last six of these years he ran the College of Home Economics as well. Mann attended Cornell as an undergraduate and held various positions both at the College and away from it before he became its dean. Among his extracurricular activities at this time was his marriage to a former coed. This led people to quote David Starr Jordan: “Marriages are supposed to be made in Heaven, but Cornell and Stanford Universities are hot rivals for Heaven in that respect.”

Facilities are provided at Mann Library for study, research, and recreational reading. Students catch up on their news in the Ellis Room, reserved for light reading—no studying here. At the other extreme are the reading rooms, north and south, for quiet study. Upstairs are circulation and research facilities. A typing room, periodicals room, and an informal study room are also available.

Slightly older than Mann and more steeped in tradition is Main Library, down the hill from the Ag Campus. This library is attached to the bell tower which gives out with chimes every fifteen minutes and serenades the Cornell countryside with melody three times a day.

Echoes of the chimes outshout the chimes themselves in some places on the Upper Campus. In other spots, they can’t even be heard.

Many people, when they think of Cornell, think first of the Libe Tower. As freshmen, students are often annoyed by the constant clamor but, with time, they not only grow to tolerate the chimes but as upperclassmen, have come to love them.

Libe Tower is open several times during the day and vies with Beebe Lake and Suspension Bridge for a position in Cornell mythology. It is said that a man is destined to marry the first woman he takes up to the tower or whom he walks around the entire edge of Beebe Lake. Suspension Bridge is reserved for those less willing to commit themselves; the story is that if a girl refuses a kiss in crossing, the bridge will collapse and the couple...
Andrew D. White, first president of Cornell University and evolver of the “Cornell idea,” is the seated statue shown in the picture. Mr. Cornell was forced to stand but has been bearing it for many years.

Messrs. Cornell and White do occasionally get down off their pedestals, but it takes the passing, at midnight, of a coed sweet and pure to get them to rise and shake hands in the center of the quad. They are also reputed to wink at each other at times.

COEDS are the center of still another Cornell tradition. No matter where you go, if you dine with a coed or an alumna, you can count on her folding her napkin neatly down the center when she has finished. It is said that this tradition arose to ease the job of Cornell waitresses.

Other traditions concern the Rose Gardens in the Cornell Plantations, Buttermilk Falls, Greek Peak, and many other landmarks and people. Any Cornellian can tell you of many of them—others you can figure out for yourself.

**Close** competition for the position of most popular sunbathing area is the Lower Campus, watched over by Ezra Cornell and Andrew D. White. This campus is dominated by Arts and Architecture College students but aggies and home eccies do get down there now and then.

**Main** Libe does have one big advantage over Mann though: its closeness to the Ivy Room. This is the big cafeteria in the basement of Willard Straight Hall, the student union. It is the home of beer, bull, and philosophy parties and the burial ground of many valuable hours.

Equally familiar but not so awe-inspiring is the Upper Campus. These buildings form a U with Mann Library at the head and house most of the Ag. School’s lecture halls. Reading from end to end: Comstock Hall, Caldwell Hall, Warren Hall, Mann Library, Plant Sciences, East Roberts, Roberts Hall, and Stone Hall.

An intricate tunnel system resembling an ant colony connects many of these buildings. By running through basements, up and down stairs, across alleyways, and through hallways, it is possible to get almost all the way around the quad.

Warren 45 and Plant Sciences 233 are the two biggest lecture halls on the Ag. Campus. During finals week they house many scholars from the Lower Campus as well as aggies.

Sunshine—a rarity here at Cornell—brings Cornell aggies out on the quad on mass. On an especially nice day one may see games of frisbie and baseball, picnickers, sunbathers, a few sleeping students, and the greater part of Cornell’s dog population, on the Upper Campus lawns.

**MARCH, 1958**
Another Feather in Bailey’s Cap

CORNELL’S Liberty Hyde Bailey is ranked with Albert Einstein and Albert Schweitzer. He was an author, dean, scientist, horticulturist, teacher, poet, and philosopher. His 96 years were filled with activity, and he will long be remembered as one of America’s greats.

A stamp honoring the garden and horticulture clubs of America has been issued this March to commemorate the centennial of Bailey’s birth.

And, rightly so, for “Lib” Bailey was life itself. He spent his ninetieth birthday parachuting down to the shores of the West Indies in search of rare palms and plants. As he described it: “I came down through the clouds on a shore of a virginal and spice-fragrant island to celebrate my anniversary all alone. Not one soul on that island knew—and I loved it!”

BAILEY spent his entire life observing and studying. He was raised in the apple orchards and forests of Michigan with Indians as his neighbors and plants as his friends. Bailey attended village schools and devoured every book he could get hold of, until he entered the University of Michigan as a student of agriculture.

At ten years, Bailey grafted trees for his neighbors; at 15 he lectured on birds, at 25, Asa Gray, “the founder of American botany,” called on the student Liberty Hyde Bailey to be his assistant at Harvard College.

By BRENDA L. DERVIN ’60

"The measure of life is in the living of it"—Liberty Hyde Bailey.
At 94 years, Dean Bailey examined a new species of blackberry.

Soon after, the University of Michigan appointed Bailey to fill a new seat in horticulture. Thus, Bailey began to break horticulture in as a new science and is credited with bringing order to horticultural study. This will assure his place as America’s greatest horticulturist for many, many years to come.

Bailey believed that beauty should be preserved in plants. He, therefore, spent hours bringing wild plants into cultivation. His love for beauty in nature was evident not only in his lab work but also in his writings: “The earth has never been conquered by force. There are thousands of little and soft things still abundant in the world that have outlived fearsome, ravenous monsters of ages past. Frail, delicate plants may be more ancient than the mountains or plains in which they live.”

Cornell University appointed Bailey as its new professor of general and experimental horticulture in 1888. This began a seventy-year stay at Cornell that made Bailey’s arresting personality and vigor almost a legend on the Hill. His students have written that he would walk into the Morrill Hall lecture room on the third floor (then Cornell’s agricultural headquarters) and start lecturing the minute his head and shoulders were inside the door. Fifty-five minutes later he was still talking and teaching the information he had accumulated.

Bailey became the second Dean of the College of Agriculture in 1896. During his term, the enrollment rose from 100 to 1,400. He is remembered for fighting at Albany to make the Department of Agriculture a permanent College, and for fighting again to establish a Department of Home Economics.

In 1913, he retired as dean, according to his plan as a youth. He proposed to spend 25 years learning, 25 years in a practical vocation, and 25 years doing whatever he liked—writing, editing, searching for new plants, and lecturing.

Bailey received a bonus of 21 years on the last phase of his life and he spent every minute of it doing what he liked.

In 1935, he gave the Bailey Hortorium to Cornell and resided as its director until his death. The hortorium is a unique institution that deals chiefly in the study of cultivated plants. It has 250,000 herbarium specimens, one of the world’s best horticultural libraries, and plant collections.

Each year that Bailey was director of the Hortorium he studied one group of plants by growing them for comparative purposes. These results were added to the accumulations he has made through the years.

In addition, Bailey traveled all over the world, totaling over 250,000 miles in his search and study of plants. He had planned a trip to Africa, the only inhabited country he hadn’t visited, for his 91st year. However, his travels ended in 1949 when he fractured his leg in New York City. Bailey never made that trip to Africa that he was saving “until I get old.” His death came Christmas Night, 1954.

Bailey’s fame will live mostly through his 75 books and numerous poems, articles, and philosophical discussions. Once a young aspiring scientist indignantly went to Bailey because he felt “Lib” was monopolizing the field in horticultural books and no one else had a chance. Bailey, in turn, burned several manuscripts already written so that other scientists could get their works published.
Hundreds of events are being sponsored by the New York State Colleges of Agriculture, Home Economics, and Veterinary Medicine during Farm and Home Week, 1958.

Botany

Future scientists and their parents are the targets of many of the Agriculture School's exhibits. The botany department has on display plants growing today and others that grew as long ago as 250,000,000 B.C. as well as demonstrations of photosynthesis and respiration, two of the most important processes in plants.

Officials and professors of the College of Agriculture will be on hand also to tell parents, students, and others interested of some of the 13,000 jobs that annually crop up for agricultural college graduates, many of them in the science fields.

The Cornell Countryman suggests the highlights and bylights of Farm and Home Week.

Poultry

Poultrymen will have a chance to hear Joseph H. Fletcher, a New Hampshire poultryman, discourse on the much publicized plan for merging all the co-ops in the northeast.

Watching over the poultry display is Chicknik, the Poultry Department's answer to Sputnik. This satellite is a glass sphere housing a live chick. In there with the chick is a tiny radio sending signals back to "earth" where the bird's heartbeat will be recorded. The humane professors promise that both chick and moon will return safely at the end of the week.

Contract Farming

Contract farming and its role as a possible new force in agriculture will be discussed by Dr. Earl Crouse of the Doane Agricultural Service. Both Mr. Crouse and Mr. Fletcher will speak on Wednesday.

Professor Mellor

An illustrated discussion of United States agriculture will be presented by Professor John W. Mellor of the Agricultural Economics Department. Professor Mellor aims to show the diversity of this nation's agriculture—with the exception of wet tropics, every agricultural region of the world is represented somewhere in the United States—and, through this, explain why it is so difficult to develop a single farm policy to satisfy all these demands.

Serving New York State's farmers is the first duty of the College of Agriculture and the week includes many interesting events for the men in the blue denim suits.

Animal Husbandry

Dairymen, for example, will hear five of their colleagues, four of whom operate purebred herds, tell how "good management makes the difference." The topics they will discuss include roughage production, breeding, heifer development, and the latest information on feeding methods.

Throughout Farm and Home Week the Animal Husbandry Department will guide visitors through its research laboratories. Displays prepared by this department treat the problems of this roughage and livestock production. Such animals as beef, dairy cattle, sheep, and swine will come into the discussion.

Livestock Show

The 44th Annual Student Livestock Fitting and Showmanship Contest will climax Farm and Home Week on Friday, March 28. Cornell students will show about 100 animals, including classes of beef and dairy cattle, swine, and sheep in this competition.
Parents and children will be a topic for discussion on the Home Economics program for Farm and Home Week.

Dean Myers

"What's ahead for New York farmers?" is the question Dean W. I. Meyers of the College of Agriculture and Professor Herrell DeGraff, one of the world's leading authorities on production and population, will attempt to answer.

Home Economics

Home economics today is the theme of this year's Home Economics College events. A featured subject in this area will be family life here and abroad. Discussions will range from changes in ways of handling children to housing for the aged. One lecture will be devoted to the individual differences in children's growth patterns and a panel of specialists will consider why families move.

Children

"When Should Grown-ups Help?" a motion picture, will be shown in connection with a report on the current College research project on shame and pride in children. Parents and children and the problems that arise between them will be discussed following the showing of the film, "You and Your Family."

International Families

On the international side, there will be discussions of recent changes in families and school systems in present day Germany, of family life in the Philippines, Thailand, Ceylon, India, Pakistan, and Iraq. Graduate students from abroad and faculty members who have visited foreign countries will participate in this program. Homemaking in South America, the Japanese house, and Chinese cooking will also come in for their share of attention.

Clothes Construction

A special one-time event will be modelling by homemakers and their families of clothing made in home demonstration projects. These are meant to illustrate proper selection of patterns and fabrics.

Fabrics

Jules Labarthe, Administration Fellow of the Mellon Institute for Industrial Research at the University of Pittsburgh, will make another appearance this year. He will tell you what can be expected from new fabrics when they are used for wearing apparel, draperies, upholstery materials, and rugs.

Pre-School Children

Exhibits this year will feature art materials for pre-school children, buying and using dishwashers, food facts and fallacies, homemaking around the world, 5,000 years of locks and door ornamentation, and teaching materials used in the home demonstration program of the Extension Service.

Food Preparation

For the community minded, the Home Economics School is presenting a lecture demonstration of the dining service of a community meal: furniture arrangement, space requirements, food storage, serving, etc. A word of warning to community meal planners will accompany the panel discussion "When Food is Poison." The point of this panel discussion is that food can look and smell all right and yet contain enough bacteria to be dangerous.

Vet Open House

The College of Veterinary Medicine will have its usual open house—in its new home this year. Visitors will get a chance to inspect the laboratories, clinics, and other facilities.

Along with the educational features of Farm and Home Week are the concessions where you can buy food, souvenirs, Cornell Countrymen, and other items to remember us by.
Jack's Beanstalk Comes True

Gibberellic acid may open up new horizons in plant raising.

By THOMAS F. MANLEY '59

AGRICULTURAL scientists are leaving their suppers and burning the midnight oil to find out what happens to a bean plant or a wheat seedling treated with a drop of gibberellic acid.

This growth stimulant is one of the most fascinating finds in agriculture in quite a few years. It causes phenomenal growth and affects just about any plant. The most obvious effect on plants is a marked increase in height of the shoot by increase of stem internodes—the spaces between the little round bands or swellings on the stems of plants. This increase in length of the internodes is due to the rapid elongating and dividing of the plant cells.

The methods of application are very simple. The acid may be applied through roots, leaves or stems with the same results.

WHEAT seedlings grown in gibberellic acid show a 50% increase in height in just three weeks. The stem and leaves increase in length, but the width of the leaf blade decreases. Fast growth like this may show a marked chlorosis—yellowing of the plant tissue, due to the lack of nutrients needed to keep up with plant growth. More nutrients have to be added prior to or just after treatment with the acid.

INCREASE in total dry matter of the plant is another remarkable result from treatment with gibberellic. Rapid growth increases photosynthesis, the result of which increases carbon intake in plants. Of course, carbon is one of the important constituents of the carbohydrates that make up the total dry matter of the plant.

Giant growth reports have filtered in from all over the United States. Reports that corn and barley plants
tripled in size have come from different college experimental plots. In the East, tobacco farmers have reported large sized leaves, while down South, cotton is worth $10 more per bale after it has been treated with gibberellic acid.

A FEW years ago, semi-commercial production of gibberellic acid was made possible by USDA research men. A crystallized form of the acid has been manufactured by a few of the larger drug companies. A vat fermentation process similar to that used in the production of penicillin and other antibiotics is used to produce gibberellic acid.

Just what the acid will do for farmers is one of the primary questions of researchers. High cost of production and the presence of many rough spots in the greenhouse are prominent blockades in gibberellic's path to our crop gardens.

Much research is inevitable before the acid can be used extensively by the farmer, as the cost of production is too high to deem it profitable to use. The time isn't too far off, though, when it will be widely available in solution form. One part of the acid to 1,000 parts of water can be combined with chemical weed killers and insecticides. This mixture will provide a combination once-over spraying. By using this method, weeds and insects will be effectively reduced and at the same time, tremendous growth of the plants will be stimulated.

The use of gibberellic acid does not increase the crop yield, but it stimulates plant growth so that the rate of maturity is faster. The only thing the acid does, is to give the plant a "push" so it matures in less than the normal time required. Therefore, the growing season will be shortened. In relation to pasture and grain crops, the acid will enable a season-long growth. This will cut the cost of feeding hay and silage during the latter part of the summer. Feed costs will be cut considerably, as the farmer will get his picking corn before the frost.

ROYAL PALM
209 Dryden Road
Ithaca, N. Y.
GOOD silage is highly valued by farmers throughout the nation, especially among dairymen. Poor silage, however, is as worthless as leached hay. Proper fermentation is the main factor in making good silage. The types and quality of the fermentation acids produced by forage plans have a direct effect on the worth of a year’s silage.

UNDER ideal conditions plants convert their sugars into preservatives such as lactic acid, acetic acid, and succinic acid. However, under conditions which permit the rapid development of spore-forming bacteria, the lactic acid is converted into undesirable butyric acid and the plant proteins are changed into ammonia, hydrogen sulfide, and other compounds associated with spoilage.

JUST what the ideal conditions are is a question USDA’s Agricultural Research Service set out to answer. They found that the way in which forage is handled has a great influence on the quality of the end product. When the forage was tramped, weighted, and immediately sealed it made high quality silage. It heated moderately—a good indication of low spoilage—as enzymes in the plant tissues and oxygen-loving bacteria on the plants consumed the available oxygen in the first five hours. According to these tests, the critical part of preservation takes place earlier than had been suspected.
IN contrast it was found that the forage spoiled when it was left loose and unsealed for two days, especially if air had been forced through it. The carelessly handled silage heated abnormally in a few days and ultimately lost nutrients and much of the valuable lactic acid.

Silage quality is also affected by the kind of plant which is stored. It came as somewhat of a surprise to researchers to find that alfalfa consistently made better silage than orchard grass, which ordinarily has a higher sugar content.

Alfalfa seemed to withstand higher temperatures with less loss of nutrients than orchard grass. It also had a much lower spore count. The significance of these findings is not yet fully understood, but their importance is obvious in view of the current emphasis on high-protein forage.

The use of silage is becoming increasingly popular. The results of USDA’s research may make it still more popular.

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The use of silage is becoming increasingly popular. The results of USDA’s research may make it still more popular.

Proper fertilizer will make good grass; wise handling will make it into good silage.

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Agriculture and the Arts

By PAUL J. TERNI '58

Do you know that you can earn a degree from a large Ivy League university that will combine agriculture with a variety of allied subjects — tuition free?

Well, you can at Cornell's College of Agriculture which is a division of the State University of New York, and as such, is without tuition for New York residents. In this college, you can receive a liberal education for a small fraction of the cost at other large Eastern universities.

A common misconception is that "agricultural college" means cows and combines and nothing more. Most people never think of the allied fields that agriculture covers, nor have they any inkling of the high caliber liberal education obtainable from a school like Cornell. Graduates of the College of Agriculture are in demand of both agriculture and industry.

Of course, the basic aim of the college is to raise the standard of agriculture in the state and country. However, there are a multitude of courses which, though allied with farming, are quite a way from it.

A student can take general agriculture for a broad background with which he can go into an industrial training program on a par with graduates of liberal arts colleges. He can do this at considerably less expense than the liberal arts graduate, since the Cornell man can obtain 67 of his 120 required credit hours from other divisions of Cornell Ag student's do research in labs.
Students get first hand experience in scientific method.

the university. He must take 54 hours of electives in the College of Agriculture, and a variable number of required courses in other divisions of the university. But he is allowed 20 hours of free electives.

THEN there is the Agricultural College faculty of men who are tops in their fields, and because of whom the college enjoys an excellent international reputation. This faculty, coupled with those in other divisions of the university, enables a student to secure the best possible education in many fields of study. Let us take an example. If a student desires to be a science teacher, he can take his education courses along with various connected science electives from the College of Agriculture. He can take the rest of his courses from other Cornell divisions. This arrangement will prepare him for his job as well as, if not better than, he would be prepared in other schools in this country. All this is tuition free, except for out-of-state students who must pay tuition of $150 per term.

The graduate division of the college is perhaps even more renowned than the undergraduate division. It is known the world over, and draws the best students from all parts of the globe. There are programs in the college which lead to a master's degree in five years. One of the most popular of these is business and public administration. This is just another advantage of attending this all-around school.

THERE are many extra-curricular advantages for the student in Cornell's College of Agriculture. Like all other Cornell students, he is entitled to an enjoyment of Cornell's cultural opportunities. He also has an opportunity to participate in a vast and varied athletic program. He can gain much from conversing with Cornell's 10,000 students from all corners of the globe and all walks of life.

The amazing thing is that there are not enough students to make full use of these facilities. The Administration desires an additional 400 students. The college engages a full time employee to encourage eligible young people to apply for admission. It also utilizes its alumni to stir up interest in the school. Prospective students desiring further information should write to:

The Director of Admissions
Roberts Hall, Cornell University
Ithaca, New York

PHOTOGRAPHY

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- party groups
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March, 1958
You Say You Like to Eat, Fella?

By IRWIN M. BRODO, Grad.

Salad
Peas, Cheese, and Pickle
Arabian Peach
Asparagus with Hard Cooked Egg
Orange Sandwich

Soup
Madrelene with Croutons

Dessert
Grapefruit Snow
Prune Whip with Custard Sauce
Maplenut Mold

With the variety as shown above, the problem is not a lack of choices but which choice to make. Perhaps the student should simply let his stomach be his guide. Hearty appetite!

Entree
Link Sausage with Savory Saurkraut
Ragout of Beef

Vegetables
Baked Acorn Squash
Cauliflower Polonaise
Hot Cream Slaw
French Fried Parsnip
Sweet Potato in Orange Sauce

WHEN lunchtime or dinnertime rolls around, the student of Home Economics or Agriculture has a choice of two eateries to attend, that is, if he or she doesn't want to take the long walk down to the lower campus. The choice lies between the Dairy Bar and the Home Economics Cafeteria. At the former, one can get a good meal consisting of something like baked ham, peas and carrots, a piece of home-made apple pie (like Grandma used to make) and a cup of good strong coffee. At Martha Van however, where cooking is an art and eating becomes more than just a way of satisfying an appetite, the choice of edibles becomes a veritable poem. Presented below is a list of some such exotic foods as actually appeared and still appears on the menu of the Home Economics Cafeteria.

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Cafeteria workers on the job.

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March, 1958
FARM AND HOME WEEK
BE SURE TO VISIT
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FROM 1 to 4 p. m.
EVERY DAY

There’s a real opportunity for students and dairy-men to visit NYABC headquarters during Farm & Home Week. You can see the bulls. Staff members will be on hand to answer questions about the bulls and the NYABC breeding program. A special exhibit and an information booth will be set up in the collection barn.

A special invitation is extended to ag instructors and 4-H leaders to bring their youth groups to NYABC while they’re in Ithaca. Members of these groups can learn about job opportunities in artificial breeding work.

Make a note now—to visit NYABC from 1 to 4 any afternoon during Farm & Home Week, at the Judd Falls Road headquarters of

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Blue Jackets on a Green Campus

(B reprint from March, 1955 Countryman)

BLUE jackets bearing gold emblems and the letters FFA greatly outnumber Cornell blazers on the upper campus this week. According to past records, wearers of the F.F.A. have annually migrated to the campus during Farm and Home Week. Here, mingling with other visitors, they have been known to exhibit unbounded enthusiasm and high spirits to a far greater degree than is common among the sedate Cornellians about them.

THESE New York State high school boys, as Future Farmers of America, are members of the largest farmboy organization in the world. The F.F.A. consists of more than 8,500 local chapters in 48 states, Hawaii and Puerto Rico. A total membership of over 360,000 was recorded in 1953 when the Future Farmers of America celebrated its 25th anniversary.

Despite varied local types of agriculture and different backgrounds, farm boys have met and worked together as Future Farmers with the same goals. According to Mr. A. W. Tenny, National Executive Secretary of the organization: “[The primary aim of the Future Farmers of America organization is the development of agricultural leadership, cooperation, citizenship, and patriotism.”

A look at the past activities and many achievements of Future Farmers is a good indication that these major goals are being attained in many ways. Chapter activities, thought out, directed, and actually performed by the boys, supplement the instruction F.F.A. members receive in school vocational agricultural courses. Public speaking contests with an aim toward developing leadership, community projects emphasizing cooperation and citizenship, plus many individual projects designed to help the boys become good American farmers, are but a few F.F.A. initiated activities. Recreation and training in thrift are also important in the preparation of F.F.A. members for establishment in farming.

Based on the individual member’s achievement in vocational agriculture and progressive establishment in farming, there are four degrees of active membership, beginning with the “Green Hand” degree, then “Chapter Farmer” and finally “State Farmer.” From members holding these three degrees, some are annually chosen for the highest degree conferred by the National Organization of F.F.A., “American Farmers.” Yet, this is not the top honor available to Future Farmers. A “Star Farmer of America” is selected each year from the members receiving the

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"American Farmer" degree. These honors and degrees offer incentive to the boys, urging them to demonstrate outstanding farming ability and superior qualities of leadership and citizenship.

In New York State, the exalted principles of the F.F.A. were followed in a "Young Farmers' Club" several years before the F.F.A. itself was founded. The first local chapter of Young Farmers was organized in 1920 in the Endicott High School, under the leadership of S. O. Salmon, teacher of agriculture there. Other chapters developed and were integrated in 1926, when a State association was established.

By the time the first annual State meeting was held in the fall of 1927, the organization boasted approximately 16 chapters throughout New York. Paul Landon of Trumansburg was the State Association's first president.

The association expanded and started a publication known as the New York Timer, initiated a speaking contest at the State Fair, and held the first mid-winter association meeting at Cornell during Farm and Home Week. The next big step was the New York State organization's affiliation with the F.F.A. The Young Farmers of New York progressed, using what they learned in vocational agriculture classes at school to practical advantage in their homes and on the farm.

A great deal can be understood about the organization of the Future Farmers of America through an analysis of their familiar national emblem. The owl is symbolic of wisdom and knowledge; the plow represents labor and tillage of the soil; and the rising sun in the background stands for progress and the day when all farmers are trained and have learned to cooperate. These symbols are surrounded by the cross-section of an ear of corn, a crop native to America and grown in every state, denoting common agricultural interests. The eagle, indicative of the national scope of the organization, sits majestically atop everything else.

Their success in farming and as good citizens, demonstrated by past and present members of the Future Farmers of America, indicates that much is gained by living up to the organization's motto:

Learning to Do
Doing to Learn
Earning to Live
Living to Serve

Do your shopping at the Campus Store—
Books — text and trade for Classwork and Pleasure.

Stationery supplies, photo equipment, snack items,
Cornell jewelry and souvenirs; China, Glassware,
Electrical appliances for appropriate gifts; Latest style campus wear for men and women.

All this and more at
Cornell Campus Store
Barnes Hall

FOR THE BEST BREEDING IN BABY CHICKS

Call on Marshall Brothers Hatchery

*Kimber White Leghorns—In official tests during the last five years, 410 Kimber Leghorns averaged 250 eggs per hen with a mortality of less than 10% over 18 months.
*Rhode Island Reds—in tests, produce a dozen eggs on four lbs. of feed.
*Red Rock Cross—lots of eggs over a long period, and top meat value when marketed.

Free Delivery — Ask for Prices

MARSHALL BROTHERS HATCHERY
Mecklenburg Road Ithaca, N. Y.
Phone 4-6336

March, 1958
Going Farming?

If you or any of your friends are interested in buying a farm, we have dairy farms, poultry farms, and cash crop farms, from part-time to four-man operations in Southern Cayuga County.

Henry Stack

- Real Estate Broker
- Auctioneer

GENOA, N. Y.

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WELCOME
to
FARM & HOME WEEK
at CORNELL

The
HILL DRUG STORES
can supply you
with your needs
—one block from entrance to the campus!
Open Evenings for your convenience

HILL DRUG STORE
328 College Ave.
phone 3479

Welcome back Mr. John A. Mott. The Cornell Countryman wants to extend its respects to a very courageous and ambitious man. Mr. Mott graduated from Cornell Ag School in 1937. As a vocational ag teacher Mr. Mott taught school for three years. The yen for farming soon caught hold and he went into the dairy business. He now owns 50 milkers and 365 acres of land in Harwick, N. Y. Unfortunately Mr. Mott contracted polio last year and therefore could no longer do heavy work around the farm.

Mr. Mott has returned to Cornell and is taking advanced courses in Rural Education. His wife, a former Home Ec girl, and the two Mott boys run the farm while Dad attends classes at Cornell.

Henry Stack '41, a graduate of the School of Agriculture at Cornell with a major in vocational agriculture, is presently in the Cornell Law School as a candidate for an LLB degree in 1959. "Henry Stack" is active as a real estate broker and auctioneer, and a Lieutenant Colonel in the U.S. Air Force Reserve.

Alfred H. Wegener '56, has joined the agricultural account group of the New York office of Marsteller, Rickard, Gebhardt and Reed, Inc., as assistant account executive.

He was formerly with Batten, Barton, Durstine & Osborn, where he was senior copywriter for consumer and trade ads for agricultural and garden products of E. I. du Pont de Nemours & Company, Inc. Previous to that he did editorial work for the Dairymen's League Cooperative Association and was with the Agricultural Research Service of the U.S. Department of Agriculture. He also has managed several farms.

Al Wegener receiving award from Professor Gibson.

BROWN-SWISS
HI-HO FARMS
Darien Center, New York
Cal Champlin, Owner
Registered Brown Swiss Herd for Production & Classification
A Village Revitalized

By S. A. CHIMA, Grad.

COMMUNITY development programs were started in India a little more than five years ago. The program is aimed at bringing about social and economic improvement. Not merely providing food, clothing, health, educational, and recreational facilities to the villagers, but, more important, changing the mental attitude of the people and instilling in them a desire for higher standards of living and the will and determination to work toward these.

Extension workers started moving through the villages discussing the problems of the people with them and helping them to solve them. In these workers the villagers found friends and guides instead of feared government officials.

VILLAGE after village is undertaking new programs and adopting a new way of life. Saureli village is one of these transformed towns. It had manpower resources and other potentialities, but, on account of the accumulated lethargy of its inhabitants, its energy remained dormant. The village was awakened and molded into the self-creating, vigorous unit that it is today.

This is a small village but, fortunately, a body of good leaders was available. The problems were discussed and plans drawn up with the people of the village. At the outset this village had low productivity, scattered holdings, no irrigation, no school, no health facilities, no drainage, and no available credit. Now, after five years, this village has become the pride of its area. It has consolidated the lands, dug new wells for irrigation, reclaimed all waste area, begun the utilization of fertilizer, and improved implements and methods.

The extra money which farmers are earning from improved crops is being used to better the living level of the inhabitants and to aid in community projects.

THIS community has erected a new school building and a village recreation center. It has gotten covered wells for drinking water and put in a drainage system as well. All this has happened in the short period of five years and has occurred exclusively through self-help measures.

In this way silent revolution is going on in Indian villages. The extension workers are working alongside their village brothers, helping them to solve their problems through their own efforts.
For Heavy Sustained Laying Later
Build Strong Bodies Now
with
BEACON COMPLETE STARTER

For future layer profits, guard your investment in baby chicks. Follow the Beacon three-point profit plan.

1. Buy good blood lines—chicks with bred-in ability as heavy egg producers.
2. Follow good management practices—for latest techniques consult your Beacon Feed Dealer or your Beacon Advisor.
3. Start chicks right with Beacon Complete Starter—fortified and balanced to provide all known nutritional requirements, plus reserve for stress periods.

Beacon Complete Starter helps build strong bones, big frames, well developed digestive systems for better feed conversion—helps attain complete feathering faster.

More important, Beacon Complete Starter is the first essential step in the Beacon program for better layer profits. This scientifically designed and tested program has helped thousands of successful poultrymen to “feed out” inherited egg laying qualities and attain sustained high egg production.

So, build chick bodies now for extra profits later—build bodies for high sustained laying, with low laying house mortality. Laying cycles of 14 or 15 months and longer are common when replacement layers are grown on the Beacon feeding program.

Begin the Beacon three-point profit plan when you set out your next brood of replacement chicks. Take the first step now and see your Beacon Feed Dealer. Ask him for a copy of “Profitable Poultry Management” and other valuable Beacon literature.

Consult Your Beacon Advisor
Your Beacon Advisor can help you plan and set up the most profitable feeding program for your flock size, equipment, available labor and type of operation. Invite him to visit your farm. It will pay you to know him better.

From the Virginias to Maine

BEACON FEEDS
UNIFORMLY BETTER BECAUSE THEY'RE BEACON-TROLLED

Professors Air Opinions on Support Cuts

Question:
On April 1st, Secretary of Agriculture Ezra T. Benson will cut dairy price supports to the minimum 75 percent allowed. He is also now trying to obtain still lower flexibility in the program. What is your opinion regarding this decrease in farm price supports?

Answers:
Professor Robert P. Story—"The effects in the New York market of lowering support prices of dairy products to 75 percent of parity have been overemphasized. Increases in milk production within the milkshed will have a much greater effect on prices in the New York market in 1958 than the announced changes in support prices. Lower support levels will cancel out some of the increase in milk prices that New York dairymen received in 1957. Much of this increase will be retained in 1958, however, and many dairymen will actually receive larger gross incomes from milk because of the increased volume of milk sold. In New York lower feed prices in 1958 are likely to be more than offset the effect of lower support prices."

Professor Kenneth L. Robinson—"As a consumer and taxpayer I think increased flexibility is appropriate, particularly if it is associated with relaxation of restrictions on wheat and cotton. There are some farmers who would be better off selling a larger volume at a smaller price, over a period of years. However, I don't believe the present Congress will vote for the increased flexibility in price supports. The House has never favored flexible supports and I don't think the bill will receive enough additional support to get it through."

Professor John W. Mellor—"Lower support prices will hurt farmers with poor land more than those operating land that is highly productive in that they lack the potential for expanding their production to offset declining prices. Naturally this is undesirable for the farmer pressing tight against a mortgage. But, not to do this would be detrimental if we continued to maintain a high level of overproduction and caused the government to eventually do something more drastic."

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Give printed pencils to your customers!

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Sunyside 4, N.Y.
Phone RA 9-2512

Quality you will like, Service you will enjoy.

INLET VALLEY FARMS
Parking in front of our Dairy Store
748 S. Meadow St.
Phone 4-6212
Open daily except Sunday from 8 to 8

MARCH, 1958
Coed Peeks Behind the Iron Curtain

The students from Leningrad were very friendly and eager to meet us. We were invited to a party at a technical university. Although few could speak English, many of the Russian students were proficient in German. Those of us who could speak some German were surrounded by large groups of students. We had little chance to ask questions, because we were busy trying to answer theirs about our countries.

They were very interested in student life, living standards, sports, and music. They were enthusiastic about American jazz, which they heard over the Voice of America. The girls wanted to know about clothes, cosmetics, and dating. Most of them were dressed in ill-fitting, drab or loud-patterned clothes, wore no make-up, and had hair styles reminiscent of the early 1900's. Perhaps we seemed as oddly dressed in their eyes.

In Moscow, we met students from the state university. They were not as friendly as those from Leningrad. We had an opportunity to ask questions, but it was at an arranged session through an interpreter. We later managed to find some students who knew English, and they spoke bitterly of America, while telling us how wonderful Communism was.

It was more satisfying to speak with the people we met on the streets. Whenever we stopped at a street corner, we were quickly surrounded by a friendly crowd. Our garb and laughter identified us from the black-clad Russians, who moved along quietly: never laughing and seldom smiling. However, when they tried to speak with us, they smiled and laughed, showing the gleam of stainless steel false teeth. Little boys continued gathered around to trade pins and coins with us.

I think that everyone in Moscow knew that we were in town. This created quite an annoyance, because we were always being photographed. Movie cameras ground away in museums, restaurants, the Kremlin, at parties, and whenever we stepped off our sight-seeing bus.

The unimpressive buildings of Moscow fronted on streets 130 feet wide. There were very few cars, and most people walked or rode buses, streetcars, or the subway. Moscow's subway, known as the Metro, is famous for the splendor of its stations. Each one is constructed in a different style, using marbles, stained glass, colored mosaics, stainless steel, or sculpture. The stations were extremely clean in spite of the tremendous crowds; New York subways seemed deserted in comparison.

It was a wonderful experience to see things that we'd heard so much about: the Hermitage Art Museum in Leningrad, a ballet performed by the Bolshoi Theater, and the Kremlin. We saw the Moscow circus and a puppet show, and we attended a very lavish party given for us on New Year's Eve. At the party were many Russians, Poles, Chinese, and East Germans. At midnight everyone noisily sang "Auld Lang Syne" in his own language. On New Year's day we were led under police escort to the head of the endless line to visit the mausoleum of Lenin and Stalin.

After five days in Moscow, we boarded the train for our trip to Helsinki. It had become very cold (-35°F) and we were glad to leave. Many of the people we had met came to the station to say goodbye.

When we passed over the border into Finland, everyone cheered; it was wonderful to feel free again. At our first meal, we each drank about a quart of milk, for we had had no milk during our stay in Russia. That evening we were introduced to the wonders of a true Finnish bath, complete with rolling in the snow and jumping in the sea.

On January 6, we left Finland by boat from Turku. After a stormy night, our boat crashed through the ice into Stockholm's harbor the next morning. It was nice to be home again.

Kay Gay Anderson

January 20, 1958

Dear Friends:

My vacation is over and I am once again studying at the Royal Academy of Art at the University of Stockholm. But I am still thinking of my experiences during 12 days of my vacation when I was one of 53 students from Stockholm who traveled to Finland and Russia.

We began our journey on the afternoon of Annan Dagen: the second day of Christmas. After an all-night boat trip to the Finnish port of Turku, we went by train to Helsinki, where we boarded a Russian train. After crossing into Russia, our train stopped at the border station where we changed our money into rubles.

When we arrived in Leningrad, we were quite impressed by the monumental splendor of the buildings. Much of the city had been repaired, painted, and gilded for the 250th anniversary of its founding. The citizens were very proud of their city, and we were often asked if we liked it.
A SHINING BRIGHT NEW 1958 SURGE

NOW... a Looking Glass Finish Outside... and... INSIDE

This new 1958 Surge Bucket won’t wash itself, but it does make it mighty easy for you to see that it is clean because the inside, too, is looking-glass bright. It is so slick and smooth and clean and bright that it is hard for milkstone to get a toe hold.

Many experienced Surge Users report that this 1958 Model will milk just a little faster than the very speedy 1948 Model... and it does an especially good job on uneven-udder cows.

FREE DEMONSTRATION
It’s bigger and faster, with genuine TUG & PULL that protects the udder, holds teat cups down, gets that last profit pint, saves stripping time.

See how all four quarters of the udder are more easily reached with the new bigger Surge Bucket Milker with new-angle opening. Standard size holds over 50 lbs. for today’s heavier milking cows.

Ask for a free demonstration on your farm, on your own cows. Just call your Surge Dealer or write to:

BABSON BROS. CO. of New York
842 W. Belden Ave., Syracuse 1, N. Y.
YOU SAVE "LOST HAY" 3 WAYS
with ALL-NEW McCormick® No. 46 baler

In a leading grassland state, 43.2 per cent of all hay lost between field and feed bunk can be charged to weather damage and baling waste. Now, with new low-cost McCormick No. 46 hay baler, farmers can save much of this "lost hay." It's simple as 1, 2, 3:

1. **Extra-capacity beats bad weather.** Owners report the No. 46 bales as much as 13 tons an hour to outdo everything in its class! Now, more of every crop can be choice feed relished by livestock.

2. **Timely baling and gentlest handling yet** save more vitamin and protein-rich leaves for feeding, to cut meat and milk costs.

3. **Surest-tie ever developed** saves needless loose-bale waste. Rough handling won't bulge or buckle these fully-packed bales!

Get more hay-saving facts, FREE! Write for more information about the capacity "champ" of the low-cost balers... or see this new McCormick No. 46 baler at your local IH dealer. He'll welcome you!

SEE YOUR
INTERNATIONAL HARVESTER DEALER

*International Harvester Products pay for themselves in use—Farm Tractors and Equipment...Twin...Commercial Wheel Tractors...Motor Trucks...Construction Equipment—General Office, Chicago 1, Illinois*
GREAT strides for increasing corn yields have been taken by chemists in the past few years. They have given corn growers the chemicals to increase yields with high-analysis fertilizer and reduce losses through positive control of weeds and insects that rob growers of millions of dollars each year.

New Planter, New Attachments

And John Deere is way out ahead with equipment that provides a practical means of taking full advantage of these profit-boosting chemicals. The new 4-in-1 494 Planter sets the stage for higher yields by planting with top speed and accuracy. The fertilizer attachment deep-places today's high-analysis fertilizer . . . places the plant food in a band to one side and below the seed, right where most authorities agree it should be placed.

What's more, the new 494 Planter has a pre-emergence weed sprayer that applies weed-killing chemicals on top of the soil over the planted rows. Weeds are killed before they emerge. The corn is undamaged.

Equipped with its matching insecticide attachment, the 494 deposits granular insecticides in the soil. Damage and losses from wireworms, cutworms, grubs, army worms, and other profit-thieves are a thing of the past.

New DDT Applicator

The new John Deere DDT Applicator provides fast, efficient, and positive control of corn borers. The applicator deposits granular DDT in the whorls of the corn—right where the worm-like larvae live and do their damage. In heavily infested areas, the John Deere DDT Applicator can increase yields up to 25 per cent.

Plant the corn accurately . . . "feed" it properly . . . and wage chemical warfare against weeds and insects ALL in one time- and money-saving operation. That's just what owners of the new 494 Four-Row Planter can do. For 6-row planting, there is the new John Deere 694 that offers the same features.

John Deere DDT Applicators are available in 4- and 6-row sizes. As the illustration shows, the John Deere Applicator is front-mounted to give the operator a good view of his work.

WHEREVER CROPS GROW, THERE'S A GROWING DEMAND FOR JOHN DEERE FARM EQUIPMENT
The winter was rough—but Spring is definitely in the air—especially in the Campus Store.

Welcome Sweet Spring!

For the Gals—skirts and blouses in beautiful pastel shades, bermuda shorts and cherry boutonnieres to perk up your wardrobe.

For the Guys—the latest style sport shirts—stripes, plaids and checks—to tone up your campus wear.

Jackets too, in new hues and styles.

This is just a hint—come in and see how spring has sprung in our Men's and Coed Shops!

Cornell Campus Store

Barnes Hall

April, 1958
Is Ag-Domecon Council Dying a Slow Death?

Can you answer these questions?
1. Have you ever heard of Ag-Dom?
2. Who is the president of Ag-Dom?
3. What schools are represented in Ag-Dom?
4. How many representatives are there in all?
5. Name a major event sponsored by Ag-Dom?
6. Do you think the following purposes have been filled by Ag-Dom in the past?
   1) Liaison between the students and faculty to promote better relations.
   2) Interest students in activities and co-ordinate the activities of the clubs.
   3) Serve the interest of the students.

In a recent poll of a 100 student cross-section taken in a Rural Education
lecture, 91% had heard of Ag-Dom: 74% knew what schools were represented;
44% named one event that Ag-Dom sponsors. Only 8% knew that Don Taylor
was this year's president; and 4% had a fair idea of how many representatives
are on the council.

Of the students polled, approximately 30% felt that Ag-Dom had filled the
three purposes: 14% said absolutely no; the rest just didn't know.

That the Ag-Domecon Council is necessary and should be a vital
part of the upper campus is obvious. However, the poll above shows
that is far from vital in the minds of the students.

The same old excuse is used for this poor recognition—student
apathy. Yet, the organization just sits idly back and complains about
low attendance at events and lagging finances.

The only way Ag-Dom can put itself back in a position of impor-
tance is through: 1) finding out what is of vital interest to students. 2)
planning the year's events around this. and 3) top-notch publicity.

First and foremost, Ag-Dom must go out and find what makes the students
tick. And, the only way to do this is to ask them and listen to them—keeping
alert to the issues of importance on the upper campus.

With these ideas in mind, Ag-Dom could plan its yearly program around
a wider area than it has in the past—lectures, student forums, student faculty
discussions, and social events.

For the past few years Ag-Dom has been sponsoring the same events—
now is the time for new ideas that are of interest to the students.

Then, Ag-Dom has got to go to the students with publicity that sells its
events to each and every student. Open meetings publicized in the SUN or the
Countryman beforehand are a good start. Whatever the means, it can not sit
idly around and wait for the newspaper, the magazines, or the students to come
to them.

The freshman orientation classes offer a potential area of publicity if used
more fully than at present. An Ag-Dom representative could go personally to
these classes and sell the organization to the new frosh.

Ag-Dom could build up what might be termed a "faculty reserve"—mem-
bers of the faculty who realize the importance of the council and would do some
person to person publicity in addition to giving the organization some form of
outside authority.

The upper campus clubs are the smallest select units which any or-
ganization can reach on the upper campus. Ag-Dom might profit by a
campaign to impress on the clubs the benefits they would get from ac-
tive participation and a vote on the council.

Whatever they do and however they do it, Ag-Dom cannot afford to
sit back and wait. It must combine selling ideas with top-notch publicity
to bring itself back into a vital position on the upper campus.
Letters to the Editor

A Word from one of the “217 Strangers”

Dear Editor:

THANK you for your timely editorial “217 Strangers—Must They Remain So?” It is really a pity that Americans miss this chance to learn of the customs, ideas, and philosophies of these “foreign students at Cornell.” These 217 students from 30 nations offer a wealth of information for young Americans—some of which may be useful in their future vocations—some of which may be treated as just another item added to their long list of easily accessible facts—all gathered without going through books and articles.

Some of the best friends I have are foreigners like myself. There is my Hungarian freedom fighter friend, a Japanese business major, a Nigerian, an Indian, a Syrian—people whom I could not have met elsewhere and, from them, I gathered knowledge which I could not have found anywhere else.

WHEN we came over here, we were told by both American and Philippine officials that we are here not only to pursue graduate work but also to learn about the American way of life. We were to keep both ears and eyes open; we were to mingle with the “average” American student and, if possible, to infuse some of our own ideas, philosophies, and opinions about their system or way of life. I have been faithful only to the first, since I have not had the chance to try the second and third. It is a lot more difficult than I thought.

I do have a number of good American friends but I can count them all on my fingers. Most of them are either students of sociology, foreign affairs, or my engineering classmates. I do not know whether the American students are really aloof or just taking things for granted. When they do strike up a conversation with me, there are a lot of things they are surprised at: for instance that the Philippines is not a part of either the West Indies or the Hawaiian Islands.

When I tell them that I am on a ICA-Philippine Government grant, I find that ICA, the International Cooperation Administration, which administers the billions of dollars of American Economic Aid, means nothing to them. And then, there was a fellow who had had a look at an old book where the Filipinos’ aborigines were shown at the Saint Louis Exposition, and he thought that the Filipinos are still in the hunting and fishing stage.

HOWEVER, let me mention the wonderful job that Mr. Dave Williams, foreign student counselor, is doing, and also, the International Organization at Cornell University and the One World Club. But again only a few come in contact with us. At one gathering, I had a chance to talk with one of the officers of Interoc and I asked him why at one international gathering like that one, there were very few Americans (in fact all of them were officers of Interoc or of Willard Straight Hall Campus Relations Committee.) He just shrugged it off and told me, “That is the way it is here at Cornell.” I gave him some information about our International Organization at the University of the Philippines, College of Agriculture. He was really surprised to know that the Filipinos compose 50% of the total membership, that some of these are taking foreign students to their homes during vacations and that some of them have become very good friends of these students and that at least a few are intending to visit other countries as soon as they are through with college. These same students will go back someday, perhaps to become leaders in their own countries and I am sure they will go home with a feeling that they have been to our country—that what they saw had no artificiality, no bias, and that what they learned was worth while.

—Juan B. Uy, Grad

The Story:

COOPERATIVES PAY TAXES, TOO!

Empire and other cooperatives pay the taxes paid by any business including federal income, real estate, school, social security, unemployment insurance, workmen’s compensation, etc.

Empire Livestock Marketing Cooperative is an agricultural cooperative corporation, which pays federal income taxes. During the past 11 years, Empire has paid $66,470.00 in federal income taxes. For 1957, after paying all expenses including the interest on the 5% Income Debenture Bonds, Empire’s board of directors, representing the six farm organizations which own the common stock in Empire, put aside $9,070.00 for payment of federal income taxes. Then, only then, could they vote to pay the four percent dividend on the common and preferred stock owned by farmers and farm organizations.

Remember, Empire pays its full share of taxes, including federal income taxes.

EMPIRE Livestock Marketing Cooperative

Livestock Auction Markets at

Bath — Bullville
Caledonia — Dryden
Gouverneur — Greene
Oneonta — Watertown
West Winfield

April, 1958
Research at Land Grant Colleges

Benson reviews function of research in modern agriculture.

By EZRA T. BENSON

Land grant universities like Cornell play a vital role in agriculture. Through research, extension work, and education they have helped bring about the amazing agricultural efficiency enabling today's farm worker to produce in one hour what it took two hours to produce in 1940 and three hours in 1910.

Because of this technological revolution, the 20 million U.S. farm people, less than one percent of the world's population, produce between two-fifths and one-half of the world's output of eggs, meat, and milk.

Today's U.S. farm worker produces enough to fill the food needs of 21 persons. In 1940 his production was enough to fill the needs of five.

Output per farm has risen 77 percent since 1940—partly due to larger but fewer farms.

Acreage of crop land used in 1957 was slightly less than in 1940 but higher yields raised total crop production 21 percent.

In the last few years, the number of milk cows has been the lowest on record and the number of laying chickens has been far below the level of the 1940's. But production has been at or near record levels.

