

AGRICULTURE AND LIFE SCIENCES

news

A Statutory College of the State University of New York, at Cornell University, Ithaca, NY

MAY 1981

Students Introduced to Farm Techniques

For students who have grown up in cities or suburbs, ALS 27, Introduction to Farm Techniques, may provide their first experiences with farm animals and practices. The non-credit course covers topics such as making hay and silage; milking; general care of farm animals; farm machinery such as balers, choppers, rakes, and tedders (handlike wires that fluff hay prior to baling); and tractor driving and safety. It's taught by Ward Miller, administrative associate of the office of farm services.

The office, which reports to the associate director of research Lamartine Hood, is responsible for maintaining 700-800 acres of Cornell-owned farmland. Its maintenance headquarters comprise a cluster of large barns on Dryden Road next to the Cornell Orchard.

Students from a variety of majors take the course, according to Miller, including those in pre-vet studies, animal science, human ecology, hotel administration, and arts and sciences. Some take it because they plan to go into farming or related areas, others simply out of interest or curiosity.



During the fall semester, two separate classes meet one afternoon a week, and in spring, five separate classes meet every weekday. The fall course takes advantage of the season to demonstrate making hay and silage, but courses both semesters emphasize dairy farming practices.

"If students are going to get jobs in New York State," said Miller, "95 percent of them will work on dairy farms. Especially in the summer, dairy farmers need help, because they've got the regular chores plus haying and making silage."

Before the students are turned loose on real cows for milking, they practice on wooden frame "cows" with plastic udders. They also observe milkers at the veterinary college; then, when the students have developed a certain finesse in the matter, they start practicing on cows at the Training and Research Center and at the Research Barn at the vet college, learning both hand and mechanized milking.

The process has gone on without incident, he said. "The cows are used to people. I tell the students to let

animals know where they are. The only time you'll get kicked is if you surprise an animal."

Those taking the course also visit the campus beef, sheep, swine, and poultry barns; if students want to see more they can arrange for additional tours with the superintendents of the barns.

The course itself has existed since 1908, when Prof. John Stone, who was head of the department of farm practices, taught it. When Ward Miller came to work for Cornell in 1957, Prof. Reuben Shapley was the head of the department and taught the course. Miller began teaching it in 1970.

There have been notable changes in the course's enrollment, he said. "At least 90 percent of students taking it 20 years ago were males; now it's around 40 to 50 percent. Until 1968, it was required that all male students in the college have 40 credits of farm services in order to graduate." After that requirement was eliminated, the course enrollment dropped to the point where there were only a few students per class. But recently there

(Continued on page four)

Brake Appointed to Myers Chair



John R. Brake has been selected as the W.I. Myers Professor of Agricultural Finance. Brake had been a professor of agricultural finance, with a secondary emphasis in farm management production economics, at Michigan State University. His research interests lie in improving the availability and terms of credit to farmers as well as improving the effectiveness of lending institutions and of credit policies.

The W.I. Myers Professorship of Agricultural Finance is the first chair in the College that is fully endowed. The Chair is in honor of William Irving Myers, Cornell's first professor of farm finance. He was the principal architect of the national farm credit system, the framework for agriculture's recovery from the Great Depression. It remains the foundation on which institutions of agricultural finance are built today.

Myers was appointed governor of the Farm Credit Administration by

President Franklin D. Roosevelt. He advised Presidents Truman and Eisenhower in the field of agricultural finance, as well as New York State governors, the state legislature, and committees, foundations, and businesses.

He later returned to Cornell as chairman of the department of agricultural economics and eventually became dean of the College, a position he held for 16 years. Of his contributions, perhaps the most important was his work in teaching farmers how to manage farm credit. He was also committed to finding more effective ways for lending institutions to serve agriculture.

Through research, teaching, and extension responsibilities, the Myers Professor will help farmers, agribusiness firms, and rural communities use their money more wisely, thus helping ensure continued strength in agricultural finance for decades to come.