Total livestock production this year is expected to be 40 percent above 1940, with most of the gain due to increased output per breeding unit. The number of breeding units is up only eight percent.

Agricultural efficiency has provided the American consumer with the best diet in the world, and it is a basic reason for our having the world's highest standard of living.

Yet there are weak spots in U.S. agricultural research and development. Our surpluses point them up:

It isn't enough for research—whether by the Federal Government, land-grant colleges or private organizations—to give farmers means of efficient production. There must be other research that anticipates change in farming growing out of these production improvements, and that helps farmers adjust to them.

Our Nation's agriculture has a vital stake in this other research—utilization and marketing research.

Our marketing research aims at holding down marketing costs and expanding markets for farm products through improved efficiency in every step from farm to consumer. More than 500 marketing research projects are under way.

In utilization research, USDA scientists have discovered a method of preserving dairy cream with added sugar. This sugar-preserved cream, with 40 percent butterfat, keeps well without refrigeration. Our scientists also have developed a method of retaining the natural flavor in processed fruits, like jams, jellies, and juices. Flavor formerly lost in processing now can be recovered and returned to the product. Of special interest to consumers, a wash-and-wear finish is being perfected for cotton fabric and clothing. This new treatment, designed for application by regular dry cleaning establishments, helps cotton garments to resist wrinkling as well as to retain creases set in the fabric. These are just three of our many utilization research projects.

Much more utilization and marketing research is necessary, however.

Agriculture poses unending challenges, in other fields as well as research. Continued leadership by the land-grant universities is essential if these challenges are to be met.
Sportsmen's Cost of Living

Money paid for licenses is money well-spent.

By JACK E. HOPE '61

As tales of the battle for outer space occupy leading positions in today's newspapers, "trivial matters" such as recreation for the future become forgotten. But as these issues of "lesser importance" are pushed aside, the chances of providing outdoor facilities and additional recreational lands for future enjoyment are rapidly diminishing.

Recent issues of the New York State Conservationists have very energetically advocated the need for an increase in the price of this state's fish and game licenses. The doctrine has been supported by facts and figures indicating the need for additional funds in order to improve upon, or perhaps even maintain, the present fish and wildlife programs.

The necessity for an expanded program of acquisition, management, and utilization in order to keep pace with a rapidly expanding population should be apparent. With an ever increasing number of people turning to fishing and hunting as a means of enjoyment, the available space for each sportsman is decreasing at an alarming rate. In the early history of this country, when lands and wildlife were abundant and populations were low, careful management, requiring specially trained men, was not nearly so essential as it is today. However, as civilization has expanded, wildlife areas have decreased proportionately, making it necessary to utilize all available resources to near maximum by careful regulation of game herds, employment of reforestation projects, and similar practices. This, then would be the function of increased revenues, land acquisition and improvement, hiring of highly trained personnel, and a general modernizing of conservation practices.

Americans who take part in hunting or fishing seldom realize their extreme good fortune in being able to enjoy the right to hunt and fish for the small sum of money required of an individual for the sustenance of these sports. A European sportsman justifiably looks upon his American counterpart with envy, since European sport is not undertaken without great expense, a result of shrunken game areas and dense population. On that continent, an individual hunter must, for example, accept the responsibility of paying for damage done to crops by tame animals and of hiring skilled game managers to regulate herds. As a result, most wild flesh is sold to restaurants in order to obtain funds for financing expenses.

The annual increase in fees suggested by the conservation department is not unreasonable, amounting to an increase of only two or three dollars for the average sportsman. As compared to the nation, New York's present fees rank considerably lower than those charged by most of the other states. It is a privilege to be able to aid the advancement of these cherished sports; and logically, those who enjoy the benefits of fishing and hunting should be the ones who serve as the contributors to the program.

The sportsmen's fish and game dollars are well spent. The miles of sparkling trout streams, the unexploited, "undeveloped," but unequalled beauty of our forests, the abundance of wildlife all spell happiness to any nature lover. Whether your particular share in today's outdoor heritage takes the form of an occasional outing to a favorite trout stream, or whether it appears as a platter full of venison steaks, the contributions made today will guarantee the same share tomorrow.
American farms and industry depends upon foreign markets.

Credit for the supersalesmanship responsible for this volume should go to the Foreign Agricultural Service which works with U. S. trade and agricultural groups on market development projects ranging from market surveys and analyses to cooperative programs utilizing foreign currencies.

Commodities dependent upon foreign outlets vary greatly:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Amt. Exported (1958-57)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>85%</td>
</tr>
<tr>
<td>Cotton</td>
<td>57%</td>
</tr>
<tr>
<td>Wheat and wheat flour</td>
<td>55%</td>
</tr>
<tr>
<td>Non-fat dry milk solids</td>
<td>48%</td>
</tr>
<tr>
<td>Dry whole milk</td>
<td>38%</td>
</tr>
<tr>
<td>Tobacco</td>
<td>30%</td>
</tr>
</tbody>
</table>

Ten nations purchase 73% of the produce this country exports:

<table>
<thead>
<tr>
<th>Country</th>
<th>Purchases (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Germany</td>
<td>$175</td>
</tr>
<tr>
<td>India</td>
<td>165</td>
</tr>
<tr>
<td>Italy</td>
<td>125</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>100</td>
</tr>
<tr>
<td>Canada</td>
<td>90</td>
</tr>
<tr>
<td>Japan</td>
<td>80</td>
</tr>
<tr>
<td>Korea</td>
<td>75</td>
</tr>
<tr>
<td>France</td>
<td>60</td>
</tr>
<tr>
<td>Pakistan</td>
<td>40</td>
</tr>
<tr>
<td>Belgium</td>
<td>30</td>
</tr>
</tbody>
</table>

Market development activities are numerous but there are six of major importance and interest:

1. Market Surveys and Analyses:
These studies serve as a guide to United States exporters. Information on foreign markets is constantly obtained and analyzed and then furnished to the trade and others interested. The primary sources of such information are the reports of attaches of the United States Foreign Agricultural Service.

2. Market Information and Service:
One way in which foreign market information helps to build export markets is by bringing foreign buyers and United States exporters together. Weekly USDA publications keep exporters, producers, and handlers up to date on the market situation.

3. Reducing Foreign Trade Barriers:
The underlying objective in the development of markets is to secure the reduction or removal of trade barriers, including exchange controls and other government regulations which serve to limit export markets for United States products.

4. Export Programs:
For the past four years, U. S. traders have been assisted in the exportation of farm commodities through competitive pricing and special government export programs.

5. Use of Foreign Currency:
This program is designed to assist trade and agricultural groups in developing export markets through the use of part of the foreign currencies accruing from sales.

6. International Trade Fairs:
FAS organizes and manages exhibits, provides space, furnishes supplies and equipment, and pays travel and administration costs. Through trade fairs, FAS and participating U. S. groups have made direct promotional contacts with some 10 million traders and consumers abroad.

These are just a few of the activities FAS carries on in order to increase the volume of United States agricultural products sold overseas and they are always on the lookout for ideas for developing new markets.
May 6: 
Aggie Meets Artsie

By BRENDA L. DERVIN '60

As the first twenty spectators amble through the "Straight to the Country" exhibition this coming May, viewing the orchid display and laughing at the hatching chicks, the members of the Willard Straight Campus Relations Committee will breathe a sigh of relief. And rightly so, for this committee will have just climaxed many long hours of work preparing for this event.

"Straight to the Country" was born eight years ago in the meetings of what was then the Willard Straight Host-Hostess Committee. Set up as a one-day effort to improve upper-lower campus relations, "Straight to the Country" has grown into a three-day exhibition and a highlight of the annual Willard Straight events.

Today, the program has expanded to a three-day affair arranged by the Campus Relations Committee in cooperation with Ag Dom Council, the upper campus clubs, and the various school departments.

Since 1949, certain displays have become "trademarks" of "Straight to the Country." Ag Engineering's duty-worn tractor, the hatching chicks from Poultry Club, and "Eggbert," the talking chicken (recently replaced as an attention-getter by Floriculture's orchid display) have all become favorites. Recent additions—Plant Pathology's micro-slides, the Veterinarian table, and Conservation's stuffed animals—have been well-received by visitors.

"Straight to the Country" will be featured in Willard Straight this year from May 6-9.

Bachelors and Brokers

By HENRY STACHNEIWICZ, Grad.

Buying real estate is a lot like getting married. If your judgment is good and if you're lucky, it'll bring you happiness and security.

There are those who never seem to find the right girl. These are the bachelors and the renters. Either they can't find a girl (or a house) to meet their standards or, if they do, they lack the nerve to take the final steps.

There is also the third class who get a new bride every year or two. These are the gamblers. They're always hoping that the next fling will be the lucky one. While the most experienced, these are the least stable; their roots never take hold.

The traditional seller, perhaps inadvertently, accentuates the positive and minimizes the negative. While in the past, the purchaser bought at a great risk, he now has the law on his side, thus minimizing dishonest dealings. The prospective buyer can also, buyer can always have his property have his property appraised.

This appraisal of real estate is the equivalent of a courtship or engagement before marriage. Only at this point can you hire a professional to appraise your prospective property and don't have to fend for yourself.

Inadequate or improper financing is a common mistake made by purchasers of farms and businesses. It is not the size of the debt that matters; it is the ability with which it can be paid. An adequate market survey often alleviates problems of lack of cash to pay debts.

Taking these factors into account, the purchaser can strike a very shrewd bargain and come out with a sound business investment.
Since the beginning of mankind, the tearful whimpering of a fevered child has created sore spots in parents' hearts. The arrival of the medical man with his supply of herb medicines and herb potions was greeted with signs of joy and helpfulness. His skill was superior, but his tools inferior. It was only through the efficiency of the doctors' abilities that the great scourges of mankind have been prevented from running wild, for they did not have the vast store of tested and effective medicines that we have today. We no longer hear of young children dying from diphtheria. Disfigurement from smallpox and the shocking effects of tetanus have been brought to a minimum. We are presently approaching the season when polio strikes, but even this is being wiped out. All this thanks to the new science of immunology.

Every substance gaining entrance to the bloodstream of a human is easily spread by the blood over the entire body. Bacteria and the poisons which they produce are also distributed throughout the system. It is therefore important that the body should possess active defense mechanisms to combat these infective pathogens.

The level of susceptibility is to a considerable extent connected with the properties of the individual's blood. As we know not all people are susceptible to different infectious diseases. Some remain well even if they are in contact with sick people. Such resistance to infectious diseases is called "immunity."

Sometimes a person possesses an inherited immunity towards a certain disease, such as smallpox. However, more often such resistance develops after the person has had the disease. If a person has had smallpox, he usually does not contact it a second time. He has acquired immunity against it.

Scientists have long held that "there is no immunity like convalescent immunity," meaning that immunity which is acquired after infection. Poliomyelitis is another good example of this principle. Those who recover from the effects of this virus infection appear to have life-long immunity. In this actively acquired type of immunity body cells are stimulated and "trained" to build a permanent and active defense against the attacking forces of an invading organism. Both the inherited and actively acquired immunities are called "natural immunities." However there are certain infectious diseases from which one can suffer without ever attaining immunity, the common cold is one.

Immunity against certain infectious diseases can be developed by injecting biological preparations into the bloodstream. The result is termed "artificially acquired immunity," and may be subdivided into two types: active and passive.

Active artificial immunity to smallpox, for example, is induced by the use of a protective or prophylactic vaccination. To obtain the vaccine, a calf is first infected with smallpox, called "cowpox" when in the cow's system. Then the fluid from the little bladders appearing on the cow's body is collected and transferred to a cut on the skin of the person to be vaccinated. The calf tolerates the smallpox easily, weakening the bacteria. These weakened bacteria may cause a small swelling in the vaccinated area or slight fever, but these effects quickly subside. As a result the person acquires the ability to fight smallpox bacteria. Consequently they cease to be dangerous to him.

The term "vaccine" was first used by the scientists to describe the weakened smallpox virus taken from the calves and used for protective inoculation in the human body. It was also used by Pasteur, and is still in use today to describe any suspension of dead or attenuated bacteria used for immunological purposes.

How can we explain the effects of the vaccine, and its relation to the acquired immunity of the vaccinated person? First the vaccine produces the same immediate effects of the body as the actual acquisition of the disease. However, the uncomfortable effects of infection are bypassed. (A slight amount of inconvenience may still be encountered as, for example, we saw in the case of smallpox).

After acquiring the disease in a natural manner, or after being vaccinated with the disease producing organisms, weakened or inactivated so that they cannot multiply, the body forms substances in the blood called "antibodies," which stand ready to fight any new members of that same type of pathogen if they enter.
antibody possesses a special property which enables it to stick to the type of organism or antibodies, an animal, usually a horse or rabbit is immunized. That is to say, an artificial immunity is produced, either by injecting the animal with weakened or killed bacteria or by introducing the toxins produced by bacteria. The animal body responds by producing an antitoxin. The blood serum obtained from such an animal, if introduced into the body of the patient, will supply the latter with ready antitoxins. Unfortunately the human body destroys these foreign substances within eight to ten days, frequently with side effects such as hives and serum sickness. Subsequent injections of the serum may lead to severe reactions. Therefore serum from animals is used only in emergency situations, and repeated only under special circumstances. It must of course be obvious that the human organism does not participate in this process of immunization. It obtains prefabricated antitoxins produced in the body of an animal.

Such a passive immunity produced without the participation of the body itself is, as we have noted, short lived. But, nevertheless, it acts immediately on introduction into the body. The active artificial immunity, on the other hand, is produced with the active participation of the body itself.

Active immunity enables the body to produce antitoxins. Active immunity lasts much longer than passive, on the average of a year or two, and in the case of certain vaccines such as smallpox, several years. But, the body begins to produce antibodies only gradually after the vaccination. Immunity is acquired one, two, or even three weeks after inoculation.

The susceptibility of a person towards diseases, even though he may be inoculated is changeable. It may decrease or increase in accordance with the general condition of the body. So, for instance, overwork or exposure to cold lowers resistance against infectious diseases by lowering the vitality and strength of the body. This is the reason one contracts grippe, pneumonia, or any other infectious disease when he is exhausted. Despite all medical science can do to prevent disease, the prime requisite for good health is a strong body and a clear healthy mind.
Fellas - - Give a Buffet

Buffets are the answer for spring party season.

By NORINNE COLE '58

While Spring is making a valiant effort to come to Ithaca, many of the campus groups are anticipating the dinner parties that often follow the March winds and April rains. Perhaps, some are also dreading the trials and tribulations that come with giving such a party.

Giving a dinner party in the grand old college manner and still letting the hosts enjoy themselves is no easy matter. However, the answer to this problem is easy—buffet!

Emphasis in buffet is placed on the speed of service. However, as any Cornellian knows, lack of planning will make the best methods result in chaos and confusion. So, the first thing the party-giver does is plan the eating arrangement—as this in turn determines the kind of food to be served. The party-planner can turn to three different buffet methods—the big decision depends upon the occasion, the number of guests, and the space available.

Floors, as a student's first love and general center for every known activity from studying to sleeping, are the perfect setting for the most informal of the buffet methods. Provided the guests enjoy sitting pow-wow style, you can arrange for them to serve themselves at the main table and then squat down in their allotted areas. The "up and up" host can provide little trays for his guests, and at the same time, save the sanity of all present and prevent any impromptu juggling routines.

Of course, table space can be provided for the party with more guests or in cramped quarters. This arrangement lends to a more formal party for the spring season.

The host could give the same little trays, used back in the floor party, to the guests and provide seating space. Here again impromptu juggling performances can result as the guests can not possibly handle more than the tray and a few implements. Remember this when you're planning a buffet—unless you have a space at a table for every guest, they will have difficulty handling many dishes.

When you have chosen your eating arrangement, the really important job (at least to your guests) comes your way—what to eat! In more culinary terms, you must plan the menu. A buffet menu must actually look nice in final 3-D form and must also be kept hot easily.

In eating, informality generally means hearty eating; and hearty eating generally means a hot main dish, salad, relishes, buttered breads, a simple dessert, and a beverage.

Casseroles are often used as the main dish, but there is no reason why a substitute couldn't be made—cold meat slices and potato salad, fried chicken and cole slaw, or the popular pizza: all excellent choices.

The salad not only complements your main dish, but also helps fill up those hungry guests. Pickles and relishes aren't necessary but usually add to the conversation and the taste of the meal. In breads you have a choice of rolls, biscuits, muffins, sliced French bread, or fruit and nut breads.

The dessert mustn't be forgotten. Usually pies, cakes, or cookies (something not too fancy, but good) are the easiest to serve and the best received. Also, these don't require any last minute preparation. This is important for, by this time, the host is dragging himself around.

Now that most of the work is done, all you have to finish is an attractive arrangement of the food on a main serving table. It is best to set up the goods in the order they will be eaten with enough plates, napkins, and silver close at hand.

A well-planned buffet is the kind of dinner party that even the guys can give and give well. The effort is minimum and the results maximum.
Germ warfare and insect eradication save American farmers billions annually.

By NANCY LINK '60

INSECTS and disease cost us $9 billion a year. Research against the diseases and pests that cost the American economy about 9 billion a year is a sound investment, whatever the cost!

GERM warfare is one of the interesting research projects being carried on in the U.S. The object of this is to spread a virus disease of insects of which at least five are known, on a field to infect insects and cause their death. At the Geneva Experiment station, progress in the control of the cabbage looper, a major pest of that crop and important to New York State farmers, has been demonstrated. This destructive cabbage worm is the only cold crop insect for which suitable chemical control is not available. Experiments have shown that the virus contained in one diseased worm is sufficient to infect more than one billion healthy worms, and that the same amount is enough to treat one acre of cabbage.

MITES, those tiny, spider-like creatures that may reduce apple yields by as much as 500 bushels to the acre over a two-year period, are being experimented with at the Geneva Station. Although these little mites, the European mite and the two-spotted spider mite being most important in New York orchards, are small, they multiply rapidly and are present in large numbers. At peak activity it is not unusual to find 500 eggs and hatched mites on a single leaf. These tiny mites present problems to the experimenter in maintaining cultures and in determining the number on trees. Geneva entomologists are using a machine for brushing mites off.

A practical eradication campaign is a lot cheaper than living with a pest year after year, says Dr. Clarkson of the U.S. Department of Agriculture. Among the diseases that have practically been eradicated are cattle tick fever, cattle scabies, fowl plague, the Asiatic form of Newcastle disease of poultry, as well as hoof and mouth disease in North America. Plant pests such as Mediterranean fruit fly, citrus blackfly, and citrus canker have been successfully eradicated. Chemical fumigants are important weapons against the gypsy moth of New York and New England, and in other parts of the country to eradicate the fire ant, medfly, and Hall scale. An interesting example of techniques that make use of biological methods is the use of irradiated flies to eradicate the screw-worm. Male flies are made sexually sterile by radiation and then released. Because female screw-worm flies mate only once, the repeated release of sterile males increases the chances of their mating with the sterile males. As the natural population drops and the release of sterile male flies is held steady, the odds keep increasing that females will mate only with sterile males and eradication of the insect will result.

Unexpected Guests?

Eat out of the new

COLLEGE SPA

214 East State Street
HISTORIC Mount Olympus looks down on a fertile plain in northern Greece — on a building which would not be there without the help of the Cornell United Religious Work and a group of thirty-three American and fifteen Middle Eastern students.

This building—the Cornell Center—is at the American Farm School near Thessalonika. To this school on the coast of the Aegean Sea come boys to learn to increase the productivity of their farm land and to be rural leaders.

Established in 1904, the farm school has grown from a plot of several barren acres to an expansive 350 acres of green fields. Its staff has increased from three to twenty-seven professors and student body from 10 to 180.

WHEN Bruce Lansdale, a former Cornellian, became president of the expanding Farm School in 1955, he saw a need for a new building to provide conference rooms and to house single faculty members. He asked CURW to help raise money for the building, and to send a work crew of students to help build it.

Cornell accepted the challenge. Widespread publicity got interested friends and alumni to contribute $3,000 initiating the "Project to Greece."

On June 17, 1956, the thirty-three American students and their leader, the Rev. Alfred Lee Klaer, flew to Amsterdam, where they boarded trucks and traveled through Europe to Greece. The students started work on the Cornell Center at once. They began making cinder blocks and cementing them to form the basement and walls of the building. When the students left after four weeks, the center with its walls half up looked like a historic Greek ruin.

THROUGHOUT the winter, faculty and students of the school worked on the structure. When the second group of 19 American students arrived in the summer of 1957, the building was nearly completed.

Lenore McGee, a senior and one of the fifteen Cornellians who went last summer described her experience:

"When our group arrived at the Farm School, we were warmly greeted in English by the twelve Greek students we were to work with. The Greek students spoke English so well that we picked up a little Greek during our four week stay. The one word we did use frequently was ouk, or no. This was to keep waiters from pouring their favorite olive oil all over an appetizing plate of food."
The student workers were divided into three groups. One group put a floor in the Center. Lenore’s group made small cinder blocks and began a tool shed, while the third group made an extra supply of large cinder blocks. Work began at 7:30 with the girls working side by side with the boys. Lenore says, “At 10:30 we took a lemonade break, and at 1:30 we put down our shovels, showered, and then ate. The remainder of the day was play-time. We’ll never forget swimming in the sparkling Aegean. Often the boys would spend an afternoon scaling nearby Mount Olympus. Evening was a good time to talk, and we exchanged many ideas with our new friends.”

In this manner the “Project to Greece”—the Cornell Center—was completed. It now forms a structure three stories high—a tribute to the patriotic Greek people, especially to the students who can remember seeing Communists burn their homes and carry off their families, but whose courage always shows itself.

Lenore explains, “I feel a geographic identification with the people I met and knew in Greece. From working with these patriotic people, I have a different perspective on what is actually meaningful. Now I am more aware of so many different things, like government, art, and music. And I appreciate the Greek people more than ever.”
Photographing Amebae

By JILL H. BECKOFF '61

"SMILE pretty for the camera," may sound like a queer way to address an ameba, but it's a stock expression in the photographer's trade and there is no reason to drop it just because the subject happens to be microscopic in size.

Not every picture, however, is so carefully posed; there are times when a candid shot is more appropriate. At such moments the photographer must use the utmost care and caution in order to escape notice. And, again, the photomicrographer — the man who snaps pictures through a microscope — is no exception.

He will set his slide in place; focus scope and camera; check light, distance, shutter speed; and warily click the shutter. A skilled photomicrographer can get his subjects in their most vital poses: the all-important metaphase, the crucial last moments of telophase, the early warning signs of prophase—all are captured and preserved for posterity.

SUBJECTS are carefully chosen for beauty, interest, and educational value before even being given a chance at a screen test. Every subject must be carefully placed in just the right position. It must be dressed and groomed appropriately and placed in the most favorable possible light before the shutter is opened.

At their best, the results are distinctly delineated studies of suspended action; a bad photomicrograph may have delicately blending colors, merging and flowing in a pleasing expressionistic design.

Filters, fancy lenses, light meters, and all the other paraphernalia of the photographer are utilized in portraying the illusory life beneath the photomicrographer's lenses.

Different microscopy methods are also used. Many a preliminary hour may be spent in choosing the combination of lenses to give the best magnification. The advisability of oil emersion may be another problem heavy on the photomicrographer's mind. Stains and dyes must also be considered as must be the permanence of the microscope slides.

WHERE does all this get him? Good results, like those of any photographer, are very gratifying and these have the added advantage of being extremely useful to the biology teacher, who can flash them off and on at will; exposing them to the views of more people over a longer period of time than any ordinary microscope slide. So, next time you see a slide projected on the wall of one of your lecture rooms, think of the artist who posed for it and the cells who worked many long hours under hot lights, and smile back.

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Entry blanks and rules and regulations for the show are available from all NYABC technicians, or directly from NYABC. So, if you're interested in this opportunity for young showmen—or you know someone who is—get those facts needed to compete.

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GREEN: the color of cash
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There’s a big cash difference in feeding costs between fine hay and poor. Quality hay means better feeding, lower production costs for milk and beef. When hay is poor, you must pay more for protein and mineral supplements.

What makes green, leafy, nutrient-rich hay? The sun and the showers have a lot to do with it—and these no farmer can completely control. But the right machines play a vital part, too—and here a man can stack the odds in his favor.

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This tonnage-boosting capacity begins with the all-new cutter bar which handles any crop—heavy, tall, or tangled! New cam-action reel, with spring-steel teeth, sweeps a full 6-foot swath into the full-width positive auger feed. Retracting fingers on the auger carry cut crop from reel teeth to self-adjusting feed aprons.

Floating upper feed apron rides the crop to positively feed a full swath in any condition—compresses and grips crop for clean cutting to any length from ¼ to 6 inches. Heavy 6-bladed, 44-inch-diameter cutter head makes 4,500 cuts a minute... develops tremendous slice-through momentum—helps you chop record tonnage with less power, at lowest cost.

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There are plans that I must draw.
Then let this timid hand of mine
Be guided, line for line,
With that steady, certain trueness
Of the Hand that planned
This universe.

There are materials I must choose.
Then let this casual mind of mine
Choose with the wisdom of the Mind
That fixed the substances
Of things like grass and trees
And mountain peaks.

There are decisions I must make.
Then let me make them with that sureness
That divided land and sea,
And day and night, the birds that fly
And beasts that roam the field.

I've a future I must build

There's a determination I must have.
Then let me bind myself unto such things
As principles, and truth, and right
With that same permanence
That holds in their celestial places
The sun, and stars,
And all the heavens' gems.

I've a future I must build.
So, let me build it with such care,
Such tools, such wisdom,
And with such a rugged firmness,
That all the fiercest thrusts
Of host or elements
Cannot destroy it.

Aye, I've a future I must build . . .
Let me rise, then, to the task!
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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second class matter at the Post Office, Ithaca, New York. Printing by Art Craft of Ithaca. Subscription rate is $1.75 a year or three years for $2.75; single copies, 25 cents.

May, 1958

May Memorandum

Our Athletic Department is well stocked with tennis, badminton, softball, and baseball equipment for these balmy May Days.

* * * * *

The Gift Department is featuring Cornell mugs for springtime beer parties; mascots, pennants, banners, and other souvenirs to take along when you go home.

* * * * *

The Co-ed Shop calls your attention to their fine selection of bermuda shorts, shirts, cotton skirts, and blouses for campus and vacation wear.

Cornell Campus Store
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EXTRAS FOR LIVESTOCK MARKETERS!

From month to month, we've told you about the many direct benefits offered to New York State farmers and dealers who market their livestock through the nine weekly livestock commission auctions operated by Empire Livestock Marketing Cooperative. But Empire provides many indirect benefits to all who earn a living from livestock in the Empire State.

Empire's leadership in selling slaughter livestock by weight over tested scales, its widespread and honest reporting of prices per hundredweight actually paid for livestock, and its fair and impartial treatment of all buyers and sellers alike has resulted in a demand on the part of the livestock industry for universal adoption of these policies on the part of all non-Empire commission auction markets also.

These indirect benefits to all the livestock industry are one more reason why thousands of consignors find that "it's good business to do business with . . .

EMPIRE Livestock Marketing Cooperative

Livestock Auction Markets at
Bath — Bullville
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Editorials

Cornell's Freedom

Has A Purpose

This issue of the Cornell Countryman is featuring an article on large universities as another in its series on education. This article, in general, finds fault with the bigness of universities and the emphasis on social life.

Let's take a look at Cornell as one of these large universities. There is no denying that Cornell is big and that it has a complex social system. Yet, we find it almost impossible to generalize about Cornell.

One segment of the student body may emphasize social life too much. Yet, there is always the other side at the opposite extreme and the medium which has a balance between social and academic life.

Sororities and fraternities, although present, don't necessarily rule Cornell. Stereotypes do exist about certain segments of the student body. Yet, if we even began to add all these stereotypes up on every portion of the student body we'd have an endless list.

What all this adds up to is the student—he can be what he wants to be at Cornell because Cornell is big enough to let him.

Cornell is as much like the "outside world" as a university can possibly be. It is so diverse in its student body and faculty, so diverse in its social structure, so diverse in its educational offerings that generalizations can not be made.

Cornell doesn't offer its students a neat little package of security: the students have to find their own. They have to meet the same social pressures they would meet in the "outside world." However, here they can make mistakes finding security; whereas in that "outside world," one mistake can often be disastrous.

—B.L.D.

To The Top

"THAT looks like a path.
Is that the way to reach the top from here?"

So asks Robert Frost; so ask Cornellians.

Some of us have been asking for four years and are about to find out. Others of us have just begun to ask, just begun to notice the paths available.

To those who are leaving, the Countryman staff wishes a pleasant and successful journey. Perhaps your way is the way to reach the top from here. But, whether it is or not, climbing is always good exercise. Your pack is full—lots of luck.

To those who are just going to look over the paths, we wish clear weather for good scouting, and hope that you will come back next fall with a clearer view of the top and a more complete map of the mountainside paths.—J.H.B.
A Plea for Conservation Action

NEED for the preservation of our natural resources has never been so great. All about us is the exploitation and resulting destruction of habitats once capable of supporting numerous forms of wildlife. Many factors are responsible for this so-called progress. Population growth and an unequalled prosperity have put a demand upon land which, unless preserved—either by law or by philanthropy—will not long remain in its natural state.

Agriculture has its fingers in this pie of progress. Wetlands not even needed for farmland have been drained and tilled. Excessive grazing on public land in the west has left little, if any, native grass. Woodlands once filled with the noises of wildlife now resound with the buzz of the lumberman’s power saw. These and many other activities will leave this country devoid of the beauty enjoyed by this and past generations.

Destruction of the nation’s wetlands, for example, has continued until a pitifully small portion of these necessary haunts of our waterfowl remains. Out of an original 120 million acres of wetlands, only 22.5 million are left. On the east coast, a mere 240 miles of our 3,700 mile long coastline is in public ownership. The rest is doomed to drainage and “improvement”—unless action to preserve it occurs immediately.

Who plans to take such action? We wish there was an answer to that question. Federal government funds will enable acquisition of only 7.5 million acres of shoreline. There remains one possible solution to this problem. The success of this solution, however, depends upon whether or not certain clubs and organizations will take their heads out of the sand and realize that that very sand may be planned for a housing project along some scenic beachfront.

In a country abounding in bird clubs, garden clubs, sportsmen’s clubs, and other nature organizations, there is no excuse for vanishing natural resources. Laxity in this predicament stems mainly from a distortion of purpose. Most of these clubs are satisfied with giving their members a program of conservation entertainment and education, omitting the actual conservation which is needed.

CORNELL offered a prime illustration of this last season. Five beautiful wildlife films were shown as another of a series of Audubon Screen Tours. The films were narrated by men who are leaders in natural history and photography. Near capacity audiences filled the lecture room at each presentation. But, absolutely nothing was accomplished toward conserving our natural heritage. The films served no more of a purpose than Walt Disney’s True Life Adventure series. Here again, education and entertainment were substituted for conservation.

This is not unusual for the National Audubon Society. With 12.5 million acres of wetlands needed for our waterfowl, the society controls only one million acres of land and water combined. Certainly, if a larger portion of their $750,000 annual budget was devoted to acquiring more sanctuaries and preserves, instead of telling people how wonderful our woods and wildlife are, we would not see these resources disappearing.

If all the nation’s nature clubs and organizations would devote more time and funds to actual conservation, the diminishing trend of our forests, wetlands, and game could be halted. Conservation action is needed now. Don’t let our nation’s beauty become mere history. Let’s stop talking about conservation and start acting.

—W.H.W.
Concerned Scientist:
Social Critic and Botanist

By JILL H. BECKOFF '61

Universities can not be wholly democratic. If they are, they cease to be universities. A true university represents an oligarchy of scholarship based not only upon tolerance, but upon intolerance—intolerance of stupidity, intellectual laziness, and sloppiness. Education is not only for the masses, but a privilege for those who can use it. These strong words came from Dr. F. C. Steward, a mild-mannered scientist and botany professor here at Cornell.

"American education is aimed at the least common denominator. It should be aimed at the top ten percent, not the bottom. In that way, the entire class is pulled up instead of down. Students should be made to exert themselves intellectually just as they would physically if they were training for athletics."

Dr. Steward believes that "a university is a grown-up place for grown-up people" and that when one is attending a university, he has left his school days behind him and should be concentrating upon "the fastidious cultivation of good taste—in speech, dress, scholarship, every sphere of life."

Along with his studies, the student should learn to live according to the standards of his society. No need should arise for university rules which are different from those of the world outside.

When asked, Dr. Steward also expressed the opinion that the main difference between American and European students is that the latter "reach a greater level of intellectual maturity earlier."

Because of this maturity, the European students can be taught at a more adult level. "American students are spoon-fed too much. Even at the freshman level they are talked down to much of the time."

Dr. Steward speaks from experience. He was born, raised, and educated in England, and has taught in the United States for about ten years. He first came to this country in 1927 as a Rockefeller fellow and has been commuting back and forth across the Atlantic ever since.

Recently, Dr. Steward has found it possible to take carrots apart and put them back together again. "We found that we could grow cells free from the rest of the plant and then found that they could be made to grow back together and form the whole plants."

Dr. Steward and his assistants have found that, in a culture of coconut milk and certain nutrients, free carrot cells reorient themselves and begin to act in a manner resembling carrot zygotes. Transferred to an agar medium, these carrot cultures form structures resembling pro-embryoes which then develop roots, stems, leaves, and all the other organs essential to a plant and, from all available evidence, are perfectly normal plants.

We have no pure strain of carrots at present but this method, though tedious, may be one way of getting one. Developing a pure line of carrots, however, is not the main aim of the experiments. It is hoped that some idea can be gotten of what makes cells grow, especially those which grow wildly and unexpectedly.

Cells used are from the secondary phloem of the carrot root, a portion of the plant made up of mature cells which have ceased to divide. When placed in coconut milk, these cells are rejuvenated and begin to divide and multiply again. This is essentially what happens when a tumor forms. For this reason the National Cancer Institute is helping to sponsor Dr. Steward's work.

A group of laboratories in the basement of Plant Sciences houses Dr. Steward's experiments. One room down there is filled with flasks attached to revolving wooden discs (see cover picture.) In these flasks are the coconut milk and the carrot cells. Hour after hour, day after day, the wheels turn, bathing the cells in milk part of the time and exposing them to filtered air the rest of the time.

Transplants on an agar medium are housed in a nearby air conditioned room. In still another room, there is a complex machine made up of hundreds of interconnected glass tubes which automatically fractionates the various liquids being studied.
Migrating City Dwellers Invade Farmlands

Movement from city to country is on the rise.

By LOUISE MOHR '60

FARMLANDS are under invasion by an army of migrating city dwellers. This shifting segment of the population is changing the once peaceful and serene fringe areas into fast moving, culturally advanced living communities. Dr. W. A. Anderson, Professor of Rural Sociology at Cornell University, states that this movement is having a serious influence, both adverse and favorable, on the rural areas. Changes occurring within these rural environments will affect the future choices of homes made by both older and younger couples.

The push to bring the urban and rural areas closer in contact has been the force behind this “flight to the fringe.” As stated by Dr. Anderson, the most important factors in the movement have been the improvement of roads, the growth of transportation means, and the expansion of technology all over the United States. People desire to escape the noise and dirt of urban areas to enjoy the refreshing, healthful country atmosphere. Whether this rural atmosphere will last is a question only to be answered by time.

With the growing housing developments and industry gaining strong footholds, the agricultural way of life, although desired by city inhabitants, is changing. In 1954, 60 per cent of all building permits issued in the United States were for suburban territory. Industry’s shift to the wide-open spaces is just as profound.

Certain advantages of this movement can not be denied. Farmers’ incomes, supplemented by part-time factory jobs, have enabled increasing living comfort. Conveniences once only present in city areas have been made available to the agriculturists. One such development has taken place in education. No longer does the one-room school house dominate the scene. These communities now provide modern schools for both farm and city children.

However, all has not been good. Land values have now attained heights well out of the reach of many people. Taxes (perhaps for those new schools) burden the pocketbooks of both food producers and newlyweds striving to make ends meet. Housing quality has deteriorated in these mass production living units to meet the flight to the fringe.

Another effect of the growing rural area is the change of occupations. Today, 75 per cent of the employed males work in occupations other than farming. Quite a different picture than that of twenty years ago.

This produces a situation, explains Dr. Anderson, in which a smaller number of persons assume a growing importance in the operation of our society. Also as the nation’s economic picture becomes questionable, so does the industrial ability to continue supplying these young men with jobs.

There is no denying that the movement to the fringe has had a decided effect on the culture of the American society, especially on the social structure of the rural area. Whether this structure will be weakened or strengthened by the invading city forces remains to be answered only by experience. There is, however, no doubt that this experience is well underway across America’s farmlands.
Let's Study
in
Scandinavia

by michael d. marien '59

MOST students have probably heard the phrase "Junior Year Abroad," but have probably never pictured themselves in this situation. Language barriers, limited finances, potential loss of credits, and just plain laziness are some of the reasons that keep students from investigating these new horizons.

But a little initiative in the direction of foreign study can pay off, as shown by the letters of Durwood Guy Burns '59 and William Zucker, Grad., Cornell's contribution to the group of 55 American students who currently are participating in the Scandinavian Seminar for Cultural Studies.

The recently organized Seminar is a program in which a junior, graduate, or interested professional person may travel to any Scandinavian country to live and study for a year.

Integration with another culture stimulates "thought and interest in basic problems which face man as an individual and as a group member."

The year's program is divided into four parts. The first, the preparation period, enables the student to learn the Danish, Swedish, or Norwegian language and the Scandinavian customs prior to his arrival.

The second phase is the preliminary period in Scandinavia. Here the student has two community stays, one urban and one rural, in selected homes in the country of his choice. These stays last three to four weeks and are designed to give the student an insight into the life of the people. Bill Zucker wrote that the stay "... allowed time to learn the language from the horse's mouth, so to speak, as well as an opportunity to experience family and community life." Special short orientation courses are given before, during, and after the community stays.

After the stays, the meat of the program is ready for consumption, and the student spends 22 weeks at one of the residential colleges known as "Folkschools." The philosophy of the Scandinavian folk schools is that "educational experience, rather than being one aimed primarily at the acquisition of knowledge, should be one that develops the human qualities and insights that make for individually satisfying and socially more meaningful lives."

The idea of folk school education was formulated more than 100 years ago. There are no exams or degrees, and thus the student's motive in attending is a desire to learn. There are about 300 "Folkschools" throughout Scandinavia, in addition to regular institutions of higher learning. All of the "Folkschools" maintain small enrollment (50-100 students) in order to cement the student-faculty relationships in a close community. Each college has its unique characteristics and may emphasize particular areas.

After the residence at the folk schools there is a concluding session in which all of the Seminar students judge and evaluate the year's work.

Although he has only completed half of his stay, Guy Burns (who is in Denmark) can already sense that "leaving the country will be a struggle. The Danes are a friendly people and they have gone out of their way to help me and the rest of the students. For a year, their homes are our homes, their culture is our culture, and their different language is my headache!"

An experience abroad is not unachievable because, although a knowledge of a Scandinavian language is helpful, the willingness to learn is the only prerequisite. Total expenses average about a moderate $1500 and college credit is given for the year.

In a special letter to the Countryman, Guy Burns asked: "Why don't you think a bit on this opportunity of a lifetime? Professor Hertel (Secretary of the College of Agriculture) has more information on the Seminar as to the costs, courses, references, and application forms."
Block Printing—
Doodlers' Delight

by gretchen a. wise '59

ANYONE who can peel a potato or sharpen a pencil can carve a linoleum block. There are no limits to what a steady hand, patience and a good imagination can do. Block printing is inexpensive and requires few tools, all readily obtainable.

The materials should cost no more than $5. Here is a list of essentials: pencil and eraser, tracing paper, box of pins or tacks, linoleum cutters, brayer (ink roller), a piece of plate glass to roll the ink on, ink (or oil painting colors and a commercial mixer to set the colors), linoleum blocks or battleship linoleum, newspapers, soap, turpentine, rags and other cleanup equipment; and finally plain fabric.

There are many suitable fabrics. Unfinished and untreated cottons are the best. Others are silk, crepe de chine, dull linen-like rayons, nylon, challis (wool), and organdy. An old colored sheet would be wonderful to experiment on and takes a print well.

A design must be simple and direct to print well—not to mention the fact that fine lines, curves, and little circles are nearly impossible to cut. There are three ways to cut the design into the block. The first and the easiest method is cutting directly into the block. This is fun and the resulting print may be surprisingly good. The second is drawing on the block, then cutting out the design. The last produces the best results. First you transfer the design to tracing paper with a soft lead pencil. Then place the paper, design side down, on the block and retrace the design with a sharp, hard lead pencil. You will get an exact reproduction of the original design. Now you are ready to carve.

Next you must prepare the cloth for printing. First it must be washed to remove the sizing, or it will not take a print. Then it must be pressed and cut to a convenient size for handling. If you are doing a repeat pattern, the pattern must be marked with pins or chalk. The material will print better if it is slightly damp and padded with a layer of newspapers. This is especially important if you are using blocks instead of unmounted battleship linoleum. The latter is resilient and prints more evenly.

Ink mixing is fun. Just squeeze a generous glob onto the plate glass. Then roll the brayer back and forth in the ink. The ink should have a sticky or "tacky" consistency. If you are using oil paints instead of regular printing inks, you will have a wider range of colors, but you will have to add a mixer to them to keep the color from bleeding. Now roll the brayer over the block with an even pressure. New blocks will not take paint well at first, but will print better with use. At last you are ready to print.

Lay the block face down on the cloth. Press or pound firmly. The harder you hit the block, the better the print will be. Don't worry—the blocks are sturdy and this is standard procedure. Remember that smooth absorbent fabrics require less pressure and ink than rough materials.

The ink takes from five to ten days to dry. To test the cloth, rub the design. It won't smear if it is dry. To set the print, lay it face down on absorbent paper and press with a warm iron. Then reverse the cloth and cover it with a damp cloth. Press it dry. Now the cloth is ready to be used. The colors will not run or fade.

As you gain more experience, you will be able to do more complicated and interesting designs. Perhaps you might redecorate your dorm room or make a dress using these prints. Block printing is a good hobby and could be developed into a good business. Who knows? There are many possibilities available.
When the sun lies high on a hot day, what could be more enjoyable than a refreshing swim in the depths of a cool lake. Impossible? Not at all, for that's exactly what a skin diver would do. And, what's more, skin-diving enthusiasts have found it unnecessary to go to the ocean or to the Great Lakes to find sport.

They just amble out to one of the New York State Finger Lakes. These lakes, five in number, are all long, narrow, and comparatively deep—perfect for amateur exploring possibilities.

Seneca Lake is the deepest and is reputed to be the coldest. The largest of the Finger Lakes, it is thirty-four miles long and two miles wide. Oneida, a close second, is twenty-one miles long and four to five miles wide. Onondaga Lake at Syracuse is the smallest of the lakes extensively used for skin diving.

"But aren't the lakes too cold?" the more timid ask. It is rumored that part of the glacier that dug these geographical fingers still lies in the lakes' deep recesses. Divers in Seneca Lake, probably the coldest of the five, have answered this question. Weather permitting, mid June to September make good skin-diving months. And, the diving period can be prolonged to include April to November with the use of a special diving suit.

What is a skin diver? By current definition, he surface dives aided by fins, snorkel, and a face mask. However his time underwater is limited. Unlike the "frog men" he doesn't carry his own air supply. Aided by air tanks, the diver can remain underwater much longer and of course dive much deeper.

Each piece of equipment has a special purpose. Swim fins enable the diver to swim faster. They are inexpensive and readily available. The snorkel is a bent breathing tube, which when placed in the mouth, enables a diver to breathe when swimming face down. The face mask is a large piece of shatterproof glass edged with a soft rubber skirt. It covers the eyes and nose of the diver enabling him to see better. When the water is cold, the diver may wear a special rubber suit and additional clothing beneath it if necessary. In addition to this the diver may carry weights to make diving easier and a knife. While there are no dangerous fish in these lakes, there is also a possibility of becoming entangled in seaweed or lost fishing lines.

Someone is always going to ignore the weather and that someone turned out to be a Long Island club that comes to the Lakes yearly as guests of the Finger Lakes Skin Diving Club at Geneva. The only problem they didn’t have was finding a diving site. A foot and a half of ice took care of that. The March 5, 1956 issue of Life magazine ran a photograph of the effort with the caption: "Who’s that knocking through the ice?"

Organized clubs have appeared on the northern end of Canandaigua Lake, in Geneva, at the northern end of Seneca Lake and in Syracuse. The Aqua-Kings of Syracuse use Oneida Lake, ten miles to the northeast. Jamesville Reservoir, seven miles south and Onondaga Lake, within the city limits.

Of the several organized clubs on the Finger Lakes, the one in Geneva has the best set-up in the region. Its founder and most active member today is George Lohr
who became interested in diving four years ago. In the summer of 1953, George bought the first hydropak in the area and headed for Florida to pick up the finer points of the skin diving art.

The club was founded the following year. Mr. Lohr rented a building in the canal inlet for a club room, diving school, and storage for diving gear. When a law was passed in 1956 making spear fishing illegal, activity naturally dropped off. However, the members turned to photography and exploration for their under-water adventure.

The Finger Lakes lend themselves to under-water explorers very well. For the most part, they have limestone walls and some have deep caves and curious rock formations. Some of the lakes have the depth to tempt the more daring and a myriad of fish to touch and see—bass, carp, pickerel, and Northern pike frequent the lakes and adjoining waterways.

Diving Equipment

1—Single hose regulator on tank of compressed air; 2—Socks; 3—Hood; 4—Pants; 5—Shirt of neoprene foam “wet-suit”; 6—10—Marking buoys and flags; 11—Gauge for checking tank air pressure; 7—Tote for dusting suit for easier dressing; 11—Weight belt with quick release buckle; 12—Liquid filled compass; 13—Emergency float pack; 14—Water proof watch case; 15, 16—Depth gauges; 17—Stainless steel knife; 19—Plastic chart of recommended U.S. Navy decompression rates; 20—Water proof plastic camera case with glass front; 21—Goggles (not recommended for deep diving); 22, 23—Fins with heel straps; 24—Open toe shoe fins; 25—Mask with shatterproof glass; 26—Mask with built in snorkel air tubes; 27—Spear gun (not legal in fresh water in New York State). Hand spears may be used for taking certain species of fish in waters open to spearing. Check with local game protector for spearing order regularly issued by the Dept.; 28, 29—Snorkel air tubes. Snorkels of 26 and 29 have float plugs that close opening of tube when submerged and maintained in an upright position.

WARNING: HOME MADE OR CONVERTED EQUIPMENT IS OFTEN DANGEROUS AND SHOULD BE AVOIDED.

What about the future? The Geneva Club has purchased the land across the canal from the club house and a state park will soon rise from the now marshy land. Thus, the club will probably have an invasion of visitors.

The 100 members are of two types, active divers and boatmen. This is an enjoyable merger—the diver has access to the offshore locations, whereas the boatsman has found a purpose, a sort of allied excitement to his boating. When a boat is available, there is no limit to the possible diving sites.

Seneca, Cayuga, Onondaga, and Oneida Lakes are connected by the Barge Canal and therefore enable access to the Atlantic Ocean by way of the Hudson River. Small craft can explore the regions south of the Finger Lakes by using rivers that fan out from the base of the Lakes.

Skin divers find much pleasure in the recent discovery. For many years we believed the ocean afforded the only water in which to dive. Because of distance, “once-a-year diving” prevailed. Now, however, weekends abound with activity, both at our clubs and in the water. No more unbearable hot days for us, not with skin diving in the Finger Lakes at hand!
Crops from the Desert

By GERALD P. HIRSCH '59

Israel is being transformed from a nation of barren desert to a “land of milk and honey.”

The milk comes from large herds of black and white Holstein-Freisians, housed in modern, well-kept barns or grazed the year around in lush pastures. One recent visitor to Israel came back with the impression that “the modern dairy husbandry of Israel, perhaps more than anything else, symbolizes in a prosaic sense the great renewal, the new birth, the renaissance of the country.” Many say that the dairy industry in Israel compares favorably with that of the classic dairy countries of Europe, Denmark and Holland, and with top dairy states in the United States.

Israel’s dairy industry took a long time to develop. First the original Arab cows were disposed of and French and Syrian ones were imported. A great deal of cross-breeding was carried on. Many of the imported Holsteins fell prey to the climate and prevalent diseases. Many of the early cattle imports died. Finally veterinarians were called in to end the scourge.

It has been estimated that 1,000 purebred cows and 150 bulls had been imported from Holland from 1923 to 1953. Importations from America began in 1947 when 70 Holstein heifers and 12 bulls were brought over from Canada. Thousands of head of cattle have since been imported from the United States, helping to make the dairy industry the third most important agricultural endeavor in the state.

Raising beef cattle is another upcoming form of agriculture in Israel. The combination of a heavy demand for meat with insufficient imports due to lack of foreign currencies, has spurred this industry onward. Beef cattle are still raised on a small scale, 15,000 head in 1956, mostly Santa Gertrudis.

The site of all this growth is on the eastern slope of the Mediterranean Sea—a area about the size of New Jersey and made up of 60 per cent desert. The population of this country is close to 2,000,000, most of them Jewish.

Mild dry summers and rainy winters combine to provide an excellent agricultural climate in this area. The maximum area suitable for cultivation is estimated at 1,375,000 acres, most of which will have to be irrigated.

Aside from livestock, there is a large dependence upon crops. Citrus, deciduous fruits, sub-tropical fruits, bananas, grapes, olives, all sorts of vegetables, grain and fodder crops, tobacco, sugar beets and cane, cotton, groundnuts, and the like have all proved successful. Citrus fruits, especially oranges, are the most important single crop. About 150,000 acres, most of it irrigated, is planted in fruits.

In addition to food plantations, there is a large variety of irrigated field crops. Vegetables and potatoes constitute a very great part of the country’s diet. Accordingly, the area of these crops has been increased.

Grapes are grown successfully in all parts of the country, the total area devoted to this crop being 27,500 acres. Wine grapes form the basis of a well-developed wine producing industry.

Deciduous and sub-tropical fruits—apples, apricots, avocados, mangoes, dates, etc.—are grown on about 12,500 acres of irrigated land and the amount is being increased in response to increased local demand.

Bananas were originally grown only in the hot Jordan Valley but the area has recently been expanded to include part of the coastal plain. Total production reached 23,000 tons in 1956, 12,000 tons of it being exported to European countries.

Carob trees, of which thousands are being planted every year in the hills, will eventually provide the country with large quantities of fodder for livestock, making a substantial cut in the use of grain possible.

These crops are excellent examples of the job that research has done in finding the right crop for the right land. All these crops have also found excellent European markets.

Poultry is developing into a significant branch of farming, ranking with dairy and citrus fruit raising in importance. Besides forming a considerable part of mixed farming, specialized large-scale poultry farms have been built, with several thousand birds per farm.

Much desert still remains in Israel but through modern agricultural methods the people are making it bloom.
"Plow-plant" method increases corn yield.

A new planting device from Cornell ag engineers.

**Link Lines Research**

"PLow-Plant," the new way of growing corn, produced an average of 69 bushels an acre of 14 per cent moisture corn on fifteen experimental plots through New York State. This is compared to 67 bushels an acre of conventionally planted corn.

Plans for the plow-planter, which consist of a fertilizer box and a seed box mounted on a plow, are available from the College of Agriculture's engineering department. Because of the combination of operations, there is less work needed to prepare the land with a savings up to ten dollars an acre.

The corn must be planted a week earlier than normally to gain the advantage of increased yield. A furrow opener placed the seed on the crown at a depth of about two inches. When the corn is six to eight inches high, a cultipacker and weeder must be run over it, followed by application of chemical weed killers. Although it is a foot shorter than other corn at mid-season, it catches up by harvest time.

**CO₂ for Fresher Eggs**

Fifty-Five milligrams of carbon dioxide in freshly laid eggs keeps them fresh, says Robert J. McVicker, poultry specialist of the New York State College of Agriculture. Therefore, contrary to public opinion, an egg is high quality if it has a cloudy white. The cloudiness is caused by natural carbon dioxide within the egg.

To seal the pores in the egg shell and prevent the escape of carbon dioxide, producers can spray the eggs with a water emulsion oil or dip them in an odorless mineral oil. Storing the eggs at temperatures of about 55 degrees Fahrenheit will slow down carbon dioxide escape even without sealing.

**Crown Rust of Oats**

The USDA has reported that the nation's crop of oats is threatened by new races of Crown rust which may severely reduce yields in 1958. None of the oat varieties on the market are resistant to all the new races although they were bred especially to be resistant to the old form of the rust. Spores are spread rapidly by the wind and are kept alive by plants that grow from seed not intentionally planted. Breeders are trying special methods of cross-breeding but no immediate solution is in sight.

**Myrtle - New Disease Detector**

Myrtle is being used by Cornell scientists at the New York State Experiment Station at Geneva to detect insect carriers of the X-disease virus of peaches and cherries. Suspected insects feed on an X-diseased plant and then are transferred to a healthy plant where infection will prove the insect is a carrier. Symptoms of the disease appear in myrtle in four to six weeks compared to the year or more required in peach and cherry trees.
To Big for Too Many

Editor's Note: This article is another in the Cornell Countryman's current series on education.

June is the month when thousands of boys and girls are graduating from high schools and dreaming of their lives at big coed universities waiting for them next fall. The summer months seem too long. They can hardly wait to be out on their own, enjoying the bright social whirl, the excitement of sororities and fraternities, the thrill of being chosen for committees and campus publications, the fun of making new friends.

But somehow the big coed universities have failed to live up to the expectation of their incoming students.

After the delightful newness and excitement of the first months, a freshman realizes that he really is not happy at the university—it is just too large for him. He cannot understand why he ever chose a university over the small college he considered.

This student did not make his choice of school unthinkingly. He weighed all the pros and cons and even visited the schools. Why should he be unhappy? The normal student, although well adjusted to university life and doing average work, finds that there is something missing at the university.

Just what is wrong with the big universities?

In the first place, the student's social life receives far more emphasis than does the student's academic life. Classes become a place to meet people and to be seen in rather than a place of learning.

There would be nothing wrong with this, if it could be shared and enjoyed by all the students. But, as so often happens at the large university, those who were most popular at high school continue to be the most popular. Those students who need the social experience are left out and become socially isolated.

Social pressure goes even deeper than this. For the girls, popularity is short-lived, since only the freshmen girls are given the social rush. Many girls, by the close of their first years have become pinned, engaged, or married. Those who have not yet gotten their mates begin to be frightened by the thought of spinsterhood. As ridiculous as this sounds, it is not exaggerated and is a serious result of the tremendous social pressures these girls are made to feel.

Dating pressure at the big universities is unique. A girl feels that she will be scorned if she dates anyone but the big, handsome, athletic, car-owning fraternity man. The same is true of college men—they feel that they must date only the prettiest personality-plus girls. This leaves a great many people dateless because they are afraid to settle for "second best." It is the popular students who dictate the social system at the universities.

Sororities and fraternities add to these evils. They increase the social pressure by dividing the students into two groups: the accepted and the unaccepted. Those who need the confidence provided by acceptance into a fraternal order are not always the ones who receive the bids. Houses want only the "best" and, to them, the "best" students are those most like themselves. Different Greek letters mark a student as athlete, brain, beauty, personality. It does not matter what type of person you are—as long as you belong to the group you wear its labels.

Small groups make up a university. Each of these is held together by a common interest and is unaware of the existence of other groups. If an individual should go somewhere without his group, he finds himself surrounded by strangers. The average student becomes anonymous in a large school.
How can universities develop citizenship in such a situation? Their size makes this development impossible. Students cannot learn to care for and be interested in people whom they do not know.

Keen competition is met by the average freshman when he investigates membership in clubs and committees and is often discouraged. There are so many students who seem better equipped for the job that he eventually loses interest. Since there is no shortage of applicants, organizations do not encourage people to persevere.

It is disappointing for the freshman who is looking for a close relationship with his professor to find himself in a huge lecture hall with several hundred others, listening to a cold and impersonal lecturer. The professors are certainly not at fault; university-sized lectures are a far cry from classes of 15 to 20 students, where each student is given the chance to be an interesting individual.

Guidance also suffers because of the size of universities. If an advisor has to check 160 class schedules, how can he have the time to get to know the students in his care? Moreover, the student who gets to see his advisor only for the semi-annual five minute meeting cannot become well enough acquainted with him to feel free to go to him with personal problems.

The average student finds himself burdened with adjustment problems that could be easily solved by an advisor who had more time to give.

The four years at the university are supposed to be the happiest of a person's life. But the evils of size are crowding out the happiness of the average student on the university campus, making him wonder if one of the biggest decisions he has ever made was indeed a mistake.

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Open Season on Mosquitoes

By MARTIN U. OWOREN '60

SUMMER is the season for mosquitoes, the most persistent annyoers of man among the world's insects. Although most prevalent in the tropics, these vicious pests are found throughout the world. Only a few of the extensive forms, however, are appreciably detrimental.

Aedes, Anopheles, and Culex are the genera containing the most obnoxious of the pests. All have similar life cycles, but marked differences in their structures and breeding places make it fairly easy to distinguish them from one another—but not from the many kinds of harmless mosquitoes.

Aedes mosquitoes are characterized by silver stripes on their bodies: the Anopheles by their slanting rest position and the Culex by the position, parallel to the surface, which they take when at rest.

Entomologists have little doubt that, among mosquitoes, it is only the female that sucks blood and that the males are, for the most part, vegetarians, but prone to alcoholism. It is difficult, however, to distinguish between the bloodsuckers and the alcoholics. The main differences are the more feathery antennae and the shorter, weaker probiscises of the males.

Malaria was the first human disease traced to insect carriers. In 1880 Laveran, a French surgeon, isolated the protozoan blood parasite which causes this disease. In 1898 Ross found the malarial parasite in Indian Anopheles mosquitoes.

This mosquito picks up the protozoan parasite by sucking the blood of an infected person. This protozoan, after undergoing a series of changes, penetrates the mosquito's stomach wall and forms spore-containing nodules. When these nodules burst, the spores are freed to enter the insect's salivary glands and be transmitted to a healthy host. The parasites winter in human hosts and are transmitted in summer when warm weather again brings out the Anopheles mosquitoes.

Yellow fever, a virus disease, is also spread by mosquitoes—Aedes this time. Not until early in the 20th century, when Walter Reed and a group of other United States Army doctors conducted their experiments, was it known that yellow fever was transmitted by insects.

Another essentially tropical disease, filariasis, is transmitted by a species of the genus Culex. The cause of this disease is a nematode which remains buried in the blood and lymph vessels of the host during the day but is present in the peripheral blood vessels during the night and can then be obtained by mosquitoes sucking the blood of an infected person.

These nematodes incubate in the mosquito for two or three weeks and then are injected into a healthy person. Here they become sexually mature and produce numerous microscopic filarias which enter the circulatory system and live in it for a long time. The presence of these parasites may "clog" the vessels and cause the swelling and disfiguration known as elephantiasis.

Mosquitoes are known to possess poison glands located between two salivary glands but there is no agreement among scientists on their use. One theory is that the poison is injected into an animal or man and it promotes blood suction by preventing or minimizing blood coagulation.

War against these pests is being fought in two ways: breeding has been hampered by draining their breeding grounds or spraying them with insecticides, and many of the mosquitoes' natural enemies are being actively propagated.

Unexpected Guests?

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Cornell Countryman
Ed. note: In response to our March Countryman which featured an article on Liberty Hyde Bailey, Rolla Van Doren ’06 wrote us of his memories of Cornell in Bailey’s time. Mr. Van Doren operated the farm he was born on for 47 years and has just recently retired to Chaumont, New York.

Dear Cornellians:

Your March issue and the reproduction of old photographs spurs me to write you. Aside from Dean Bailey at the plow there is but one face in the picture that seems familiar, and I cannot put a name to it. But out of the picture were about fifty students holding a rope attached to the plow. Soon after this picture was snapped, Dean Bailey was having difficulty in keeping his footing and that plow in the ground as the students pulled the rope.

Somewhere in that group holding the rope probably were the Cornellians I shall mention, for in those days we were apt to be together.

M. C. Burritt ’08—former director of extension at Cornell and later public service commissioner in New York State. He is retired and living at Coral Gables, Florida.

Henry Jennings ’06—potato and vegetable grower at Southold, Long Island.

Wilmer W. Bassett ’07—engaged in nursery business at Monticello, Florida. He is now changing to dairy.

Benjamin Frary ’13—bought a farm near Homer, N. Y. in 1916, sold it to his son-in-law a few years ago and now divides his time equally between Homer and Florida.

George T. Reid ’06—after a few years as county agent in New Jersey, began farming with his son at Mount Holly, New Jersey.

Jesse T. Van Doren ’20—farming at Chaumont, N. Y. and he is now acting postmaster of the town.

And then come memories of the faculty, especially H. H. Wing, J. E. Rice, J. L. Stone, Mr. Tailby out at the farm, Mr. Hunn at the greenhouse, talks by I. P. Roberts, Anna Botsford Comstock, and Martha Van Rensselaer.

—Rolla Van Doren

Liberty Hyde Bailey at the plow.
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—Dr. Marlin Cline

Hagan Hosts Red Vets . . . . . p. 5
Scholars Pierce The Curtain .. p. 6
How often you've heard someone say that! It raises a question of who's kidding whom.

How about run-off? Put enough water on "level" land, and it will run somewhere. And when it runs, look out! Flatlands are not damageproof against moving water. (See picture.)

How about the effects of falling water? If a storm dumps an inch of rain on a piece of land, the water strikes with enough energy to plow the soil 10 times. This splash erosion dislodges (and more or less transports) tons of soil, if unprotected, even on level land.

How about soil structure? Beating rains can destroy the desirable granular structure of a soil. They pack the soil—hard and tight.

How about puddling, flood water, or standing water? Too much water can be as bad as not enough, and surplus water usually finds its way down from the higher land—to the "flat" bottoms.

How about wind erosion? It's no respecter of level land either.

How about loss of seed, fertilizer, organic matter? Water can carry it away from level land, too.

No erosion on "level" land? Don't kid yourself! No matter what your topography may be, you must be constantly alert to the needs of soil maintenance.
Cornell Countryman

Vol. LVI—No. 1
Founded 1903
Incorporated 1904
Member of Agricultural College
Magazines, Associated

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The Cornell Countryman is published monthly from
October through May by students in the New York State
Colleges of Agriculture and Home Economics, units of the
State University of New York, at Cornell University.
Entered as second-class postage paid at Ithaca, New York
and at additional mailing offices. Printing by Norton of
Ithaca. Subscription rate is $1.75 a year or two years for
$3.75; single copies, 25 cents.

October, 1958

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Under New Management...

July 1, 1959: on the door of the office of the dean a sign will read, "under new management." A sign such as this often is a matter of curiosity and apprehension for those who observe it. Who is the new manager, and... what happens now?

Who is the new fellow? What about him? Well, his name is Dr. Charles E. Palm, entomologist, professor, and Texan.

Dr. Palm is no stranger to Cornell. He is now director of the Cornell University Agricultural Experiment Station and research director for the State Colleges of Agriculture and Home Economics.

Palm first came to Cornell in 1931 and was appointed as an assistant. He then became an instructor, received his Ph.D., an assistant professorship, a full professorship in 1935, and was named head of the Entomology Department.

Although a native of Austin, Texas, Dr. Palm grew up on a fruit farm in northwest Arkansas. Before coming to Cornell, he attended the University of Arkansas and graduated with honors.

The new dean has studied in Europe and Central America and has done entomological work both in this country and abroad.

Now, we know a little about Dr. Charles E. Palm. But what happens now? Will the seventh dean follow the old pattern or cut a new one? Will he be another Liberty Hyde Bailey?

To say that we aren’t glad that Dr. Palm will be our new dean, or that we don’t wish him luck is absolutely not the case. However, it is hard not to be a little apprehensive, until we know how our new manager, our new dean, will function.

In any case, Dr. Charles E. Palm, we of the COUNTRYMAN staff and, we are sure, everyone on the Upper Quad, are anxious to meet our “new manager.”

E.L.R.

62, How Do?!!

So, YOU finally made it! How do you like Cornell after your first month? By now you have probably made many friends, fallen in love half a dozen times, busted your first prelim, and become passionately attached to the ugly—but friendly—buildings of the Upper Quad, alias Your Quad.

It sounds as if there isn’t much left for the rest of your stay. But this is where you’re wrong. Have you been to Zinck’s or are you putting it off until next term—when they will serve frosh legally? Have you put in a fervent plea to get forty farm practice points for your one summer on the farm? Have you been to an Ag-Dom meeting? Have you come up to visit the COUNTRYMAN office? Have you met Chi-Chi, Dr. Eisner’s monkey?

You haven’t? Well, you had better get to it; there isn’t much time. Fall Weekend will bomb you out of your mind in just a few days and your first finals will probably have a similar affect soon after. So Frosh, enjoy yourself while you can!

Oh, incidentally, welcome to Cornell. We realize we’re about the 101st to say this but, believe it or not, we mean it!—J.H.B.
In the April, 1958 Countryman an editorial appeared which politely pounded Ag-Dom Council. This editorial was based on a poll of 100 students in an R.E. 10 lecture. The poll showed that, although 91% of those polled had heard of Ag-Dom only 74% knew what schools were represented; 44% could name one Ag-Dom sponsored event; 8% knew the name of its president; and just 4% had an idea of the number of representatives on the council.

When asked whether or not Ag-Dom had satisfied its obligations—to serve as a liaison between students and faculty; to inspire interest in upper-campus activities; and to serve the interests of the students—30% said yes, 14% said no, but the remaining 56% did not have the slightest idea.

The editorial continues, “The same old excuse is used for this poor recognition—apathy. Yet, the organization just sits idly back and complains about low attendance at events and lagging finances.”

It was suggested that Ag-Dom find out what interests the students, plan the year’s events around this, and publicize.

The following is a letter to the Cornell Countryman from David Kitts, President of Ag-Dom, in which he responds to the Countryman editorial.

To the Editor:

“The same old excuse ... apathy.” From the standpoint of Ag-Dom, apathy is not used as an excuse, but an accusation.

The Countryman poll asked a question concerning the fulfillment of Ag-Dom obligations. 56% didn’t have the slightest idea. But here is another question—does this 56% avidly read every issue of the Countryman? Does this 56% participate in any campus activities?

I am not trying to suggest that students change their lives. If they want to live in solitude, let them. But don’t judge Ag-Dom by their disinterest.

With your kind indulgence—an analogy. “You can lead a horse to water, but you can’t make him drink.” Nothing personal intended, but the student body is the horse. Ag-Dom is willing to lead the students and to provide water as representation, dances, and scholarship programs. But Ag-Dom cannot make the students take advantage of what it has to offer.

Now, what exactly can Ag-Dom offer? We distribute the Guide to Upper Campus, which describes all upper campus clubs. This is only useful if it is read.

November 15 is the time of Ag-Hec Day. We have a chicken barbeque and square dance. Those who attend have fun. Those who attend.

During finals week, Ag-Dom supplies coffee and donuts for tense study sessions. All they have to do is drink coffee! Does student apathy extend this far?

If I were to say that Ag-Dom was completely blameless, I would be only kidding myself. We are lacking in many areas, and I am not afraid to admit it. But there is no sense in Ag-Dom shouting its head off about a square dance if no one will come. They don’t give two snorts about square dancing? How about round dancing, or lectures, or beer blasts, or ... well, what do they want? How can we at Ag-Dom possibly tell what the students want unless they say something?

They don’t like what we are doing, or think that Ag-Dom is fulfilling its obligations on campus? Ag-Dom meetings are held every first and third Wednesday in the Warren Student Lounge, at 8 p.m. These are open meetings. I hope they get the picture.

Ag-Dom is a service organization. It has no function but to serve the student body, but it must have co-operation. It has been wrong in the past; it is willing to admit it. If the students want some improvement, they must speak up, attend their Council’s meetings, write to me, get to know their representatives. If they will just show us that they are interested in our work, we will try to do the best.

Sincerely,

David Kitts
President,
Ag-Domecon Council

October, 1958

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**Letter to the Editor**

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**To the girl Who’s Far Away**

Send a portrait from

WILLIAM KROLL

Don’t forget—Christmas photos

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The Saga of Henry T.

by Edward L. Razinsky '61

HENRY T. HASTE was a farmer, and a fairly good farmer at that. He had a 10,000 bird poultry farm, raised a high quality egg, was active in civic affairs, had a nice home and family, and was making a good living. He was, what you might call, a success. But Henry was not happy.

Since early childhood, Henry T. Haste had a burning desire for two things—to become an inventor, and to become famous. Granted that he had gone fairly high on the agricultural ladder, but he wanted more than just to be a farmer. He wanted to create things for the profit of mankind and he wanted to be known.

These omnipotent obsessions plagued Henry Haste continuously. During every waking hour, and in all his dreams, he could see nothing but creation and fame. And, inevitably, his farm work began to show his preoccupation. Haste became irritable, he began to cackle back at the chickens, he started to throw eggs at his wife. He was a sick boy.

One morning, while he was eating breakfast, Henry Haste decided that now was the time to change his life. He was ready to make his dreams come true. He finished breakfast, walked out of the house toward the chicken coops, and kept right on going, and going, until he came to a small building that he had previously constructed in an obscure corner of his property. Here he would work, here he would fulfill his ambitions.

This inauspicious shed was Henry Haste's citadel, his laboratory, in which he was going to alleviate agricultural afflictions, toughen intrepid technology, and sanctify science. Already he had an idea which would greatly enrich society.

It had occurred to inventor Haste, that the method by which farmers secured fertilizer for their fields was uneconomical. Feed had to be given to animals, and they, in turn, converted this nourishment into waste material, which, only then, could be used as fertilizer. This process involved a great deal of waste, so Henry dedicated himself to the invention of an artificial manure-making process.

Henry's whole body throbbed with the excitement of creation. Formulae crackled through his cranium: one chicken feather; one small splotch of dried, purple paint; a 17 day-old roost . . . caught at midnight—mix with a wooden spoon, and bake in a 150 degree oven until . . . and so it went, until the final product was ready. Artificial manure for the masses.

Fame and creation, the ultimate goal of Henry T. Haste, was finally realized. His name became a household word when the newspapers across our great nation proclaimed his feat with the headline: "HASTE MAKES WASTE!"

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Cornell Countryman
Hagan Hosts Red Vets ....

... and The Countryman interviews them.

Russian vets inspect a Cornell cow.

by Michael D. Marien '59

Major crises in the tense international situation have overshadowed one of the brighter events of recent months in the field of foreign relations. While top level "diplomats" from the United States and the Soviet Union glare at each other, diplomatic progress is rapidly being made by the exchange of agricultural delegations between the two world powers.

During this past summer and early fall, the United States Department of Agriculture sent six agricultural groups to the Soviet Union. The U.S.S.R., in turn, sent a similar number to our country.

Exchanges such as these, in cultural, technical, and education fields, have been arranged under a delegation exchange plan signed January 27, 1958. The United States Department of State describes these exchanges as, "a significant first step in the improvement of mutual understanding between the people of the United States and the U.S.S.R."

A delegation of Russian veterinarians visited the Cornell campus on October 1 and 2. The following is an interview with Dr. Arcadiy Bokio, leader of the Russian delegation:

Q. What American ideas and innovations impressed you?
A. American animal husbandry is very developed. The attempt to make all animals healthy is quite commendable. We did not find any difference between U.S. and Russian eradication of disease. There is a difference, however, in the organization of the services, because the U.S. has privately employed veterinarians, who are only concerned with making money. I think the Cornell Veterinary School is "one of the best in the world." Although everything is mechanized, I did not see very many large farms in the U.S. The U.S. has good beef cattle; the "Russians have few."

Q. What is your opinion of the exchange of agricultural delegations?
A. The exchange is very beneficial to both nations, but there is not enough time for the delegations to study everything. To do this, we would have to work here for six months or a year. Students and scientists should be exchanged between the two countries. Although we "were familiar with the U.S. veterinary science through books, we now have a closer contact and will go home with [a feeling of] friendship with the U.S. vets." A little better understanding is needed.

Q. I understand that over 50% of the Russian population is engaged in agriculture. Is any effort being made to transfer some of these people out of agriculture and into industry?
A. We have a five year plan for developing agriculture and industry. New industrial institutions need new workers and younger people, many of whom will come from farms. New soil in Central Asia is being explored—and young people are needed. These people will come from cities, too, on the "call" of Young Communist organizations.

Q. What impressions do you have of American students?
A. I didn't have a chance to meet them too well, but I like them because they are cheerful, energetic, and "busy with sport exercises." (Dr. Bokio enjoyed a football game between Nebraska and Penn State.) American students will make good scientists because they have everything good for study, especially in equipment and buildings. The Veterinary school at Cornell was built wisely and comfortably. Russian vets are trained in a manner similar to the Americans, particularly in experimentation. Russian vet schools, however, are larger with enrollments of 800-1000.

Q. How does Russian efficiency compare with that of Americans?
A. I cannot say, especially concerning animal husbandry. Half of the Russian cattle belong to private owners. This half is less productive.

Q. If you were Secretary of our Department of Agriculture what changes would you institute?
A. It takes time to change policies; if a person wants to fly to Mars, he cannot just take off. It would probably be necessary to have more vets employed by the state. Too much private practice is not best for eradicating disease, and also makes the vets much like businessmen.

October, 1958
Scholars Pierce The Curtain

by Michael D. Marien '59

RUSSIA: a country of 200 million persons, the largest country in the world, and the leading rival of the United States. Her political intentions are well-known; what about her people and her resources?

Two members of the Cornell faculty visited Russia this summer. Dr. Marlin C. Cline, Professor of Soil Science in the Agronomy Department, served as a member of the delegation involved with soil and water use. Dr. William A. Hagan, Dean of the College of Veterinary Medicine led the Veterinary Medicine delegation.

Russian women harvest their tomato crop.

The mission was simple: To find out what the Russians were doing, in addition to building sputniks. But there were very few things concerning research that were new to either the Russians or the Americans. The U.S.S.R. has taken advantage of everything learned in the West, by employing an elaborate translation service in Moscow. The Soviet Union knows what to do—but it will take time to institute changes.

Dr. Cline commented that "Russia has come a very long way in 40 years." The mechanization of Russia is increasing rapidly, especially in large machinery such as plows, combines, and tractors. Although the big jobs are well-mechanized, over-all efficiency of operation is low, because many small jobs are still done by hand. Many of these trivial jobs, such as field work, are done by women, who also serve as construction workers and truck and street car drivers.

Dean Hagan noted that Russian consumers waste a "tremendous amount of time in just trying to buy." Great crowds line up in early morning to wait for the markets to open, and the crowds persist far into the evening. The marketing system is government operated: a quota is taken from the collective farms and sold in the government-owned markets at similar prices and qualities, and with little variety. Although the Russians appear well-fed, there is an overall shortage of consumer goods.

Dr. Cline's delegation observed several Russian innovations in the field of soil and water use and management. An unusual practice was the use of bacterial fertilizers, employing Azotobacter and other forms. Dr. Cline brought a culture of phosphorus bacteria back to Ithaca for observation. Some of the mechanical innovations that the delegation observed were a gauge for measuring water flow into irrigation canals, a horizontal pump, and a ditch-cleaning device.

Because the land on the collective farms is incorporated, the fields are very large—some a mile in length—and thus well adapted to large machines. But, in spite of the "complete mechanization" that the farm managers boasted of, much of the Russian labor force is inefficiently employed. Instances where persons were retained in very trivial capacities discredits the Russian boast of 100 per cent employment. As a classic example, Dean Hagan noticed an apartment house in Moscow that employed two women to run an elevator for eight families.

Russia is "doing a very good job in veterinary medicine," Dean Hagan summarized. Brucellosis and Foot and Mouth Disease are well-controlled. Although the Russians deny duplication of vaccines and many other things, they use the same methods that we use, and identical strains of vaccine, such as Strain 19, which is aiding in the conquering of Brucellosis. The Soviet Union has an advantage in eradicating diseases of animals, in that the government owns most cattle, and doesn't have to get the consent of the owners when undertaking experiments or disease eradication programs.

Artificial breeding in the Soviet Union is well-developed. It is one of the few "inventions" that Russia can rightfully claim; artificial insemination was started back in the 1890's, although it has only been emphasized since the war.
The American delegation rode in style on Moscow sidewalks.

The Russian dairy cattle industry is thriving, with the help of Western bulls. Beef needs are satisfied from dual-purpose or dairy cattle, an efficient dual-purpose animal being the Russian objective. Lambs are never slaughtered but allowed to mature for wool purposes before slaughter. The Russians, unlike Americans, are still raising fat hogs, slaughtered at 300-350 pounds.

Gigantic banquets were given to the delegations at every farm visited, featuring abundances of food, drink, and hospitality. The Russians toasted everyone during the banquets, but they drank only in moderation, and often toasted with water. Both of the Cornell travelers agreed that the most trying part of their journey was accepting the zealous hospitality of their hosts.

The future of Russian agriculture can only be optimistic. There is as much variance in Russian soils as in the U.S., but topographically, Russia has greater expanses of level land. Virgin prairie land, similar in quality to our Eastern Great Plains, is being developed east of the Urals. Dr. Cline described this expanse as "a tremendous area of good soil for agriculture."

The Soviet Union is a diversified land composed of 15 Republics, each reasonably self-sufficient, and maintaining its native customs, language, and dress. In spite of the diversity, the American delegations were hospitably received by everyone, and were shown most of the things that they asked to see. The Russians equalled the Americans in curiosity, and were especially interested in the American's shoes, for the Russians are poorly shod.

Suspicious that they had only seen the best farms, the leader of the American Veterinary Team, Dean Hagan, demanded a visit to an average collective farm. The guides and officials were thrown into a turmoil, but after extensive conferring, the delegation was taken to an "average" farm, located near the Finnish border. Needless to say, it was far from the standard of farms that had been previously visited.

Although the governments of the United States and Russia are constantly at odds, Dr. Cline observed that the Russian people "have a great admiration for America and the things that Americans have done." Supporting this statement is the fact that an official goal of the Soviet Union is: to equal the United States in per capita production of milk, meat, and butter.

—Dean William A. Hagan

October, 1958
A GROUP of campers and counselors was hiking through a breathtaking expanse of oak-hickory forest. Tired, they stopped to rest, passed around the canteens, and one of the leaders lit up a cigarette. “Don’t forget to break your match to make sure it’s out and stamp out the cigarette when you finish,” grinned a freckle-faced nine-year-old. “That’s what Smokey says to do,” she added, brandishing a brown and white Junior Forest Ranger card.

Good old Smokey! Always on the job, guarding America’s forests, a constant reminder to be careful using one of our most precious and most beautiful resources. Clad in Levi’s and fire ranger hat and carrying his shovel, Smokey reminds us that, “Only YOU can prevent forest fires.”

Smokey the bear, like so many of this nation’s symbols, is the child of an advertising man’s brainstorm—one that was brewing for many years. He arrived in 1945 pouring a bucket of water over a smouldering fire as part of a poster informing the American public that “Smokey says—Care will prevent 9 out of 10 forest fires.”

Let’s go back a little further; three years to be exact. This was a year after the Japanese attack on Pearl Harbor drew the United States into World War II. It was this attack that so emphatically pointed out the need for fire prevention. Manpower was being drained from civilian jobs by the Armed Forces, shipyards, defense plants, and aircraft factories. Lumber was needed for construction and crating, and pulpwood for paper, cardboard, explosives, and chemicals. Rangelands and watersheds needed to be protected more now than ever. Columns of smoke raised havoc with air raid detection devices and provided easy cover for enemy submarines and planes. Smoke interference made it necessary to interrupt training of military personnel. GI’s often had to leave their training posts to help fight forest fires.

All this plus the fact that more than 90 per cent of forest fires are caused by man’s carelessness and indifference, made the United States Forest Service and the Association of State Foresters do some serious thinking about the problem of stopping forest fires.

Early in 1942 they took their problem to the newly organized War Advertising Council, a group financed and supported by American business in the interest of public service. The council was quick to see the need for forest fire prevention and they agreed to sponsor this campaign. A leading advertising agency, Foote, Cone, and Belding of Los Angeles, was chosen as the volunteer advertising agency to set up a plan of action and a coordinating group from industry saw to it that the public was soon seeing and hearing fire prevention messages.

Wartime fire prevention was just one of the many projects of the War Advertising Council. They also gave a shot in the arm to such campaigns as sale of war bonds, scrap metal drives, and blood donor programs. Their 1942 opus was an ugly poster sporting a leering Nazi and the slogan, “Careless matches aid the Axis. Prevent forest fires.” In 1943 caricatures of Hitler and Hirohito reminded that “Our carelessness is their secret weapon. Prevent forest fires.”

1944 saw some improvement with a forest ranger calling out in flame-rimed letters, “Prevent forest fires. Greater danger than ever.” Also in 1944, emotions more healthy than hate were appealed to with a supporting campaign showing Walt Disney’s Bambi, accompanied by a rabbit and a skunk, begging, “Please, Mister, don’t be careless.”

Bambi was an effective fire preventer but even he had many shortcomings. First of all, it was hard to humanize a deer and even harder to imagine one fighting forest fires and doing any of the other things that Smokey does. In addition, Bambi was the copyrighted property of the Walt Disney Studios and this would restrict his use somewhat.
Public interest and response, however, demonstrated the advisability of an animal theme and the next step was the creation of a brand new animal character who would specialize in fighting forest fires. For such a mascot, the War Advertising Council turned to Albert Staehle, a Saturday Evening Post cover artist who specialized in animal art. Mr. Staehle came up with the Levi-clad bear cub we know today. He was christened Smokey, a take-off on Smokey Joe Ryan, a New York City fire chief.

Little Smokey, a live bear cub, joined his brother in 1950. Men combatting a fire on Capitan Mountain in the Lincoln National Forest of New Mexico were fighting for their lives amid the flaming fury of the forest fire and suddenly found the two dozen of them and a frightened, hungry, badly burned little bear cub the only living things left in the entire blackened, burned-out area.

It took five more days to put out that fire and, as a result, much of the Capitan Mountain is far from pretty today. For the bear cub, however, the story had a much happier ending. The New Mexico Game and Fish Commission nursed him back to health and flew him to Washington to be placed in the National Zoo as a prime example of the need for forest fire prevention. Little Smokey now appears on posters along with Big Smokey and children and adults visiting the National Zoo have a very important message brought home to them when they “ooh” and “ah” over the now fully grown bear.

Smokey is also accompanied by a slogan: “Remember, only YOU can prevent forest fires.” This puts fire prevention on the personal basis on which it can be most effective. It keeps the public constantly aware of the fact that fewer than 10 per cent of the forest fires in the United States are caused by lightning; the rest are man-made. It reminds us that we are the ones who must crush smokes, be sure that all fires are out, and be careful with our matches.

It reinforces the 1958 campaign slogan, “Thou shalt not destroy thy forests.”

Since World War II, the War Advertising Council has also undergone minor changes. First it changed its name to the Advertising Council. Then it gave up scrap drives and the like to support better schools, Community Chest, CARE, the Red Cross, and similar causes. Total free advertising on Smokey’s behalf alone totals over 10 million dollars annually.

Congress has also helped out. In 1952 the legislature unanimously passed a bill to protect Smokey’s name and character from unauthorized use. One of the provisions of this law authorizes the Secretary of Agriculture to issue licenses for the manufacture and sales of commercial Smokey Bear products if 1) the products are in good taste, 2) they carry a fire prevention message, and 3) a five percent royalty on the wholesale price is paid to the Cooperative Fire Prevention Program, Smokey’s parents. To date, royalties on some thirty Smokey products have totaled over 150 million dollars.

Even more important than the cash royalties, have been the dividends paid in forest fire reduction. Through these products Smokey’s young friends teach fire prevention to parents—and camp counselors.

Apparently, both children and bear cubs make good salesmen. Since 1942 we have had some of the worse possible forest fire weather and a 300 per cent increase in the number of people using forest lands. Along with this we have had the smallest number of forest fires on record.

Though this is a great improvement, there are still over 175,000 fires annually. Someone’s carelessness started nine-tenths of last year’s forest fires—someone whom Smokey and his friends must still reach with the message, “Remember, only YOU can prevent forest fires.”

—Advertising Council

THOU SHALT NOT
DESTROY THY
FORESTS...

Remember—
Only you can
PREVENT FOREST FIRES!
IN the days of the dinosaur, a caveman sitting before his fire might have noticed among the embers a shiny pool of molten glass. Curious, he drew his stick through the melted mass and up into the air. Attached to his stick was a long, coarse string of liquid glass—the first Fiberglas.

This same Fiberglas is the talk of the textiles industry today, perhaps even more than the other synthetic fibers because of the incredibility of glass (a material common to us all) being made into a soft fabric.

Glass fiber, probably discovered in principle by the caveman, didn’t make a serious appearance until the Middle Ages when it was seen as flowers and leaves shaped by Venetian glass blowers as decoration for stemware and goblets.

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Model: Cathy Morgan '60

Caveman Discovers Fiberglass

Out of prehistoric fires come modern draperies.

by Brenda L. Dervin '60
Fiberglas, however, didn’t come into its own until the late 1930’s—the half decade when most synthetics made their debut.

Neither the caveman nor the Venetian glass-blower would recognize today’s glass fibers made into amazingly versatile material for curtains and draperies, that are translucent, soft to the touch, and delicate in appearance.

Fiberglas, used mainly for interior design, is big news in 1958 textile research. A new Fiberglas Aer-cor yarn has been developed that imparts the feel of a natural fiber like wool or mohair, takes deeper pigments, and works into novelty weaves with unique patterns that look as if they were hand-loomed.

All these glass fibers have an inherent beauty for they are translucent. Hung over light, they impart a glow much like the effect from stained glass windows.

In addition to these decorating qualities, Fiberglas has other unique advantages: it can be washed and dried in a matter of minutes with absolutely no ironing. And, the fabrics are strong enough to endure constant exposure to the sun without fading or damage to the fibers.

Thus, the field of interior design has another synthetic fabric to use in its new homes—a fabric made of glass, the same glass used through the centuries.

An interesting open weave lends novelty to this window treatment.

—Owens-Corning Fiberglas
Clearing the Summer Smog

by Steven A. Breth '60

Over the sticky tables of the Ivy Room during these first few weeks, oft times slides the weary query, “How was your summer?”

Next summer is still so far off that it seems like a mere sliver of light shining through the smog of prelims and finals. This, however, is the time to lay the groundwork for a profitable and interesting job. The College of Agriculture registers people of many different interests and many of these have difficulty in finding a job which suits them and still meets the requirements of the Farm Practice Office, i.e. to teach the student something about farm life before he graduates.

Before making plans, check your farm practice credit situation. If you have fewer than 20 points, ponder your job problem no longer—just grab your boots and jeans.

With more than 20 points to your credit, the future looks better, but you still have to check out any plans you have with the proper authorities. Contrary to popular opinion, these authorities are human and quite understanding. However, years of contact with assorted undergraduate charlatans (one of whom tried to call a job as a lifeguard in a girls’ camp “field research in marine life morphology”) have inured them to ordinary pleas and groveling. Hence you must find more novel ways to plead and grovel. Anyone who walks through the frosted doors of the Farm Practice Office with some weird scheme, related to agriculture only by the olives in the drinks, deserves to be sent to the hinterlands to stomp silage all summer.

Attempt to find a job that conforms closely with your requirements of salary and time involved. More important, it must be closely related to your major field. The merits of this job in relation to post-graduation plans should also be carefully thought out, considering such things as practical training and application of text book knowledge and contact with leaders in your field. With these point in mind, present your case to the Professor of Farm Practice and you ought to get permission.

Generally, the administration has many summer job openings in its files. However, there are many worthwhile summer jobs around campus that are created for just one season and can only be found via the grapevine. This type is usually as a laboratory assistant. Last summer, for instance, an animal husbandry professor needed someone to help him run radiation experiments on cattle. Other jobs around campus may be found in the Vegetable Crops Department, Rural Sociology, Plant Breeding, and Farm Management.

Graduate students in the various departments are often good sources of summer job information. Professors, advisors, and fellow students can also help you. However, the time to start is now; pretty soon Ivy Room gossip will get around to “What are you doing next summer?”
Trainee Turmoil

SUMMERTIME, and the living is . . . well, it is a problem. Actually, living isn't as much a consideration as, what to do while living.

The editor of the Cornell Countryman, Brenda L. Dervin, received a letter during last summer which describes a particular sultry siege. Said correspondence emanated from one, Gerald P. Hirsch, editor emeritus of the Countryman.

Within the confines of decency, it is reproduced herewith.

Dear Bunnie,

Agriculture is as much a part of Washington as is the White House and the President, who is occasionally there.

Every summer, the Department of Agriculture invites 14 college students (all aggies) to come to Washington and work for the government as journalists. This program is only for junior class students—supposedly the cream of the crop.

There were three Cornellians, out of the 14 trainees, working for the USDA: Mike Marien, Peter Jung, and myself.

We summer trainees worked in the information service sections of various branches of USDA. Pete and I were in the Agricultural Research Service and Mike worked for the Foreign Agricultural Research Service. Others were in the Agricultural Marketing Service, and various divisions in the Office of Information, Federal Extension Service, to name a few. Our work was mainly converting laboratory findings into readable copy for journals.

I ran into Mike Marien in my wanderings. He was writing an article for Foreign Agriculture on the Japanese silk industry. He said that he had become an expert on office hot plates and secretaries.

We discovered two more Cornellians in the Foreign Agriculture Service: Stuart Lerner was working as an FAS-type summer trainee, and John Linch graduated and signed his life to the Benson force.

However, the Cornell student does not merely work while in Washington. There are many sights to see and lectures to attend . . . and there is always ping-pong at the International House.

Jerry
All That Jazz . . . .

Ag-Dom Wins Out

by Zilch

Welcome back to another jolly year of school: frosty mornings, falling leaves, football games, and all that nostalgic rot; fresh lugging briefcases up the Libe Slope, sophs phoning frantically to get a date for The Game, juniors sleeping in Mann Libe, and the seniors . . .

Things have definitely changed though. Prof. Shapley of farm practice fame was recently seen wearing a pair of Ivy League slacks—buckle in the back yet!

Before things get too out of hand, it would be well to mention that this is a column, a column devoted to all the interesting happenings around the Upper Quad, a column of educational purpose, i.e. to enlighten all of you unenlightened students. This month the Ag-Domecon Council wins out, getting the full Zilch treatment, because it has had a lot of mention, especially in this issue of the Countryman.

If you are dissatisfied with social regulations, farm practice, eight o'clocks, too much homework, or too many dogs attending your lectures, don't just sit there; write to this column. Or, better still, write to the Ag-Domecon Council (The "Domecon" stands for "Domestic Economics") and save humorous anecdotes for Zilch.

This Ag-Dom jazz that one occasionally hears about should not be an intangible organization as far as students are concerned. This council is very real, and the every-other-Wednesday meetings in the Warren Student Lounge may be attended by anyone.

And what can Ag-Dom do for you? The council has close contact with the faculty of the Ag and Home Ec schools through its Student-Faculty committee. The president of the council, Dave Kitts, has a seat on the University's Student Council, where he acts as your voice in university affairs.

Problems cannot be solved by unharbored lungpower, so Ag-Dom provides a facility where your suggestions, criticisms, denunciations, compliments, or money can be channeled and applied to the places where they can do the most good. Everyone is cordially invited to attend meetings and to supply his two-bits worth, although only council members can vote on issues.

Who are the council members? There are 31 students who serve on the Ag-Dom council, including a representative for every 100 students in the Ag and Home Ec schools, and a representative for each class. The freshman class has representatives too and the council will soon elect three frosh reps: two aggies and one home ecie. Oow about it, frosh? Here's a good chance to be a BMOC (or a BWOC), Upper Campus style.

Ag-Dom's main function is to make everyone happy, and if you haven't heard about Ag-Dom's Orientation Square Dance, then get this jazz, kiddies . . . you missed it! That's the breaks, but the 200 energetic souls who visited the Martha Van parking lot on Friday, September 26, will all agree that the dance was real grunts.

Oh well, Ag-Dom can't please everyone . . .
Oley Sez:

Your lumber man is Baker, man!
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October, 1958
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One of Ecuador’s future farmers tends his flock of chickens.

A Thanksgiving Soliloquy

"I've heard it said the world's a dismal place.
But I know better . . .

for I have seen the dawn, and walked in the
splendor of a morning's sun . . . blinked at the brilliance
of the dew, and beheld the gold and crimson
of an autumn landscape.

"I've heard it said the world is sad.
I can't agree . . .

for I have heard the cheerful songs
of feathered masters . . . heard the low laughter
of the leaves, and the everlasting chuckle
of a mountain brook.

"I've heard it said the world's a musty, sordid thing.
It can't be true . . .

for I have seen the rain . . . watched it bathe
the earth, the very air . . . and I have seen the sky,
newly scrubbed and spodless, blue from end to end . . .
and I've watched the Winter's snow drape tree and bush,
to look like Nature's freshly laundered linen hung to dry.

"I've even heard it said the world is evil.
But they are wrong . . .

for I have known its people . . . watched them die
to save a freedom, bleed to save a life . . . spend of themselves
to stem disaster, of their wealth to ease distress . . . and
I have watched them live, love, and labor . . . watched them
hope, dream, and pray, side by side.

"I have heard them say these things.
But I would disagree . . .

because, for every shadow, I have seen a hundred rays
of light . . . for every plaintive note, I've heard a
symphony of joy . . . for every pennyweight of bad, I have
found a ton of good . . . good in Nature, in People,
in the World.

And I'm thankful I belong."
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The Cornell Countryman is published monthly from
October through May by students in the New York State
Colleges of Agriculture and Home Economics, units of the
State University of New York, at Cornell University.
Entered as second-class matter, postage paid at Ithaca,
New York and at additional mailing offices. Printing by
Norton Printing Co. of Ithaca. Subscription rate is $1.75
a year or two years for $3.25; three years for $4.50; single
copies, 25 cents.

November, 1958
Why Be Just an IBM Number?

A long with the frequent cries for an improved intellectual atmosphere at Cornell come pleas for better student-faculty relations. The need for improvement in this area is obvious; the benefits can not be disputed. But, the people who are crying the most—the students—appear to be doing the least.

In the early days of Cornell, when most of the professors lived on campus, Sunday afternoon open-houses with the faculty were an easy and pleasant affair to arrange.

Now this is impossible. The faculty for the most part lives off-campus; the student always seems too busy to go out of his way to visit his professors.

Yet, if the students want to know their professors; if they would like the obvious benefits of informal out-of-class seminars in their major; if they would like to meet for discussion with other students in their major and faculty members on aspects of their field of study, they themselves must instigate the programs. They can't expect professors to arrange programs for them. The professors may not actually know what students would like in an extra-curricular nature relating to their field.

On the basis of this situation, we are making the following recommendations:

The upper-campus clubs have a wide variety of possible ideas from which they can start this effort to improve student-faculty relations. How about Sunday afternoon seminars in the club's field of interest—topics which aren't covered in courses; informal discussions held at either a professor's home or in some meeting room around campus? The same idea can be applied to majors within a field of study.

The Home Ec. Club might have a seminar on the connection of home economics to agriculture; the Floriculture Club might have a seminar on public attitudes toward flowers; ag. journalists might be interested in aspects of editorial policies; and textiles and clothing majors might study the effects of high fashion on U. S. fashions.

The possibilities for this type of program are unlimited. All that is needed is a group willing to prepare such a program and to be responsible for attendance. If the students instigate the action, professors will surely be interested.

B.L.D.

Spare The Rod and Spoil The Dog

Sharing our campus with half the dog population of Ithaca is, generally, a pleasant custom. However, one yellow dog seems determined to turn students against the campus canines.

Is it too much to ask that a dog sit quietly through a lecture—especially at eight o'clock in the morning when most of the people in the lecture hall are sleepy?

Are we being prudish when we object to his overtures to innocent—and unwilling—female members of the community?

Must we restrain ourselves from calling out against his constant attacks on dogs smaller than he?

It would be unrealistic to ask that all campus dogs display the decorum of the little spotted mutt who frolics happily at her master's side. Nor can we expect that all Cornell dogs will get along with the peace and harmony of the beagle and terrier often seen walking quietly side by side.