Since the chair is privately funded, the professor holding it is free from the strains of seeking financial support and unencumbered by major administrative duties, allowing more time for service to individuals and institutions.

At Michigan State, Brake provided information to lenders and farmers, predicting in 1965 that credit owed

Dairy Farm Energy



Discussing plans for a major on-farm energy project to be conducted by Cornell are (left to right) Ronald Space '53, Ronald Space II '81, and Larry Walker, professor of agricultural engineering.

The Ronald Space farm is about to become the site of a major Cornell research project, the "Energy-Integrated Dairy System." This project, one-of-a-kind in the nation, will demonstrate that farmers can generate as much as 65 to 75 percent of the energy needed to run their farms by producing methane gas from manure and a liquid fuel produced from corn or sunflower seed.

The project will cost more than \$1.5 million over the next four years, with major funding coming from the U.S. Department of Energy, the NYS Energy Research and Development Authority, and Cornell. Also supporting the project are Agway, Inc.; Brooklyn Union Gas Co.; NYS Electric and Gas Corp.; and Ronald Space.

A team of 23 researchers from the college will include agricultural engineers, chemical engineers, agronomists, rural sociologists, and agricultural economists. It is headed

by Larry Walker, professor of agricultural engineering.

Walker said the amount of methane produced each day at the Space farm would be equivalent to 30 to 35 gallons of gasoline. Methane will be used to run a generator that produces electricity. Waste heat from the generator will heat water that, among other uses, will maintain the 95 degree temperature in the "digester" that produces methane from manure. (The manure put through the generator can still be used for fertilizer, since it loses none of its nutrient value in the process.)

Corn-generated alcohol or vegetable oil produced from sunflowers will fuel tractors and other farm equipment.

Several other energy conservation techniques, including a computer control system for efficiency in methane and liquid fuel production, will be used in the project. An extensive data base will be developed on the performance, economics, and reliability of the various energy production systems.

"The results of this project will be very valuable for Cornell Cooperative Extension in its efforts to transfer the technology from the laboratory to the field," Walker said. "Results also will provide information for future energy and agricultural policy decisions in New York State and the nation."

The final two years of the project have been set aside as a demonstration period, during which tours of the project facilities will be directed by Cooperative Extension.

Master's Program Upgrades Professional Careers

"The biggest advantage to me of the MPS degree program was the certainty that I would receive the degree in one year (unlike the MS which is more open-ended) allowing me to get the training I needed during my year's leave of absence from work," said Dale Young '77.

Young, an extension agent in Oswego county specializing in vegetable crops, said he liked the variety of courses he was able to take and that he's been able to apply what he learned directly to his work.

Started in 1970, the Master of Professional Studies degree program was designed especially for people already involved in a professional career who want to upgrade their skills and knowledge. Less emphasis is placed on research than in the traditional MS or PhD programs, and the MPS program offers the chance to carry out a final applied project, rather than a research thesis. The problem-solving project can be a written report, computer program, blueprint, slide, film, or other medium, and is a practical document geared toward an actual audience.

John Duxbury, associate professor of agronomy and graduate faculty representative, said, "It is a very useful degree for professionals who do not want an MS or PhD but would like advanced training. It opens new opportunities for them with minimum disruption of their careers." Frequently, he said, students enrolled here receive salaries from their agency or other employer during their leaves of absence.

The MPS program is helping fill the needs of a new area of agriculture, Integrated Pest Management (IPM). This comprehensive approach in dealing with pests uses a combination of chemical, biological, cultural, and genetic methods for control, doing as little damage to the environment as possible. Monitoring pest populations and weather, and then advising growers about timing and method of pest control requires well-trained

personnel with knowledge of such fields as plant pathology, ecology, weed science, nematology, statistics, and farm business management.