This ideal situation is too much to ask. But we do think it quite fair to urge all campus curs to act in a manner at least approximating that of ladies and gentlemen.

J.H.B.
Letter to the Editor

Advice to Ag-Dom

Dear Editor,

Perhaps the main reason for the apathy about Ag-Dom is that this organization does so little. An active organization may not necessarily be popular, but it is well known. True, Ag-Dom presents an Orientation Week square dance, and Ag-Hec Day with its big dance, and coffee—and sometimes even doughnuts—for a few hours during finals week. But what about the rest of the year?

Is Ag-Dom simply an organization to provide social functions and occasionally speak up on student matters (such as the opening of Mann Library on Sundays)?

I don't think it should be. Rather, it should try to find other ways to help the students it represents. It should find ways to help students and further their interests. For example, Ag-Dom could hold a panel discussion on the pros and cons of price supports, or try to get transportation for the students who have ten minutes to get from the Vet School to the Lower Campus.

Certainly an organization can do nothing without its members but a few members can start something that will draw participants, if there is a real need for the organization.

Sincerely,

Gil Shepard, '59

Editor's note: The preceding is a response to Dave Kitts' letter in our October issue on Ag-Dom Council. In connection with this letter, we might suggest that the two editorials in this issue on student-faculty relations and Mann library might offer possible areas for Ag-Dom to explore.

Editorial

Mann's Knowledge is Unattainable

MANN LIBRARY has one of the best physical plants on campus with its separate rooms for scholars of every temperament and its constant addition of books, pamphlets, and bulletins.

But just try to get to them. Ag and Home Ec students have many labs and few dead hours making it necessary for them to do any extensive research in the evenings and on week-ends.

On these very same evenings and week-ends the library staff seems to be reduced to a skeleton crew. On Sunday, the stacks aren't even open.

On top of this, the cross-indexing system is unbelievably inadequate. It is necessary to search under all possible variations of a topic in order to find all related material. Then, once the references have been taken from the stack, the librarians have to shout across the reference room. Certainly, a numbered call board could be set up at the stack desk and in the main reading rooms.

This is not to criticize the library staff. They are amazingly efficient in spite of their limited numbers. The reference librarians are invaluable and show an admirable amount of patience.

However, the foundation of any school is its library and something should be done to raise the operation standards of Mann to the levels that the two great upper-campus colleges deserve. These improvements may mean an increase in staff or a change in their working hours. In the long run, the problem boils down to a need for more money for the library. We can not think of a more worthwhile cause.

S.A.B.

November, 1958
WELL, here we are, almost on the verge of Ye Olde Winter, as the author takes another slug of terpin hydrate with codeine (the 84 proof habit-forming cough syrup), and staggers out of the lecture room. Smackin' good stuff!

This brings up the point that the current 18.5 million bushel apple crop in New York State is the largest since 1949, 4.5 million bushels larger. Now, men, we've got to save the New York farmers from the clutches of supply and demand.

Zilch, forever thinking of his constituents, toddled on down to the pomology department and asked an apple man about hardening the delightful drippings. Said pomologist advised that the best way to make hard cider was to "just let it age" with, perhaps, a little sugar or honey to quicken the proceedings. Zilch has tried this cider jazz, but the results taste like... well, they don't taste good. Any suggestions?

Innovation in the learning process is often slow in being instituted, but not for Professor VanDemark of the bacteriology department. As many of you may remember from last year, Dr. VanDemark felt that a prelim should be given so that an equal chance would be given to those who do crossword puzzles during Bacte lectures.

Class average on the now-famous crossword puzzle prelim was 94. "It would seem," noted the professor, "that students are very adept at this type of test." He added that if another exam of this sort were given it would have to be based on a crossword puzzle from the Sunday New York Times. At present Dr. VanDemark is studying the possibilities of developing a combination pencil-knitting needle for the home eccies who take the course. Cheers for a great academic crusader!

Why the "V" in "STVDENT"?

Many Cornellians have probably wondered about the old-fashioned "V" that is often used by Student Agencies. It is a matter of pride — for generations of Cornellians can look back and remember the quality service that this student owned and operated organization has given them since 1894. And it still serves as a traditional reminder: that students know what students want.
The scene now shifts to Plant Science, where the sharp-witted mentor of Botany 1, Dr. H. P. Banks, recently told a class about a colleague who had advised a student to christen his old jalopy Xylem. Why? "Because it carries the sap back and forth."

Shortly after the hunting season had begun, the botany classes were discussing the shoot systems of plants. "The apex, plural: apices, is the place where shoots appear," explained Dr. Banks. A hand shot up in the fourth row.

"Sir, where do you go to shoot apices?"

Absent-minded professor department: D'ja hear the one about the professor who drove his car to Syracuse, forgot he had driven it there, and took the bus back to Ithaca? This brings to mind a similar incident when another prof drove his wife to Binghamton and forgot to take her back to Ithaca.

And there was the one where a prof came to class, not with his briefcase but with a fragrant bundle of garbage that his wife had given him to throw away. A recent professorism took place in New York City, concerning a faculty member who was having trouble hearing over the telephone. Why? Mainly because he had been talking into the wrong end of the phone for half an hour.

All this time you have probably been wondering what all that jazz is up in the corner or the column. (Left hand page, upper left—that's it; hold it! Fine.) Well, that is Andy Smoothastraw, the Ag-Dom Council's Ivy Aggie. This agrarian fellow with the buttondown collar will be publicizing all of the Ag-Dom events. He seems a little shy at all the publicity, but he'll get over it. If not, Ag-Dom will have to ship him back to the boondocks and find someone else to work for them.

LITTLE MAN ON CAMPUS

Before that Trek To Cortland....

Stop off at Bartholf Mobil to gas up the old jalopy. Not only will the friendly service please you, but the location is so convenient—just off campus on the Cortland road, where Dryden Road and a mess of others come together. And before the Ithaca blizzards rust your car away, remember to have it waxed by us.

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November, 1958
Ecology 116

A Tradition in Practice
by Edward Feinberg '61

NOVEMBER! A time of hay rides, turkey dinners, prelims, football games, and oh yes, pre-registration. For some this entails the usual chore of digging out that old ag catalogue and scrounging out fifteen hours worth of courses. To others, pre-registration is much more important. It offers the opportunity to plan an interesting and worthwhile program.

One of the most novel and exciting things to hit Cornell since Andy White is a course which should fit well into the program of anyone in the latter category. It is Ecology 116, taught by Assistant Professor David Pimentel of the entomology department.

Ecology, the study of living organisms and their environment, is nothing unusual in itself. It is the man behind it, Dr. Pimentel, who makes this course exceptional, for his method of teaching differs considerably from that of many of his contemporaries.

The professor feels that "Since learning is a lifetime process it seems necessary to prepare students for this challenge of learning for themselves." This is just what he does in his class.

Ecology 116 has no prelims, no final, no textbook, and offers three hours credit for two hours of assigned class. Is there a catch? You bet there is! The students study an assigned topic each week in books made available by Dr. Pimentel. Using the material gathered, they write reports of their own viewpoints on the topic. They may say anything they want as long as they back it up with factual evidence.

But what about that extra hour credit? Wise Cornellians know that the University never offers anything for nothing—especially credit hours. The credit is given for lab work, naturally. "Aha!" you say, "a lab!" But what a lab! There are no assigned hours, no required experiments. Instead, each student, with Dr. Pimentel's interest and advice to help, does his own research on a previously unexplored point in ecology. Those who have done a worthwhile job may, at the end of the term, succeed in having their results published.

What do past students think of the course? A survey Dr. Pimentel made at the end of last term showed students heartily in favor of this method. Many thought the results from this lab work satisfactory and approved of this type of lab.

You may wonder if Dr. Pimentel's idea is new. Similar, but not identical, programs may be found at St. John's College in Annapolis. Here in the Ivy League, Brown University has taught courses in biology in a manner somewhat akin to Professor Pimentel's. The ideas for this particular class, however, are his own. They were formulated during his college years during the time he spent at the tropical research laboratory in Puerto Rico.

Besides his classes, Dr. Pimentel is conducting research on population dynamics. He recently completed a paper based on his work in this field at the University of Chicago.

Dr. Pimentel has a firm belief that one can learn any subject on his own if he has sufficient interest in it. On this principle he has patterned his class, a class brimming with Cornell's tradition of "freedom and responsibility."
Your Cupboard Need Never Be Bare

by Christine Melynk '62

MOTHER is madly scurrying around the house trying to find time to put the Thanksgiving turkey in the oven and give Junior his 1:00 o'clock bottle without confusing the two ministrations. The phone rings. It's Aunt Agnes; she's coming to dinner. "Aunt Agnes! That's awful! Aunt Agnes can't eat turkey! She can only eat rabbit meat—hind cut!" Obviously Mother must get rabbit meat. She puts on her coat and flies to market.

In many situations there is a consumer who wants a commodity, a supply of the commodity, but the two don't meet. This represents a loss to consumers, suppliers, and food stores.

The extent of this loss inspired the formation of a new course by the New York State College of Agriculture and the Graduate School of Business Administration in co-operation with the National Association of Food Chains.

The primary objective of this course is to help super-markets to serve the consumer more efficiently. W. I. Myers, Dean of the College of Agriculture, feels that the program is "a milestone in the College's continuing effort to make food distribution more efficient, thereby serving both industry and the consumer."

Courses in the area of food distribution, merchandising and promotion, and industry management have been instituted to make students aware of the problems involved in the field. These courses lead to a B.S., M.S., and Ph.D. degrees. There is also a one year course for special students not seeking a degree.

Students now majoring in food distribution feel that it combines the academic with the practical approach to management. Tom Collins, the only undergraduate in the course so far, said that: "This program will train me for more than just an executive position in stores; I'll also be able to become a buyer or enter a related field."

The distribution of another basic commodity—money—has also been considered. Some food companies have established fellowships worth $1500, of which $1000 goes to the student and the rest to the University to finance the program.

The new program will be a major step in developing managerial skills and ability for future executives in the food industry. The co-operation between the College of Agriculture and the Business School will form a well-balanced program in food distribution. Mother... with all of this, Aunt Agnes is sure to get her rabbit meat next year.

Robert Burt
MEETING OF WEEKLY FOOD DISTRIBUTION LECTURE.

The super-market is out of rabbit meat... especially hind cut. None of the other stores in town have rabbit meat. Aunt Agnes will have to eat turkey and like it, and she will probably cut Mother out of her will.

The problem here, of course, is food distribution. Mother needed rabbit meat, but she couldn't get it.

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November, 1958
ICA Technicians Abroad

Men With A Mission

A Massive figure of a man, Norman Ward speaks quietly and sincerely of his work as an agricultural specialist in underdeveloped countries. Throughout what he says there is a certain undertone that indicates a man who is satisfied and stimulated by the challenges of his career.

He is now at Cornell for his Ph. D. His work for the U. N. and the International Cooperation Administration (ICA), a division of the U. S. State Department, has taken him to China, Haiti, Peru, and Ecuador. In the past Ward's work has been as a horticulturist but in his last assignment, Ecuador, he was promoted to agricultural program director for the ICA.

The ICA is the result of the many rehabilitation and development programs, such as the Marshall Plan, that were created after World War II. The United States' military, economic and technical aids are all under the control of the ICA. The agency gives aid to free countries to build their economies and resist communism.

In the underdeveloped lands, the ICA works hand in hand with trained men native to the country. The continued success of the program after the ICA leaves rests with these men.

As a member of the technical division, Norman Ward is one of 900 American technicians working in 60 countries throughout the world. While the military division sends arms, and the economic sends money, the technical division exports knowhow to needy lands.

In addition to the regular specialists of ICA, 200 men from 28 land grant institutions cooperate in establishing technical schools abroad. Cornell's Los Baños agriculture school in the Philippines is one.

Every year the ICA hires college graduates to maintain and expand its staff. This year over 400 trainees will be taken.

Norman Ward is an example of the type of men that make up ICA. They are college graduates with broad areas of knowledge. The success of the program in an underdeveloped country depends on the overall experience of the specialist. He must be able to take part in all phases of the program.

Ward was born on a farm in Oklahoma, and was educated at Oklahoma State University. After getting his masters degree, Ward worked for the Farm Home Administration and, after service in the Army, went to China with FAO until 1948.

When the Communists invaded China, the specialist joined the State Department with ICA, going from Haiti to Peru to Ecuador to head the agricultural team.

Ecuador is typical of the underdeveloped countries that ICA tackles. With few natural resources, the country is underfed, poorly educated and suffering from lack of foreign trade and capital. As a result progress has been slow.

Nevertheless, Ecuador has great potential for increasing the amount of its agricultural produce. Ward points out that in the coastal region there is a favorable climate, good soils, and adequate water supply for production of corn and cotton and such tropical crops as bananas, coffee and cocoa. He re-

A FIELD DAY ON AN ECUADORIAN BANANA PLANTATION

Cornell Countryman
revealed, "There are hundreds of thousands of acres which could be adapted to crop production.

Paradoxically, in the fastest growing continent the population is too small to increase production with present methods. Even though there is more land than needed now, use of primitive farming techniques and a high starch diet, Ward observed, gave people full stomachs but left them undernourished.

Agricultural production is dominated by the large plantations where 10 percent of the people produce 90 percent of the export goods. The Indians' tiny farms, often clinging precariously to a hillside, are almost all on a subsistence basis.

The ICA came to Ecuador with its specialists, doctors, teachers, and most of all, its knowhow. With the Ecuadorian government paying over half the bill the ICA set up a program to increase exports and improve internal consumption and consequently better the standards of living.

Ward, the man who was in charge of the whole program, explains, "The essential thing in the introduction of any technique overseas is basically—limit your goals and make your changes minimum changes for each step." For example, in potato production first new seed was introduced and planting distances were changed; sprays came next. When production was up solutions to marketing and storage problems were found. Each step was introduced only after the preceding one was accepted.

To insure constant progress in the solution of problems and the spreading of new methods there were 27 extension offices, an experimental station, a livestock demonstration farm and two vo-ag schools. Ward himself helped establish farm radio programs originating in Quito, the capital.

Among the most valuable technicians were the audio-visual specialists who set up newsletters, farm papers and radio programs and were generally responsible for in-forming as many people as possible of new techniques.

The combination of a well thought out program and men who know their jobs resulted in many marked improvements. Ward noted that coffee production rose 17 percent, a spray was developed that licked Sigatoka, a fungus disease that has long plagued banana production, and in coastal regions corn yields went from 15 to 60 bushels per acre.

This last development may herald the development of Ecuador as a major cattle exporter. With corn to supplement natural grasses, Zebu and Brahma cattle, which are insect, heat, and disease resistant, can be crossed with native cattle producing a meat animal which will successfully compete on the world market.

The ICA is constantly inducting new men into its ranks. This agency needs college graduates with broad backgrounds in their fields. Ward calls them the "good county agent" type. They must be able to work on all aspects of their specialty e.g. breed improvement, feeds and feeding, breeding problems, housing, production methods, marketing and storage. "Knowledge all the way across the board."

Generally the ICA wants applicants to have graduate work or experience in the field and no military obligation hanging over their heads. There is a training program for interested college graduates before they are sent overseas.

Extension work will not make anyone rich but it has other and probably greater rewards. Norman Ward sums up what it means to work in foreign lands with under-developed people. "If you want comfort and convenience, stay home. But if you want the advantage of mixing with people, understanding how the world lives, and having a feeling of accomplishment, of knowing what you're doing and being able to see it grow and develop, and influencing the lives of others—there is no greater feeling than to see a new technique accepted and adapted and know that you are feeding hundreds of thousands of people better today than they were fed yesterday."
Children Underfoot?

by Dorothy Heideman '60

THROUGH the ages great men have worried about the care of children. In The Republic Plato advocates play areas for future philosopher-kings. Froebel felt that children were goodness itself, and that contact with the greasy fingers of society would corrupt them.

Dewey, on the other hand, argued that the child has the potentiality of goodness, but he is not goodness in itself. (This may be seconded by many parents.) Therefore, he said that early childhood education should develop the child to be a purposeful member of society.

The first day nursery opened in the United States in New York in 1854. At this time nurseries were mainly for care of children of working mothers during the day. Between 1920 and 1940, day care nurseries gradually became nursery schools as we know them today. Schools now offer balanced mental and physical activities designed expressly for young children.

With the development of psychoanalytic theory and increased child research the importance of early childhood was realized more and more. The increased employment of women during the Second World War caused the beginning of a national program of day care services. During these years of crises the nurseries again emphasized only physical care of the child. But the idea of early childhood education was not forgotten. Today it is recognized that every good nursery is a nursery school.

The nursery school teacher has to be long on stamina and patience and most of all, genuinely love children. She must be well trained in child development and psychology.

Most of us grew up in a generation in which nursery school education was not common. In a few years many of us will be parents. What does the nursery school offer?

First of all, the child is put into a situation in which he can make friends with other children. This may be very important if the child has few others to play with at home. Secondly, the nursery school also provides the child with a wide variety of tools and playthings. This equipment is designed to aid

the growth and muscular coordination of the child and it is scaled down to release him from the oppressive world of adult-sized objects.

These facilities allow the child to unleash all his energy. He can do all the running, shouting, and jumping he wants—things not usually allowed at home. The child-sized equipment makes it easier for the child to master his environment, which develops confidence.

Most nursery schools have definite times for eating, toileting, resting, and playing. It is a valuable experience for the child to become accustomed to a routine because his later life will consist of many routines. Routine also gives the child a feeling of security which can be important if his security at home is disturbed by the presence of a new baby or a conflict between parents.

The nursery school also provides for the child by helping parents to get a deeper understanding of their child through consultation with competent instructors.

If a nursery school fulfills these functions, we can see that it will be an important beginning of future emotional, social, and mental development. The nursery school as it exists today may be the best possible beginning for well adjusted adult.

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November, 1958
Every Wife A Home Economist

by Carole J. Wedner '61

Editor's note: This is the first in a series of articles on home economics through out the world. Throughout this series, particular emphasis will be placed on employment opportunities for home ec. students in these countries and the home economics situation.

DO YOU want to marry a French legionnaire, an Australian swagerman, an English bobbie, or a simple civilian? It really doesn't matter. Your home economics training can be used anywhere. Stomachs grow from hunger, babies need love, and people wear clothes all over the world.

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This summer people from all over the world gathered at Maryland University to prove that home economics is a world science like chemistry or physics and to prove that you can marry in any land and make an excellent wife or that you can work abroad and do your job well. Repeated in the reports of all the delegates were things that we are learning daily.

The shift of laborers from agriculture to industry is leaving less time for homemaking and opening a market for labor-saving devices. You may have to change the cord on an iron in England or operate a dishwasher in Spain.

Industry itself employs home economists to help produce these handy items and to use their skill in related problems. Women will be using pots, pans, and ranges so women should help design, make, and sell them.

As a mother in Finland or Italy you will ask such questions as, "Am I being over-indulgent?" or "Am I cooing and laughing enough at Johnny?" Teachers the world over also face the same problems—what to teach, how to present materials, problem children—and child care specialists in every land argue the meaning of maternal love.

Children in all countries are learning how to sew and cook early in life. Kitchens have been installed in many schools, along with nurseries and sewing rooms. As an elementary school teacher you may be asked to teach the youngsters of China to cook rice or those of Italy to make spaghetti. Lassies of Scotland want to make their first dance gowns and Mexican children take care of baby sisters and brothers. Girls in secondary schools will soon be setting up homes of their own. Functional storage, overloaded circuits, drapery and slip-cover designing, and husband-tempting dishes are important to a newly-wed anywhere.

This new science—Home Economics—is growing quickly. We are a part of this growth, a part of world growth.
Budding Botanists
Get A Chance To Bloom

Hey, Frosh! Are you interested in a basic course which offers some of the interest and independence of an advanced one? How about you upperclassmen? Do you want to complete your biological credits with a course that is different and entertaining? You have a chance to get into such a course if you take Botany I.

Twenty students in Botany I will be offered the opportunity to sign up for a special seminar after midterms. Students in these seminars are given an opportunity to meet professors and researchers in the botany department. These men give the students brief resumes of their fields and discuss research currently being carried on. Students are often invited to visit laboratories and aid in some of the experiments. Selection will be based upon high school and college grades in science and Botany I grades up to and including the first prelim.

"It is hoped that participants will become interested enough in botany to major in the subject but most of those who attend are just good students and haven't much of an interest in botany as a major," said Professor McDonough of the botany department.

Professor McDonough, a newcomer to the botany department, conducts this program which offers interested students a chance to learn botany in a way not possible in the usual lectures and labs. Last year's seminar members represented a wide cross-section of students from different colleges. Though some were prospective botany majors, there were also those who expected to specialize in biochemistry, science teaching, journalism, rural sociology, bacteriology, and other fields.

Among last year's group was Jill Beckoff '61. Miss Beckoff said that, "Although I am not a botany major, I feel that I benefited greatly from this program. I learned much about scientific technique and met many interesting personalities."

**The Story**

**Bob Lathrop**

ex-Cornellian and manager of the Dryden Stockyards

INVITES

"all Cornellians to visit me some Monday — the day of the Empire Livestock Marketing Cooperative auction at Dryden. Come over and see for yourself the excitement and tension that builds up during the sale. See stock weighed on our precision scales. Hear the bidding continue from lots of good buyers until you almost want to bid yourself. And see checks being made out as soon as the animal is sold. I think you'll also like our careful, but quick and efficient handling of stock. And, whenever there's time, I'll be glad to answer any questions. Dryden stockyards are only 10 miles from Ithaca, so plan to visit me some Monday soon."

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CORNELL’S animal husbandry department is reaping some of the benefits of the wave of construction currently sweeping Cornell. Construction of a modern, multi-million dollar animal husbandry building is expected to begin this fall.

The new structure, covering an area of about three acres, will “enable the staff in animal husbandry to do a more efficient and expanded job in teaching undergraduate and graduate students,” predicts department head, K. L. Turk. Due to the limited size and facilities of Wing Hall, animal husbandry headquarters since 1914, the department staff has been unable to realize its full potential for instruction.

Architect James Cameron Mackenzie’s plans call for a four-story front on Tower Road and a two-story wing along Judd Falls Road, tapering to a single story meat department in the rear of the building. Function as well as beauty has been taken into consideration by the state university architect. He has used the services of state officials, professors, and laboratory experts in the planning of this home. Six classrooms, five student laboratories, personnel offices, eighteen research labs, and modern slaughter and meat processing facilities will be provided.

An anaesthetizing tarp, only recently available in this country, is one other material evidence of the planning that has gone into this building.

With this type of equipment, the animal husbandry department will be able to employ the scientific techniques so necessary for the advancement of any branch of agriculture.
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November, 1958
The Thankful Heart

FULL of pride are we in our abounding crops. We are almost boastful that we can produce so great quantity, and that the nation can inventory so much wealth thereby. It is good to see the granaries full, the bins bursting, the storehouses laden and the barns packed to the beams. We read the figures with much satisfaction. We attain to mastery and we express our power. It is our high ambition to make every new year more productive than the old.

Yet, in the end, that people will conquer and that industry will survive that puts the most art and feeling into its efforts and its products, and the mechanical quantity-production, no matter how honest and "efficient", will fall into subordinate place. The quality of the product is verily more important than its quantity, because it expresses the soul of the producer; and even in a commercial age, the spirit will hold the leadership. To be keen in the appreciation of the beauty in the product is to exercise the highest privilege of any craftsman, whether farmer or artisan; and if one sees the beauty, one perforce is thankful.

To be thankful for the products of the year, therefore, is not merely a courteous and pious demeanor: it is a necessary result of satisfactory living. In these bountiful days we do not need to return thanks because we have not starved; we need to be thankful that we have known the joy of the earth and that we have seen the miracles come out of it, that we have been filled with the beauty. Let us, then, in due decorum appraise the beauty in an apple, the perfection in an animal, the harmony in the products of the land. We cannot do less than this. We may wish that all men shall similarly be blessed. Our hearts may be full of thanksgiving and prayer.

Liberty Hyde Bailey.
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Even the crabs are king-sized in Alaska.

For More On Alaska
see articles on pages 7, 8, and 9

December, 1958
Hearken . . . you
With your homemade worlds . . .

Hear me, as I speak
From greater heights
Than any you have conquered . . .

For,
I also occupy this atmosphere—
Thrust forth two thousand years ago
By the very Hand
That gave to you
Your genius—
Thrust forth
With a brightness
That all your man-made planets
Cannot match,
And charged with a mission
The magnitude of which
The most brilliant minds among you
Cannot grasp.

Here, from this noble height,
I dispel the darkness of this world
And point with a glowing finger
To the very Source
Of Faith, and Hope, and Charity,
Consuming in my burning heat
Each sphere of hate and fear
That men may launch.

Hearken . . . you
With your homemade worlds . . .
I also occupy this atmosphere—
Thrust forth two thousand years ago
To light your way to Peace.

Hearken . . . you
With your homemade worlds . . .

I am the Christmas Star!

JOHN DEERE  MOLINE  ILLINOIS
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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter, postage paid at Ithaca, New York and at additional mailing offices. Printing by Norton Printing Co. of Ithaca. Subscription rate is $1.75 a year or two years for $3.25; three years for $4.50; single copies, 25 cents.
Guidance for the Career Girl

During the month of November, the College of Home Economics, in cooperation with the New York City Home Economists in Business, sponsored a series of luncheon meetings as “An Introduction to Home Economics in Business.”

The series was excellent. A group of ten experienced persons spoke on the whole area of home economics in business and on the job.

We feel that this type of program is a big step in the right direction and one worthy of exploitation by the Colleges of Agriculture and Home Economics. A program of this sort brings the student closer to the business world and directs his academic efforts to his future work.

If the Home Ec. school sponsors another series of this type, we suggest that it be opened to as many students as possible, as the information relayed might clarify their college programs.

Even though the speakers in this year's series were, for the most part, from the field of foods and nutrition, they did a good job of covering the general scope of home economics business. However, we would like to see experts in other home ec. fields such as housing and design, home management, and child development.

The seating arrangement at such luncheons should be planned to alternate students with faculty as this benefits both the students and the faculty, meeting within the context of a subject vitally important to both groups, are unlimited.

Some follow-up on these luncheons might be made in the form of seminars or mimeographed summaries of the material presented.

One further suggestion—a more thorough coverage of the top question in the minds of women students, that of marriage versus career, would be pertinent to those who attend.

B.L.D.

Massacre in the Meadow

Before students go out to the fields of New York State for farm practice, it is imperative that they be able to answer one basic question—“Do you know how to stay alive while doing farm work?”

Neither on the farm practice entrance exam nor in the evaluation of a summer's work is farm safety considered, yet knowledge is vital; ignorance fatal.

The tractor, baler, field chopper, and mower have all aided the development of agriculture, but they are all potential killers. The tractor can cut the farm hand's working time in half, but careless operation can cut his living time in half.

Students who need farm practice credits lack farm experience. If they had this experience they would know that it is quite unsafe to try to pull a load of hay down a steep hill with a tractor. They would know that the brakes on a tractor weren't meant to hold back a heavy load. They would know... but they don't.

The student should realize the dangers involved in operating farm equipment before he ever gets near a farm. These are things that should be taught as part of the basic orientation program... or even before.

The College could undertake the job of teaching operating techniques to students. This could be done with a summer course for those who need farm work as an entrance requirement, and also as part of the Orientation 1 course. Professor L. W. Knapp of the Agricultural Engineering Department has made investigations of the causes and prevention of tractor accidents. The Orientation classes could be shown some of his work and, in this way, learn accident prevention. Demonstrations in the SAFE operation of farm machinery might also serve this purpose.

Previous experience for farm practice students would not only serve as a safety precaution but would also make the student a more useful employee.

E.L.R.
They call me mistletoe; I'm a scrawny gray-green character with white waxy berries. I've been around a while, seen a lot, never said much, but changed a good many lives.

Remember that business in the Garden of Eden? That was no apple she fed him; it was a mistletoe berry.

Some folks say I'm a mother's tears. It's a corny old Norse tale but I like it. Frigga's kid had a dream one night that he was going to die. He went and told his mother and the poor dame was so upset she begged all the plants and animals to spare her son. She didn't think I was important enough to ask but I showed her what's what. The guy was knocked off with an arrow—made of mistletoe. She was a nice old goddess though and she cried so her son was brought back from the dead. Her tears turned to mistletoe berries and I'm kind of her plant now.

I'm the Druid's plant too. They were a bunch of pre-Christian mystics who thought I was a charm against evil.

Aeneas, the guy who started Rome, also thought I was a charm against evil. Heard of that trip he made to visit his old man? I was the golden bough he gave to Charon—even got him across the Styx.

That story reminds me of a queer habit the Romans had of kissing every time they saw me. They'd be in the middle of a war, knocking each other all over the place and, all of a sudden, they look up at some tree they were under. There I'd be, just hanging onto that tree and grinning at them and as soon as they saw me they'd throw down their weapons, embrace like old pals, and call a truce for the day.

Lots of other people kiss under the mistletoe. Even those strait-laced Victorians got a charge out of seeing me drooping over their doorways. One old English guy was even moved to poetry. Get a load of this:

'It hath been writ that anye man
May blameless kiss what mayde he can,
Nor anyone shall say him "no".
Beneath the holye mistletoe.

You know, I kind of like that,
It hath been writ . . . . .

Oley Sez:

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the can

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Seeing
Is
Believing

"I'm not sore, Ed. In fact, I'm glad they broke into my field! It's the first time I've had a good look at your NYABC-sired herd. What did you say your technicians phone number is?"

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STARTING at the back of Warren Hall, Zilch came upon a quaint and secluded garden, reeking with possibilities for a real cool mid-term Martini party. Following the shady trail down past the corner of Mann Libe, the Cornell Nature Lover had at his disposal the Nature Trail, replete with guides to better understanding of the outdoors. After passing the rotted stump that portrayed the drama of “How a Tree Grows,” the author came upon a large pine bearing the neatly engraved sign: “Look and Listen—perhaps you can hear the nasal ‘yank’ of this topsy-turvy bird.” Engrossed in this unique educational opportunity, the author dazedly stepped out on Forest Home Drive, and was greeted with the nasal “honk” of a Thunderbird. Ah, civilization!

But enough of this jazz, and on with the News of the Day: a student uprising in the midst of us, concerning the clubs of the Upper Quad, and their crusade toward having permanent representatives on the Ag-Domecon Council. If this measure is approved by two-thirds of the Council, there will be an Upper Campus referendum. The measure must gain approval of two-thirds of those students voting before it can become a part of the Ag-Domecon Council constitution.

The issues are as follows: The clubs feel that by having permanent club representation there would be 1) A more unified and centralized government for the Upper Campus; 2) A more thorough representation of the student body; 3) More definite channels of communication between the student body and Ag-Dom; 4) Breakdown of apathy among Upper Campus organizations and a renewed interest in Upper Campus activities; 5) More jurisdiction and strength given to Council.

But, several obstinate members of the Council pointed out that: 1) No “channels of communication” are needed, for any student can attend and participate in any of the Council’s meetings, held the first and third Wednesdays of each month in the Warren Hall Student Lounge.
2) The mythical non-voting club “delegates” have shown no interest in attending Council meetings, and have not asked Council to do anything for them. Someone asked exactly what Ag-Dom could do for an individual club, and why the same thing couldn’t be done without permanent club representatives.

3) Instead of strengthening Ag-Dom, the increased membership would be more cumbersome, or at least so until the number of reps-at-large could be reduced.

Among the gifts the Cornell Countryman received last month was a recent book by Ed Eastman, prexy of the American Agriculturist. This book, Hostages to Fortune, is a moving story of love and fidelity in a rural setting. It has all the hominess and the personal touch of Mr. Eastman and his magazine. Through this book the lives of Laura Bliss and Billy Graham are brought into sharp contact with the lives of those around them and all the pressures of twentieth century life. Great idea for reading and gift-giving.

For any sophomore man who’s on the ball (78 average or higher), and would like to escape the rigors of Ithaca for a year, it would be well to look into Ag-Dom’s Swedish Exchange Program, whereby a student in the Ag School can spend his junior year studying at the Royal Agricultural College at Uppsala, Sweden. Applications are available in 120 Roberts.

Inoutology department: Zilch is IN. The editor is OUT. (Zilch will be OUT pretty soon, too.) Martinis are IN. The Campus Patrol is OUT. Farm Practice is so far OUT, it’s IN. Ag-Dom is questionable. Terpin hydrate is IN; aspirin is OUT.
CHRISTMAS CARDS
Are now on display in our GREETING CARD DEPARTMENT

We have a fine assortment of boxed and individual cards, also Christmas candy, souvenirs, candles and other gifts.

CORNELL CAMPUS STORE, INC.
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Meeting of Electrons
by Jane Shelton ’62

DANGER CLOSED TO UNAUTHORIZED PERSONNEL.

Signs such as these in a backyard might upset some people, but they don’t bother the stout-hearted girls who live in the Circle cottages. Knowing the Nuclear Studies Lab in their backyard is as harmless as the Ladies Aid Society, they have grown accustomed to anxious comments such as:

“But isn’t it dangerous to have that kind of laboratory so near the main part of campus?”

No, it isn’t dangerous. The girls in Circle have nothing to worry about. The Newman Laboratory of Nuclear Studies here at Cornell is for the purpose of learning more about the nature of the tiny particles which make up the chairs we sit in, the cars we drive, and the clothes we wear; not for radiation research.

The main part of the Nuclear Lab is a long, modern, four-story building with a typical maze of offices and labs. A synchrotron is attached to it by a subterranean tunnel. This machine spends its time smashing atomic nuclei to smithereens. By doing this, scientists can learn, through use of delicate measuring devices and banks of complicated equipment, more about nuclei of atoms—their size, component particles, and exact composition.

Another phase of research at the lab is something more familiar to most of us—cosmic rays. Little is known about cosmic rays, except that showers of these rays bombard the earth constantly. Curiosity about them spurs continuous research of the Nuclear Studies Lab.

Cornell physicists operating Newman Lab synchrotron.
—Photo Science
Those of you "outside" who aren't familiar with conditions in your newest state may feel that life in Alaska is something different, somehow, than anything you have experienced. It isn't, believe me. Alaska is not much different from any other state within a half a million square miles of a relatively uninhabited area where the temperature ranges from 95 above to 60 below zero.

This is, unfortunately, the picture that most people have of Alaska when they first get here. They expect a forbidding land of ice and snow and occasional eskimos, where you'll freeze if you stay outside any time between September and April, and where civilization has not yet caught up with immigration.

So far, at least, we have found that this idea is far from the actual case. The winters are cold, to be sure, but not so cold as to preclude a normal life during that season. The only adjustment we have had to make for the cold weather is to be sure that the car isn't left for more than four or five hours outside the garage. If it is, it just won't start—no car will when it is 40 below. The only really major discomfort of the extreme cold comes with the oil bill (31 cents a gallon), and the fact that winter lasts longer than it does in Ithaca. The first frost and final thaw come at about the same time as they do in Boulder or Frazer, Colorado. In fact, this year Frazer had a killing frost before Fairbanks did.

Of course the length of the days varies a great deal more in these northern latitudes—in June there is delightful daylight for as long as 20 hours, and of course December brings nights equally as long with the sunrise about 9:30 and sunset about 2:00. The long nights are a small price to pay for the wonderfully long days, however.

Summer here has been defined as only a time to get ready for winter, and to a certain extent it is true, but you can certainly pack a lot of fishing into a 20 hour day, and the way the flowers and vegetables grow under the influence of all that sunlight is fantastic. If you are a hunter, imagine leaving home at 2:00 A.M. and hunting until the following midnight through a country that has probably never seen red man or white before.

These are incidental advantages, though, and the real attraction of Alaska lies in the people who live here, the folks who pioneered such a naturally inhospitable country and stayed here to make it a settled part of America. The hospitality and friendliness of Alaskans will, in time, become far more well-known than the much touted "southern hospitality". This spirit of helpfulness makes life a lot easier for a newcomer, and makes it almost impossible for anyone to be a stranger for long.

Much of the character of Alaska is similar to the impression given by any of the better "adult westerns," minus 90% of the blood and guts. The pioneering spirit is still very much alive here, and in constant evidence, from the pack-laden miner on the street to the natives hanging around the bars and the high-stakes poker games in the local "smoke-shops".

As usual, the women are the civilizing influence. They are, as a rule, far better dressed than the average gal in the streets of New York or Chicago, and of course the ladies' aids and card clubs are very active. It isn't a bit unusual to see a very well-dressed working girl alight from a battered jeep and head for the office, or to hear a group of them intelligently discussing trends in modern art in any of Fairbanks' 30 or 40 taverns (better than one per thousand population—you never have to go far for your hootch).

The countryside is not vastly different from that found in the East at first look, but a closer inspection shows that the only trees are birch and lodgepole pine, and the ground vegetation is small and somewhat stunted in appearance. The most common ground cover is a combination of fireweed (which carried brilliant red flowers in the fall) and the tiny lichens which cover most of the sub-arctic tundra.

This part of the interior is a patchwork of steep hills and narrow valleys, many of which are being worked by the giant dredges seeking gold. Fairbanks lies in one of the larger valleys near the Tanana River (it will always mystify me why "Tanana" rhymes with "Mackinaw" and not with "banana.") North of us lies the huge Brooks Range, the dividing line between the arctic slope and the interior. South is the Alaska Range, best known for Mt. McKinley, which cuts the interior off from the Pacific slope and the eternal dampness that stretches from Attu to Portland.

All in all, it's quite some country. Alaska presents a great challenge to everyone who comes here, and meeting this challenge in whatever form it may take for an individual makes Alaskans a pretty special breed. Even though we have been here only a few months, we're proud to be Alaskans, and glad to encourage anyone who wants to come here, especially the Home Ec. gals—there's a terrible shortage of good women in Alaska, so pack your cookbook and come on north, we need you.
Alaska's farmlands offer rich rewards to the adventurous.

Alaska today is being populated by a special breed of people, those with guts, determination and knowhow. There is no place for goldbrickers, but settlers who are willing to struggle to overcome their problems eventually reap the benefits of conquering one of the few frontiers left to man.

Nowhere is this more evident than in the agriculture of the new state. The obstacles to successful commercial farming are awesome but, through the combined efforts of researchers and rugged farmers, they are being surmounted.

Alaskan farmers who have established themselves after years of battling the climate have markets that demand much more than they can produce. Dairy farmers who are efficient can get a $4.00 profit per hundredweight selling to the Anchorage market.

But this kind of profit doesn't come easily. Alaska is constantly warning prospective settlers that, even though there is free land, farming there takes as much capital and knowledge as in the U.S. The new farmer has to adapt to an unfamiliar situation and prepare to live under more primitive conditions than in the U.S.

One of the main problems to the new farmer is that his free land will cost him $100 to $300 per acre to clear of heavy timber or brush. In many sections this land will have to lie fallow for a few years to rid it of permafrost.

Another problem is the lack of credit. Banking is underdeveloped in farming areas and loans for agricultural purposes are hard to find. There is also a shortage of manpower at the height of the harvesting season because construction draws most of the excess manpower away during the summer months.

The mushrooming building program and the small domestic labor force result in high wages for work-

ers. This is important to the new farmer because it takes a few years to get a farm in top production. Since living costs are very high, one of the best ways to offset them is to work part-time as a laborer.

Nevertheless, these problems and others are being overcome by the farmers and by specialists from the University of Alaska. New techniques and methods are constantly being developed to aid farmers in producing most efficiently under the conditions imposed by Alaska's climate.

Dairy

Dairying is the major farm business in Alaska with over 60% of it taking place in the wealthy Matanuska Valley which serves Anchorage. Large (21 head) dairy farms sold milk for $1.10 which cost them $7.30, realizing an average net income of over $7000 a year.

Holstein and Holstein-Red Dane crosses are popular dairy breeds. Artificial insemination is common in many areas.

University of Alaska specialists favor loose housing for cattle because in the lower temperatures cattle are more comfortable if they are free.

Because of the heavy rains in August, hay is difficult to make so silage is the most common forage. Since legumes can't withstand the bitter winter, researchers have developed a pea-oat mixture making silage under Alaska conditions.

Potatoes

Potatoes are the perfect crop for the Alaskan farmer. They grow well in newly cleared soil. Farmers plant potatoes in the spring, do construction work during the summer, harvest the potatoes during the fall and grade and sell them during the winter.

Potato farms in the Matanuska Valley averaged $4000 net profit while some of the better farms in the Tanana Valley made almost $10,000 profit. In addition, these farmers had a large off-farm income from construction work.

The biggest drawback to potato production is the difficulty in getting labor at harvest time.

Poultry

Chickens and eggs have a big future ahead of them. Fresh eggs and meat are difficult to import and with the tremendous market available the poultry industry may expand greatly. Until now the progress has been slow because the extension services haven't been big enough to do adequate research and give advice on poultry problems.

In general, although returns are high, costs can be immense. Thus the farmer who utilizes efficient practices can make large profits.
Caribou and crab challenge Alaskan housewives' skill.

Wolves knocking over garbage cans and moose running down Main Street are a part of life in Alaska; a life that requires something a little extra of every woman who decides to live there.

On the surface, life in Alaska is much like life in any U.S. city. There are shopping centers, schools, churches, and clubs just as there are throughout the States. People wear the same type of clothing and live in five-room bungalows with oil burners. They must also face the problems of lawn and garden care.

What makes Alaska different is the character of its people; the unhurried way of doing business and the warm friendliness that is so real you can almost touch it.

All kinds of people inhabit Alaska. It isn't strange to see beautifully dressed women jumping out of a truck or a distinguished and well-dressed gentleman walking down a city street with a hunting pack on his back and two rifles in hand. No one blinks an eyelash when a man walks into town wearing two 44's slug gunfighter style on his hips.

Alaska is excitement; Alaska is different, and Alaska offers the women who decide to live there either as housewives or career girls challenges they might never find in the first 48 states.

Prices appear to be sky-high in Alaska; but then the source of many goods is the United States and shipping costs are extravagant. The Alaskan homemaker, therefore, must learn to use native foods as much as possible.

Even though Alaskan farms are able to produce most of the common vegetables, they cannot produce these in large enough quantities to provide food for all the residents of the state. Thus, the homemaker is confronted with the economic problem of supplying food for her family within a limited budget and balancing the menu nutritionally. Potatoes are abundant in Alaska, as are many different berries, rhubarb, cranberries, and mushrooms. Alaska's rich earth provides these vegetables with an extra quantity of vitamins and minerals, making them wise choices on the homemakers' shopping list.

Hunting is the sport of kings to our far Northern statesmen. Just about everyone hunts caribou and moose—with reason, however, as one moose will supply two weeks of meat for an Alaskan household. Mother, on the other hand, must collect as many different recipes for moose and moose barbecue sauce as she can find.

The opportunities for food experimentation are numerous in Alaska. Presently, the female chefs in the households are making mustard and sweet pickles from ordinary seaweed—a delicacy, by the way, that food experts say is more nutritious and tasty than the common cucumber variety we know.

This problem of the well-balanced meal is doubly important in our newest state because dental and medical services, although available, aren't as specialized as in the mainland United States. Any intricate medical needs necessitate the long trip back to the old forty-eight.

The homemaker is naturally going to be concerned about the educational opportunities for her children. In Alaska, these are much like the opportunities in the rest of the United States with public schools and adequate facilities. There is, however, a lack of extra-curricular activities and libraries.

All this may look like just a lot of problems to the home ec. student who has never seen a caribou or a moose. The problems are, in reality, challenges that are worth meeting to live in this unique land; a land where mother can pack her youngsters in a car and take them for a short trip across snow-capped mountains to hot arctic springs for a summer swim; a land where off in the distance the youngsters can see a herd of 600 caribou roaming free and eskimo hunters chasing after them.

Legend says that Alaska is a man's world. But any Alaskan male will readily claim that Alaska needs women; it needs good wives and mothers, teachers, office workers, and home economics specialists.

The outlook for home ec. careers in Alaska is good. Alaska can be compared to the west of years ago—opportunities are many. All Alaska needs is people to live there.

Employment needs in Alaska are constantly changing. One safe rule is that all persons going to Alaska should have definite employment lined up before they leave and sufficient funds to tide them through for a while after arrival. Inquiries on employment in Alaska should be addressed to any of the Alaskan Territorial Employment Offices in Anchorage, Fairbanks, Juneau, Ketchikan, Petersburg, or Homer, Alaska. Additional information can be secured from the Department of the Interior in Washington, D. C. or the University of Alaska; College, Alaska.
Paris Fashions in

You can sew your own sack—or buy one.

An excited rumble issues from the salon as buyers and reporters take their seats. In two hours these people will know what you will be wearing next year. They have come to view the collection of a Paris Fashion Designer—Christian Dior, Pierre Balmain. A handful of men and women courtiers can cause a furor which upsets the world. Many of us have been horrified and shocked at the creations we see in magazines. Yet, in our closets hang rows of dresses whose designs have come from the pens of these artists.

In 1946, Mainboucher created a “nothing dress.” This “nothing” is the basis for most women's wardrobes today—the sheath. This simple creation, appearing as part of a collection, has been twisted, turned, dressed up and down, shortened and lengthened but still it remains. Sybil Connolly put a fish tail on it and gave us a fashionable cocktail dress. Mainboucher himself lengthened it to an evening gown. Dior made it in tweed for an afternoon dress and Chanel in jersey for a clinging effect. There are a few of us who have not been saved the awful fate of being out of place by our basic sheath.

Do you feel dramatic in black, white or red? Balenciaga uses these colors extensively to dramatize the sophisticate in women. Why do you choose bright green and electric blue for your evening clothes? Years ago this was unheard of. White and black were the only colors seen after dark. But, Dior decided to change this. Here is why?
Your Closet

we are free to choose a variety of colors for evening. Orange was also put into favor by Dior with a loose wool coat last year and the bright plaids so common today were initiated in the collections of Fath and DePauch.

Hoods adorn every type of costume from sweaters to velvet evening coats. These head pieces used to come with raincoats. Pierre Balmain put one on a Sari dress and suddenly hoods became a necessity.

Easy-going comfort is the key to today's living and today's clothing. Chanel picked up this mood and responded with loose, semi-fitted suits worn with belted blouses. From this idea we inherited the loose chemisey blouses so free and comfortable. Casualness was incorporated into the chemise return, the trapeze and the loose coat. Capes, favored by Dior and Genevieve Fath, are flowing to the floor or short and perky and giving a carefree aire.

What is the lure of the frocks that shock, but sell? Christian Dior said he strives to raise the standard “to which the faint heart can repair.” Women want to be different, they want to have new and unusual clothes. Designers cater to the whims of women. They are the mystics of today. Women know what they want to wear today, designers must discover what they will want to wear tomorrow. They are good at their supernatural trade—there are very few wrong guesses.

DON'T RISK Raditor Rumble or King-Pin Cave-in on the long drive home. Have your car checked at Glenn's Sinclair Station

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A Forgotten Phase of Farm Practice

by Edward L. Razinsky '61

The farm—a place of serenity and contentment. The warm summer sun tanning many a bare back; the grass, a rich fertile green, acting as a living backdrop for the trees, the sky, the birds... for all of life. In several minutes this peaceful scene became a scene of horror.

On a hilly hayfield in back of the farm, a Cornell farm practice student and another hired hand were getting ready to take a load of hay back to the barn. The student got on the tractor; it began to roll and pick up speed. It just missed a line of trees and sailed over a three-foot bank. The hired man was thrown to the ground. The Cornell student slipped down in front of the rear wheel, but the wheel stopped within inches of his head.

Something must have caused this incident. It was an accident but why did it happen?

Brakes on a tractor are on two wheels and they aren't always enough to stop the tractor alone, so they couldn't stop the wagon also. And the tractor shouldn't have been driven straight down a steep hill in the first place. But the student had never come across anything like this, so he didn't know.

What was the operator thinking about at the time? He had a date that night and safe driving practices were the last things on his mind.

There were three main causes for the accident: not knowing the capabilities of the tractor, not having enough experience, and not thinking about the right things at the right time. These factors cause most accidents and lead the student to situations that put many grey hairs in his crew-cut.

While driving along the side of a hill, he decided to change direction. The student snapped the front wheels up the hill—and the tractor lifted one rear wheel off the ground. The tractor couldn't be blamed for trying to turn over, it was only following orders.