An MPS degree in plant protection, a component of IPM, was begun in fall semester 1980. It involves, in addition to two semesters of course work, an internship for one growing season in a Cooperative Extension pest management program, which includes a trainee program to give added real-life experience. The training program includes a pre-season workshop conducted by research and extension personnel, and each trainee is assigned to a farm adviser who is actively working with growers on a pest management project. At the end of the season, the trainees' work is reviewed, and they are guided by the college's IPM coordinator to find appropriate employment.

Phil Arneson, associate professor of plant pathology and graduate faculty representative for the field of plant protection, said, "The close integration of the teaching program with the research and extension programs in pest management is the key to success of IPM in New York State. For the student, it provides the kind of practical experience necessary to land a good job and to approach it with confidence. For the college, and for the agricultural industries of the state, it provides well-trained and highly motivated young people to staff the emerging IPM program."

The Master of Professional Studies degree is offered in the fields of agricultural economics, agricultural engineering, agronomy, animal science, communication arts, development sociology, education, floriculture and ornamental horticulture, food science and technology, international agriculture and rural development, natural resources, plant breeding and biometry, plant pathology, plant protection, pomology, and vegetable crops.

Retired Animal Scientist Dies

John I. Miller, professor emeritus of animal science, died December 8, 1980 at home.

Prof. Miller received his PhD from Cornell in 1936 and joined the faculty in the same year as an instructor. A native of Kansas, he graduated with honors from Kansas State University.

His investigations of pastures and other forages gained him wide recognition among cattlemen and animal scientists. Kenneth Turk, professor emeritus of animal science and a close friend and associate of Miller's for 47 years, said, "He was not content just to publish his research in scientific journals. Farmers do not often read them, so he always prepared mimeographed reports for quick use by associates, students, county agricultural agents, and livestock producers."

From 1936 to 1943, Miller coached Cornell's livestock teams, including 11 winning teams with victories in the International, Eastern National, and Eastern States Intercollegiate Livestock Judging Contests.

He served as secretary of the NYS Angus Association from 1943 to 1974 and helped establish the New York Beef Cattlemen's Short Course.

He also served as president of the American Society of Animal Science, president of the National Block and Bridle Club, business manager and editorial board member of the *Journal of Animal Science*, and adviser, consultant, and committee member of the American Angus and Hereford Associations.

In 1951, he received the New York Farmer's Award for "outstanding achievements in agriculture," received the 1961 Distinguished Service Award, North Atlantic Section of the American Society of Animal Science, and in 1980, four years after his retirement, was made Honorary Fellow of the American Society of Animal Science.

A scholarship fund was established in 1974 by friends and associates belonging to livestock organizations in

the state in honor of John Miller and Professor Emeritus Myron Lacy. Scholarships are awarded to needy, outstanding students majoring in animal science, with a special emphasis on beef cattle production.

The Miller family has requested that those wishing to make contribute memorial gifts to the Myron Lacy-John Miller Scholarship Fund or to the Agricultural Leaders' fund, a new endowment in honor of alumni, friends, faculty members, and other agricultural leaders who have distinguished themselves in agriculture.

Miller was born in Prescott, Kansas, on October 16, 1911. He is survived by his wife, Viola Henry Miller '35 of Ithaca; two sons, Robert S. Miller of Northport, NY, and James T. Miller, of Houston, TX; a daughter, Carol Miller Hoff of Houston; three grandchildren, Gregory and Meredith Miller, both of Northport, and Jennifer Hoff of Houston; two brothers, Clarence and Wayne Miller, both of Prescott, and a sister, Alpha Miller Avery of Prescott.

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Dean: David L. Call

Associate Dean: Joan R. Egner
Assistant to the Dean: Glenn O. MacMillen

Public Affairs: James B. Bays

Editor: James Titus

Managing Editor: Ann Wintriss

Writer: Zorika Petic Henderson

Designer: Lin Haylor

Photographers: Don Albern, George Lavris, Yong Kim

Production Coordinator: James A. Mason

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Harrison-Trimberger-Slack Fund

To continue the high quality of the dairy cattle selection courses at Cornell, a new fund has been established. The Harrison-Trimberger-Slack Dairy Cattle Evaluation and Selection Fund is a special \$100,000 endowment in honor of professors E. S. Harrison, George W. Trimberger, and Samuel T. Slack, whose years of teaching and research activities have greatly influenced students, colleagues, and the profession.