Trusty tractor and student once came upon a huge rock. One end of a chain around the rock, the other end to the rear tractor axle and out comes the rock. The student tried, but the only movement that occurred was at the front wheels of the tractor... they went up. Tractor designers put drawbars on tractors. They meant loads to be pulled from this point, not from the axle.

Children are generally pleasant and the farmer's were no exception. To reward good behavior, the student would give tractor rides. There is only one seat on a tractor—this means one person can ride. What would the parents say if one of those children had been hurt? It would make very little difference that it was an accident.

Summer ended and the student farmer once again became an Ivy Leaguer. If he didn't make the same mistakes twice, he gained experience which will help him avoid similar accidents. He finally got the idea that nothing should be taken for granted when driving a tractor. He learned the results of several bad practices, but he would have been risking less by figuring them out before the accident. After might have been too late.
INTERNATIONAL HARVESTER'S No. 36 field harvester and hay pick-up attachment are equipped with Link-Belt precision steel roller chain for drives...Link-Belt double pitch “AG” roller chain for conveying.

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The Ivy League's Most Popular Disease

by Allan Fishman '61

"LET'S clinic out" is replacing "Let's flick out," a standard expression at Cornell, at certain times in the school year, mainly after prelim weeks and social weekends. The cause of the clinic's popularity at these times is the student's fear, not of the common cold or various other results of the Ithaca weather, but of having acquired "mono."

This disease, known in the medical profession as mononucleosis because of the characteristic white blood cell having a single abnormal nucleus, is commonly referred to in most college communities as "student's disease," for it manifests itself as physical and mental fatigue—naturally associated with the life of a college student.

Rapid transition from a sufficient amount of sleep in the leisurely summer months to the minimum hours which college life permits, provokes a strain on the body functions. This tends to produce fatigue. Moreover, when the body is emotionally excited in a social event, the effects of tiredness are more keenly felt. This malady is the prime factor in the overflow crowd of patients at the clinic following a party weekend.

Symptoms of mononucleosis are a sore throat, hoarseness, headaches, chills and a general physical aching longer than a two day period. These characteristics make diagnosis extremely difficult, for they are also characteristics of the common cold, pneumonia and many virus infections. However, clues to the presence of mononucleosis are found in a marked respiratory distress, and a swelling of the lymph glands in the neck to almost three times the normal size.

Many physicians assume mono to be caused by a type of virus, not yet isolated. It is carried by the blood, and therefore almost every gland and organ in the body is subject to damage. The liver is the area of the most frequent complication, although the most dangerous organ, if infected, is the spleen.

Science has not been able to develop a rapid cure for this disease. Experiments with miracle drugs have resulted in minor relief for the distresses accompanying mono, but have no direct effect in curing the disease. Basic treatment for mono is a high-protein, low carbohydrate diet, and an exceptionally long period of rest. This convalescent period varies between seven and 107 days—the average is three and half weeks.

Mono knows no age restrictions. It has occurred in babies as well as people over 80, but is most prevalent in the 19-22 age group.

Although it is contagious, mono occurs in scattered instances, rather than epidemics. The means of transmission has not yet been determined, but is thought to be intimate contacts such as kissing. The disease bounces back and forth between the men's and women's dormitories, discrediting the theory that women are the carriers of mono, because they are no more or less subject to it than men.

When, in its travels, mono hits a student, repercussions may be serious. If you suspect you have mono the best practice is to "clinic out." To meet popular demand, Gannett Clinic keeps a special nurse on duty taking blood tests after big weekends.
Corsages - Easy as
1 - 2 - 3 - 4

by Margaret Fitzgerald '62

MAN the glue pots, oh dutiful do-it-yourselfers! Here comes the full blown modern miracle that you can make in the murky seclusion of your dingy dens. A Christmas corsage . . . in four simple steps . . . and seventy-seven ridiculously complicated ones.

The materials necessary are cheaply purchased or easily stolen. First rip some sprigs off an evergreen or fir tree for a background. For trimmings you can use artificial holly berries and leaves, pipe cleaners, small Christmas ornaments, winter creeper, cones, and small twigs. While you're running around, also pick up tinsel, bits of aluminum foil which can be used to make bells and little goodies like that. Help your neighbors prune their evergreen hedges (Arbor vitae officially) and use it for backing. You'll need some green twine (number 26 wire is good too) to tie the whole mess together. About two feet of half-inch ribbon will add the finishing touches. Oh yes, some goose, dripping household cement might help.

Spread your materials on table and floor and begin. You're going to make an original Christmas corsage. Arrange sprigs of greens (figure 1), add trimmings and try to glue the whole mess together. Bind it tightly with the wire (figure 2). Finish the back of the corsage with sprigs of flat greens by placing them over the wired area. (Don't—if you want to stick some good friend.) Fasten them with one wire at the front of the corsage where the bow will be (figure 3).

Bubbling over with the Christmas spirit? We hope you are after all your hard work. Well, go out and spread the cheer. Deck your friends with boughs of holly.

The four steps in making your own corsage.

—Extension Teaching
In the first lab section this semester in Plant Breeding 101, better known as Generics, I was handed several sheets of lab notes and two half-pint bottles with flying insects enclosed. The first sheet was entitled “Breeding Experiments with Drosophila.” The insects were fruit flies. The objectives of this experiment were to illustrate certain principles of genetics by an investigation with living organisms, directed towards stimulating independent observation and thought.

The first thing I had to master was the handling of the flies. Essentially, this involved taking flies from one bottle to another. It’s not as easy as it sounds—flies can fly you know. The flies must first be etherized, a process that can be quite frustrating. Ether is pretty amazing stuff. Too much of it can kill all the flies—accidentally, of course—or even put your roommate to sleep—my room is permeated with the invigorating aroma of ether. Too little ether can result in having squadrons of little flies winging around your room. Have you ever spent an evening running around trying to smack down the little devils? It’s an art in itself. Once I have successfully rendered my flies unconscious, I look at each fly carefully to determine its sex and identifying characteristics with the small paint brush and magnifying glass so generously supplied by the department.

This careful scrutiny is necessary in order to cross the right males with the right females—the female flies must be virgins and therefore the flies must be checked and isolated every eight hours to prevent the inevitable. Determining the sex of the fly is really quite easy, but it took me three weeks to figure it out. Looking for identifying characteristics of flies is even more fun (fun?!)! The easier ones to spot are vestigial wings as compared to normal wings, white eyes vs. red eyes, and dark colored bodies vs. light colored bodies. Of course you don’t usually get characteristics as easy as these to see. Some mutants have longer or thicker bristles than normal, wings that may overlap or be curved, or eye color that may be a darker shade than normal. From looking for these characteristics, you can easily deduce why my friends now call me “Squinty.”

After crossing a magenta-eyed, forked bristled, curved winged fly with the normal wild type stock, I had to wait until the first (F1) generation hatched, again identify their characteristics, isolate virgin females, and then cross these F1’s with each other and with the mutant parental type. After the progeny of these crosses hatched, I repeated my observations. Of course, all this took time—months. I had to take the bottles (the number ran into double figures) home with me during Thanksgiving, and at my present rate Christmas vacation may afford another such experience.

As I proceed along my merry way with my fruit flies, I have some consolation to mix with my miseries. Even Mendel had some bad days.
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Colombian Farmers at Work on a Rockefeller Foundation Wheat Improvement Project

Colombia . . . . See Pages 8 and 9

January, 1959

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January, 1959
Editorial

Behind The Frosted Glass

With the new year still very young, and a new term approaching slowly, but surely, we feel that it's time to make mention of a team of men who run a large and complex organization, an organization better known as the New York State College of Agriculture.

Dean W. I. Myers is, of course, the man who oversees all divisions of the ag school. Under him are directors in charge of the three areas—research, extension, and teaching—which were originally slated as the work of a land-grant college when the College of Agriculture was founded. Charles E. Palm, Dean-elect, is the Director of Research and Director of the Cornell Agricultural Experiment Station; Maurice C. Bond is Director of Extension; and Anson W. Gibson is Director of Resident Instruction.

Under Director Gibson are the men with whom the students are most closely associated: John P. Hertel, Secretary of the College; Howard S. Tyler in charge of vocational guidance and placement; Leigh H. Harden in charge of admissions; and Sanford R. Shapley in charge of student practicé.

These men with a host of others and numerous secretaries do all the work and organization behind the scenes that make your education available.

B.L.D.

Letter To The Editor

Alumnus Views Ag-Dom

Dear Editor,

Allow me to spring to the defense of Ag-Dom, probably the most effective student extra-curricular organization at Cornell. Ag-Hec Day, Farm and Home Week Student Committees, F&H Week tours, F&H Week Square Dance, the Swedish Exchange Program, Outstanding Faculty Awards, Club officer training programs, the Warren Student Lounge, library opening hours, changes in the student directory format, directory of upper campus organizations, orientation activities, representation on student council, and other campus-wide and even country-wide activities, these and many others have been or are the concern of Ag-Dom. Does Student Council do as an effective job of developing its sphere of influence? No, I don't think so, and I've been watching the work of both councils since 1949.

In fact, leadership training and development in "groupmanship" alone justifies this organization. Society outside of college is operated by groups. You rarely find a one man show.

Even farming is becoming dependent on the farmer's ability to work with a group, be it a federal credit agency, local committee, a cooperative, or even a hired man or two.

A good illustration of the effectiveness of groups may come from the proposed reorganization of Ag-Dom. This will give club representatives a vote. Ag-Dom and the clubs should work more effectively together. The clubs should take more of an interest in Ag-Dom and this proposal, if passed, should help create the interest.

David J. Allee, '53
Past-President, Ag-Dom

Cornell Countryman
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**New Idea** FARM EQUIPMENT COMPANY Division Avco Distributing Corp., Dept. 886, Coldwater, Ohio

January, 1959
Day of Reckoning

by Zilch

Well, kiddies, looks like the day of reckoning is acomin’ ... Fresh are skipping their dinners to get seats in the library; sophs and juniors are trying to figure out ways to get those vital few points, and the seniors . . . the seniors are coming directly home from the 7:00flick.

As the term draws to an end, Zilch takes a look about his surroundings. Joyce Berger’s green sweater is almost finished. She started during the first few weeks, got the back finished about midterms and should have it all sewed and blocked by finals week. Congratulations, Joyce . . . Who’s it for?

Speaking of knitting, Prof. Rollins in the home ec school expressly forbids coeds from knitting in her EH 130 lectures. The good lady doesn’t really dislike knitting though. The other day she was standing in line at Martha Van cafeteria . . . knitting something white and soft and pretty.

To get to the more important news of the day . . . Ag-Dom is still haggling over permanent club representation. Last Zilch heard, there was a lot of business about amendments, amendments to amendments and amendments to amendments to . . .

Your chief Upper Campus spy was scombing through an October 20th issue of Croplife, the chemical industry newspaper, and came up with a letter a Corn Belt farmer wrote to his senator. For your enjoyment we reproduce it here:

"Dear Mr. Senator:

My friend Bordeaux over in Pima County received a $1,000 check from the government this year for not raising hogs. So I am going into the not-raising-hogs business next year. What I want to know is, in your opinion, what is the best kind of hogs not to raise? I would prefer not to raise razorbacks, but, if that is not a good breed not to raise, I will just as gladly not raise any Berkshires or Durocs.

The hardest work in this business is going to be in keeping an inventory of how many hogs I haven’t raised. My friend Bordeaux is very joyful about the future of this business. He has been raising hogs for more than 20 years and the best he ever made was $400 until this year, when he got $1,000 for not raising hogs. If I can get $1,000 for not raising 50 hogs then I will get $2,000 for not raising 100 hogs.

"
I plan to operate on a small scale at first, holding myself down to about 4,000 hogs, which means I will have $80,000. Now, another thing: These hogs I will not raise will not eat 100,000 bushels of corn. I understand that you also pay farmers for not raising corn. So will you pay me anything for not raising 100,000 bushels of corn not to feed to the hogs I am not raising? I want to get started as soon as possible as this seems to be a good time of year for not raising hogs.

Octave Broussard

P.S. Can I raise 10 or 12 hogs on the side while I am in the not-raising-hog business—just enough to get a few sides of bacon to eat?

Zilch is thinking of going into the not-raising-guppies business. Seems an acquaintance, Carol Levine, a guppy-breeding coed, finds the little tykes take a lot of time and work. Zilch figures that if he doesn’t raise 20 guppies, he should save two minutes per day feeding them, half an hour every four days not changing their water, and countless hours conscientiously not cross-breeding and not selecting them.

In the accolades to Countryman department, ACMA (Agricultural College Magazines, Associated) has given us the award for “the best use of material of interest to women.” Our heads are a bit swelled . . . even the SUN gave us a plug.

LITTLE MAN ON CAMPUS

“TIME TO CLEAN UP GIRLS—REMEMBER NOW, A PLACE FOR EVERYTHING AN’ EVERYTHING IN IT’S PLACE.”

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January, 1959
To stand the risk and tension of business, as well as have a sound professional background.

As a student in home economics, you are studying in a field that is growing fast and becoming so vitally important that businesses are opening their doors to women specialists in the field. Many companies realize that women are often more artistic and have more initiative than men. Companies realize that most buying is done directly or indirectly by women. They are beginning to feel that home economists with their feminine insight into the home can be an asset to them.

Companies need home economists who understand the buying practices of women and will be able to make products fit the need of the consumers. You, as a home economics student, can be the future employee of a business and fill this position.

Home Economics is your ticket to the business world. However, you will need a lot more than a home economics background to be a success. Home Economics will get you into business, but it will not keep you there.

As Miss Esther Foley, Home Service Director of MacFadden Publications says, if you plan to enter business you must develop a “cold character.” You must be the type of person that doesn’t blame anyone for anything, is extremely independent, doesn’t fall into an “ooze of self pity and learns to respect the law of cause and effect.”

As a career girl, you will learn “to copy the boss, successes,” says Miss Foley, “and avoid his failures.” Above all you will be loyal to your company. “If you don’t like the way things are done, if you don’t agree with company policy, and if you don’t believe in the integrity and goals of your company,” Miss Foley suggests, “you get out.”

Business is more than doing a job. You have to be ready for high pressure, a fast pace, competition, and high risk. Business is excitement and glamor, but it is still a world based on the brains of men. If anything happens to these men, the business may go with them.

Security may be a part of jobs in the services such as extension; security can be found in the home. But, in business the security isn’t there. You have to be able to stand the risk and tension of business, as well as have a sound professional background.
Discuss Career Opportunities

by Brenda L. Dervin '60

Miss Esther Foley Addresses a Heibs Convention

Success is about 15 years in the coming for the business woman, not an overnight result. To be permanent, success is usually attained gradually and most successful career women feel that it is not good for a young girl to get a top position too fast.

If you want a career in business, your future looks good. The companies want you... if you can bring awareness and good judgement to them. The combination good sense, responsibility, curiosity, humor, fairness, sound training, and the will to face the challenges of today's fast moving business world will make you an asset to any business.

If you can keep up with your field professionally, if you are easy to work with, if you are a diplomat, you might be a success in business. Enthusiasm, creativity, flexibility, an interest in your field, and loyalty to what you do will make a place for you in the business world.

With these characteristics and home economics as your ticket, you find success in any business, for you are just what business needs — a home economist who is equipped to help them sell.

In a society that now recognizes that women may work for several years before marriage, may even combine marriage with a full time career, or be full time career girls, the college co-ed must learn about the structure of the business world. Miss Ellen-Ann Dunham, vice-president of General Foods Kitchens, says that women who “don’t learn fast will have to run to catch up with their male associates who know from the start that they’ll have to work all their lives.”

To know business operations is but one step when preparing for a career in business. You must also analyse your capabilities and talents to determine exactly what you can do.

Businesses exist for only one reason—to sell. If the home economist can not help her company sell its product, she is of no use to the company. Selling depends on ideas, so the career girl who gets the job must be an “idea-person.” You will have to be able to express these ideas in both writing and speech.

You will have to be creative in your job, says Miss Foley. But no one will tell you what this means. “If you aren’t creative you’ll be fired or stagnate and perhaps never know why.”

In business, creativity runs closely with diplomacy. You will have to become an artist at both. If you disagree with a colleague in your company, Miss Foley suggests, that you prefaced your comments with “You are absolutely right, but...” You will learn to master the three C’s of personal relations—courtesy, constructiveness, and cooperation.

As a young woman in business, you might find that keeping strictly business relations with the men in the office is difficult. Miss Foley suggests that if you open your eyes very wide and treat the men like “grand-pa,” you will be able to handle any male in the office.

and again I say to you...

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January, 1959
"Sunrise Semester" a new idea? Not really. Father José Joaquin Salcedo, a Catholic priest in Colombia, has been using radio to teach the campesinos of the nation how to read and write.

Each day over 1,500 children and adults in every part of the country turn on their radios, open their books, and, with UNESCO charts, study their lessons.

The project began soon after Father Salcedo was assigned to the parish of Sutatenza (about 35 miles from the capitol city of Bobota) in 1947, seventy percent of the people in this Andes mountain parish were illiterate but this was not the first problem Salcedo set out to solve.

After a week of plowing the stony mountain terrain, the farmers came into town and spent Saturday night drinking chicha, a powerful local corn liquor. Rather than preach against the taverns, Father Salcedo competed with them. He lured the men from their chicha by showing movies in the plaza del pueblo (town square).

Moving pictures were a big hit in Sutatenza and the next logical step was to build a movie house. To get men out of the mountains to help with the building, the priest sent a few seminary students into the mountains with radio receivers. Startled mountaineers heard Father Salcedo's voice coming from his home-made transmitter. He promised that anyone who came down and helped would be able to record his voice and hear it over the radio when he returned home.

Thus Sutatenza got its movie house and the seed of a big idea was planted. Today the old Spanish church in the town is topped by FM radio antennas and three 200-foot radio towers stand opposite. From a plea for construction aid has grown Father Salcedo's Action Cultural Popular, broadcasting lessons in reading, writing, agriculture, hygiene, and similar subjects.

Posters and diagrams, old friends of American elementary school teachers but brand-new to Colombian mountaineers, are used to illustrate the Father's lessons. UNESCO experts gave aid in preparing the posters and have given advice and encouragement to Father Salcedo throughout his experiment.

The success of the Salcedo experiment was a big step toward solving the problems of illiteracy throughout the world. Perhaps most important, is the fact that the use of radio by-passes the problem of lack of teachers his voice alone reaches more people than UNESCO could train teachers for in several years.

He also showed that with adults the teaching of reading and writing must be part of a large community and personal improvement program. Today Action Cultural Popular broadcasts lessons on plowing, crop rotation, food preparation, etc. UNESCO teachers have discovered that people will slip back into illiteracy in as little as two weeks if they aren't supplied with a constant flow of useful and interesting material.

Lessons are broadcast from the church transmitter and picked up by receiving sets kept by local assistants. These assistants, usually peasants with elementary education, not only store the radios but also follow each day's lesson on a blackboard and display the appropriate charts.

Broadcasts for men and boys are sent out from 5:00 to 6:00 each evening and for women from 4:00 to 5:00. Sundays a recreational program is broadcast from 3:00 to 5:00.

Similar programs are in existence throughout the world. In New York City, for example, WNYE, the Board of Education radio station, daily supplements the classroom teacher's lessons. Radio is also used in this country to teach shut-ins and television is now bringing college courses to anyone willing to wake up in the early morning.
Cattle, Corn, and Coffee --

The Backbone of Colombia

by Roberta A. Lare '62

and Jill H. Beckoff '61

Take a piece of land about nine times the size of New York State; place it just above the Equator; let a hand with three Andean fingers reach up toward the north and add 11,300,000 people of various races with the purest Castilian language and culture in South America. Let the people farm a small part of the land—just enough to supply most of the world's mild coffee and a good part of its cocoa, bananas, tropical woods and fruits; stir with occasional political ferment; retard with poor transportation and a high rate of illiteracy; let rise new forms of agriculture: wheat and cattle for example; let its edges be moistened by the Atlantic and Pacific and you have Colombia.

Between the fingers are the valleys and just west of them the llanos or plains. It is here that both beef and dairy cattle are raised. Colombian cattle, like the people, are crossbreeds combining native stock with European and North American ones. In 1954 12,000,000 cattle roamed the plains of Colombia, representing such familiar strains as Holstein, Santa Gertrudis, Brown Swiss, Shorthorn and Brahmas as well as the indigenous forms with which they have blended.

Colombia's government wants still more cattle and hopes to have 30,000,000 head soon. In addition to increased production, there is a desire for more consumption. By recent estimates, a Colombian consumes an average of 60 pounds of meat a year.

Far more popular than beef are the filling, quick energy starches such as rice, corn, potatoes, and wheat. Today corn is the leading grain. It's grown throughout Colombia from the hot areas where a crop matures in three months to the colder regions where it takes as long as ten months. Corn is eaten as a vegetable and is ground up to make flour for pancakes, breads, and gruels.

Wheat, however, is slowly gaining on corn and Colombian housewives are using more and more wheat flour where they once used corn. Their campesino (farmer) husbands and brothers use rudimentary tools and simple methods to produce wheat on a small scale.

Agricultural experiment stations in this country are solving many problems in plant improvement and modernization of production methods. One such station, La Picota near the capital city of Bogota, has been trying to develop rust-resistant wheats. Other stations throughout the country are puzzling over problems in soil management, disease and pest control, and many of the special difficulties that arise from high altitude farming.

All agricultural research in Colombia is coordinated by the Department of Agricultural Investigations. This is the same government organ which works with such groups as the Rockefeller Foundation, the Food and Agricultural Organization of the UN and the ICA.

The Rockefeller Foundation, for example, was invited by the Colombian government to send scientists and technicians to do agricultural extension work and help train teachers and scientists. Major emphasis was put on the training of Colombian agricultural leaders and many of these men were sent to the United States or Mexico (the site of the first Rockefeller Foundation project in agriculture) to study and a large exchange of teachers and students is carried on among these three nations.

With all this emphasis on the development of new forms of agriculture, Colombia's two main crops are not neglected. More than 50 per cent of Colombia's population is concerned in some way with coffee production and sales. This country is still the leading producer of mild coffees and some Colombian coffees add to every fine blend on American breakfast tables.

Bananas, Colombia's other main crop, are not neglected either and this nation is the world's third largest producer and exporter of bananas. However, a nation can't live on coffee and bananas and depending exclusively on profits from exports is a tricky business. Therefore, while not neglecting these two main industries, Colombia is expanding the volume and variety of her agricultural production.
Livestock and Saltwater Studied by Ag Scientists

by Stephen A. Breth '60

There is probably no field of scientific endeavor that produces practical results as rapidly as agriculture. Researchers all over the country in universities, government laboratories and private agencies are advancing the boundaries of agricultural knowledge at unprecedented rates. This type of research has made it possible for the average farmer to produce food and fiber for 23 other people. At the turn of the century the average farmer could only support 6 others.

Item: The screw worm fly threatened the Florida cattle industry with multimillion dollar losses until entomologists were called in. Knowing that the female screw worm fly mates only once in its lifetime the scientists covered the state with sterilized male flies. Up to 50 million a week were released. The fertile wild males were so outnumbered that virtually no young hatched and Florida was free of the screw worm fly.

Item: One of man's oldest dreams is on the threshold of being realized. The vast waters covering four-fifths of the earth's surface may soon be used for crop production. USDA chemists have devised a method of desalting water for 60 cents per 1000 gallons.

Item: Federal livestock researchers at Beltsville, Maryland are able to cull four month heifers on the basis of future production. They have developed a method of predicting future production by examining the heifer's mammary gland.

Item: Big news for livestock growers in the tropics is Napier grass. This grass produces an unbelievable 130 tons of green forage per acre per year. It grows so fast that it has to be harvested every 60 days. The only drawback is the tremendous demands such a growth makes on the soil. In Puerto Rico where much of the work was done researchers applied 800 lbs. of pure nitrogen per acre to get maximum yields.
A Student’s Lament
for a Lost Cow

I remember the first time I saw Zelda. It was my first day as a farm hand and I had never milked a cow before. I think every cow in the barn was determined that I wouldn’t learn. No matter how hard I tried, I simply couldn’t coax any milk from those four-fingered faucets on the undersides of the Holsteins.

Then I came to Zelda. She seemed to sense my anxiety. No sooner did I squat down beside her than milk streamed steadily from her apparatus. Within seconds that warm white liquid had drenched my pants and filled my shoes. This, I was informed, was not the desired result but I didn’t care. This strange cow had responded to my inexpert urgings and given a successful start to my career as an aggie.

From that first gush of warm milk, I knew that Zelda and I were meant for each other. There in a pool of hot milk, our love was born.

But, as Shakespeare once said, “The course of true love never did run smooth.” Zelda and I were no exception. One day I came into the barn hot and tired after a sunny afternoon’s haymaking and, as I was putting the milker on Zelda, a fly landed on her back.

In an attempt to evict this barbarous bug, she swung her tail and smashed me full in the face. Pained and irritable, I made ready to impart a devastating blow to Zelda’s ribs. As I raised my arm, she turned around and gazed at me lovingly and gently rubbed her large, rough, wet tongue over my bare arm. In that moment of tenderness I realized that she, too, may have had a bad day and might have felt worse that I did. Zelda taught me that love is a give and take affair.

Zelda and I spent many happy days together; then the inevitable happened. The farmer announced that Zelda wasn’t giving enough milk and that the butcher was coming for her in the morning. After years of faithful service (She gave that farmer the best milk of her life.) Zelda was sacrificed to the production records.

When I got to work the next day Zelda was gone. The place where she had made a home for me was just a stall again. There was a great empty feeling in my heart where once had dwelled a 1500 pound Holstein.

Time’s passing has lessened some of the pain and I can now think of Zelda without tears coming to my eyes. But, wherever she is, whether dog food, hamburger, or shoe leather, I shall always remember and love her.
Look at the Birdie

A retired professor Photographs coeds.

by Valerie Jones '60

THE little white-haired man chuckled to himself as an attractive coed brushed past him on her way to Mann Library. For weeks he’d been watching her, and he’d seen the range of her moods and expressions. She was truly the girl he’d been searching for, and he knew he mustn’t let her escape.

Summoning his courage, he tapped her lightly on the shoulder, “Come with me,” he said, “I want you to pose for me.” Her look of alarm was all too familiar but it disappeared when he explained that his hobby is photography and his models are coeds.

Not just anyone can be a model for Professor Pearson, however, and beauty is not enough to make a good picture. “I’ve learned to tell who’s photogenic,” he says, “You could stand him on his head and he’d look good.”

Weeks of girl-watching are spent studying a prospective subject from all angles, for Professor Pearson doesn’t like to make mistakes. Finding models who will photograph is a pleasant pastime for the 71-year-old man who devotes a 40-hour week to his hobby.

Professor Pearson embarked upon this photographic career after his retirement in June, 1953. In 1920 he and Professor Warren formed an economics team that was to become very important in the New Deal recovery program. The two wrote six books together and initiated the Cornell Farm Economics Bulletin.

During his years of teaching Ag Ec 115, Professor Pearson developed a large student following. His popularity was so great that he was forced to teach his course for a full term after his planned retirement.

His charming way of speaking, the tiny flower he often wears in his lapel, and the jar of candy kisses he keeps on a desk for “his girls,” have endeared him to a great many people.

There were a few, however, who were not quite so impressed. “I just didn’t know what to say when this man came up to me,” one coed admitted. “When he asked me to come and pose in some basement, I thought he was crazy.” Only about one tenth of the girls he asks refuse.

Pearson’s salons, which differ from either snapshots or portraits, are enlargements with an appeal that makes them good for exhibits. In fact, many of these salons have been exhibited. One such exhibit was held in Willoughby’s, the largest camera and photo supply store in New York City. On campus exhibits are regular weekly events. Every week Professor Pearson picks out his best pictures on a particular topic—clouds, young girls, freckle-faced boys, rainy days to name a few—and hangs them on the Warren Hall bulletin boards.

When campus concern about Tripod was at its peak last fall, the enterprising professor produced some pictures of the husky from his files and, tearing down his display for that week, posted a large photo of Tripod entitled, “The Dog that Made Willard Straight Famous.”

Professor Pearson took up this hobby five years ago but until last January never used human subjects. He started out with flowers and turned next to roads, trees, snow, and animals. It was the persistently bad weather last winter that drove his hobby indoors to his converted office and inspired his use of human subjects.

The newly-developed “Pearsonian” philosophy of photography says changes in reality for his shots are perfectly legal, but touch-ups on final prints are taboo. If a person has wrinkles, he delights in showing them at their best.

The modern trend in commercial photography is to show faces as bright and clear as possible, but Professor Pearson aims to make his pictures “as shadowy and contrasty as I can get.” To achieve this effect, he uses a home made filter, harsh “Rembrandt” lighting, and a Hasselblad camera.

When asked about the expensiveness of his hobby, the ex-economist laughed, “What else do you expect a retired person to do—spend a lot of money and travel around the world? I’m having more fun,” he declared with a twinkle in his eye.
Milking Parlors—Clean, Quick, and Efficient

by Robert Jewett '61

Extension Teaching

Milking Parlors Save Time and Money

A farmer falling asleep at the dinner table after a long hard day's work is a familiar sight. Perhaps as a farm practice student, you have done the same thing. Farmers are dedicated to their work and put in many exhausting hours in their occupation. Dairy farmers have an innovation available that will take some of the worst strain out of their jobs—milking parlors.

It is often said that the most important prerequisite for putting in a milking parlor is a good barn fire. But not necessarily; the milking parlor is readily adaptable to the needs of the farmer considering expansion through remodeling.

Many farmers can't expand because of the scarcity of hired help. A milking parlor makes it possible for the farmer to increase his herd size while decreasing the total time spent in milking. The time saved in milking can be spent in the more time consuming chores which expansion entails. Any plans for remodeling or expansion should place a great deal of importance on the possibilities for mechanical feeding and cleaning.

The main advantage of the milking parlor to the farmer is not the actual time saved in milking itself, but in the labor saving methods which it encourages. For instance loose housing works very well with the milking parlor.

The farmer who is considering remodeling can keep construction costs down by installing the milking parlor in one end of the stable in his conventional type barn and utilizing the remaining area for the feeding area of his loose housing arrangement.

A pole type addition is suitable for the loafing area and does not need to be insulated except in a severely cold area. The temperature of the surrounding air may drop even below zero without discomforting the cows, provided they are dry and free from drafts. Under properly managed conditions the bed will always be warm from the fermentation taking place in the manure pack. Sufficient space should be allowed between the floor and ceiling for the accumulation of up to nine months' manure.

To facilitate mechanical feeding, the feeding area is lined up with the silos and hay mows. The ceiling supports are spaced to permit cleaning with tractor mounted hydraulic equipment. The feeding area doubles as a holding area during milking. At least 25 square feet of paved area per cow is necessary near the milking room entrance door.

The stalls in the milking parlor are elevated with broad steps leading into them. Grain is fed as an inducement for cows to enter and as a means of keeping them content during milking.

In order to eliminate the handling of feed, the bulk feed bin is directly above the milking parlor. Metered gravity chutes dump grain in each feedbox.

The well planned milking plant itself has elevated stalls, hot and cold running water, metered feeding, and clean-in-place pipe line connected to a series of milk cans or a bulk tank. This is the ultimate goal for real efficiency but many farmers are still using their milking barn and purchasing equipment as rapidly as they can.

In the milking parlor itself the limit is four cows to the operator for peak efficiency. One machine is used for every two cows so that one may be washed, stripped, and fed while the other is being milked. Often the grain is mixed with water to enable a high producing cow to consume her grain in the short period of time that she is in the milking parlor. After milking, the cows exit into the loafing area and are not let back into the feeding or detention area until after the remaining cows have been milked.

A milking parlor can change the dairy farmer's most time consuming chore—milking—into a fast efficient operation. It encourages sanitary procedures and fits in well with other labor saving devices.
Food for 10,000 Hungry People

An ice cream bar at midnight, a container of milk to make up for missing breakfast, a shiny red apple to keep the doctor away—their a just a few of the luxuries provided the University by the College of Agriculture.

Milk is the product supplied in the largest quantities—over 4,000 Tetra-paks a week in each of the women's dormitories and several thousands more at the Straight and other campus eateries. In addition, milk—chocolate, skim, or homogenized—from Cornell cows is served in containers in dormitory and class building vending machines. Even the old-fashioned milk bottle has its place—half pint, pint, or quart.

Ice cream is a close second to milk in popularity. Risley Hall consumes some 50 gallons a week and, wherever else Cornell milk is sold, the ice cream is nearby. One of the many coed legends claims that in benevolent soul left Cornell University a good sum of money for the express purpose of serving ice cream daily in all the women's dormitories. The Ag School is helping fulfill this will.

These and other dairy products come from the Department of Dairy Industry. This department covers a wide variety of fields, among them all the aspects of dairy processing and manufacture.

Additional products are provided by different departments. Apple distribution, for example, began modestly with the Pomology Club's machine in Plant Sciences. Last year machines were put into dormitories and other buildings on campus and the Pomology Department supplies the apples.

Shoppers can also get a dozen eggs or a beef steak from College of Agriculture sources. A course in butchering keeps the store in Wing Hall well supplied with meat for students doing their own cooking, and the Poultry Department keeps the egg machine behind Stocking fully stocked.

Stocking Hall houses the training and research facilities of students and staff members concerned with the manufacture of milk and milk products. Most of the milk used for research, study, and distribution comes from the Cornell herd.

Cornell, being a land-grant college, must, by law, sell its products to the University. Income from these sales pays salaries to the students and others who work at the plant and provides for the upkeep and purchase of equipment.

One of the recent things to come out of the research labs of Stocking Hall is the Tetra-pak, poorly received by students last year but a familiar sight at mealtime in this, its second year.

Give some people an inch, they say, and they'll take a mile. Now that milk is accepted in Tetra-paks, Dairy Industry is trying to put ice cream into the little wax paper pyramids.

Tetra-paks, however, are not the only new things in store for Cornell ice cream. Recently a group of graduate students in the Department set up shop in Willard Straight Hall and gave passing students ice cream samples to taste and judge.

In case you didn't get a chance to identify the flavor, it was maple—two varieties, one with a vanilla background and the other with a maple background. There was a reason for this choice of flavor: The United States Department of Agriculture donated a two-year grant for graduate research and study in the use of maple and honey products in ice cream. It is hoped that results of this research will boost the sales of New York State maple and bee hive products.

Milk, the staple product of the dairy industry, is scrutinized as carefully as the ice cream. Current department research includes a search for a faster, more sanitary, and more economical way to pasteurize milk and ways to increase flavor and vitamin content.

To most people, milk is milk, but to the College of Agriculture it presents a challenge to produce a greater variety of healthful and economical products.
Freedom from Hunger

Two-thirds of the people in the world are underfed. And, the world population is increasing by 40 million persons a year. The world is faced with the overwhelming problem of feeding an already undernourished, but rapidly increasing population.

The solution—on a short term plan—help by the adequately fed countries to areas struck with poverty. The only long term solution is improvement of the agricultural situation throughout the world.

Only in the United States, Australia, New Zealand, and some parts of Europe, has agriculture advanced to the degree that it provides adequate food for the population. Only in these four areas do the agricultural areas use scientific methods and machinery.

This situation places the students of agriculture and nutrition in a position of paramount importance. They will be the future experts working with the Food and Agricultural Organization of the United Nations which was organized to face this problem.

The FAO employs teams of experts to be sent to countries throughout the world at the requests of the countries themselves. This Technical Assistance Program, where the experts actually go to the countries with advice and aid, is co-ordinated with the FAO research program which provides statistical data on agricultural and nutrition situations.

FAO uses this statistical research to forecast future needs and developments throughout the world. The philosophy behind FAO is encouragement of international cooperation and consultation on world agricultural and nutrition problems.

The requirements for employment in FAO are rigid—ten years of experience after college and the ability to work with people. FAO needs specialists who can operate within their "people-to-people" policy that does not force modern methods and machinery on a people. The whole aim of this organization is to improve the agricultural situation of an area without causing the tension that comes from a too-radical change in way of life of a people.

For instance, along the Red Sea coast of the Sudan, a few hundred fishermen were using crude, un-powered boats and poorly made fishing gear to earn their livings. An FAO expert introduced small engines for the boats and nylon fishing lines to increase catches in this area three to five times.

Throughout the world, FAO uses its teams of experts in many ways to help solve the world food problem. As the world population increases FAO will need more and more agricultural and nutrition experts to wipe out malnutrition.
Report from the Lantbrukshogskolan

Dear Countryman,

Since I feel that much has been written comparing Swedish farming and college life with that of the U.S.A., I shall, instead, tell you something about Uppsala and Lantbrukshogskolan (the Royal Agricultural College of Sweden).

Uppsala is best known as the site of the University of Uppsala, which was founded in 1477. In the 12th century Uppsala was the religious center of Sweden, from which its name, "the city of eternal youth" comes. The cathedral, erected in 1273, still stands on its original site. The University is the oldest in Sweden; it offers study in philosophy, science, medicine, and theology. The city became the unofficial capitol of the country when Gustav Vasa, then king, built his castle here in the 16th century. The castle stands today just a few yards from the cathedral. However, present day Uppsala does not cling to the memories of its past. It is rapidly becoming an industrial center.

Although agricultural instruction and research have been carried on at Uppsala since about 1850, it was not until 1932 that the college was formed by the Swedish government.

There are about 250 students at the college studying for the agronomexen (similar to the B.S. in agriculture), offered in agronomy, agricultural economics, agricultural engineering, or general agriculture.

The part of the college best known and loved by the students is the "Karen" or student union building which includes a cafeteria, reading rooms, a library, and a place for the monthly "fests" and dances.

It is truly an enjoyable experience to have the opportunity to know the people and to learn their way of life. Thank you to all who made this possible.

Stuart Crandall '60
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Reginald Farquhar
February 1959
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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter, postage paid at Ithaca, New York and at additional mailing offices. Printing by Norton Printing Co. of Ithaca. Subscription rate is $1.75 a year or two years for $3.25; three years for $4.50; single copies, 25 cents.

February, 1959

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Wanted: Better Instruction

THAT there is nothing like a good teacher to inspire students is a common belief in the realm of education. College teachers, however, are chosen for their competence in subject matter and research, both without a doubt the most important qualifications for a college faculty or assistant graduate students.

However, when the teaching staff is chosen, it is seldom that the teaching ability of the applicants is even considered as one of the qualifications for the position.

The result is, of course, that a teaching staff is as good as the organization and the interest of the head of the department. Sometimes, the results are excellent. At other times, students enter a course where there seems to be a general lethargy toward teaching. The loss to students in such a situation is, of course, great.

We feel that the faculty committees of both the Colleges of Agriculture and Home Economics (perhaps with student representation) might spend some time viewing this matter to see that improvements could be enacted. Perhaps, the teaching staffs might be encouraged to take courses such as College Teaching 214 taught by Professor Ebelling of the School of Education. This course has no exams or regular assignments and is designed for the faculty and teaching staffs that already have a burdened schedule.

However, instruction in teaching methods is not an end in itself. Courses will not make a poor teacher a good one unless the teacher has the interest. This is where the faculty committees of both colleges might consider that teaching ability, no matter how small the emphasis placed upon it, be a qualification for applicants to the teaching staffs.

—B.L.D.

Let's Hear the Other Side

ONE of the fundamental tenets of the agricultural policy advocated on campus is that there are too many inefficient farmers in agriculture. According to this belief, farm policy should be adjusted to encourage these farmers to leave agriculture and work in other fields.

There are many spokesman, however, who feel that such a policy is sacrificing the small farmer for the larger, wealthier one. Usually, these spokesmen represent the midwestern farmers who have significantly lower incomes than northeastern farmers.

A debate or a panel discussion between a member or members of the faculty and someone who is opposed to the Cornell concept of farm policy would be enlightening for the campus as a whole. Ag-Dom could sponsor it as part of their campaign to bring more interesting events to Upper Campus students.

An ideal man for such a discussion would be Wesley McCune, acid-tongued author and commentator for the National Farmers Union, the only major farm organization that supported the Brannan Plan. Mr. McCune abhors Cornell agricultural economists and their opinions. He ought to be interested in coming to Cornell to voice his ideas among students. More important, his ideas in a debate should be of great interest to Cornell students.

—S.A.B.
Summer Jobs in Europe

Want to work this summer on a German farm in Bavaria, at a resort in Sweden, on the French seacoast looking after children, on construction in the Rhine land, on reforestation in the mountains, or in the fishing industry of Norway?

These and many jobs in Italy, Spain, England, and Switzerland are open by the consent of the governments of these countries to American university students coming to Europe the summer of 1959.

Last year, the first group of American students made their way across the Atlantic to take part in the actual life of the people of these countries. The success of this project last summer has caused a great deal of enthusiastic interest and support both in America and Europe.

This year, the program has been expanded to include many more students and jobs. American-European Student Foundation is offering these jobs to students for Germany, Scandinavia, England, Austria, Switzerland, France, Italy, and Spain. The jobs consist of forestry work, child care work, farm work, hotel work, construction, and other more specialized jobs.

The purpose of this program is to afford the student an opportunity to get into real living contact with the peoples and customs of Europe. In this way, a concrete effort can be made to learn something of the culture of Europe. In return for his or her work, the student will receive room and board, plus a wage.

All the employees are informed about the program and will help the student derive the most from his trip to Europe. The Foundation has also been allowed to obtain voyage tickets for students at a 10 per cent reduction.

Have You Met the Countryman?

The Cornell Countryman, the home of good copy and bad coffee, has several positions open for you on each of its boards—business, editorial, advertising, and art and photography—and you are invited to compete.

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Come to our gala grand opening on Wednesday, February 18 at 4:30 in the afternoon. Meet the staff, try out our chairs, and decide for yourself whether the Countryman is all we say it is. By the way, our office is in Roberts Hall—490 Roberts, where the air is fresher and the snow is whiter.

The working conditions will be strictly controlled by the labor ministries of the countries involved.

For further information on the placement services and travel arrangements, write American-European Student Foundation, PO Box 34712, Vaduz, Liechtenstein, Switzerland.
GOODNESS gracious, kiddies. spring is almost here for certain. Zilch saw the sun the other day. Well, it was only a couple of minutes but it filled his heart with an aesthetic sense of reverence, love, hope, and all that jazz.

Brace yourself: there is yet another use for the everpopular Tetra-pak—ice cream. Simple directions: “(1) One of the wings is perforated. Tear off the wing. (2) Squeeze out ice cream gently.” West Coast residents who have tried out the new package find the ice cream “a little hard to get out.” Tetra-paks, however, seem to be better adapted to ice cream than milk; ice cream can’t come out at you as fast as milk—but, when it does, the results are more lasting.

Good news for the club lobby on the Upper Camps: club reps now have temporary full-fledged membership on Ag-Domecon Council. Their membership will be permanent upon a two-thirds vote of the Council members this spring. Provision was also made for Ag-Dom to shuttle its number of representatives without having to go through another referendum. Credit for initiating and putting through this legislation goes to Al Hayner and Guy Burns.

Odds and ends department: recently about 30 per cent of each graduating class has continued its formal education. This could become serious when education interferes with retirement. Zilch recommends the roof of Roberts Hall for a lookout tower. He says it’s the highest point on campus—higher than Libe Tower. Try it sometime; it’s milder, much milder.

Robert MacNaughton ’62 was state winner in the Allis-Chalmers-sponsored Garden Program. He was awarded a $400.00 scholarship at the National 4-H Club Conference in Chicago. Mazel to, Bob.

Another Cornell first. Prof. John K. Loosli just won the $1,500 Morrison award for outstanding research in livestock production. Loosli is the first Cornell prof to win this award.
Zilch was in an etymological mood (Don't run .. .that means he hit the dictionary to look up a word.) the other night. He was browsing through an old issue of the Widow (Yes, he does read such things) and wondering where the name came from. Once, in the good old days, every campus had a "widow." She was addressed as "Mrs." but generally unmarried and her abode was a meeting and recreation center for young campus gentlemen. Many college humor magazines were named in her honor ... she was a sweet little old lady.

Tony Lyons '59, formerly the most notorious bearded aggie, is no more. Zilch heard that the Smith Brothers lost their foremost disciple when a bird nested in his growth.

News department: the Countryman is not infallible. Take our advertising salesmen for example. One of them sat in a downtown eatery peacefully sipping coffee. As he sipped he sketched prospective ads for this and other mercantile establishments. Standing unobtrusively by was the lady to whom he hoped to make the sale. She didn't buy.

Another of our illustrious salesmen marched briskly into a prospective advertiser and, in a few thousand well-chosen words, told the Countryman's story. "Young man," he was asked, "do you read your magazine?" There, big as life, in our magazine, was the ad he was trying to get. Oh well, it's all in a day's work.

All these little things are taken in our stride as we prepare to wind up for a humdinger of a March issue. Happy Farm and Home Week to one and all; see you next month.
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for further information contact
Prof. Howard Tyler, Roberts Hall

COOPERATIVE G.L.F. EXCHANGE, INC.
ITHACA, N. Y.
BUSTLING cities, almost deserted bushland, quiet easy-going Australians; the aborigines—the oldest and most primitive men of civilization—all make up Australia, a land with huge potential and room to grow.

Australia is a country much like America—it is young (170 years old); its people are casual; its cities and industries are growing at an amazing rate. Like the United States, it is one of the few countries in the world that has a high level of living and can provide food for all its population.

The difference, however, is that Australia’s population is ten million, a mere fraction of the United States’ population on a geographical area of almost comparable size.

But, these few people have made amazing strides on land which has presented many obstacles—vast deserts and bushland, and isolation from the rest of the world.

The strides have been so great, that there are very few differences in the life of an Australian housewife compared to the average life of Mrs. United States. Supermarkets and department stores provide all the outlets for products in the cities and suburbs. In Australia, however, there is more emphasis on the specialized marketer—the butcher who deals with meats and the “green-grocer” who deals only in vegetables.

On down the list of products needed in the home, Australia makes them and only needs to import the unessentials. Woolens from Australia, for example, are reputed to be among the best in the world whether they are knitted goods, yard goods, carpets, or blankets.

Most Australian homes have appliances such as washing machines, and interior decoration is as important there as it is in the United States. Perhaps, the best example of the vast development in products for the home is the Myer Emporium and its satellites, the sixth largest department store in the world. The Emporium stocks everything that the Australian housewife would need.

Education in Australia is operated under much the same principal as in the United States—compulsory free schooling for everyone. Australia, too, has a crying need for teachers.

Culturally, Australia has advanced by leaps and bounds in 170 years. The aborigines, of course, provide the most well-known of the Australian art. But over and above this, Australia has ballet, opera, theater, and orchestras—much the same as any United States city.

To the American home economics student, the story of Australia can mean many things. First and foremost, home economics is not an academic subject in Australia and no home economics degree is offered. Therefore, the American home economist who goes to Australia job hunting goes into a wide-open field. Radio offers the biggest possibility, along with the food companies (both canned and frozen goods), and appliance companies.

As school teachers, Americans would have their pick of positions. In fact, almost any American home economist would easily get employment because of her specialized training which isn’t available to Australia’s women.

And, most important, Australians like Americans. Perhaps, this is because Americans and Australians are much alike—they have the same easy-going nature; almost the same historical background; and the same way of living.

If Americans are supposed to be sports crazy, Australians are even more so. They love horse-racing, cricket, tennis, swimming, and rugby. Their warm summer-like weather gives them opportunity to indulge in sports all year long.

The only apparent difference between Australians and Americans is that Australians are a bit more conservative. They entertain in their red-brick houses with rambling gardens more often than Americans are known to entertain at home.

Australia is very much like the United States and at the same time very different. It is a country with a Flying Health Service which provides medical services by airplane; it is a country with crocodiles, kangaroos, and koala bears; it is a country that needs people and welcomes those who come to work and live.
AUSTRALIA: land of vast contrast. A land where the kangaroo can hop uninhibited across thousands of acres of barren bush, but the Sydneysider must restrain his hopping because of almost two million other inhabitants of Sydney. Australia has battled inadequate rainfall and underpopulation and become one of four countries in the world that can feed its population without importing food.

This contrast points out the wonderful feature of this land “down under”... growth, amazing development, taking a country of kangaroos, ostriches, aborigines, and, in less than two centuries, making a leading agricultural and industrial nation. The people of Australia have confidence in their country and they are going to keep this growth alive.

The people: this is the strength of Australia. Mr. Reginald N. Farquhar, now a grad student in Extension Education at Cornell was the Australian equivalent to a county agent. He, himself an Australian, says that until about 20 years ago, the Australians felt that there was a limit to their growth, a ceiling to their development. But then something blew that ceiling off and they began to feel that there were no limits. They would see a horizon, reach it, and go to the next one.

Agriculture, in particular, has shown the rapid growth and the surmounting of obstacles which typifies Australia. The western half of the continent is covered by a great plateau and two thirds of the whole continent has rainfall averaging only 10 inches a year. In spite of this Australia is a leading agricultural nation.

Australia has a lot of land and not many people, so machinery must be used to get the most production from the least amount of workers. A very high degree of mechanization is found on all types of Australian farms. Tractors are used in field work, electric milking machines are found on the dairy farms, the wheat industry uses great combines... all down the line, the same type of equipment is used there as in the United States. Australia can’t afford inefficient farms, and must use every means to get the most from its land.

Wool is Australia’s greatest primary industry, producing nearly one third of the world’s supply. Wool accounts for the biggest part of the national income. The extent of the sheep raising industry is due to the natural factors climate and pasture, but also to the work of man in developing a highly organized grading and marketing system.

Wheat, however, is the main crop of Australia and is second in importance to wool as an agricultural product with almost half the crop being exported. Wheat is grown extensively in every State with concentrations in the southeast and southwest portions... and the home of the Sidneysider
Forges Ahead

by Edward L. Razinsky '61

Emphasis is placed on sheep and wheat, but aside from these industries, the same amount of diversification is found in Australia and in the U.S. The climate adds to the diversification, ranging from tropical in the north to something like Southern California in the south, with temperate climate in between.

Still another area of Australian agriculture is dairy farming. The main difference between U.S. and Australian dairy farming is the extensive use of land for pasture. Mr. Farquhar states that the Australians found the most natural kind of feed to be the cheapest and most economical in the long run. For this reason, emphasis has been placed on research to improve pasture land and to increase the amount through irrigation.

In sugar production, Australia ranks fourth behind Cuba, India, and Brazil. The other agricultural industries include poultry, bee farming and fishing. The rabbit is a large part of the Australian diet, and the skins and fur have export value. Fruits and vegetables of all kinds, grains, forest products, potatoes, tobacco, hogs...in short, Australia supports many kinds of agricultural industries and most of them are the same as those in the United States.

Opportunities for American agricultural college graduates are numerous. As a farmer in Australia the American will find the principles of farming are the same, only the application varies. He will find himself using the same type of machinery, growing the same crops, raising the same cattle and facing many of the same problems as he did at home.

One big advantage, however is the cost of starting a farm. While mechanization has made this cost high in Australia, it is not as high as in the U.S., and the cost of land is less. The American dollar has greater buying power in Australia than in the U.S. and this serves to magnify a small bank account.

In industries connected to farming, opportunities run in the same line. Australian agriculture needs scientists, economists, animal and poultry husbandry men, agronomists, botanists, journalists and dairy scientists. The list can go on, but it would only show that training in American colleges will equip a graduate to work in Australia.

For further information in jobs available to both agriculture and home economics graduates in Australia, write the Australian News and Information Bureau, 636 Fifth Avenue, New York City or the Australian Commonwealth Scientific and Industrial Research, 314 Albert St., East Melbourne, Australia.

February, 1959
Nature is His Business

by Elizabeth Pomada '62

Dr. Richard B. Fischer shows an interesting plant to a group of R.E. 108 students

The wind was howling; the thermometer read five degrees above zero and the troop of students had walked for miles through snow a foot deep. They should have been cold and miserable but they weren't because they were completely fascinated by their leader—Professor Richard B. Fischer of the Department of Rural Education. He had been avidly expounding on the snow tracks of white-footed mouse.

The class was Field Natural History, the common name for Rural Education 108. This course has been taught by Dr. Fischer since 1953 when he earned his doctorate at Cornell. The course consists of field trips twice each week, regardless of the weather. But Dr. Fischer adds something extra to those field trips.

During one of these safaris last year, 18 students stood shivering on a snow bank while one student climbed a tree to get a bird's nest. While frigid learners took notes with their glove-clad hands, Dr. Fischer picked apart the nest and lectured.

"This," he said, holding up a bit of white fiber, "was the filter from someone's cigarette. The bird who used this nest last spring was lucky to find such an unusual piece of building material."

Dr. Fischer, however, doesn't depend upon luck to find his building material. "First, I decide what we're going to learn on our field trips. Then I survey the campus to find appropriate materials and note their locations in a notebook I carry for the purpose."

Each lesson is carefully planned in advance and meticulous notes—both written and mental—are made of every stopping point. But even Dr. Fischer's best laid schemes often are interrupted by surprise events. One such surprise was an unusual nest seen outside a second story window. "I wish I could have that nest," Dr. Fischer mused. Before anyone could stop him, a young naturalist was halfway up the wall of Baker Laboratory. Dr. Fischer got his nest and added it to his natural history collection.

Dr. Fischer is not a secluded scholar. His ornithological knowledge, for example, is shared with readers of many of the nation's leading natural history magazines. Secrets of Dr. Fischer's literary success are freely shared with students in another of his courses, Nature Writing. Here articles are written on all aspects of natural history and submitted to journals in the field. "One of my students just received a $500.00 check for his first article. That sort of thing really makes me feel proud."

Another person who makes the professor feel proud is his wife, also a writer. Among her other virtues, Mrs. Fischer is a "top-notch editor and copyreader and bakes the best chocolate chip cookies in the world."

She does not, however, share all his enthusiasm for nature study. Even so, spiders have special privileges in the Fischer household. "In my home," says Dr. Fischer, "every spider is a Charlotte and all little spiders are Charlotte's children."

Displacing spiders as Dr. Fischer's favorite animals are birds. Professor Fischer is an authority on the chimney swift an abundant but little-known American bird. He studied its breeding habits for 14 consecutive summers before writing his doctoral dissertation. The New York State Museum has published this dissertation as one of its special bulletins.

On the wall and shelves of Dr. Fischer's office are many things that represent every side of his personality. Two portraits, one of Louis Agassiz and another of Arturo Toscannini, occupy one wall. Another part of the wall is covered with pictures of bridges and still another with the stuffed head and tail of a cardinal. Many shelves are filled with scientific books on all subjects and for all ages.

Dr. Fischer is a man of many interests—writing, photography, ornithology, hunting and fishing, hiking, family, and classical music to name a few. "But most of all," he says earnestly, "I like to teach."
Farm and Home Week is again drawing near. In another month or so the Upper Campus will once more be a showplace for New York Staters interested in agriculture and home economics. The colleges promise something for everybody—farm and city folks alike.

Professor Elton K. Hanks, this year's general chairman, expects more than 10,000 visitors. Among those invited is Governor Nelson A. Rockefeller. It is hoped that Governor Rockefeller will make the major address of the week.

Dean Meyers will be giving his last Farm and Home Week talk as dean of the College of Agriculture. This, his twentieth such address, will be on the economic outlook. Another Cornell faculty member, Professor Marlin G. Cline, will give an illustrated lecture based upon his recent tour of the Soviet Union.

In addition there will be the usual open houses and guided tours of the Veterinary College, and the College of Home Economics nursery school, and other places of interest to visitors. The Round-Up Club will have its annual student livestock show, and other clubs will have their exhibits. Ag-Dom plans a round and square dance for students and visitors, Rice and Eastman Debate finalists will compete for their respective prizes.

All this activity needs people to aid with publicity, registration, ushering, attendance, and other functions. Soon lists will be posted in Mann Library where you can sign up to work on these committees. Your help is needed to make this year's Farm and Home Week a complete success.

The Student Livestock Round-up Club Show, Farm and Home Week '58.
A Boon to the Northeastern Farmer

by Steven A. Breth '60

PLOW planting can be a boon to the northeastern farmer. It can mean less work in the busy spring season and more corn in the crib at harvest time. But the farmer who uses it must be able to do a better than average job of tillage, says Cornell agronomist Hugh M. Wilson.

The farmer who has the skill to use plow planting can postpone fitting the soil right after it is plowed. He can plant the corn while he plows and it can be done when the fields are too wet, for normal fitting. Weed control is easier. The end result is less work, time, and cost for equal or better yields than from conventional methods.

Plow planting began at Cornell University and agronomists here have been working with it for over eight years. It became popular so quickly that many grain corn farmers began using it before the agronomists and agricultural engineers had worked all the kinks out of it.

Now it is used successfully for both grain and silage corn. Average yield in Cornell field trials last year were 100 bushels and 18 tons per acre, respectively.

The most popular way of constructing a plow planter is to attach a one row planter to a three bottom plow. With a five bottom plow a two row planter is attached. The three bottom plow planter will give rows 42 inches apart; the rows from a five bottom plow planter will be 35 inches apart.

As the plow moves along turning the sod, the corn is planted in a depression left by the planter's shoe and the firming wheel on the crest of the furrow slice. Many farmers believe that plow planting eliminates fitting the soil. It doesn't. The fitting is just postponed.

Since the planter is on the plow, every time the plow jerks to one side or the other the corn will be planted in a corresponding wiggle. This means that an exceptionally good job of plowing has to be done. Also, if plowing is sloppy the organic matter won't be buried properly and nutrients will be lost.

With a well adjusted plow, Professor Wilson says, the furrow slice rolls off the moldboard burying the sod, leaving no air pockets. If the sod flips in ten foot strips the plow needs adjustment.

Since good plowing is so important, plow planting works best in sandy-loam, loam, and silt-loam soils. Clay soils can be used if they are in mellow condition. Stony, cloddy or sticky soils make it difficult to plow plant effectively.

When the corn seed is planted, it is left in a small strip of soil compressed by the firming wheel. All the rest of the soil between the future corn rows is free of weeds, and the corn gets started with little competition. Eventually, of course, the soil will become compacted enough for the weeds to germinate. But by the time the weeds are large enough to compete for food and moisture the corn is six to seven inches high.

At this point the weeds get set back again and the fitting of the soil is completed with a harrow-cultipacker. This is a new concept developed specifically for plow planting. When the corn seedlings are six to eight inches high, a combination harrow-cultipacker is pulled through the field. The plants are not crushed into the ground because they have been planted in a depression, and because they are quite small so that only the leaves are bent; the stems are unharmed.

The harrow-cultipacker breaks up the clods and at the same time removes the weeds. This process makes up for the limited soil preparation before planting. Farmers who have neglected this operation have found their fields overgrown with weeds. Agronomists emphasize that without the use of the harrow-cultipacker, a plow planted plot will probably fail.

As the corn grows through the rest of the season standard cultivation practices are followed. Cultivation is no problem if the plowing was straight. Illinois corn growers, using plow planting, do their cultivation with four-row cultivators.

Recently, fertilizer placement has been found to make a difference in yields. In plow planting, fertilizer is more readily available to the corn seed if it is placed on the seed's left because of the way the furrow slice lies after plowing.
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SAVINGS BANK BUILDING
Ithaca, New York
They Judge
Our Beasts

by Paul M. Borden '62
and Carter Dickerson '60

SOPHOMORES—now is the time to come to the aid of your college by representing Cornell in the various intercollegiate competitions as a member of one of the University's judging teams. This opportunity is primarily for those majoring in one of the two animal husbandry fields (livestock and meats) and planning to pursue a career in one of these.

Some of the activities of the teams include field trips to some of the state's leading farms, and in the case of the meats team, to the packing plants. This is done in order for the members to meet some of the most prominent men in their field, and learn the ins and outs of the business side of the picture.

The livestock team, larger and older of the two, was formed in 1921 and is presently coached by Professor John I. Miller, who took over the task in 1936. At present, there are seven members on the team, including one coed.

Pedigree, performance, and physical examination are the bases for selecting livestock. Of the three, the simplest is actually viewing the animal. But it takes training and experience to be able to pick out good breeding stock from the scrubs. The members of the judging team acquire this training in class. The skill comes from field trips, competition, and practice with the college herd.

This training and skill can, of course, prove invaluable to the graduate who intends to make his life work in any phase of agriculture that will require the selection of animals. The young judges must place the animals at the competition within fifteen minutes and then they must be able to defend their placings. Speaking before the official panel of judges gives the student self-confidence which will be valuable.

In 1953, Professor George Wellington organized the meats judging team because of the great interest of the student body in beef judging and the meat industry. This team's members are picked from the Animal Husbandry 94 students. The team goes on field trips to packing plants and such livestock shows as the International Exposition in Chicago.

The meats team judges the various cuts on the basis of such things as the amount and marbling of fat, and color of meat. They not only work with the best cuts but also those found in any butcher shop. This gives the student insight into the practical aspects of this field.
Drip-Dry Clothing

No Wrinkle, No Worry

by Carole J. Wedner ’61

SUE, girl coed, dashed into her room and desperately searched her closet for a fresh blouse since she had a date with handsome Andy and needed a clean garment for the square dance. Luck was against her. Not a clean shirt was to be had. She tore the dirty blouse from her back and tossed it into the wash bucket. Thank goodness it was a new wash and wear.

Wash and wear began with the invention of nylon, our wonderful everythang fiber. Nylon is all right, non-wetting, non-swelling, non-shrinking, non-wrinking. Just think how wonderful it would be if all our clothes acted this way.

Scientists have thought of these wonders, and from their test tubes, plus the sewing machines of designers, and the wash tubs of launderers, has come WASH AND WEAR.

Put on a shirt without ironing it! Our grandmothers would have been horrified at the thought. Our husbands will do it without a thought. But, many problems had to be solved before this wonder shirt emerged. In fact a new shirt had to be invented—one with seams that would lie flat, a stuff but durable collar, pockets that would not pucker and one that would look fresh at the end of the day as well as the beginning. The collars of these new shirts are two layers of dacron cloth and one of resinated (a substance made to make them lie flat) collar cloth. Seams are inside instead of outside. Stitches have been eliminated from the pocket and front to relieve puckering. A few strokes of genius and lo and behold—no ironing.

"Frankly I’m disgusted with that dress I’m making," said a friend the other day. "That material was supposed to be so great—wrinkle resistant, drip dry, but it’s impossible to sew."

Home sewers, as well as garment manufacturers have to change their ways for these new wonder fabrics. Resin finished cotton can not be straightened and crease resistant fabrics will not crease, not even where they are supposed to.

Sew without creases, impossible? So it seems now, but in a few years this and other home sewing problems will have been delivered the same happy stroke of genius as the shirt.

How about that suit your best beau had on last weekend? He could have washed it a few hours before. Look mussed? Not if it was wash and wear. Look at the design of that suit. Because of the rigidity of new materials they are not subject to the same shaping during the tailoring as your dad’s old blue serge. No more hand finished collars and he-man padded shoulders. Simplicity, less stitching, and padding—this is the key to wash and wear suits. Not a bad looking guy if he fills out a suit like that all by himself.

Wash and wear is not a one sided problem. The washing part comes in here too. Sure you can throw that new suit into the automatic machine and expect it to come out clean and pressed. The cranky old wringer you threw out years ago would not produce it looking like that. This suit is delicate.

Laundry companys knew this. They also knew that you did not want to have to bother with the suit until it was dry. Therefore, a washer which cleans, rinses, and dries has been invented. One has also been produced with a heat regulated tumble dryer—just the conditions the suit and other wash and wear clothes love to get clean and pressed in...

No! I would not throw away that iron and board. But, you can throw the fear of being tied to them. Wash and wear, the miracle of our age, has broken your bonds.

PATTEN’S JEWELERS
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Ithaca 4-1562

Jinny Davis ‘61 models the popular circle pin.
$4.95 including tax at Patten’s Jewelers.
JOHN Burroughs, the famous naturalist, wrote after capturing an opossum, "the animal opened his mouth and grinned up at me in a sort of comical, idiotic way." Without a doubt the opossum is one of the stupidest of American mammals.

Found throughout the United States, the opossum is the continent's only pouched animal. The female is always having premature births. The aspirin-sized young find their way to the mother's pouch and begin to suckle immediately after they are born.

The short-legged, pop-eyed possum uses his tail as a grappling hook, trailer hitch and even as a death signal. Young possums hang from twigs by their tails and one pygmy species has been known to sleep in this position for hours.

Building materials are carried by curling the tail around twigs and leaves. But for larger scale movements the female holds leaves on her belly while her mate links his tail with hers and drags her away. While an opossum is healthy and happy he always has his tail curved downward. But when he is dying the tail curves the other way.

In spite of its stupidity and helpless young, the possum thrives and is spreading into new areas. Its viability is seemingly in the face of Darwinian law. The main reason it survives is its amazing fecundity. No matter how fast their enemies devour them, possums keep one step ahead by producing more offspring.

Another advantage the possum has over its smarter, better equipped brethren is its adaptability. It can live in a variety of climates and conditions. When fruit become scarce the possum switches to a diet of insects, rodents and snakes.
Dynamic D-17

with the BIG STICK

leads in 3-tractor test

Which one of today’s big tractors leads in cost-saving performance? Unmistakably, it’s the Allis-Chalmers Dynamic D-17 with the BIG STICK.

Here in tough fall plowing, three new owner-driven tractors competed in a practical plowing test. Side by side, they matched power, traction, and economy in rugged going.

Each tractor started with exactly 20 gallons of regular gasoline from the same tank truck. Each pulled four 14-inch plow bottoms at the same average depth and speed—until its fuel was gone.

The airplane photo above clearly shows the outcome.

How can the Allis-Chalmers Dynamic D-17 more than match the heavier tractors?

The automatic Traction Booster system teamed with the BIG STICK—the exclusive Allis-Chalmers Power Director—does it. On Allis-Chalmers tractors, weight for traction is provided hydraulically, not with hundreds of built-in extra pounds that waste fuel.

Make the BIG MOVE to More Profit!

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Listen! National Farm and Home Hour
Every Saturday—NBC

Actual photo showing acres each tractor plowed on 20 gallons of fuel.
Step into this New World of Power—Plow up to 30 acres a day with this great new Farmall 560 tractor and new McCormick No. 70, 5-furrow trailing plow.

Faster...sm-o-o-ther...so e-a-s-y to drive!

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"Even with a big 5-furrow plow, this new 6-cylinder Farmall® romps along like a frisky colt." "I know it's the most powerful row-crop tractor built, but it's smoother...quieter...easier to run than my old 2-plow rig." "You just shift up and throttle back on lighter jobs to save up to one-third on gas!"

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Now, you can hold faster speeds to hurry heavy plowing. You can mow at 6 to 7½ mph, hoe at 11 mph, or pull wider hitches to do up to 1/3 more work daily. And you farm in greater comfort...with less effort than ever before!

Get smooth, Precision-Six power in 5-plow Farmall and International® 560 tractors, and 4-plow Farmall and International 460 tractors. You can order these powerful tractors with gasoline, direct-starting Diesel, or LP gas engines.

Try the big difference in big tractors—IH Precision-Six power. Just call your IH dealer for a demonstration. See how 6-cylinder power, Torque Amplifier, and other advantages make you a bigger man on a new IH tractor.

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With the thrifty twosome of a John Deere Baler and Tractor, farmers everywhere have discovered the brighter side to haying. They are finding that they can do a better, speedier job, literally spread the sunshine, make their barns bulge with higher-quality hay, and stack up savings by the bale.

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Springtime in Ithaca—bicycles, umbrellas, rides around the quad are all in order. These merry students don’t mind the rain: neither does their camera-bug friend who snapped this picture. When the sun comes out, some campus shutterbugs go indoors and snap pet portraits. For example see page 28 of this issue—Cover Story.

The Cornell Countryman is published monthly from October through May by students in the New York State College of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter, postage paid at Ithaca, New York and at additional mailing offices. Printing by Norton Printing Co. of Ithaca. Subscription rate is $1.75 a year or two years for $3.25; three years for $4.50; single copies, 25 cents.

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The Editor's Last Words

I, BUNNIE Dervin, being of sound mind and sound body (at least until I get to the 36th stair of the 73 stair climb to the Countryman aerie) leave the following to those poor souls who will continue to publish this epic, know for fifty-five years as the Cornell Countryman.

To next year's editor, whoever he may be, I leave one reclining, swivel chair, which is more often reclining than swiveling, and due to its evil tendency to fall over backwards, perpetually attempts to deposit its occupant on the floor—head first. Also one well-worn key to the Dean's office, 12 compents, and a money-grabbing, penny pinching, paper clip-scrounging business manager.

To the incoming managing editor, I leave one "Beware of Rabbit" sign along with one slightly misused, very tired rabbit.

To the business manager (fondly called Scrooge), I leave one bound copy of "A Christmas Carol" for him to read at the Countryman's leisure and with the fond hope that from it he will learn the true meaning of generosity and the spirit of giving.

To the outgoing art and photography editor... it's a funny thing about that boy. It was once mentioned in the office that it was possible to exist on five hours sleep, after all Thomas Edison did it. The scrawl and snap editor shrewdly observed that Edison had done it, but he was also quite dead. At any rate, I leave him one small shoe box in which to house his red VW.

To the building and grounds people, I leave one skylight that allows water to drip daintily on the editor's damp nose and one radiator that knocks when it isn't hissing, and spurts when it isn't knocking.

To our advertisers, I leave one promise that not I but others will return along with many thanks for their support.

To Mann Library, I leave one Vol. LVI, no. 5 and 6 issues of the Countryman to replace the three Vol. LVI no. 3 issues we have issued consecutively.

To the Empire Breeders, I leave a small memo that we shall not send any more itinerant advertising salesmen in to place ads that have already been placed.

To the United Nations, I leave one slightly used pass for an uninitiated tour of the building which might be saved for the next time the Countryman runs a series on foreign ag.

To the outgoing managing editor, I leave blank dummy so she can do whatever she pleases.

And, now, I will take my pencils, and my typewriter, and my leave....

B. L. D.

Welcome, Farm and Homers!

ONCE again farmers, agricultural leaders, and high school students are on campus to see the latest improvements in agriculture and home economics. Farm and Home Week through the years has become a tradition for the rural people of New York State.

Every day there are events that are of interest to everyone. There are lectures, demonstrations, and displays covering every conceivable topic and aspect of rural living. On page 17 of this issue, the Countryman staff has selected the events of the week that it believes are outstanding.

The Colleges of Agriculture and Home Economics have worked many months in advance putting together this Farm and Home Week. The vast scope of events scheduled reflects the diversity and progressiveness of New York's rural community. Welcome to the 48th Farm and Home Week.

S.A.B.

MARCH, 1959
From the President's Desk

WELCOME to Cornell University and welcome to the New York State Colleges of Agriculture, Home Economics, and Veterinary Medicine. These are your colleges, supported by you. The various exhibits, lectures and events of Farm and Home Week have been planned to show you what is being done at Cornell to make your life in the home and on the farm more productive, both today and in the years that lie ahead.

It is a pleasure to share the excitement of the research being done, the discoveries being made, and the processes being perfected at these distinguished units of Cornell University. Look around, stay as long as you can, and come back soon.

We're pleased to have you here.

Deane W. Malott
President
Cornell University
Agriculture's Challenge --
More Graduates Needed

15,000 agricultural jobs are available every year.

by Ezra Taft Benson
Secretary of Agriculture

It is a pleasure to add my word of welcome to the many visitors to Cornell for the 1959 Farm and Home Week.

The influence of this university has been a vital force in shaping our nation's progress, and especially so in agriculture. Your retiring dean of agriculture, Dr. William I. Myers, is one of the outstanding leaders who have helped make America's farmers the most efficient producers of food and fiber in all the world today.

Those of you on the farms and in the farm homes of New York State are well aware of the technological revolution in American agriculture. In this era of vast change we are able to make gains virtually overnight that would have been impossible only a decade or so ago. Efficiency is our byword, improvement our constant goal.

One hour of farm work now produces twice as much food and fiber as it did as recently as 1940.

One farm worker now produces enough food and fiber for 24 persons. In 1940, he produced enough for only 11 persons.

Farming today takes more investment per worker than industry. Investment per farm worker is about $18,000 compared with $13,000 for industry.

The number of persons employed in agriculture on farms is about 10 percent of the civilian labor force. But about 40 percent of all jobs are related in some manner to agriculture. This is a tremendous opportunity for the young people now ready for college, particularly those who have been raised on our farms and in our small towns.

At the same time, this is a challenge that our land grant colleges and universities, such as your own Cornell University, are meeting head on.

Throughout the country, we have the educational facilities to train the 15,000 agricultural college graduates needed every year to fill new agricultural jobs. There are less than half that number—just over 7,000—graduates to fill those vacancies. We must attract our young people to agriculture and its related areas.

Agriculture is a broad field with many new and fascinating opportunities. Whether a young man or woman be interested in research, industry, business, education, communications, conservation, services, or farming and ranching, there is a place in agriculture.

Nor is the trained agriculturist confined to the career of a non-profit institution. Our private enterprise system is awakening to the need for graduate agriculture students for their organizations, much as they have called upon engineers, chemists, and mathematicians. In solving agricultural problems, it is only common sense to call in an expert. This is the case in business and industry, on the farm, and it is what happens in our colleges and universities, and the United States Department of Agriculture.

I know of no field of agriculture that is crowded with top talent.

Throughout every phase of agriculture we need good, competent young men and women to meet the new challenges that are arising nearly every day.

We all realize there are going to be fewer farm units in the years to come. We are in the midst of this transition. But the area of agricultural services is expanding. Some such services are being provided to the farmer; others are performed by groups of farmers for themselves. Whatever the organization of this concept, it will afford great opportunities for our young people.

I urge you, the farm people of New York State, to encourage your people to look first to agriculture for their future. American agriculture is basic to our way of life; it can be even more important to the young people of today as they search for a better world tomorrow.
Livestock marketing in New York State represents a large and important part of rural income. For 12 years now, the part played by Empire Livestock Marketing Cooperative has been growing—with new peaks reached last year in total head handled, dollar volume and number of consignments.

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**William I. Myers,**
Dean of the College of Agriculture

by Steven A. Breth ’60

---

**Myers Leaves Cornell Deanship**

EARLY in 1933, a trim, serious young man stepped from a train in Washington, D.C. on his way to head the agency that saved American agriculture from complete disaster. The farm economy had fallen faster than other segments and farm debts everywhere were being foreclosed. Farmers needed credit and the government lending agencies had to be reorganized to make money more available. Washington called on Cornell’s young Professor of Farm Finance, William I. Myers.

In five years as head of the Farm Credit Administration, Bill Myers controlled the distribution of five billion dollars worth of loans to debt-ridden farmers. When he left Washington in 1938, agriculture was in better shape thanks largely to farm credit when it was needed. Dean Myers retires July 1 after a long career serving agriculture.

Born on a dairy and tobacco farm in the rolling hills of Chemung County, Myers came to Cornell in 1910 to study agriculture. After getting his Ph. D. in 1918, he was appointed Assistant Professor of Farm Management. According to Professor Stanley Warren, he was “one of the most popular teachers on the Cornell Campus, a stimulating lecturer and sympathetic counselor.”

After returning from Washington, Myers became head of the department of agricultural economics.
and in 1943 he was appointed Dean of the College of Agriculture.

At present, as well as his duties as dean, Myers is chairman of President Eisenhower's National Agricultural Advisory Commission. The Commission assists the President and Secretary of Agriculture Ezra T. Benson in formulating a national farm policy. In 1952 when the Commission was formed, the New York Times commented in an editorial, "General Eisenhower could hardly have put the chairmanship of the new group in better hands than those of the man he has selected, William I. Myers."

Dean Myers has long been a believer in the farmer's right to produce free of government interference. "Price supports should be placed at levels that will not add further to government stocks and give farmers freedom to operate efficiently," he said recently. In a time of rising costs he feels that farmers should look to cooperatives to increase their efficiency and bargaining power. In a speech last year he said, "As the number and proportion of farmers declines, it becomes more important to have strong, independent, well-financed organizations to represent them.

Extension and research are among Myers' favorite projects. He believes that extension workers have played an important role in making the farmer more efficient, and even more will be demanded of extension workers in the future. Research has enabled American farmers to reach their current high productivity. The dean calls for more research in marketing and new uses for agricultural goods.

Traveling the world over for the Point Four advisory committee during Truman's administration, and for the Rockefeller Foundation, the dean is acutely aware of agricultural problems in foreign countries. After touring southeast Asia in 1950, he advocated increased technical and economic aid to underdeveloped countries to help meet the threat of Communism.

Cornell's Los Banos project station in the Philippines has had great success largely because of Dean Myers' interest in helping underdeveloped countries. He has encouraged outstanding members of the College's faculty to work in the Philippines. As a result, the Los Banos experimental station is a prime example of the great contributions American knowledge can make to the agriculture of an underdeveloped country.

Dean Myers is a sincere, hard driving man. On call at all times because of his great knowledge of agricultural economics and monetary policy he travels constantly.

His associates regard his ability to come to a decision quickly and impartially among his outstanding characteristics. When Roosevelt brought Myers to Washington to head the FCA, the young economist angered congressmen by refusing to open the FCA to patronage appointments.

William Irving Myers retires after 45 years as teacher and Dean of the Ag. School. Through the years the dean has constantly strived to serve the best interests of agriculture, and through his efforts has given the New York State College of Agriculture a stature in the eyes of the nation and the world.

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Another Link In The Cornell Highway

by Edward L. Razinsky '61

JULY 1, 1959: Dr. Charles E. Palm will continue to build a road started by I. P. Roberts and Liberty Hyde Bailey . . . the road toward better living for both farm and city people through research, extension, and resident instruction. The new highway superintendent will be Dr. Palm and his road building equipment the New York State College of Agriculture.

Dr. Palm's experience is extensive and impressive: he has served as Director of Research for the Colleges of Agriculture and Home Economics for several years, he has studied entomology, his major field, all over the United States and Europe. But there is more to this man, the new dean, than can be measured in years of experience. His outlook, his personality, these are the things that make up the picture of the man.

Perhaps it is something in his tone or smile that gives the feeling that Dr. Palm is glad to see a visitor. There was someone in Dr. Palm's office before his interview with the Countryman. A very pleasant secretary in the outer office said that the visitor wanted only 15 minutes of Dr. Palm's time . . . but he had been in there for over an hour. Things like that happen all the time, said the secretary, and it makes it hard for Dr. Palm to get his work done. And yet he does get his work done, and a large amount it is, and still gives time to people who want to discuss departmental problems, or get to know him.

Even during his interview with the Countryman, which was, at best, a trying experience, Dr. Palm's hospitality extended to helping with an uncooperative tape recorder.

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Dr. Palm has been connected with Cornell for over 28 years, yet his outlook is just as fresh and expectant as when he first set foot on campus. “I consider it a most enticing opportunity to be associated with such a dynamic institution as the College of Agriculture.” He leaned back dangerously on his chair and continued stating that the Ag. School does fine work in research but there is something in addition to bulletins and papers. “We have the opportunity to train workers which, after all, is one of the greatest products of research here.”

A small Texas farm was the scene of Dr. Palm’s very early life. When he was two, the Palm family moved to Arkansas where they ran a fruit and vegetable farm.

Oddly enough, when Dr. Palm entered the University of Arkansas it was not as a student of agriculture but as a major in government. But his farm background must have gotten the better of Dr. Palm because he went into botany and then entomology (the study of insects) which brought him into the college of agriculture. He has been connected with agriculture ever since that time.

Upon graduating from the University of Arkansas with honors, Dr. Palm came to Cornell to get his Ph.D. degree. For the first two summers as a Cornellian Dr. Palm worked as a research assistant at the Geneva Experiment Station. He enjoyed his work there and considered it a very valuable experience.

The life of an extension worker is, even now, difficult. But when Dr. Palm served as an extension entomologist in his early days at Cornell there was even slightly more to make extension a rough way to make a living. Back in those days there was little or no specialization. Dr. Palm remembered some days when he would, “cover fruit in the morning, cabbages in the afternoon, and potatoes in the evening.”

Needless to say, that in this kind of an operation Dr. Palm got a broad look at the problems of many kinds of farming. He got around quite a bit also—covering New York State from Long Island to Fredonia. He worked on the vegetable insect problem in western New York, the forage insect program in the northern part of the state, and tackled the alfalfa snout beetle in Oswego.

Cornell was his base of operation, but Dr. Palm saw much of the world. When Professor Ladd, the fifth dean of the Ag. School, started the traveling fellowship program, Dr. Palm was one of the first two men to take part. He traveled all over Europe visiting laboratories and studying problems and methods in entomology. At various times during his career, Dr. Palm revisited Europe and also toured the United States.

Back on the Cornell scene—the traveling entomologist received his Ph.D. became an assistant professor, and a professor. He got his hands wet in the field of teaching with a course in insect ecology. As a matter of fact that was a complete bath since Dr. Palm taught it for 19 years.

Dr. Palm got a chance to use his ability as an administrator when he was appointed head of the entomology department.

There is the man—background, experience, personality. What about the new position on July 1, and the future? Dr. Palm had this to say: “I am looking forward very much to the privilege extended to me.” He added that it would be premature to have any plans now, “except I am trying to do the best job I can at the office of Director of Research and I’ll have to face those other problems when I get there.”

March, 1959

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Marriage and Career --- Can They Coexist?

Editor's Note: Dean Helen G. Canoyer came to Cornell from the University of Minnesota where she was a professor of marketing and economics and head of retail store training in the School of Business Administration. At Cornell, Dr. Canoyer holds professorships in home economics and the Graduate School of Business and Public Administration.

The Twentieth Century American woman is confronted with the difficulty of living the two roles which society presents to her—the feminine role of the wife and mother and the non-feminine role of the career woman. Helen G. Canoyer, Dean of the New York State College of Home Economics at Cornell, says that women have won the independence and freedom to choose between a career or marriage or both. But, “that victory is a costly one.”

This freedom and independence requires making a choice. But, our society has not progressed to the point where the solutions are readily available or acceptable. The two roles presented to today’s women are, according to Dean Canoyer, “mutually exclusive and the fundamental personality traits each evoke are at points diametrically opposed.” In fact, Dean Canoyer points out that “many traits considered to be assets for one role are liabilities for the other.”

To be successful as a wife and mother and also in a career, according to Dean Canoyer, today’s woman has obviously worked out a compromise between the demands of these two roles.

Yet, the fact still remains that, for most women, this choice is an extremely difficult one. Will a woman work outside the home if she is married? The happy solution to this problem, as stated by Dean Canoyer, depends very much on the attitudes and understanding of both her and her husband.
There are bound to be problems no matter what the solution. The most important obstacle to today’s woman, according to Dean Canoyer, is the psychological conflict of the two roles. On the one hand, the wife and mother has and needs certain qualities which a businesswoman does not need and cannot use. On the other hand, a businesswoman needs certain attitudes which a wife and mother does not.

The result is that many modern women are insecure and unhappy. Many have the necessary education to work professionally but also the natural desire to be wives and perhaps mothers. They are literally torn between two roles, two different ways of life.

Dean Canoyer points out that over 30 per cent of the employed persons in the United States are women and it looks like this percentage is going to rise. “It must,” Dean Canoyer asserts, “so long as we continue to live in a semi-or totally armed state and so long as the ratio of females to men in the population continues to grow.” In this situation, women not only may but must take jobs outside the home.

Thus, a growing number of women are and will be faced with this problem of the double role. Dean Canoyer points out that this position of “the women in America at present is potentially explosive and might even be said to be dangerous.” The solution: it will come only with time and change in public opinion.

When parenthood is regarded as a joint effort and responsibility of both men and women, when women are no longer stereotyped into a life of deadening routine, and when children are raised in homes where mothers have as high and respected a position as fathers, then, according to Dean Canoyer, Women may be better able to face the double role now assigned to them by society.

Dean Canoyer concludes that “we can be optimistic about something like this change in attitude taking place in the next fifty years.”
An Era Closes:

The Hagan Story

by Edward Feinberg '61

AN ERA spanning three decades will come to a close this spring, William A. Hagan, Dean of the New York State College of Veterinary Medicine for 27 years, and a teacher in the College since 1916, is retiring. For veterinary and agricultural leaders in the country and for the 1,530 graduates of the Veterinary College his retirement will be a personal loss.

Informal meetings with Vet School seniors at his home was one of the ways in which Dean Hagan got acquainted with the students and compared ideas with the men who would soon be practicing veterinarians. Beside this, everyone engaged in Dean Hagan's favorite pastime—working all types of puzzles—at which he could not be topped.

Dean Hagan's education includes graduation from Kansas State University veterinary college. Of his college days he says, "There was never a course in which I wasn't interested. I always liked anything which was new." Perhaps this interest in new things contributed to his many active interests. For many years he was an active leader in the Boy Scouts of Ithaca. He was president of the American Veterinary Medical Association and is a member of Swedish, Greek, French, and British veterinary societies. The Dean unfailingly displayed this interest and vitality, whether he was fishing in his favorite trout stream or campaigning for the annihilation of something as serious as brucellosis.

A yen for traveling has taken him to many countries. He has had opportunities to compare veterinary medicine with that of other parts of the world. He rates American and Scandinavian veterinarians as the best. He feels that Germany and Britain, one time leaders in the field, lost out due to the war. Last summer, as leader of an American veterinary team, Dean Hagan traveled throughout Russia as part of an agricultural exchange program. Describing Russian veterinary medicine, he notes that Russia has made tremendous advances. In 1917 animal diseases were uncontrolled. Now the problem is well in hand. Russia, he adds, does not do as well in training veterinarians as we do, but they have many more students.

For the future, Dean Hagan sees further growth and improvement in American veterinary medicine. He forecasts larger farms managed by businessmen who will take better care and fewer chances with livestock.

Dean Hagan's own future includes an active retirement. In January, 1960, he will become head of the new National Animal Disease Laboratory near Ames, Iowa. He also plans to spend more time with his wife, two daughters, and a son, and several grandchildren, Peggie, his oldest daughter works for an airline. Peggy is keeping the vet school in the family—she is married to a graduate student in the College. His son Bill is a graduate of the College of Engineering at Cornell.

Although his untiring work at Cornell has certainly earned him a real retirement, Dean Hagan will still be working after he leaves, and still using his valuable knowledge and experience where it is needed most.

Dr. George C. Poppensiek will succeed Prof. William A. Hagan as Dean of the New York State Veterinary College at Cornell University. Professor Poppensiek has served as acting professor of bacteriology and as Director of the Diagnostic Laboratory at the Veterinary College. He has also been a Research Associate with the Veterinary Virus Institute at the University.
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Hole-y Cows?
Heavens To Betsy!

by Zilch

BEST of the day to all you Farm and Homers! Zilch is the name and we appear monthly in this slot. Usually, Zilch wanders about the campus eavesdropping on coeds, way-laying the Campus Messenger Service, sneaking into Mann Libe stacks, and kicking over rotten stumps to find out what our fellow students are doing.

It wasn't curiosity, but a gastronomical urge that led Zilch to the Martha Van cafeeteria line the other day. Zilch happened to be standing behind two seedy looking grad students. One sadly contemplated a cigarette butt he was grinding under his heel, while the other let his gaze wander absent-mindedly to a poster announcing the title of Botany Professor F. C. Steward's lecture, "Carrots and Coconuts," the grad murmured. At these words his companion came out of his reverie saying, "I don't mind the Home Ec. school experimenting on the customers, but this is absurd."

Zilch, having nothing better to do, was prowling through the Zilch archives and found some interesting epics in past Farm and Home Week Countrymen.

March 1904: Under campus notes, a Countryman staffer noted that "one of the most valuable features of the work of the Agricultural College this year is the Assembly. Twice each month, all of the agricultural students meet in Barnes Hall (now the Campus Store). Professor Bailey sneaks on some topic of interest after which the students sing college songs and have a good time." (CRAZY!)

In the same year, it was noted that a bill was passed in the House of Representatives making the knotting of horses' tails illegal in the District of Columbia. As is the current expression, "Lots of luck Charlie Brown." You would think that a soul could knot his horse's tail if the urge struck him. However, it is probably just as well. The bulk of the inhabitants of our nation's capital are far too busy, it is hoped, to go around knotting tails anyway.

Zilch has to chuckle a little when he reads that in 1909, the Agricultural College basketball team led all the other colleges in intercollegiate competition—the mechanical engineers, the law students, the architects, and the arts students all fell to the aggies. . . and the trend continues to this day.

Madison Avenue may not have been in the headlines back in 1909, but the men in the grey flannels were at work advertising "Traction and Portable Engines in Sizes 10 to 25 H.P." for the John B. Lang Engine Works of Ithaca.

Well, enough of this delving into historical records. Zilch would like to make mention of a few Farm and Home Week events—we hear that one of our bovine brethren will have its innards exposed in a rather unusual way. A window will be installed in its stomach so that the workings of this inner world will be open to public inspection. It is sincerely hoped that you will all enjoy the view.

In Barton Hall, Cornell's own officers' club, the halls will be echoing with the disjointed tramping of square dancers rather than the usual disjointed tramping of the ROTC.

Other notable events which Zilch recommends for one and all are the Bailey Hall Show (grand fun) and the Eastman and Rice Debates, as well as the many lectures and demonstrations scheduled during the week.

Zilch was in an Ag. Economics 151 discussion the other day when grad student Harry Scrafass volunteered this statistic that we pass on: "If all the economists in the world were laid end to end, it would probably be a good thing."

C. M. Ferguson, Administrator of the Federal Extension Service, while speaking at a meeting here a few weeks back said he once heard agriculture billed as a "dying industry." This disturbs him, says he, because agriculture provides his breakfast, "and I don't like to get breakfast from something that's dying," Ferguson concluded.

Zilch thinks that the people here this week show that agriculture is very much alive.
Succulent and economical

One of the Sweetest Friends
Your Cows Ever Had

Beacon
Be-Co-Lass
fed dry, convenient, complete

Now is the time to feed “wintered-in” cows Beacon Be-Co-Lass, a palatable laxative feed with needed bulk and liberal molasses content.

Fed dry, Be-Co-Lass is convenient and complete. It is coarse in texture, and provides all the advantages of beet pulp plus better nutritional balance, higher protein content, Vitamins A and D, important trace minerals. This extra fortification is important to help cows build up nutritional reserves—come into milk strong, and able to produce to inherited capacity.

Be-Co-Lass helps condition cows for calving and minimizes udder congestion. It also provides an excellent source of bulk for cows in milk—keeps milkers “on feed” and in production. In addition, Be-Co-Lass is a valuable nutritional supplement for home grown grains.

Call in Your Beacon Advisor

Ask your Beacon Advisor to recommend the most profitable Beacon dairy feeding program for your farm. Ask him too about economical Be-Co-Lass—one of the sweetest friends a cow ever had.
that's handy, in time to the music of the latest band favorite.

Hawaiian parents of all nationalities delight in teaching their children the history and customs of the ancient settlers of the islands. Pure and part Hawaiians are the direct descendents of the Polynesians, the first Hawaiians. Sailing sturdy canoes over great distances of uncharted waters, the original Hawaiians settled into a peaceful existence on the lovely islands. Hawaii's known history begins with its discovery by Captain Cook, an English sea captain. Native kings and queens ruled the island. Kamehameha I, the most noted king, helped to further industry and abolish pagan worship. Hawaii made its first bid for statehood in 1903 and has made forty-eight such bids since then.

Although many pagan practices have been eliminated from the Hawaiian way of life the ancient ceremonies of the islands remain. The hula, presented authentically, is one of the most graceful dances of the world. The hands tell the story, while the hips and feet give the dance its rhythm. Children of Hawaii, no matter what their racial background, learn to dance the hula as early as two years of age and many schools offer it in their curricula. Each August, several hundred dancers present a hula festival under the ironwood trees of one of the islands' beautiful parks.

Another beautiful tradition, flower giving, is symbolized by the lei. The island itself was a stimulus for this custom for it abounds with flowers of all kinds and colors. "Orchids bordering the green lawns of modest homes as well as mansions... fields of orchids like great pools of velvety color glowing in the sunshine... endless streams of orchids caught by nimble fingers and woven into leis of unique designs."

Because of the diversity in population and the encouragement of the hungry tourists, combinations of food are unusual and excellent. The luau is the typical Hawaiian feast. Pigs roasted in the "imu" (underground oven) with sweet

Hula in the Home

by Carole J. Wedner '61

T HE loveliest fleet of islands that lies anchored in any ocean," But to those living in Hawaii, its beauty does not lie in its scenery. Tall peaks, green valleys, modern cities, sun-kissed beaches—these things are only part of a cherished tradition of the Hawaiian people.

Hawaiian families are much like those in the rest of America. They live in modern houses, drive new cars (often paid for in monthly installments), watch television, eat hot dogs, and read the funnies. Being avid football, baseball, and wrestling fans, they yell themselves hoarse watching any of these events. They frequent drive-in movies which, because of Hawaii's warm climate, are open the year round. Recreation on the islands also leans toward the arts. The Symphony presents regular concerts. Shows of all kinds come to Hawaii through the Honolulu Theater. Several museums bring art to the islanders—primitive and modern. Jazz and rock and roll have hit Hawaii hard. Youngsters shriek at Presley and beat tables, chairs, and anything else

Dole Photos
potatoes and fish wrapped in ti-leaf parchment are served with coconut pudding, fresh pineapple, shellfish, and other exotic dishes. These delicacies are not merely tourist attractions, the natives prepare and eat such meals in their everyday life.

The gaily colored shirts and saris tourists bring back from the islands are not novelty items purchased for show. This is part of the dress of Hawaii. The clothes are cool and light and fit into the casual way of life as easily as a sweater and skirt do on a college campus.

Nearness to the sea provides a way of life that differs from the mainland's. It opens the way for the two favorite sports of the Hawaiians—surfboard riding and outrigger canoeing. The Polynesian background of many of the people makes them some of the finest swimmers in the world. Sun and surf make an excellent and happy place for children.

Mothers and fathers of Hawaiians do not have to think twice when sending their children to college and beyond. The University of Hawaii is a land grant college and has both an Agricultural Experiment Station and an Extension Service. Students of all nationalities and races attend the university and here, as on the rest of the islands, the American ideal of equality almost reaches perfection.

Hawaii is a good place to visit, but don't count on using your Home Ec. training for a job. The University of Hawaii offers majors in home economics and uses most of its graduates, leaving little room for mainlanders. Preference is given to teachers with a professional certificate or a masters degree. The professional certificate is given by the University of Hawaii after a student has finished five years of schooling including one semester of guided experience.

A uniform salary schedule set by the Department of Public Instruction enables a teacher in a small village to receive the same salary as a teacher of comparable training and experience, who has been assigned to a Honolulu school. There are usually some positions filled by mainland applicants, but most non-Hawaiian teachers come to the island through the exchange teacher program. Positions as extension agents, home economists in business (usually utility companies) and foods and nutrition researchers are available, but they too are very limited.

University is a land grant college and has both an Agricultural Experiment Station and an Extension Service. Students of all nationalities and races attend the university and here, as on the rest of the islands, the American ideal of equality almost reaches perfection.
Pineapples are contour-planted to prevent erosion.

EARLY one morning last summer a biwinged airplane circled lazily over a valley in the lush island of Oahu. A few moments later the plane swooped to a few feet above the rustling sugar cane covering the valley floor. As it skimmed the cane, the plane emitted a cloud of weed spray.

In another valley across the island a monolithic machine slowly moved forward through the long rows of pineapple plants. As it progressed, skilled field workers quickly cut the pineapple from its stem and tossed the henna-colored fruit onto a conveyer belt that extended from the machine. The conveyer carried the fruit to a waiting truck. Within eight hours, the pineapples would be canned and ready for shipment to the mainland.

These two scenes exemplify Hawaii's modern agriculture. Sugar and pineapples are Hawaii's main export crops. They bring a high enough price to offset the fixed cost of shipping them to the mainland.

But, like farmers everywhere, pineapple and sugar growers are feeling the cost-price squeeze. They have met this challenge with intensive mechanization and a large scale research program. Hawaiian growers have successfully taken industrial methods—specialization, assembly lines—and adapted them to crop production.

Both major crops are grown by a handful of large companies that control all phases of production from planting to marketing and advertising. Workers in sugar and pineapples belong to the International Longshoremen's and Warehousemen's Union. They are among the highest paid agricultural laborers in the world.

Hawaii's labor force is highly trained and an invaluable asset to a modern agricultural economy. Men of many cultures, creeds, and races work side by side at all levels of production. From corporation board members down to the newest field hand, Chinese, Hawaiian, Portuguese, Filipino, American, Japanese, and German peoples work together. They advance on the basis of their individual ability without regard for racial background.

Agricultural production, aside from what is consumed on the islands, is limited by freight cost and competition on the mainland. At the turn of the century Hawaii was sending over 40,000,000 pounds of rice to the States. But growing production on the mainland soon made it impossible for island growers to compete. Today rice is produced for local consumption only.

Crop production is on a very intensive basis. Out of 1,300,000 acres used for agriculture, 1,022,000 are used for beef. The two largest export crops occupy only 300,000 acres. Truck farms average only 4.5 acres apiece but they grow eight or ten crops a year. Hawaii produces enough of every food it consumes except for beef.

The Hawaiian Sugar Planters' Association consists of 28 plantations which have banded together to forward their common interests. Within the framework of the HSPA the planters maintain a sugar refinery in Crockett, California, and support one of the world's finest privately endowed agricultural research stations and coordinate their advertising and publicity.

By law, HSPA gets a percentage of the United States' sugar market, and it cannot market sugar over its quota. The Federal government levies an excise tax of $10.70 per ton of sugar and from this pays producers a compliance payment for staying within the Act's limits.

On the typical sugar plantation, rotary plows are used to turn the soil to depths of 24 inches. Cultivation by tractor has been replaced by weed spraying from airplanes. An even more important use of the airplane is to apply fertilizer. Twenty million pounds of fertilizer were applied in this way in 1956.
Sugar in the field is extremely bulky, but growers have met this problem with giant sized machines. Push rakes, large bulldozers with a rake-like attachment instead of a blade, lumber through the fields, tearing the cane out and placing it in windrows. Then a crane with a grab loads the cane into trucks that carry 35 tons at a load. Usually, these trucks are converted earthmovers such as Euclids and Tournahaulers.

From the fields the cane is taken to the factory. Here stones and dirt are washed out of the cane. It is boiled and centrifuged into raw sugar and loaded in bulk into holds of ships for transfer to the refinery in California.

HSPA members contribute $22,000,000 to maintain their private experiment station. Constant research is necessary to keep production costs at a minimum. Crack scientists at the stations have increased yields by three tons of refined sugar per acre since 1945. (Average yield in 1945 was 10.7 tons of refined sugar per acre.) Researchers work on rat control, disease eradication, and new varieties.

At present, in cooperation with Crown Zellerbach Corporation, investigators are looking into possible uses for the million tons of residue that are produced yearly in refining.

The plantations and unions negotiate periodically to set wages. Most workers get paid by the hour and get overtime for more than a 40-hour week. Field workers average $1.127 a day and get outside benefits such as pension plans.

When there is an outright break between the union and the management, production suffers. In 1946 after a protracted strike production fell from 7,300,000 tons to 6,000,000 tons.

The second mainstay of Hawaiian agriculture is pineapples. Pineapple production in certain respects is quite similar to sugar production and, in others, vastly different. Like sugar producers, pineapple companies must meet the cost of shipping their product to the United States. Their workers are unionized and well paid. Pineapples have similar problems with insects, disease, and rodents. Like sugar, pineapples are grown on a highly mechanized basis. Gross sales from pineapples in 1956 were $117,000,000, ranking just behind sugar's $148,000,000.

However, pineapples are sold without control; Hawaii produces 70% of the world's pineapples. Unlike sugar, pineapples are completely processed in Hawaii.

Twenty-four months after planting through a black paper mulch, pineapples are harvested. They are picked by teams of workers and loaded in trucks. Because of their high perishability they must be canned within 24 hours and usually are within 10. Fertilization and weed spraying are done by tractor-mounted boom sprayers that cover a strip 50 feet wide in one trip.

Once within the canny the pineapples are raced through the processing machinery. The "Gin-sea" machine g reets the incoming pineapples by simultaneously coring and husking them. Then they travel by conveyer belt through an inspection and into chattering knives where they are sliced, diced, or chopped into chunks. From here they are packed into cans under sterile conditions.

Harvesting Hawaii's largest crop.

Competition in the fruit business is especially vigorous and pineapple companies maintain a constant advertising campaign. If peach or orange juice prices on the mainland fall, sales of canned pineapples and pineapple juice fall the same amount.

Hawaiian agriculture has reached the point where many areas of the mainland are headed. In Hawaii, growers concentrate on the commodities in which they have the greatest natural advantage. All farming processes are broken down into efficient specialized units all the way from planting to marketing. When Hawaii becomes a state the nation will have added one of the world's most forward looking agricultural communities.
I CAN never forget the date or the
circumstances. It was September
22, 1887, when from a D.L.&W.
railroad train on the "Upper
Switch" I first glimpsed the group
of gray stone buildings which al-
ready I proudly thought of as "My
University." In those days and for
a good many years later, the "Ith-
aca Branch" from Owego was dis-
tinctly a going institution with
three trains a day in each direction
and always an Ithaca-New York
sleeping car service.

That September afternoon at
5:45, the train from Owego dumped
a considerable group of freshmen on
the plank platform of the ancient
station at Ithaca. Among them was
the writer and also another boy,
one David Fletcher Hoy, who still
lives in song and story. Whenever
I hear Hoy acclaimed, I am a bit
proud to remember that he was my
classmate and in under-graduate
years, and later, I knew him in a
friendly, casual fashion. Eventual-
ly, he came to be for many years
Registrar of the University. Last
June at the Saturday night cele-
bration at the Drill Hall, I noted
that his praise is still lustily chant-
ed: "Give my regards to Davy . . ."

My first view of Ithaca was a
bit unfortunate. It was not golden
autumn weather such as frequent-
ly falls at that time of year. It was
a dark, late September afternoon
when dusk comes early. There was
a drizzle of rain and the trees wept
on the wet flagstone sidewalk. I am
unashamedly willing to admit that
I was about as fresh a freshman as
ever arrived on campus seeking ad-
mission. I had been reared in a very
sheltered farm home with Puritan-
tical standards of conduct and with
little pretense of conforming to the
more sophisticated ways of life.

Every freshman must have a
place to roost and by prearrange-
ment I had secured board and
room at 14 Linn Street, a location
that may be described as exactly
at the lower end of University A-
venue. In this house I ate and slept
during my two underclassman
years, and there I enjoyed more
foolish talk and carefree laughter
along with some fleeting moments
of high resolve than I can ever
know again.

The room had a chair, a study
table, a little shelf for books and a
kerosene lamp with shade. Also
there was room for a cot bed and a
washstand with bowl and pitcher.
The nearest available bathroom was
in the gymnasium on the Hill.
Downtown Ithaca at that date had
a municipal water supply, but the
entire plumbing facilities of our
house consisted of one coldwater
faucet in the dining room. There
was no sewage system and such
things as bathrooms were unusual.
My window commanded a con-
siderable prospect of the back yards
of Linn and Aurora Streets, and a
visual survey offered conclusive
evidence that the prevailing san-
tary conditions were identical with
those of remote rural communities.
This was in downtown Ithaca.

Up on the Hill on Heustis Street
(now College Avenue) and vicinity,
conditions were even more primit-
ive. That part of town had no pub-
lic water supply but everybody, rich
and poor, drank happily from shal-
low dug wells, the precise location
of which any modern sanitarian
would describe as shocking. The
simple fact is that 70 years ago, not
even university communities were
greatly worried about the bac-
terial content of their drinking
water.

So it was that for these very
comfortable, even if extremely sim-
ple residential headquarters, I paid
one dollar per week, a stipend, by
the way, which wasn't charged
during Christmas and Easter vaca-
tions.

Downstairs, I was entitled to eat
21 meals per week at a fixed price
of $3.00. It is true they were dif-
ferent from those now prevailing in
Ithaca. No orange juice, no thin
buttered toast, no dry cereal. Typi-
cally, breakfast was built around
sausage and buckwheat cakes.

Let me say that at this period,
Ithaca was well supplied with co-
operative "boarding clubs" and
I. P. Roberts: "superior intellectual caliber."

most of them planned to operate a dime or two below the more opulent three dollar standard. Just in passing, it might be remembered that for a considerable term of years, regular tuition at Cornell was $75.00 per annum. Perhaps the most astonishing feature of those halcyon years was the low cost of higher education.

That September of 1887 marked the nineteenth year of instruction at Cornell and it was still a relatively primitive institution. For the first time in its history the number of students registering passed the one thousand mark, a number that now seems quite insignificant but I suppose that with the single exception of Columbia, it was numerically the largest school in the state.

The list of University buildings was still fairly short. As one approached the campus via Buffalo Street, there was first the gray stone bulk of Cascadilla. Not everyone will remember that this was built before there was any University and was originally planned as a sanatorium or "water-cure," a class of institutions which broke out as a veritable rash in New York.

The Cascadilla Gorge approach to the campus seems absolutely unchanged save for the stone arch which has replaced the iron bridge which had taken the place of the original wooden structure. Sage College as viewed from the front appeared almost exactly as today, although extensive additions to the rear have been made. The Chapel has been greatly enlarged but seventy years ago the Memorial Chapel and the wonderful stained glass windows of the chancel were even as today and it is hard to believe that the passing years can possibly add anything more lovely.

The only library I ever knew in my undergraduate years was in the middle section of McGraw Hall. As everyone knows, Morrill, McGraw, and White go back to the very beginning of the University and the first time I ever saw them they were externally exactly as they appear today.

The quadrangle between White and the present Civil Engineering building had been the Cornell Farm orchard and there still remained from a dozen to twenty good sized apple trees, mostly of the Tompkins County King variety. These ripened just about the time college opened and it is needless to say that the matter of harvesting was attended to with enthusiasm and completeness.

In the years of which I write, the best land of the College Farm—the fields that Roberts loved—included what is now the quadrangle of the Upper Campus and ran south to the limits of the University property. This area, now given over to athletic fields was the heart of the Farm. In the golden years which I am remembering, the heavy hand of the bulldozer had not yet been laid upon them.

I am glad to remember that one sparkling May day in 1891, I was one of a company of boys who took turns in driving the corn-planter across these fields while Dean Roberts directed the group. May I be pardoned for nostalgic memories.

Those were the days of small things for the Department of Agriculture. Certainly there was never any such thing as an entire Hall that we could call our own. Very likely, Roberts in his time never ventured to dream of such opulence. It may well be that Agriculture was viewed as a poor relation of "polite learning" and engineering.

Morrill Hall housed a little "business office" whose arches could hardly be called extensive. Here Roberts and Bailey had their offices and here was the lecture room they shared. Here too, was what was known as "The Agricultural Reading Room," equipped with a long table strewn with current agricultural publications. There were some hard chairs, some framed pedigrees of then famous Holsteins, a small scale wooden model of Harder's Fearless Threshing Machine—but wonderful to tell, no bound books.

Yes, those were primitive years but in my memory they were very lovely years. I wish—oh I wish—that I might be a freshman again in the old Department of Agriculture, seventy years ago.

At least one great opportunity was mine. I have the distinction that few may claim in that I was a student of both Roberts and Bailey. A few were born too early and thousands were born too late but I was born in the very nick of time so that I possess intimate memory of both these towering figures. The College of Agriculture has grown bigger and better and more wonderful—with just two exceptions: the intellectual caliber of the faculty and the I.Q. of the student body. And sirs, "If this be treason; make the most of it."

Plumbing facilities were in the backyard.
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Closest drugstore to campus

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Planning a banquet?
We furnish salads and baked goods of all types.

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FARMERS AND TRADERS LIFE INSURANCE CO.
A Grange Sponsored Company
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In Ag Eng 10 the facts of industrial life are taught to . . .

Wenches with Wrenches

by Margaret FitzGerald '62

WHY would any girl, especially a home ecie, take Agricultural Engineering? For practical experience, that's why.

Ag Eng. 10, or Household Mechanics, might come in handy—especially in rural living. It is a three hour course with lectures and labs “intended to develop your ability to think and reason in terms of mechanical devices.” Before the course is over, you'll know all about plumbing, water and sewage systems. You'll be pulling apart loads of things—automobiles, sewing machines, vacuum cleaners, refrigerators... The only problem is putting them back together again.

This course was started in the 1920's by Martha Van Rensselaer and Flora Rose as a course for students in the College of Home Economics. Professor Robb, for whom Riley-Robb Hall is named, was the first to teach it. Professor Emeritus F. B. Wright has just retired after 34 years in the department. Professor C. W. Terry teaches Ag Eng. 10 now.

As you enter Riley-Robb 140, you see nothing but machines, machines, machines! If you look into the nooks and crannies you will discover groups of girls literally wallowing in oversize blue dungarees. One group is frantically trying to cross their hands with their thumbs outside in order to learn a new kind of knot. Another group is covered with grease and brandishing their household knives. A third group is gingerly poking knife blades into a whirring monster which scatters sparks all over the place. By the end of the lab, however, there is a smile of satisfaction on the faces of the lone males in each group, otherwise known as the lab instructors. For, hard as the work seems to the non-mechanical-minded, everyone finds the course to be a very valuable and worthwhile experience.

In a few years, these girls will be showing their husbands how to fix the kitchen sink. Of course there will be cockroaches in the cellar who get caught going up the drain.

As Professor Wright says, these girls are pretty lucky. At least they don't have to overhaul a car's engine like they did in the 1920's. It seems that car engines are too complicated these days.

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MARCH, 1959
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- REVISE BLOC VOTING to restore to dairymen their right to vote and be counted
- INCREASE PRICES to farmers for milk used in both fluid and manufacturing classes.
- ESTABLISH PROPER POINT for pricing bulk tank milk so the farmer will receive its full value all the time
- STIMULATE FLUID CONSUMPTION to sell more milk in higher-priced fluid classes
- PUT TEETH IN BARGAINING for the farmer at both local and national levels

EASTERN CHALLENGES ANY ORGANIZATION TO PRESENT AND BACK UP A BETTER DAIRY PROGRAM!
FARMERS WEEK
AT THE
NEW YORK STATE
COLLEGE OF AGRICULTURE
AT CORNELL UNIVERSITY
ITHACA, NEW YORK
FEBRUARY 22 TO 27, 1909
L. H. BAILEY, Director

Practical Discussions and
Demonstrations in Farming
Different phases taken up in detail every day from 8 A. M. to 5 P. M., with
evening meetings at 7:30

ADDRESSES BY
Pres. Schurman
and Dean Bailey
WEDNESDAY AND FRIDAY

REDUCED RAILROAD RATES
This Week is for you and your neighbors. Board and room
convenient and cheap. Ask about it.

A Farm and Home Week poster, vintage 1909.

C. C.'s Pick of Events

MONDAY, MARCH 23
11:00 a.m. Possibilities for agriculture in the 49th state. Caldwell Hall 100.
12:00 noon New developments in farm mechanization and farm building. Riley-Robb Hall 125.
1:00 p.m. Selecting a farm. Warren Hall 45. A long time to grow (motion picture on six, seven and eight-year old children). Martha Van Aud.
1:30 p.m. How to tune up your farm tractor. Riley- Robb Hall 125.
2:00 p.m. Child art as art. Martha Van 121.

TUESDAY, MARCH 24
10:00 a.m. Trends in beef cattle production. Wing Hall A. Understanding children's motivation. Martha Van 117.
12:00 a.m. A career in bacteriology. Stocking Hall 218.
1:00 p.m. Singing by the Glee Club Eight. Bailey Hall. Problems in dry cleaning the new fabrics. Martha Van 215.
2:00 p.m. A peek at farms and people behind the Iron Curtain. Bailey Hall. Have rising prices really hurt you? Martha Van 121.
8:15 p.m. Concert by Cornell U Repertoire Band. Bailey Hall.

WEDNESDAY, MARCH 25
9:15 a.m. Eye Opener. Welcome by Dean Canoyer. Martha Van Auditorium.
10:00 a.m. The family farm—partnership or corporation? Warren 145.
11:00 a.m. Introducing new equipment to your kitchen. Martha Van 215.
12:00 a.m. Managing a community farm. Martha Van Amphitheater.
1:30 p.m. Keeping the N. Y. S. vegetable industry competitive. East Roberts Hall 222.
2:00 p.m. Can you get and keep farm help? Warren Hall 45.

THURSDAY, MARCH 26
9:00 a.m. How some young farmers study their businesses. Warren 45
10:00 a.m. How much forage harvesting equipment can you afford? Warren 131.
11:00 a.m. What's ahead for New York State farmers? Dean W. T. Myers, Warren Hall 45.
Suburbia: utopia or delusion. Martha Van 121.
1:00 p.m. Your State Government's finances. T. N. Hurd, director of the N. Y. S. budget. Warren 45.
2:00 p.m. How will vertical integration affect N. Y. farmers? Warren 45.

FRIDAY, MARCH 27
10:00 a.m. Student Livestock Show. Judging Pavilion
10:30 a.m. Dairy records analysis. Wing Hall A.
11:00 a.m. A chemist in the kitchen. Martha Van Amphitheater.
1:00 p.m. Which fuel for your tractor—diesel, gasoline or L. P.? Riley-Robb Hall 125.
Partnerships and farm business arrangements. Conferences may be scheduled at Warren Hall information desk.
IS YOUR camera sitting idle in the closet, dusty with disuse, while your pets romp and play unnoticed? A beloved pet is a genuine member of the family and a perfect subject for your camera. The time to get pictures of your playful little friends is now—while the kitten is tiny and cute and Fido trots with the kids to the school bus.

With a little patience and lots of imagination you can get pictures to be proud of. Keep your camera loaded and your eyes wide open.

A good way to keep a young animal where you want him is to use a dish of food. Feed him and then snap him. Or else, select a spot where you would like to picture your pet. Have an accomplice drop it on the selected spot and back away quickly. Before your subject can run, you snap. Better still, why not sneak up on him while he's sleeping? Place a favorite toy next to him and he'll look as if he dropped off to sleep, exhausted after a happy romp.

The wrong way is to let someone scoop up the animal and clutch him tightly while you take the picture. He'll only look sad, bedraggled, and smothered when the photo is developed. Don't call the animal before you take the picture either. He'll most likely bound over to you before you can get the picture.

If you have a very large or small animal, play up his unusual size. Get down low and close to a small pet. A picture of a tiny puppy in a shoe or a big hat or a kitten in the palm of someone's hand show how really small these animals are.

Better pictures of small animals are taken if an inexpensive close-up lens is slipped over your regular camera lens. It will enable you to get close and pick up details. You will also be able to snap unusual pets like Junior's miniature salamander or his sister's lovely goldfish.

Large pets necessitate different techniques. You may have to stand on a low chair to catch one's majestic size. Place your Great Dane or pet elephant next to the baby. Here is an excellent contrast and a way to get a picture of the toddler, too.

Before you snap the picture look at the background with a critical eye. If the surroundings are cluttered your little animal will be lost in the shuffle. A wide stretch of grassy lawn, a sofa or chair, his bed or maybe even yours—these make excellent backdrops.

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George Heidemann --
New York's Favorite Plowboy
by Jill H. Beckoff '61

I KNOW of no better organization for a young rural boy to be sold on than the Future Farmers of America. George is. This is the description his advisor gave of George Heidemann, this year's New York State FFA president.

George, a tall, husky young man with a light brown crew cut and a well-decorated FFA jacket, graduated from Kendall Central School last June. He is now putting his agricultural knowledge to use in the 240-acre dairy and vegetable crops farm he and his father run. "As a junior in high school," he says, "I decided to make farming my career. Therefore I am slowly building up my farming program. I believe in the future of farming, the creed of the Future Farmers of America, inspired me to work toward a career in agriculture. Success in the business of farming doesn't come overnight, but requires training and means setting your goals early in life."

George began to set his goals when he was in the eighth grade at Kendall Central School. "There was no question even then of his love for farming and desire to be an FFA member," recalls Mr. William Diedrich, his advisor.

In his freshman year of high school, George was the only student who signed up for the agricultural course, making it necessary to steal a period of time in which to work Agriculture I. "Had this not been done, he might never have qualified for the Empire Farmer degree or for a state office," his advisor explains.

In his local Future Farmers chapter, the Kendall Plow Boys, George took to leadership naturally. Mr. Diedrich recalls that "he seemed to grasp the scope of our activities and gain the support of all to work towards their achievement."

A good sense of humor has been one of George's greatest aids as a leader. Mr. Diedrich tells of a tension-laden meeting of the Rural Youth Council last summer. George was telling the group of FFA's goals and activities. When he got to the subject of cooperation, George finally loosened things up by explaining, "We take pride in the FFA in working with other organizations: GLF, 4-H, Rural Church Council, etc. In fact, you name it—and we'll cooperate with it."

Throughout high school, George aimed for the highest possible FFA achievements. Election to presidencies of the Kendall chapter and Niagara-Orleans regional chapter, and the earning of the Empire Farmer degree in 1957 preceded his election to the New York State presidency. This last success was twice as sweet since it followed an unsuccessful try for the vice-presidency.

"The greatest honor that is given to any New York FFA boy," explains George, "is to become state president. To represent 6,500 FFA boys in New York is truly an opportunity of a lifetime."

George represented New York State at the National FFA convention in Kansas City and at similar functions. "Being president of the New York Association means more than carrying out the business of the state executive meetings. It also means being on hand to speak at banquets, dinners, meetings, and, above all, spreading the work of the Future Farmers. I have met more people in the past year than ever before: FFA boys from every state, officers of other associations, and businessmen from all parts of the nation. I learned a lot talking to them."

In high school, classwork and activity in the FFA were supplemented by basketball and soccer, membership in the Kendall Honor Society, and vice presidency of his senior and sophomore classes.

Future plans center around farming and FFA for George. He, perhaps more than anyone else in the state, is a living example of the Future Farmers of America motto in action:

Learning to Do, Doing to Learn,
Earning to Live, Living to Serve.

MARCH, 1959
Ghosts of Cornell's Past

A student livestock show early in Farm and Home Week history.

Cornell may not be haunted but the ghosts of great men often run through its buildings. Personalities and peculiar characteristics of many of our founders are reflected in the buildings named for them.

Echoes of Professor Hy Wing's booming voice are said to bounce off the walls of Wing Hall to this day. Professor Wing, the first head of the Cornell animal husbandry department, didn't believe in public address or intercom systems. When he wanted someone, he went out into the hall and shouted.

Stocking Hall, right next door to Wing, is bigger but, in its way, quiet and far more friendly. Professor Stocking himself was a retiring man, close to his students and exercised a considerable amount of vocal control.

The third building in this upper campus group is Riley-Robb, the new agricultural engineering building. This dynamic, modern structure was named for Professors Riley and Robb and represents a real contrast in agriculture past and present. It stands as a symbol of the modern, scientific forward-looking field that is agriculture today.

Just down Tower Road from Riley-Robb, Wing, and Stocking are Rice and Fernow Halls, very much like each other. Fernow, home of the conservation department, honors the dean of the first college of forestry in the United States. This college has been moved from Cornell to Syracuse University since Professor Fernow's time but forestry courses are still taught in this hall.

Rice Hall, Fernow's twin, is Professor James Rice's namesake. "Jimmie" Rice was born the year Cornell was founded, 1865, and he did a little founding of his own while he was here. As a graduate student he assisted Professor Roberts in Cornell University's first formal poultry course and then went on to become the first professor of poultry husbandry in the nation. Rice was farm-reared and, despite family pushes in the direction of medicine, he lived on a farm most of his life.

Not all of our founders were men though. The gracious Georgian building which houses the College of Home Economics bears the name of Martha Van Rensselaer, one of the first women to bring extension to farmers' wives.

Home economics and agriculture meet and mix in Mann Library, Farm and Home Week headquarters in March, study headquarters all year. Albert R. Mann was the first dean of the College of Home Economics and, at the same time, continued as dean of the College of Agriculture. The library has something for everyone in both schools—books, magazines, newspapers, study rooms, a spacious lobby, even a giant inkwell. This building is alert and dominates the campus—just as Albert R. Mann did.

Warren Hall adjoins the library. Its namesake, George Warren, studied math as an undergraduate and became interested in horticulture when he studied under Liberty Hyde Bailey. He eventually became a professor of farm management and developed the largest and most outstanding department of agricultural economics and farm management of its time. He was known for his keen insight and unbiased judgment and was the first editor of the Cornell Countryman.

Professor G. C. Caldwell was an agricultural scientist, one of the first at Cornell. Today soil is analyzed and agronomy is taught in the rooms of Caldwell Hall.
Caldwell also has a twin, its next door neighbor Comstock Hall. If you look carefully, you'll notice that the rooftops and some of the windows are different but, aside from that, one could as well be the other—from the front. The building was named for John Henry Comstock, an earlybird student (he entered the year after Cornell was founded) who taught entomology and invertebrate zoology while he was still an undergraduate. Also as a student, he earned extra money unloading stones for the construction of McGraw Hall. Comstock was a small man and didn't like to further diminish his size by such foolish things as sitting down. He had special desks made for him so that he could do all his reading and writing standing up.

Comstock's wife, Anna Botsford Comstock, was one of the first professors of nature study and the first woman extension agent. They were married on Cornell's tenth anniversary. "Professor J. H." was a refined man with a sensitive pale face and a taste for a good cigar.

"Uncle John" Stone gave his name to the building across the quad from Comstock. He is perhaps best known for his campaign to abolish the serving of hard cider to men working out in the hayfields. He was also the world's leading agronomist while he was at Cornell.

Isaac Phillips Roberts, the first head of the ag school, had too important and interesting a personality to be confined to one building. His spirit roams happily through the bulging reaches of Roberts Hall and the somewhat smaller area of East Roberts Hall. The first teacher of agriculture, an Irish gentleman farmer named McCandless who never removed his gloves, is usually forgotten and Roberts is thought of as the founder of Cornell's agriculture school.

Roberts was a New York State farm boy. He grew up near Ithaca while Lake Cayuga's shores were still frontier country. He came to Cornell as a farm manager with a background of teaching, farming, and carpentry work. Though he never went to college himself, Roberts, unlike many self-educated men, was a firm believer in the importance of a college education.

The only other building on this quad is Plant Science, named for no one and, in its anonymity, standing for all the men at Cornell who studied plant life at one time or another.

One of these men, Liberty Hyde Bailey, has the biggest auditorium on campus named for him. Bailey Hall is used for lectures, concerts, shows, and, like Bailey himself, encourages the development of the student's entire personality.

Savage Hall is right next to Bailey. This is now the home of the Graduate School of Nutrition. "Seth" Savage was an animal husbandry student who, while a graduate student, looked into the protein requirements of dairy cows. From this meager beginning came the study of dairy nutrition.

Behind Savage are the Circle Cottages and beyond that the buildings housing the other Colleges of the University. Many of these, too, were part of the department of agriculture at one time. Roberts had his office in McGraw and dairy science was taught in Goldwin Smith. These were the buildings where the original Cornell faculties taught; their names and spirits are now on the Upper Campus.
The Birds and - - -

by Edward L. Razinsky '61

Gretchen Wise '59

NEXT to the typewriter, a Countryman writer's most marvelous and miraculous possession is his brain. With this small clump of spongy tissue, the "Countryman" has the power to create smooth lines with which to devastate the willful board of directors, to formulate elaborate means of fast-talking the editor-in-chief into giving him an extension on an article deadline, and to devise and develop articulate articles of great intellectual and scientific value for publication on the glossy pages of the Cornell Countryman. However, this last feat does, at times, seem impossible and leads to considerable head scratching, loss of sleep, and remorse.

The writing of an article, which might be referred to as the "ordeal by typewriter," is usually initiated by a brain storm conceived by the editor-in-chief. He might be meretriciously on his way to class one morning when he drops a book. Upon picking up the book he is stung by a bee. Now the normal individual would swear profusely, and rush to the pharmacy for expert medical care. But not an editor-in-chief.

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Right away he says to himself, “There’s a story here, I feel it.” In the remote recesses of his brain an idea blossoms forth. It starts first as a persistent drumbeat, but rapidly grows into an obsession—“Bees, beekeeping, the bee market, segregation among bees, political potential of the bee lobby, new uses for honey, the bee housing problem.”

The editor slumps to the ground, completely spent from his strenuous concentration. “Yes, that’s it,” he screams in a fit of passion, “A bee article to lend a bit of sophistication and stimulation to the magazine.”

The inevitable problem is that editors-in-chief don’t write bee articles, only editorials. Consequently, a scientific evaluation of the writers must be made to select one to develop this brain child. The editor weighs their writing ability, previous training with bees, and an understanding of bee emotion. He rationally and systematically goes through a list of staff members to choose the potential author. “Eeeney, miney, moe…” At last the divined scribe is selected. Now remains only the task of threatening the staff member into writing it.

All day the supreme master of 490 Roberts Hall can think of nothing but bees. His preoccupation is audibly evident by a quiet buzzing sound being emitted from between his teeth. Finally, at 4:00, he can contain himself no longer and bounds antelope-like up to the Countryman office. A beckoning finger and a gentle, “Come ‘ere!” signifies to a staff member the editor’s desire for an audience.

Says the editor, “We need a bee story. Due to your excellent qualifications, I have chosen you to write the epic of the bees and to make known the inside story of our little buzzing, flying, honey-making, insect friends.”

After some deliberation, the staff member asks, “Bees? Who knows from bees?”

Noting question in the writer’s voice, the editor reassures him with, “Look kid, I tell you to write about bees, you write about bees.”

Still with a tremor of uncertainty in his tone the chosen scribe remarks, “But I’m allergic to bees. I hate bees! I was stung by a bee once. I won’t do it. I won’t do it!”

The bossman of the magazine assures his colleague that the consequences of disobeying an editor would be far more unpleasant than a bee allergy and the article would be due in one week—or else! No subsequent altercation occurs.

Now, one doesn’t just sit down and dash off a treatise on a profound subject like bees. Many things must first be considered. For instance, the article must be timely. It just wouldn’t do to write about bees at the wrong time of year. Personalities and prejudices, such as whether or not Bronx Park-bred bees are better than upstate bees, must not be brought into the report. Caution should be exercised in the choice of words. One misunderstood statement could have half the bees in the world up in the air.

At this point the real problem begins. What can you possibly say about bees? If you’ve seen one bee, you’ve seen them all. There is also the question of where to find enough information for a full page article and from what angle to approach the issue. Would a human interest type of story be effective? Take the life of one particular bee and tell of his trials and tribulations in the home hive. Something like, “Homer, the Humble Bumble Bee.”

When the bee story is written, it is given to a rewrite man. Now a rewrite man is someone who isn’t a good writer and is determined not to give anyone else the satisfaction of thinking he is. Armed with a heavy red pencil, he attacks the copy. Slashing, cutting, and chopping, until all similarity between the original and the finished product is eliminated.

So now we have an article, but what on earth should we call it? Headline suggestions are made by the whole staff gathered around a large rectangular table. “Thirty days around a bee hive,” “The hive and I,” “The bee and me.” And so it goes until an extremely appropriate headline suggestion is adopted.

Such is the life of a Countryman writer—a journalist. At times he becomes discouraged and feels like quitting, but morally can’t because the month’s issue must be put out. He is part of an organization that creates, reports, and makes mistakes. Together, they face problems, rewrite, argue, fight, and go down to Leonardo’s. The Countryman writer, a journalist, has a typewriter ribbon for a heart, a teletype machine for a mouth, a dictionary for brains, and ink in his veins.

Home Eccie sentenced to KP for admitting that Obie’s can cook better than she can!
Ag Experts in the Foreign

ICA experts demonstrate a tractor at the Las Banos village in the Philippines.

MORE THAN 1,000 U. S. agricultural specialists are serving overseas as advisors to professional colleagues in 53 countries which have agricultural economies less advanced than our own. Approximately 800 of these men and women are employees of the International Cooperation Administration (ICA), the semi-autonomous arm of the Department of State responsible for the administration of our government's technical assistance programs. The balance work for the U. S. Universities, private firms or other organizations which work abroad under ICA contracts. To fill present vacancies in the technical assistance staff and anticipated vacancies for 1959, nearly 400 additional advisors are needed.

U. S. technical assistance programs—popularly known as "Point Four"—have been in progress for some 17 years. Point Four as a whole includes assistance in a number of fields (public health and education, industry, community development, etc.), but agriculture has been from the beginning one of its biggest components. At present, agricultural specialists are the largest single group of technical assistance personnel form about quarter of such overseas staff.

Who are these people? Almost surely some of them are people you know. They have lived and worked in all of the 49 states, Puerto Rico and Hawaii. At present ICA agriculturalists are working in 53 countries scattered about the globe. Some of the smaller ICA missions have only two or three agriculturalists on their staff; others have as many as 50. In the countries where large staffs are found, a sizeable proportion of the U. S. advisors are stationed in provincial centers.

The objective of ICA's agricultural program is to improve the well-being of the rural population of the cooperating country and to develop its overall economy by introducing new agricultural techniques, to encourage better management practices which in turn foster more realistic agricultural policies, to stimulate efficient utilization of existing resources, including scientific and technical knowledge existent within the country but largely unused, and to establish and develop institutions which will train professionals and serve the agricultural economy of the country. Americans, most of whom are intensely pragmatic, often fail to realize that knowledge for knowledge's sake, rather than knowledge for use, is the educational tradition in many countries of the world. Often the most important part of the U. S. technician's job is to stress the need to put to work every available shred of applicable knowledge.

ICA's technical assistance projects are cooperative endeavors between the two countries concerned, mutually agreed upon after bilateral discussions at technical and policy levels. Projects are chosen for implementation within a country on the basis of U. S. and cooperating country evaluation of needs and U. S. capability to assist in the particular field. Each project agreement makes provision for contributions from both the U. S. and the cooperating country. Cooperating country contributions generally include those elements which can be supplied locally or purchased with local currency, e.g., buildings, salaries of local staff, etc. The U. S. contributions consist of the services of U. S. advisors and the training of cooperating country nationals in the U. S. or third countries. U. S. funds also provide for a limited quantity of supplies and equipment to support the work of the specialists.

It is important to point out that the U. S. specialists serve in the role of advisors, not "doers." Agronomy experts do not lay out field test plots; they demonstrate and advise local colleagues on how it should be done. Agricultural education specialists do not teach classes except incidentally in the course of advising their colleagues on better teaching methods. The ability to play the advisory rather than the operational role is important since the former—while more difficult—brings about changes that continue after the U. S. specialist leaves. An operator may fill an immediate need but seldom brings permanent benefits.

ICA agriculturalist overseas represent a wide variety of professional and technical specialists. By far the greater number of them, however, are experienced in comparatively broad fields, e.g., general livestock as
Service

contrasted with veterinary pathology, general crops management as contrasted with wheat breeding, etc. A very large proportion are engaged in extension activities. This includes not only the more than 200 advisors in extension, home economics and rural youth, but a large number of specialists whose major professional competence is in crops, soils, livestock, entomology and other fields. In the broadest sense nearly all the ICA overseas agriculturalists are engaged in extension or education activities.

In general, those qualities which make for excellence in an agricultural specialist in the U. S. make for excellence in an overseas technician. However, the relative importance of desirable qualities may differ.

Professional competence is an absolute requirement in either case. A dairy specialist needs to know his business regardless of whether he is working with farmers in the U. S. or on the other side of the world. A genuine liking for people—which transcends mere tolerance—is more important in an overseas position than it is at home. One must like, respect and enjoy people of any color, nationality, religion and status.

Emotional stability is required. There are greater frustrations in working overseas than in the U. S. Things move slowly, administrative procedures are strange, living conditions are different from those to which U. S. citizens are accustomed, there is so much to be done and resources are limited, the U. S. specialist is more on his own than he is accustomed to being, since he has fewer opportunities to consult with experts in supporting specialties. On the other hand there is greater opportunity for satisfaction overseas because the stakes are higher.

A liking for pioneering and challenge, not only in the geographical sense, but also with respect to new foods, living conditions, recreation and other cultural aspects, is necessary in an overseas technician. Curiosity is a motivating factor for many who join ICA.

An ability to improvise, adjust and to adapt is essential in overseas specialists. U. S. practices and procedures are seldom exportable in the form used at home. Success often depends upon the specialist’s ability to distinguish between what is essential and what is mere customary practice, and to find methods which retain the essentials but put them into a framework adapted to the local situation. The man who damns an overseas farming practice simply because “it isn’t the way we do it at home” has something to learn about both agriculture and dealing with people.

A substantial proportion of ICA’s agriculturists consider overseas employment as a lifetime career.

Others join ICA for a single tour of two years and then return to stateside employment. ICA has room for both and consider it desirable to have a large crop of his ability, without reference to classification of pooled blood at all levels.

The career service has been steadily strengthened over the last two years. Most important has been the adoption of a personal rank system, under which a man’s grade and salary depend entirely on evaluation of his ability, without reference to classification of positions available. One of the big advantages of the system is that promotion is possible within a professional category and without transfer to administrative duties.

The demand for advisors is heaviest in the 35 to 55 age range, though ICA uses people who are younger and older. Recently, ICA has been placing a number of agriculturalists in the 28 to 35 age group in temporary positions as understudies to more experienced specialists. This group of support specialists must have a minimum of a B.S. in agriculture, plus at least three years working experience. One year in the support specialist category is expected to qualify the employee for full responsibility on future assignments.

It has been the experience of ICA advisors who serve overseas that they gain more in terms of professional skill and knowledge than they can give—that their two years overseas contributes notably to their professional stature.

An ICA soil management advisor inserts a cover crop, an example of contour strip farming. ICA
Alumni Serve the College of Agriculture

by Anson W. Gibson
Director of Resident Instruction

IT WAS on the evening of February 25, 1909, that students and former students of the College of Agriculture were called together to hear Dean Liberty Hyde Bailey tell of the needs of the College. The number of students was increasing rapidly—85 percent more in the degree course than in the two years before when Agriculture had its headquarters in Morrill Hall.

That meeting voted to form a permanent organization. A committee of one former student from each regular, special, and winter course, was appointed to draw up a plan. It reported the next day, recommending an organization to include all present and former students, and to be known as the Students Association of the New York State College of Agriculture.

The aims and purposes were: (1) To promote fellowship among all students past and present, (2) To advance the interests of the College of Agriculture in all ways, and (3) To further interests of rural life.

At that meeting Jared van Wagenen, Jr. of the class of 1891 was elected president of the Association. He is still a regular visitor to Farm and Home Week and a contributor to this issue of the Cornell Countryman. Albert R. Mann, '04, later Dean of the College of Agriculture, for whom Mann Library is named, was elected first secretary of the Association. The first undertaking was to write letters to certain members of the legislature urging appropriations for needed equipment and maintenance for the College. The first report of the secretary records that the letters were sent, acknowledged with the usual courtesy and easiness, and the bills were not passed.

Members proposed many projects to be undertaken by the Alumni Association, representing nearly all the needs of rural people at the time. They included not only the problems of farm production, but those of rural schools, churches, libraries, newspapers, roads, fairs, and many others.

Dean Bailey was finding difficulties in what he thought was the opportunity to operate the College of Agriculture in the best interests of the State. A committee of the Alumni Association in 1911 and 1912, working with a committee of the Board of Trustees under the chairmanship of Andrew D. White, produced a new arrangement putting the affairs of the College under the immediate supervision of a special committee, known as the Agricultural College Council, which functioned to the benefit of the College and State for many years.

It was just thirty years ago that an Association committee was appointed to study the curriculum at the College and its adaptability to present needs. The result was the program of two-year courses that has continued since then with a very satisfactory enrollment.

During the next several years the Alumni Association took interest in the election of alumni of the College as alumni trustees of the University.

From 1922 until World War II, the Association arranged a dinner for alumni and faculty members on Wednesday evening of each Farm and Home Week. This became a very popular affair with attendance of from 200 to 350. In addition, the portraits of Deans Mann and Ladd in Mann Library were provided through the efforts of a committee from the Alumni Association.

Throughout its entire history—the Association has been interested in helping to properly interpret the College of Agriculture and its program to the people.

This article has sketched only some of the things that have been done by and through the Alumni Association during the fifty years of its existence. The real story is in the individuals who have given so devotedly of their time and energies to the institution and the purposes it was created to serve. A careful study of the record leaves no doubt of the wisdom of those who established the Association fifty years ago nor of the contribution of the many loyal alumni who associated themselves with it.
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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter, postage paid at Ithaca, New York and at additional mailing offices. Printing by Norton Printing Co., Ithaca. Subscription rate is $1.75 a year or two years for $3.25; three years for $4.50; single copies, 25 cents.

April, 1959
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Do Scientists Need an Education?

One of the greatest shortages in the United States is not only the lack of qualified scientists, but of scientists who can tell each other what they are doing. How often do scientists in different fields duplicate each others research, wasting time, money, and laboratory facilities. An agronomist in New Jersey hasn't the time to wade through the morass of technical jargon and confused organization of a California geneticist's research report. The need is for clear, concise and unencumbered communication between men of science.

The contemporary scientist must be able to communicate. No longer can an experimenter lock himself in his garage and emerge periodically with a revolutionary discovery. Modern science is a mosaic of many fields and the overlap is tremendous.

No matter what kind of work the scientist does he has to exchange views with his fellows. He has to write to them and he has to address them at conventions. Even more demanding is getting an idea across to a layman, most of whom are notoriously unable to understand technical language.

The only way a scientist can spread his ideas is to meet other people, professional and laymen, on common grounds. Those grounds are not found in burettes and Erleumeyer flasks, but in those areas that go under the name "liberal arts."

On campus, which professors are the most successful in passing on their knowledge to students? It's the ones who are urbane enough to present a subject in a clear manner and make reference to things within the student's experience.

Fortunately, in the College of Agriculture it is possible to get a genuine education, not just a training. Courses in every school on campus are available to the students who want them.

But, many ag school students, after a two term clash with the dreary freshman English course, never again venture off the upper campus. Others feel that they must concentrate on their major and avoid any other courses.

By and large, the more advanced courses in the other colleges are stimulating and intelligently presented. It's about time to make that once a term pilgrimage to your advisor. Try to fit a course in the humanities into your schedule.

The broader the individual's background the more valuable he is to agriculture and to science. You owe yourself an education, why not get one?

—S.A.B.
Comstock Cockroaches Fight Back

by Zilch

Farm and Home week is past and Zilch has regained his composure and mended his bones. Zilch was ambling down Tower Road past Rice Hall when his eagle-sharp ears heard the gentle thunder of running female feet. Turning agilely and placing an engaging grin on his face, Zilch stood waiting patiently for the high school girls to gather 'round and plead for autographs. Surprisingly enough, the girls never slowed down and Zilch fell under their thundering hooves, but fought gamely to the last. He just managed to raise his head when the reasons for the girls' haste passed over his body in a flash of blue corduroy jackets.

Zilch notes that Dr. W. Keith Kennedy has been appointed associate director of research of the Colleges of Agriculture and Home Economics. This post oversees the 600 research projects that are in progress.

Department of Morbid Statistics: Only 42 days until finals.

Zilch sat with his cavernous mouth open in awe watching Dave Auble's wrestling prowess, last month. The soft spoken Ag Ec major's feline grace, strength, and grappling savvy make him one of the nation's top practitioners of the cauliflower-ear sport. Zilch's congratulations go out to Dave for his great successes in the Eastern and National Championships.

Comstock Hall, the home of the entomology department—those men who wage unceasing war upon our insect enemies—is an enigma. It's overrun with cockroaches. The reason, Zilch's informant devulges, is that if they spray the cockroaches the spray will kill the caged insects they are trying to raise, as well.

Undergrads who have a sincere interest in agricultural economics might try to take in the departmental seminar at 4:00 o'clock on Monday afternoons. The topics are usually vital and timely.

As a reward for suffering through Zilch this month, Zilch has a complete, unabridged, uncensored paragraph that was censored by the puritanical editor from an article appearing elsewhere in this issue, "Sweden has made a notable contribution to world culture in the last few years in the person of Miss Anita Eckberg. Granted that Miss Eckberg constitutes a formidable production figure, Sweden can also take pride in other products more agrarian in nature." Zilch would like to thank the managing editor and the printer without whose cooperation this section would never have gotten into print.

Here's an extra-curricular activity that should have a great following. Formed by senior Smedly Krimthrust the club is called "Bustees of Physics 103-104". Krimthrust was elected to the presidency by acclamation when it was discovered that he has busted Physics 103 twice and Physics 104 three times. Proposed activities for the club are sticking pins in cloth dolls looking like physics instructors and lobbying for a congressional act to stem the destructive influence of these two courses. Zilch is a charter member.
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Advertising agencies, industrial concerns, and corporations are demanding home economists to represent the views of the American women in their business transactions. But what is home economics? Why the great demand for the services of women majoring in the field? The story started about fifty years ago with the founding of the American Home Economics Association.

Even though Home Economics has really been a science since families began, the founding of this organization marks the recognition of home economics as a field of study, a venture that includes both research and education directed toward the improvement of conditions in the home, the institutional household, and the community.

In these fifty years, Home Economics as a united field has made amazing strides in nutrition, housing, economic understanding, child care, and textiles and clothing. The list of achievements is impressive—almost overwhelming.

Through the efforts of professional home economists, the understanding of every-day nutrition has led to the outising of cults and fads about food practises. Nutrition is now a by-word. Professional research has been responsible in part for government action such as the enrichment of cereals.

Hand in hand with food practises come a family's physical welfare, and mental and emotional health. And, here again, professional home economists have been leaders in enacting improvements... in sanitation, physical hygiene, work simplification, and family relationships. Research in child development has led to more satisfying lives within the home and to better group care of children outside the home. At no other time in history has more emphasis been placed on adjustment with peers and the needs of the family during its development.

Household tasks have been simplified not only through technological developments but better cookbooks, proper labeling, and a sifting of the essential from the non-essential in household tasks.

The great strides in education have been partially due to home economists: the development of effective instruction and evaluation of results.

Most important, the field of Home Economics has helped give a status to homemaking and, at the same time, has opened numerous professional opportunities as well as services that can be offered to society. Along with the recognition of the women's role in the home, the man's role in family well-being has been emphasized.

In fifty years, Home Economics and its national association have helped the attainment of better levels of living. Home Economics may claim partial credit for the progress toward more healthful, comfortable, and satisfying living.

The whole philosophy of Home Economics and the reason that there is such a demand for home economists today can be best summed up in the words of Ellen H. Richards, the first woman student in Massachusetts Institute of Technology and a pioneer of the profession of home economics:

"The ideal of home life for today... should be... "unhampered by the tradition of the past. The utilization of all the resources of modern sciences to improve home life. The freedom of the home from the dominance of things and their due subordination to ideals. The simplicity in material surroundings which will most free the spirit for the more important and permanent interest of home and society."

by Brenda L. Dervin '60
Do - It - Yourself . . .
Silkscreening

by Peggy FitzGerald '61

Any one who enjoys experimenting with color, textures, and shapes can have a lot of fun with silk screen printing. It no longer has to be a complicated process and can be quite simple.

A silk screen is the primary requirement. It is easily constructed from a gift box from a shirt or slip. A cut is made starting from about an inch from the edges to remove the center of the box. A piece of inexpensive or expensive organdy, depending on your girlfriend's dress, furnishes the screen. If you don't have a girlfriend, try a dry goods store. Don't cut too big a hole in her dress but make sure that it is large enough to cover the outside of the box including the vertical edges. So that she can't take it away from you, staple the organdy tightly to the box. Now you have a silk screen box.

Spread newspapers over a table to protect it. On top of this put the material, such as cardboard, which you will print on. Now cut out, for example, a paper doll pattern, place it on top of the cardboard and cover it with the screen box. You now have a stack with the screen box, your paper doll pattern, cardboard, and newspaper on the table.

Cover the box, inside and out, with masking tape and leave the center exposed. After the box is well covered, it is shellacked heavily for waterproofing. Care should be taken to avoid drops on the center opening. In addition to being sloppy, the shellac would leave a lasting impression on the screen and unintentionally act as a stencil.

You print with a paint mixture. Mix Ivory Snow with liquid tempera. You can also mix a good quality powder tempera with water and Ivory Snow if you like to sneeze. When you are finished, the mixture should be like pudding.

Printing generally begins with the lightest color and ends with the darkest. Spoon out three or four tablespoons of the first color. With pressure, drag the paint across the screen with a small window squeegee. Make sure all areas of the screen are covered. Lift the screen box and you will find that you have an outline of your paper doll pattern in color. The pattern will stick to the bottom of the box. Make several prints and then peel the pattern from the box. Wipe the screen as clean as possible with a dry cloth followed by a damp cloth or sponge. Repeat the process until you have a well-balanced composition or background. Overlapping of colors gives depth.

Simplicity in color, detail, and composition is advisable for beginners. At first, it is best to make your composition as you go. Then you can experiment with colors, textures, and shapes most easily. Let your imagination run wild.

If you want to add finer details, you can make a stencil. This can be done by cutting a design on wax paper, mimeograph stencil backs, or regular silk screen stencil paper. You can also make a stencil by laying strips of masking tape back and forth across the back of the screen.

You can use any materials such as cardboard, wrapping paper, or towels to print on. This material can be either rough or smooth in texture for a variety of interesting effects. The development of good water soluble paint has made textile printing simple enough so that you can even design material for a new dress for your girlfriend.

April, 1959
The Viking of today is not the savage man of blood and thunder glorified in legend. In fact, the exploits of the modern Swede are most often glorified in production records. In many cases the Viking has quit the Seven Seas and substituted the tractor for the ship.

Agricultural production in Sweden is quite varied, and this, in part, is caused by the wide variation in climate. Sweden lies on the same latitude as Alaska and Greenland but the warm winds from Atlantic and Gulf Stream waters warm the country, even though the climate is colder toward the north.

In land area, Sweden is about the size of the New England states, New York, New Jersey, and Pennsylvania combined.

Any discussion of Swedish agriculture invariably involves the cooperative system. It was during the difficult period in the thirties that agricultural cooperation got a solid start in Sweden.

Ulf Janson, a special student studying agricultural economics here, was asked what the farmer’s cooperative movement meant to him as a Swedish farmer. Ulf said that his father would probably be a better person to ask since he started farming in the thirties before the movement started. There were many farmers and they were all fighting among themselves. The cooperative movement brought unity to Swedish farmers and, with unity, strength.

The keynote of Swedish agriculture is cooperation and organization. The Federation of Swedish Farmers safeguards and promotes the interests of organizations in the cooperative system and represents the farmers in dealings with the government and other groups.

Under the Federation of Swedish Farmers, the cooperative system is broken down into associations for each commodity with local and national branches. The local associations are in charge of collecting, processing, and sales within their respective areas. The national organizations take over all surpluses, distribute them among deficit areas, and handle exports.

For instance, the National Association of Swedish Dairies handles about 95 per cent of milk delivered to all dairies in the country. This organization has a large membership because the majority of Swedish farmers go in for milk production. It seems that even the Swedish cattle breeds are dedicated to cooperation. There are three main breeds that are used for both milk production and beef. The Swedish Friesian (SLB), the Swedish Hornless (SKB), and the Swedish Red and White (SRB) constitute the bulk of Swedish cattle with the SRB most widely used. These breeds are extremely cooperative and thrive in various climates and conditions, giving high yields of milk and meat.

The Swedish Farmers’ Meat Marketing Association operates processing plants and handles the marketing of meat products.

Wheat, sugar beets, hay, potatoes, barley, rye, and other crops are marketed by the Swedish Farmers’ Selling and Purchasing Association. This organization also purchases supplies for crop farms.

Similarly, eggs, forest products, fur, oil plants, flax and hemp, and all other agricultural products are collected, processed, and marketed through its own association.

Agricultural organization involves not only marketing and production but also occupation. The National Federation of Rural Residents is similar in function to the Farm Bureau of the United States. There is the Swedish Agricultural Employers Association which is a collective bargaining agent.

Sweden is primarily a country of small holdings, with the average farm running from 50 to 80 acres depending on the growing conditions of the region. The cooperative system is particularly beneficial for this sized farm. Ulf Janson comes from a farm that is far from average size. His home farm has 8,400 acres with 1,400 acres of tillable land and they have about 125 milking cows. Ulf said that in their case they probably would make profitable agreements on their own since they have a large production. The smaller farms benefit most from cooperative agreements.

And, just as each Viking helped move the huge galley, each small farmer aids Sweden’s agriculture.
Sweden—a land of many contrasts: tall sky scrapers and modern buildings sitting a short distance from quaint huts and log houses, modern farms and Lap reindeer herders, democratic procedures and ancient ceremonies, and brightly embroidered antique costumes in closets with up to date outfits.

Although the Swedes have adopted modern dress for everyday life they cherish their ancestral costumes for special occasions. Church day in Dalecarlian in central Sweden brings out the people in all their finery. The women appear clad in wide red broomstick skirts with large designs around the bottom. These are topped with white blouses and small beaded and embroidered vests. The men also wear these fancy vests in yellow or black with knickers of the opposite color.

Smorgasbord is another favorite tradition in Sweden. Small fish, (soured herring and sardines) meat, and cheese make up the before dinner fare. These are served with bread and Schnapps.

The Swedes find it hard to understand how we can eat steak just broiled. They like meat which has been ground up and fixed with other things. Swedish meatballs are a favorite.

Young people are well provided for in Sweden. The goal of the state family policy is to spread the cost of raising a family over the entire population. Assistance is given in the form of goods, cash, and services to families that need it. Home management courses are taught to facilitate housework. The community provide collective laundries to relieve the household drudgery.

The children from the cities have an opportunity to enjoy a summer vacation full of sun, air, nourishing food and invigorating exercise. Many children under fourteen are entitled, by law, to a free journey for vacation purposes. Mothers may accompany small children and housewives with several children have been granted free travel to and from a vacation spot.

Light, hygienic day nurseries and kindergartens care for small children while mothers work. Playgrounds and recreation rooms are provided in the large cities to give a suitable environment for the young people.

Compulsory schooling begins at age seven and continues for seven or eight years. After fourth or sixth grade, the pupils can elect to leave elementary school for secondary school or go to a special girls school. Young women are given theoretical and practical instruction in Schools of Home Economics (Rural Domestic Schools). Teachers are trained at two Rural Domestic Colleges.

At regular intervals come the traditional festivals which still mean much to the Swedes. The first of May with its preholiday Valpurgis Night the eve before, Midsummer Day, (the anniversary of the founding of Sweden), and many other festivals are celebrated by wearing ancient costumes, decorating with seasonal flowers and greens, performing gay open air dances and lighting huge bonfires. "In August crawfish parties are seasonable. The summer vacations being over, holiday cottages, in woods and by the sea, are illuminated with colored lanterns as a farewell ceremony to the summer season. The bright red little crustaceans add another touch of color as they are served on heaped platters, while congenial sips of the domestic Swedish liquor, branvin, help heighten the festivity."

In modern Sweden, as in times gone by, holidays provide welcome breaks in the work day routine. For most people the simple pleasures of an evening may be a visit to the movies or listening to a radio program at home. The Swedish broadcasting service is monopolistic and state run, but enjoys a constitutionally independent position. No political pressure is used and different opinions in all fields of politics, culture and religion are vented. Since no advertising is allowed, the costs are defrayed by the listeners who purchase annual licenses.

The contrast presented between rural and urban Sweden is striking. Modern Stockholm has the rapid pulsebeat of an American big city and much of its ambition. It is the scene of bustling activity, carried on in strikingly new buildings of glass and steel. Many of the small towns, on the other hand, retain an idyllic charm. The southern countryside is dotted with low, half timbered houses with thatched roofs set in avenues of willow trees. All in one country can be found the quaint remnants of the past and startling evidence of the never-ending push of progress.
Without water, all plant and animal life upon this planet would promptly expire. Water, often considered to be the most readily available agent of agricultural production, promises to pose some very grave problems in the near future of farming. Evidence of the concern over our rapidly waning supply of this life-giving substance are the numerous bills dealing with water use and conservation now being considered in our national, state and local legislatures. Vast projects undertaking the harnessing of water for the provision of flood control, industrial power, irrigation and drinking water can now be found throughout the world. Examples are well known, Hoover Dam in Nevada, the recently-begun Jhelum River power and irrigation undertaking in Pakistan, and southern New York State’s “watershed.”
program which supplies huge quantities of the vital fluid for New York City's millions.

In addition to fulfilling the needs of agriculture, industry and the household, our watersheds, rivers and lakes serve the interests of the commercial fisherman, the waterside landowner, the conservationist and the outdoorsman, not only as a means of income, but as a source of beauty and recreation as well. These last mentioned values, though perhaps not as publicized as the industrial and agricultural benefits, are fully as important and must receive due consideration in any legislation dealing with the situation. Federal, state and local legislators must consider carefully the interests and needs of each group concerned.

Failure to inspect all aspects of these situations has resulted in a great deal of conflict in the past. Dams built for the purpose of hydro-electric power have flooded thousands of acres of irreplaceable wild-life habitat, man-made lakes designed to supply irrigation have become so clogged with silt that the projects were abandoned. Lake Mead, backed up by the mighty "Hoover Dam" is destined to meet this same fate within ten years, according to experts in the field. Pollution of recreational and drinking waters by industrial wastes has become a major problem. All of these cases point to the necessity of the establishment of water-control boards at various government levels, guaranteeing equal representation to each.

Thus far, agriculture has not fared badly in protecting their water interests, for irrigation and erosion control have been two of the prime factors in the water use programs. Far too often, however, industrialists have received far greater attention than have all other groups combined. At the other end of the scale, those who advocate recreational use of the water resources have been almost continual losers, simply because their suggestions have not been backed up with a dollar sign, or because their public-minded proposals have omitted the ever important "how much will it earn us" clause.

Still another fly in the legislative ointment has been the riparian rights doctrine, stating that control over any body of water lies in the hands of those persons owning property bordering the water. Complaints run wild when owners of last year's lake-side cottage discover their home on an oozing sea of mud.

Multiple-use may provide one answer to the predicament. Reservoirs with careful planning, can be constructed to provide both drinking water to the citizenry and to insure maximum recreational benefits to boaters, fisherman, and nature lovers. Dams can be built in such locations so that they will not become silt clogged before the concrete hardens. Flood control projects can simultaneously serve as sources of irrigation. Efficient and imaginative planning are needed along these lines lest we be forced to make decisions such as whether to use our daily quota of water for sprinkling the tulip bed or for giving junior his bath.
A N ARMENIAN in Tennessee, who goes to Cornell and plays the banjo on Grand Ol' Opry; it's hard to believe," said Bill Maples, music columnist for the Nashville Tennessee, one day last summer. Maples was talking about Bob Mavian, Cornell Vet student who left Long Island last summer with a car, sleeping bag, guitar, banjo, and a hundred dollars in his pocket and wound up playing every Saturday night on Grand Ol' Opry in Nashville, Tennessee.

Bob Mavian drove out of New York heading south hoping to make enough money along the way to reach Nashville. In West Virginia, he tried to get a job in the coal mines but they weren't hiring. He says, "It would have been fun, then I could have sung, 'Dark is the Dungeon' while I worked."

As he wandered through the South camping by the side of the road or a stream at night, Mavian stopped in every sleepy town and inquired whether anyone had a banjo for sale. "I wasn't really inter-
Small bands like the Cumberland Mountain Boys are mainstays of the Grand Ole Opry. Each part of the five-hour show is emceed by a star such as Red Foley or Marty Robbins. The stars perform and then introduce one of the many bizarrely named bands—the Gully Jumpers, the Fruit Jar Drinkers, the Possum Hunters, and so on. After playing on the Opry, the group travels about the countryside billed as an Opry band.

For three months, Mavian traveled through the rolling hills of westen Tennessee, Kentucky, and Alabama playing at night and sometimes in the afternoons. The members of the band ranged from 20 to 68 years old. Money wasn't their primary goal although they had to live... they just like to play. On free afternoons they would set up in a village square and just play for anyone who stopped to listen.

The climax of each week was the playing on the Opry. Mavian got spot assignments playing with bands throughout the five-hour program. Testifying to his skill was the fact that Mavian played banjo frequently with Bill Monroe, a short-tempered perfectionist. After the show was over the performers met back stage and played for pleasure. One person starts off and the others join in and play until the small hours of the morning.

The secret of Mavian's quick acceptance by hardbitten professionals is his mastery of the difficult three-finger method of banjo picking. Most banjo players strum the instrument, but by picking each string individually with a rapid-fire movement of the first three fingers, the banjo becomes a solo instrument instead of just background.

Mavian first started playing when he got a guitar at the age of 12. He took a few lessons but quickly tired of unimaginative instruction. He taught himself to play hillbilly and folk music by listening to records. While still a teenager in high school, he was playing and singing in Washington Square in Greenwich Village.

He began making the rounds of folk sings in Manhattan apartments. Here he met Harry and Jeanie West, Pete Seeger, and Roger Sprung.

A friend took Mavian to West Virginia to go "banjo buying." Mavian was so taken with the hospitality of the southern people that he decided to go to West Virginia Wesleyan College so that he could be close to music he loves.

But in order to get into Cornell's Vet School, Mavian found it necessary to transfer to Cornell. He applied four times to various undergraduate colleges at Cornell. Apparently, the admissions office didn't think that someone from a tiny West Virginia college could do Cornell work, but finally they accepted him on his fifth try. He ran an 85 average his first term here.

At present Mavian is giving guitar and five-string banjo lessons to many students around campus. In addition, he is picking banjo with a blue grass band with the novel name of "The Johnson Bros. and Bob Mavian." They are playing for local square dances and folk sings.

Why does an urban reared young man love country music? It stems from the easy-going, natural atmosphere that country music evokes and Mavian's gift for the music.

Men who play it can sit down together, any place, any time, and express all their moods on their instruments from uproarious gaiety to somber blues.

Mavian couldn't be more at home with country music if he had been raised on hominy grits and sawbells. When the radio plays he accompanies it with his banjo and often he can play a new song after hearing it only once or twice. Sometimes, in the middle of the night he will leap out of bed to try out a tune that has suddenly occurred to him. This habit has gained him the enmity of many of his landladies.

By making the Grand Ol' Opry, this city boy reached a place that few people who are born to country music even hope to reach. Bill Maples wrote in his column, "Music City Beat," "Many are the aspiring young pickers and singers who have come to Nashville cold to try to break into the music profession. And many are the youngsters who have gone away disappointed. One of the most determined we've heard of is Bob Mavian... a first rate five-string banjo picker."

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April, 1959
Around The Quad in England

by Natalie L. Gundry '58

It was the beginning of the Michelmas term, the first of the three in the school year and the city of Cambridge was making its profits on the many student purchases. How strange it seemed to see a bursy freshman buying, not a beer mug but a tea set! Don't underestimate the importance of tea time in England, among even the most bohemian students.

That night I met three fellow Cambridge students whom I had become acquainted with on the boat. They spent most of the evening explaining to me that a "college" is everything but the actual lectures and examinations at a university. Each has its own name, dormitory, and chapel and there are dozens at each university. Each acts as a combination fraternity, advisor, and tutor.

 Everywhere along the cobblestoned streets, past the greengrocer, fishmonger, chemist, public bar, and fish and chips saloon, down every narrow alley and in every main road, there are bicycles. A car is still a luxury in England and students ride bicycles—rain or shine.

Students wear academic gowns over their regular clothing. To further help keep the peace, the proctor of each college walks around Cambridge each night and visits the gatherings scheduled by students. I saw one walking along the other night, dressed in an academic gown and mortarboard and carrying an ivory-handled walking stick. On either side of him were his "bulldogs" or assistants dressed in top hats, white ties, and tails. If they find a student without his gown, they question and, usually, fine him.

There's an international atmosphere about Cambridge with many students from Commonwealth nations there. Americans underestimate the close tie between Britain and the rest of the Commonwealth. Englishmen read news of Canada, Africa, or Jamaica just as a New Yorker reads of California.

Students are required to do much more work on their own than we are. Usually first examinations are after a year or a year and a half of study. Extra-curricular activities are very unimportant here. True, there are sports like crew, cricket, rugby, and soccer, and a few clubs, but a student comes to a place like
Cambridge only to study. A university education is still given only to a few fortunate people and very few take it for granted. The classics and arts are still considered most important, and though sciences have been established for many years, they are still considered newcomers.

Many Cambridge students go to smaller institutions first for more technical and practical subjects. The University of Reading, for example, is well known for its agriculture and horticulture, though it offers classics as well. It takes only three years to earn a bachelor's degree, four for a degree with honors. After a fifth year, a student can earn his master's degree.

One and two-year institutes and colleges are another important part of the educational system, especially in agriculture. The one-year institutes are purely practical and require a year's work experience upon entrance. They teach nothing which doesn't have immediate practical application. These institutes run their own farms, called market gardens and the students are required to make them commercially profitable. For instance, the Kent Farm Institute is in the heart of the fruit growing area of England. It owns large acreages of apple, pear, and cherry orchards, all the equipment to care for them, huge carbon dioxide storage facilities, and packing sheds. It sends its produce off to the local markets where it must compete with other growers' at growers' prices. This whole organization is student-run.

The two-year agricultural colleges provide somewhat more theoretical information. Time is equally divided between class hours and field practice. Regular universities, such as Reading, emphasize the scientific background necessary for good production, though even its courses are more practical than the majority of Cornell's.

Wye College, part of the University of London, is a very fine college of agriculture. Its students have the reputation of being among the most spirited in England. Prince Phillip was scheduled to visit Wye last November. The students decided that they would "ambush" this very popular leader. But he heard of the plot and, upsetting all sorts of royal precedents, he arrived half an hour early and unescorted.

The students weren't ready but this didn't phase them. As soon as the duke had been seated, with appropriate decor, in the large dining hall, a firecracker was shot off beneath the table, and the skylight opened to let in a huge grinning dummy of Guy Fawkes. Guy Fawkes, in the days of the English "Glorious Revolution," tried to blow up the houses of Parliament but was caught and executed. He had espoused the "cause of the common man," however, and the people began Guy Fawkes Day, where children push home-made dummies of Guy around in baby carriages and beg for a "penny for Guy." Later in the evening they build huge bonfires in the streets and burn poor Guy. But this Guy landed in the duke's lap and was cast aside as Phillip made a quick but smiling getaway from the roaring Wye College student body.

Natalie Gundry, a former editor (1956-1957) of the Countryman, is studying floriculture in England on a fellowship—Editor.

April, 1959
A Former Exchange Student Says:

Europeans Don’t Know Us

by D. Guy Burns '59

Americans have become increasingly distressed about the Communist gains in the current cold war. The advent of Sputnik has marked a turning point in the position of the United States in the modern world. The United States must now make use of personal contact to raise its prestige and solidify the democratic camp.

This past year, I studied in Denmark under a seminar program. While abroad, I learned much about European attitudes toward Americans. It is astonishing to note their lack of contact with the average American. They want to know us in every possible way, yet the only way in which they seem able to accomplish this is through our gangster and cowboy films, the American tourists and press agencies.

It is hard to visualize a nation when you live so far away and only receive information through routine channels. Europeans read opinions of America which originate from all corners of the globe. These opinions are very often conflicting. The Danish have asked many probing questions about American attitudes and seeming contradictions in foreign policy.

I have been frequently asked, in regard to Sputnik’s success, “Why is the United States behind, when you have always been first in everything?” Many Europeans have learned to associate “being first” with the United States. A Danish newspaper printed this comment: “If the United States is such a peace-loving nation, why must she use guns to fight Communism?” This statement appeared as a protest against our shipment of arms to the Near East.

Questions such as these are indicative of the distrust of Americans felt by many Europeans. This distrust makes it difficult for underdeveloped countries to gain maximum benefits from our economic aid. America is a great agricultural nation. With our resources and knowledge we can assist these countries to increase their domestic agricultural production, thereby partially relieving relieving them of their dependence on foreign nations for raw materials.

Until we learn to understand each other’s beliefs and traditions, it will be impossible to extend effective aid to underdeveloped nations. This world is in need of more direct contact among the people of foreign nations. To aid other nations, we must first learn their customs.

This understanding can be increased by sending abroad students of democracy who can adjust easily to hard living conditions, and who are willing to help people of underdeveloped countries to raise their living standards. Our ambassadors are the American people, men and women who are willing to learn foreign language and customs, in order to create friends and ease international tension.
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THE final echo of the old school bell signals far more than just the end of four years of diligent study. It is a fanfare, heralding an altogether new life in a competitive and demanding adult world.

The school has done a big job conditioning young minds for this moment. And, properly, these minds are eagerly receptive to the challenge. But there's more required than a mental reservoir of facts and figures and a willingness to apply them in a practical way.

There is another item that is every bit as important or perhaps more so. It is the human heart. For, it must still be acknowledged that it is the heart that can direct these other attributes in such a way as to add to mere material success the quality of satisfaction—a quality that comes from using knowledge and wisdom and skill not only to improve oneself but to make a better world for all who dwell in it.

Rightfully, then, it's proper to pause here and ask oneself, "Whither goest thou?" And then to choose the way that invites this unbeatable partnership of mind and heart.

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In the past 39 years, a lot of water has come down Fall Creek to spill over the Beebe Lake Dam, roar through the gorge under Triphammer, the Suspension Bridge and Stewart Avenue, past the Gun Shop, across the flats and finally spend its momentum churning up the waters of Cayuga Lake.

In parallel path turbulent Cascadilla Creek has poured an ocean of wetness past the Polo Barn, the Tennis Courts and Collegetown, to tumble over the falls and take a final swing at the ever-so-durable rock wall before speeding on to rendezvous with Fall Creek somewhere off Stewart Park.

In these same 39 years, a much mightier flow has passed through the great institution bounded by these two creeks. The stream through Cornell and its famed Colleges of Agriculture, Home Economics and Veterinary Medicine has been one of people—students, researchers and teachers... their thoughts, feelings and actions contributing to understanding, encouragement and progress.

Paralleling this, another stream of people, ideals and philosophy in this same region has taken the shape of a farmers' cooperative... G.L.F. Many of the ideals, much of the leadership that has made this stream vigorous and enthusiastic gained stature under Cornell's guidance.

Both creeks are fed by the same rains initiated by the same God who creates and nurtures the spirit of humankind that is a common headwater for the streams of Cornell and G.L.F.

As Cayuga Lake is a natural resting place for both creeks, so is service to Northeastern agriculture the common goal for both streams of people.

Thank you Cornell, for your friendship of 39 years... for the flow of scientific information that enables us continually to improve our production supplies and services needed by modern farm families... for high calibre, well-trained young men who perform important functions in our forward-looking business organization.

As Fall Creek and Cascadilla combine to nourish Cayuga Lake, may both our institutions continue to blend our resources to promote a more prosperous future for Northeast agriculture.

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The Cornell Countryman is published monthly from October through May by students in the New York State Colleges of Agriculture and Home Economics, units of the State University of New York, at Cornell University. Entered as second-class matter, postage paid at Ithaca, New York, and at additional mailing offices. Printing by Norton Printing Co. of Ithaca. Subscription rate is $1.75 a year or two years for $3.25; three years for $4.50; single copies, 25 cents.

May, 1959
Farmers Want Lower Supports

The top news in agricultural circles recently has been the Farm Journal's poll of what kind of supports farmers want. The April issue of Farm Journal presented figures showing that almost 80% of the farmers throughout the nation want lower supports and more freedom than there is under the current program.

Farm Journal's poll offered readers a choice of five different government support programs. 1) No support, no government controls or quotas; 2) "Emergency supports," i.e. supports at a low level of parity to prevent the bottom from dropping out of the market in years of bumper crops; 3) "Adjustment supports," i.e. a percentage of the market price for the three years previous; 4) High supports—90% to 100% of parity and tight controls; 5) Production payments—all products sold in the free market and farmers receive the difference between the free market price and a guaranteed level.

In spite of Farm Journal's hoopla about the accuracy of the poll, the results are a better indicator of the desires of the Farm Journal's readers than of the nation's farmers as a whole. The farmers who voted in the poll represent one twentieth of one percent of all farmers. Another point that tempers the accuracy of the poll is that people tend to read publications that agree with their own views. Since the Farm Journal is an advocate of lower supports, high supports partisans may be underrepresented.

Nevertheless, the Farm Journal poll offers some real insights into current farm thinking. Comparing the poll with one made two years ago by the same magazine we find that only 50% of the farmers were in favor of no supports as compared with 55% in the current poll. This shows a definite trend in farm opinion against government supports.

Looking at some of the other figures the poll presents, we get the impression that some congressmen ought to scurry home and reassess what their constituents want. For instance, Senators Humphrey (D., Minn.) and Talmadge (D., Ga.) have been advocating a production payment plan similar to the one Farm Journal readers voted on. In Minnesota only 17% were in favor of production payments and in Georgia only 8%. Even in the states where the National Farmers Union (a loud voice for high supports) draws its strength, a majority of the voters were to lower supports. Secretary Benson seems to have a better grasp of farmers' desires than some of the farmers' elected representatives.

If the free market that farmers seem to want were achieved there would be some marked readjustments in the nation's agriculture. A return to a free market would cause a price drop that wouldn't be shared equally among all segments of the economy. The commodities that are currently overpriced the most would suffer the greatest losses. The wheat price might drop 35%, tobacco 20%, Cotton 15%. In the Great Plains there would be a shift to other crops.

Beef, hogs and poultry prices would drop as a result of cheap feed causing overproduction of meat. New York dairymen would not be affected greatly even though their prices are loosely tied to the manufactured milk price. However, midwest producers who sell milk for manufacture would be eluding more than ever for a share in the lucrative eastern milk markets. But overall, a more nearly free market would be a big step towards eliminating the marginal farm and putting agriculture on a truly commercial basis.

The Farm Journal poll indicates that farmers are in favor of a farm program more nearly in line with the economic facts than the program we have had for the past 20 years. It's ridiculous for the government to spend 9 billion dollars on the world's most modern agriculture. The government should move out of agriculture slowly, but persistently.

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May, 1959
Zilch says good morning, not having the wit or perceptivity to say anything else at this point. He will, however, make a valiant attempt.

Zilch highly recommends that everyone think very seriously about a career in advertising when he or she grows up. Recently one member of International Harvester’s crop of geniuses came up with the following tasty morsel:

“Each year, International Harvester Company produces enough baler and binder twine to make 16 lassos long enough to rope the moon and encircle the earth ten times with the twine that remains.” . . . Better it should be used for baling and binding.

Congratulations are in order for Mr. John J. Mullen and Ronald L. Beck ’61. The former, a 33 year-old father of three children, has succeeded in winning the Rice Debate held Farm and Home Week. Mr. Mullen launched a vehement attack against the enactment of a federal right to work law, calling the proposal a “sly scheme to weaken and destroy unions.”

Back to Mr. Beck. He’s going to Sweden next year. Zilch will miss him passionately, but he thinks it’s great anyway. You see, Ronald has won the Cornell Swedish Exchange scholarship to study at the Royal Agricultural College in Uppsala, Sweden. Swedish students will pay all his expenses except for transportation . . . I think Zilch wants to go to Sweden next year too. Such a classy way to live! A Swedish student will come to Cornell in exchange. Alpha Gamma Rho, Alpha Zeta, and Ag-Dom will pay his expenses. Such altruism!

Girls! You have missed one of the greatest opportunities of your lifetime. You can no longer become first rate mechanics under the watchful guidance of a University professor. Ag. Eng. 10 is being discontinued. Let’s all shed a tear in unison . . . one tear only.

Apology department: If this doesn’t sound like Zilch, it is because he has been making visits to the downstairs clinic recently. The people there seem to have done a complete overhaul of his personality.

Zilch regrets to announce the retirement of Prof. Arthur B. Burrell, noted researcher in plant pathology. Professor Burrell has diagnosed a boron deficiency in apples as a cause of lowered productivity in orchards.

This month’s cartoon is a copy of a gift given to, retiring Dean W. A. Hagan by D. O. Fletcher ’23.

While Zilch is saying goodbye to Prof. Burrell, he might as well wish everyone a lovely summer. Just a passing thought . . . is it possible for one to get farm practice credits on a marginal farm in the sunny south of France?
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The Beacon Advisor in your area is a man you should know. Invite him to see you.

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MAY, 1959
Sound Waves in The Steak

by Jack E. Hope '61

What have sound waves got to do with beef steak? Plenty, says Prof. J. R. Stouffer of Cornell's department of animal husbandry. For the past several months, Prof. Stouffer has been using a gadget called a "Reflectoscope" in the measurement of amounts of fat, in lean cuts of meat, and on live animals as well.

The Reflectoscope (trade name) operates on the same principle as the war-time sonar devices used by ships for submarine detection. Thus, sound vibrations emitted by the machine will encounter fat, lean, and bone at various depths within the animal body, and will "bounce" back from these tissues in a fashion corresponding to the relative depth of these three mediums. The reflections are then picked up and appear on a screen, enabling a skilled operator to interpret them in terms of thickness of lean, etc.

Work done thus far with sonic reflectants, as the mechanism is more widely known, indicates that these instruments may conceivably come into practical use in the livestock field by allowing the accurate determination of quality and finish of a certain animal without making it necessary to slaughter the animal first. In this way, the development of an individual meat animal may be traced from birth until slaughter, more discrimination may be used in picking certain animals for slaughter, and more accurate measurements may be made on breeding animals and their offspring, facilitating selection of breeding stock for the transmission of desirable fleshing characteristics.

Although this type of meat measurement is a relatively recent development, some experimentation with devices similar to the one used by Prof. Stouffer has already been done. Experimental results from Germany and France were published as early as 1957. In the U. S. studies of the techniques of wave reflections from meat tissue are in progress at Beltsville, Maryland, Colorado State University and at a few other universities.

As with all newly developed machinery, the price ranges of such a reflecting unit are pretty high, about $5000 in the case of the unit used by Professor Stouffer. Although the costs may drop to one-half or even one-third of the current prices, practical use of these and similar devices will probably be employed only by commercial breeders of livestock and related enterprises for some time.

The use of Reflectoscopes in meat measurement is strictly in the developmental stage. However, identical machines are now in wide use in industry where they are employed in the detection of flaws in construction metals. If similar progress is made by Professor Stouffer and other researchers in Animal Husbandry, the era of the predetermined pork chop may be on us.
African Lullaby

It's early morning in a rural town in West Africa. As in most places the mother is the first person to awake. She gets up and quietly dresses in her loose-fitting, colorful, cotton dress and, taking her water jar, silently slips out of the thatched-roofed mud hut.

It's just getting light when she gets to the nearby church. There's a stream beside it in which to fill her water jar before she returns home.

Once home again, she begins to prepare breakfast for her family, just now rising and getting ready for work or school. Breakfast may be one of a number of things, mostly fruits and vegetables. Perhaps she will cut up one of the two-or-three-foot-long cocoyams or prepare a highly seasoned dish of some sort.

Meals depend upon the time of year. During the rainy weather, something really hot is needed to make the family want to go out and work. In the September-to-March dry season, something cool and refreshing, melons, perhaps, or cassava, is in order.

Lunch and dinner are very much like breakfast except that some meat or smoked fish may be added. There isn't any refrigeration in the rural areas and any meat or fish the family eats has to be purchased the same day. Milk is an unusual addition and usually comes in cans from Great Britain though some of the condensed milk is from northern Nigeria or the United States.

Cooking is done in large earthenware or metal pots over an open fire or oven. The clay pots are handmade and not too different from the ones dug up by archeologists.

Earthenware pots, along with palm oil and kernels, kola nuts, cassava, mats, baskets, and other crops and handicrafts, are brought to the market by the mother or some other member of the family.

In most rural villages the markets were held once or twice a week. Now, with more commerce and trade, daily markets are held in larger villages, especially those along the Niger and other large rivers.

There the fishermen and their wives and the farmers and theirs meet to trade. In addition to food, shoppers may bring home bean cakes for their children, cloth, iron pots and plates, or salt and oil for cooking.

Most of the trade takes place on the original market days. It's said that the market deity casts her spell only on these days. She appears just before dawn in the form of an old lady in the center of the market. She waves her fan to the four corners of the earth to bring the members of distant clans to market. Then the goddess leaves and the women enter market.

Singing softly to herself, the mother returns home to her family. Songs of the market place give way to songs of the home as she returns.

If there's a baby in the family, the mother may sing one of the many lullabies to him. These often have no relation to the mother's situation nor any interest to the baby but they soothe the child and put him to sleep.

One of the many lullabies was quoted in a recent article by J. H. Nketia, a research fellow at the University College of Ghana:

Little one, come for a feed.
If you divorce me, you cannot take away my child.
Little one, come for a feed.
Someone would like to have you for her child.
But you are my own.
Someone wished she had you to nurse you on a good mat.

Teenager being shown how to operate a sewing machine by one of the welfare officers appointed to this center.

Someone wished you were hers
She would put you on a camel blanket.
But I have you to rear on a torn mat.
Someone wished she had you, but I have you.

Music and dance pervade all the life of Africa. While the mother is singing to her child, the men and boys may be chanting as they return from the fields at the end of day's work.

In the evening, the family gets together for the night meal and the day ends quietly—as it began.
Agriculture: The Lifeblood of the "Dark Continent"

Agriculture is the lifeblood of the "Dark Continent." In Nigeria, it accounts for about 85 per cent of the national income. In Liberia, about 90 per cent. The picture is much the same in all of West Africa.

The region's farming can be divided into two categories: subsistence and commercial production. Many farms produce for both their families and for sale but the majority of West African farms are on the subsistence level.

These smaller farmers practice a form of "shifting cultivation," clearing and cropping land and then letting it grow back to bush for about five years. This system, however, is declining in importance as the population grows and farmers become more receptive to machinery and technological information.

Much of this information comes from the federal experiment stations and regional research stations. Dissemination of it is a more difficult task than the actual research. Widespread illiteracy and a slowly dying prejudice against science have to be combatted.

An average family farm will grow, according to one African student at Cornell, "everything in one field. You just walk out and pick whatever you want:

The ox plough, main hope of Nigerian agricultural development, is taught at Samaru (left).
In addition to palm products, cocoa, and rubber, exports of peanuts, bananas, and cotton are significant. These products are also consumed at home. For example, in Nigeria, about one fourth of the peanuts produced are used within the country.

Peanuts are produced in areas of low rainfall, mostly open plains. The more typically tropical crops require more rainfall and do not compete for land directly with peanuts.

Whether peanuts or any other crop, the land is worked primarily by hand. Planting in rows is virtually unheard of in rural Africa, and everything is allowed to come up haphazardly in the same field.

Work on the farm is a family project. Husband, wife and children all work to get the crops planted and gathered. This is a year-round job. With no spring, summer, winter, or fall, the only markers of the passing year are the wax and wane of rainfall.

In contrast to this casual attitude on the part of small African farmers, is an intensive government research program, limited only by the availability of trained men and capital. Generally, the governments prefer to hire native talent but they usually welcome foreigners with the required knowhow and willingness to work.
Want to marry the Boss (or his Daughter)?

You have to get the job first.

The college senior today is looking ahead, with anticipation and pleasure, to the job he'll be holding next year. Many of these seniors, however, are dreading the task of making job applications, of facing the letters, resumes, and interviews so essential to the process of employment.

Some will not land the job they want because they didn't know how to put their best foot forward. "John might have got the job, had the employer known all his qualifications, but his initial letter and resume weren't specific enough to warrant further consideration of the application."

Another young man was more than qualified for the same position, but he didn't get far either, once the personnel director read his lengthy, boastful resumé. Some other applications, poorly typed, or grammatically incorrect, never got beyond a first reading.

Stories like these are plentiful—too plentiful as far as employers are concerned. But, you needn't be one of the group. A few simple rules of know-how with respect to job applications can get that job for you!

The letter, resume, and interview are the most common means of contact between the applicant and employer. Each is distinct in its purpose and form. Since the letter establishes the initial contact, it is an effective means to a good start.

Let's discuss the letter in general. Your greeting should address a particular department head or employment officer, if at all possible. Otherwise, "My dear Sir" is an appropriate formal greeting. The opening sentence should arouse interest so that the reader will want to continue. It is best to mention the particular job for which you would like to be considered, and how you happened to apply for the job. You can go on to state why you think you're qualified for this position, but don't get too detailed—the resume does this.

Close the letter in a manner that implies an answer. You may do this by indicating your willingness to go for an interview—at the employer's convenience. You might suggest dates when you would be "in the city" and able to be interviewed.

Including a resume, even when you're merely inquiring as to job openings, is time saving and convenient for the employer. If there are positions to be filled, he has all your qualifications at hand for immediate consideration.

There are a variety of acceptable forms for the resume; however, the same logical rules apply in every case. That is, include everything that is pertinent, but don't turn the resume into a personal estimate of yourself—emphasizing your successes and neglecting your failures. The one who must read it doesn't want to wade through paragraphs to find a few necessary facts.

No doubt each person who is involved in reading and evaluating applications has his own opinion as to the best type of resume. Mr. Emil A. Mesics, Associate Professor, New York State School of Industrial and Labor Relations at Cornell University says, "A resume should include personal data, educational background, practical experience, and supplemental facts that would indicate that the applicant is a good risk."
extra-curricular activities—in that order.” Professor Mesics has had a great deal of experience in personnel work, and in screening applications. He feels that a statement of one's educational background right at the start of the resume serves as a basis of judgment for the description of work experience and extra curricular activities that follow.

While he is trying to determine whether or not you're suited to the job, you should be seriously looking at the job in relation to yourself. If you're considering other places of employment—say so; the employer will know where he stands. But don't try to push him into a corner by pointing out all his competition.

A few fine points about the resume. A clear, duplicate copy is acceptable, but, please, no smudged carbons! Do explain, briefly, a particular job experience if you feel it would then be clearer to the reader. Enclose a picture of yourself if you have one. A neat, attractive photograph is another selling point.

The interview can be your best selling point. You've probably read countless bits of advice about what makes a successful interview. Don't overdress; be cordial, not assuming; don't fidget; etc. All these are good hints, and well known to you. But one important point is not so obvious. As Professor Mesics says, “the interview is a two way street ... answer the interviewer's questions thoroughly, but feel free to ask some of your own.

What has been said in this article by no means exhausts the list of “do's” and “don'ts” that apply to job applications—it wasn't intended to cover that much ground. The suggestions made, however, are broad enough to be adaptable, yet specific enough to help you avoid the mistakes that may cost a job.

And, if in the course of the interview, you learn that the job is not what you'd expected, and you would definitely not be interested, say so. You'll be saving the interviewer's time, and he'll thank you for your fairness. On the other hand, if you are offered the job, and would like to think it over, be certain of the deadline for your acceptance or refusal, and hold to it. In either case, it would be courteous of you to write a short note of thanks to your interviewer for his time, information, and courtesy.
Fire Fighting . . . Community Style

by Brenda L. Dervin '60

12:45 a.m. In eighty Ithaca homes, small radio sets blast an alert: "Fire—College Avenue and Dryden Road, alert engines 2, 4, and 6."

In answer to the alarm, some one hundred men raced from their homes to the scene of the fire. They joined together into what is known as the Volunteer Fire Department.

The scene's a familiar one to Cornellians for it's occasion was but a few shorts weeks ago during the Collegetown fire. But, as it has been in the past, it can be enacted anywhere in the United States. The fire can be at a barn, a public institution—a home.

Whatever the fire, whatever the cause, the chances are that volunteer firemen and not professionals will answer the call. The lawyers, the businessmen, the workers of rural communities and suburban areas all make up this volunteer fire-fighting crew.

In Tompkins County alone, there are twenty-six fire departments and only in Ithaca can paid professional firemen be found. In fact, the greatest number of the New York State departments are completely volunteer.

What is probably more amazing is that in many communities, particularly the more rural areas, the volunteers have to raise the money to build and then support themselves almost completely. In a very few areas, there is a small partial coverage from the fire protection tax.

The Volunteer Fire Department, according to Mrs. Harry Gabriel of the extension teaching department, a "do-it-yourselfer" that most rural towns and often some fringe and suburban towns just couldn't afford in any other way. The expense of maintaining a twenty-four hour a day fire department for sporadic fire fighting would be almost unjustified. So, the Volunteer Fire Department is the answer.

But, the job of these volunteer firemen is "so much more than just putting out fires." Chief Charles Weaver of the Ithaca Fire Department, with forty professionals and five hundred volunteers listed on its records, says that many of the more staid people consider the Volunteer Fire Department to be a "den of iniquity."

In reality, the Volunteer Fire Department is, particularly in smaller communities, the one group in town that is organized enough to do public service. In the larger communities, of course, there are the standard service organizations. Smaller towns just can't support such organizations, but they can and do support volunteer firemen. And, they keep them busy.

Whether it's a Boy Scout paper drive or a town project, without the support of the fire-fighters next to nothing gets done.
Why? Because just anyone who is anyone is a volunteer fireman. These fire departments often are family affairs. Everyone pitches in to work. Women’s auxiliaries may support a town ambulance, or a teen club, as in Ithaca, may be one of the department’s projects.

Mrs. Gabriel reminisces about one incident in Horseheads, N.Y., where the town was building a swimming pool. With a lagging bank account, the professional men that were hired to do the more skilled parts of the job were a luxury being paid by the hour. However, two large piles of gravel were blocking their progress while the wage bill mounted. What happened? The most natural thing—an alarm was sent out and the volunteer firemen were called in. In business suits or work clothes, they were handed shovels and set to work, removing the piles of gravel.

In many communities, it’s an honor to be asked to join the Fire Department, according to Mrs. Gabriel. “You’ve made it, if you’re in.” However, the actual process of becoming a member of a local department depends on the area. And, there are as many variations as there are areas.

New York State law requires that applicants be over eighteen and physically fit. But this is probably the only set standard. The fee for joining can be from five to fifteen dollars. Very frequently there will be a lengthy waiting list. In some areas, the businessmen and lawyers are the volunteers. In others, it’s the college students; in others, the workers.

The better departments require training which is offered at a Fireman’s Training School sponsored by the New York Division of Safety. Volunteer firemen even have a “super workman’s compensation,” according to Chief Weaver, that guarantees them protection at any fire under the Fire Fighters Benefit Law.

Once a member of the organization, the volunteer fireman finds he is not only doing community service, and fighting fires, he is also raising money for the department’s operation. In this way, events like the “Fireman’s Carnival” have become a by-word across the countryside. These carnivals actually constitute a community fair with games and contests. In addition to raising money, the volunteers have to keep up a system of repair on their equipment—the trucks, the hoses, and the engines.

A fire department needs buildings and equipment, and it also needs what might be called public relations—recruitment and activity to keep esprit de corps. All this activity is probably what makes volunteer Fire Departments the effective organizations they are.

Then, when a fire alarm is sent out, men trained and organized can come to call. How they do it varies from area to area. Ithaca has a radio call system, some towns have a telephone call system where one push of a button sends a single message over many phones, and some areas still use the town siren that keeps blasting the alarm. Whatever the method, the volunteers rush to the scene of the fire while their wives prepare food or call more volunteers.

Some departments have definite assignment lists, others have none. Usually, according to Chief Weaver, there is some confusion. Ithaca’s Department, for example, has no assignment lists with the exception of the professional jobs. In this way, one company helps another if necessary.

In days gone by, however, Chief Weaver states that there were definite assignment places. And woe be gone was the man of one company who dared to help another company. Rivalry just didn’t permit such traitorship. Today, the Ithaca code is departmental as well as company.

Whatever the organization, whatever the town, the Volunteer Firemen do the best they can considering the nature of the enemy they must fight. And, between fires, they do a great service for rural and suburban areas alike.

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**Unexpected Guests?**

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May, 1959
Carolina Snake Hunt

by William Turner '61

During spring vacation, four intrepid zoology majors in the conservation department and I traveled to South Carolina to collect southern animals.

We especially hoped to collect several species of darters, small, bottom-dwelling fish, which were needed for research work. A second objective was to collect snakes, lizards, and frogs, some specimens destined for preservation in Cornell's study collection and others to be brought back alive.

We first drove to a locality in southeastern South Carolina which is particularly noted for its teeming reptile life. It is a private hunting club, which is managed to favor peak production of quail. In the process of creating good quail habitat, the club has also furnished almost ideal ecological conditions for snakes. And so it was here that Will Davis, Neal Foster, John Ramsey, Marty Michaner, and I, all members of Jordani, Cornell's zoological society, camped for several days.

It had been a particularly wet spring in the South and as a result, many of the best stump holes, for that is where snakes are to be found at that time of year, were flooded. For this reason and also due to our lack of knowledge of the terrain, we did not collect many snakes.

Two of our specimens did, however, represent noteworthy catches. One was a young canebrake rat-tlesnake and the other, a beautiful red rat snake.

The canebrake, a subspecies of the timber rattler of the Northeast, was sighted swimming in a roadside canal. After momentarily losing track of the snake, John Ramsey flipped the rattler onto the bank with his snake hook.

Poisonous snakes can be caught by lightly pressing their heads to the ground with a snake hook (forked sticks are passe) and gently grasping them behind the head. However, in this case we intended to take the snake back alive, so in order to ease the shock of capture, we gingerly maneuvered the critter into a bag without pinning him. Many rattlers are notoriously difficult to maintain alive in captivity.

Our red rat snake was caught...
while it was sunning itself on a sandy road that meandered through a pine woods. This snake, with its rich red coloration and dark blotches, is reputed to be the most attractive of all United States serpents. Coiled, lazily, in the pleasantly hot sun in a bright new skin (the snake appeared to have just shed), this red rat snake's coloration was particularly striking.

After a most relaxing four days in South Carolina, we headed for North Carolina for some serious seining. Here we dredged up some of our more sought after darters. In addition to the darters, we collected specimens of an, as yet, undescribed species of fish and a number of mudpuppies, also to be used for research.

Although our collecting trip was successful in some respects and less successful in others, all five of us had a most happy respite from the rigors of college life in the land of sunshine and southern hospitality.
Red Sails On
Lake Cayuga

by Carole J. Wedner '61

Red sails in the sunset at Cayuga Lake means the Cornell Yacht Club fleet is returning to port. With the onset of spring these symbols of the club will become familiar sights once more to Cornellians and Ithacans. Spring, the time for love, picnics, and baseball, is also the time to get out on the lake and raise your sails to the winds.

Bob McClellan, Commodore of the Cornell Yacht Club describes sailing as having “an infinite number of thrills and joys depending on the weather, water and people on board the boat.” He likes the excitement of sailing, but also enjoys the “peace and quiet being out on the lake affords. It depends on the mood,” he says, “and the moods of water, wind and myself vary. So do the situations. That’s what holds my interest.”

Racing is one of the most exciting parts of sailing. Both the men's and women's teams of the Cornell Yacht Club, race “any and every northeast school that sails.” Locally they race Colgate and the University of Rochester. An invitation based on the sailors competence in navigation, was given to Cornell's male team to participate in a long distance sailing race at Annapolis.

The thrill of racing is indescribable. Crew and skipper must not only be competent sailors, but must also work as a team. Chris Drake, first mate of the winning boat in the North American Sailing Championships in the summer of 1955, attributes much of the winning of the race to this. “The captain is chief of the boat and also the most competent sailor of the crew. She has as her first mate someone who is just about as competent.” The captain mans the tiller, (lever used for turning the rudder from side to side), steering the boat on her course toward the end. The first mate’s job is to handle the spinner sail. Other crew members are assigned to odd jobs as they crop up. Nevertheless, they too are members of the team and all do their part, acting as one to win the race.

This teamwork can make or break a race. One sailor lost more than the race the day a detail was missed. “We were racing one day,” he begins with a smile, “past the first marker and about to round the second, going down wind. When you go around a turn like this you’re supposed to bring up the center board (a board in the center of the bottom of the boat which can be raised or lowered) and since the first mate knew pretty much about boating, I thought he did and he assumed I had done the job. As we began to go around the marker we slowed down and drifted slowly sideways. We keeled (moved sideways and tipped) more and more. A few bucketfuls of water came in and we were gradually dunked in the freezing water with the boat beneath us slipping toward the bottom. Then came the welcome sight of the rescue boat. The crew bundled us into blankets and whisked us ashore where we sat in front of a roaring fire feeling sorry for the people out on the lake dragging for the sunken boat.”

For these “land lubbers” who like to watch the Cornell Crew races the Yacht Club offers a perfect view of the finish. Chris Drake relates tales of eager Cornellians clamoring over the club’s boats to get a better view of the finish. She wonders that a few of our over-enthusiastic students have never been thrown overboard in their excitement.

Boats offer a variety of experience unobtainable elsewhere. They present a challenge no matter what the weather. Bob finds windless days just as thrilling as those with rough weather. “It’s so peaceful and quiet out there. There are so many nooks and crannies to just drift around in, perfect places for relaxation.”
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