Among the first donors to the fund were Reed and Eleanor McJunkin whose ties to and support of the College span several decades. In 1956, J. M. McDonald, Eleanor McJunkin's father, bequeathed his world-famous Guernsey herd, along with 1,700 acres of land near Cortland and all the farm's equipment, to the College.

The College retained 600 acres of the farm and most of the herd, then sold the remainder, establishing with the proceeds the J. M. McDonald Endowment Fund.

During the years that Cornell managed the farm, Professors Trimberger and Kenneth Turk provided the faculty supervision. In the 1960s, the decision was made to

sell the farm and most of the cattle but to keep a small herd of the Guernseys in what was to be the new Cornell dairy farm at Harford. The final sale in 1967 added to the existing J. M. McDonald Fund, and earnings from this fund have contributed substantially to the dairy cattle teaching program here.

The value of the McDonald herd was enhanced by its significant accomplishments. The herd won: 25 Gold Star Production Sires, 6 Gold Star Dams; and 80 Excellent cows bred at the farm; Premier Breeder at the National Guernsey Shows 19 times and at the New York State Fair 30 times; 158 blue ribbons at the National Guernsey Shows. In addition, 45 percent of the All-Americans up to 1967 were sired by the farm's bulls. In 1950, 45 McDonald cows were sold at an average of \$3,503 per head, breaking all previous world records. K. C. Sly was manager of the herd, managing it for McDonald Farms for 25 years and then for Cornell in the subsequent 11.

For years, the McDonald Farms served as an educational resource not only for Cornell students, but also for



Dairy cattle training conference held at MacDonald Farms during the 1950s. Far left is K.C. Sly, long-time manager of the farm, and to his left (in the suit) is the late J.M. MacDonald, the farm's owner.

dairymen, 4-H Club and FFA members, and for the GLF Exchange (now Agway).

A former student, Joe Pendergast '38, credited much of his success as a representative of several national Guernsey associations to what he learned in his days as a member of the judging team and remembers the Cortland farm as an important element: "To see the outstanding cattle at McDonald's and to be exposed to the expertise of a breeding

establishment that made history was a great experience," he said. Students are helped in a number of ways by being on such a team. "You learn to express yourself, to stand before a group of people and explain why you judged a certain way. It builds self-confidence."

Judging, said Prof. Trimberger, "develops proficiency in observation, organized thinking, and self-assured communication—skills needed in almost every aspect of life."

Research and the Family Farm

State agricultural experiment stations have been accused of not devoting enough of their research to topics helpful to family farms, emphasizing instead research for commercial agriculture and agribusiness.

A task force, composed of agricultural specialists from various parts of the country, examined this and other issues related to family farms and concluded that research in the experiment stations is not slanted toward large farms. But because of the economic environment in which new knowledge is applied, the research has inadvertently contributed to the concentration of production in large farms.

Their report, "Research and the Family Farm," maintains that the moderate-sized family farm is basically efficient, but is troubled by cash flow and other inflation-related problems and by high capital requirements. In order to preserve such farms, according to the study, extra measures are required to help them compete with large farms. "Research and the Family Farm" was prepared for the Experiment Station Committee on Organization and Policy (ESCOMP), a national organization of experiment station directors, and will be distributed to experiment stations nationally.

It was written in part to help shape policies of the successor to the 1977 national farm bill's Title 14, which includes authorization of research and extension expenditures. Hearings on Title 14, which expires in October, are currently under way in Washington.

American farms have declined in number for nearly half a century, with the rate of decline highest in the 1950s and slowing in the 1970s. The total number of acres in farms has fluctuated around 1.1 billion since 1935. The percentage of farms with sales of \$100,000 or more has risen from 0.6 percent in 1960 to 7 percent in 1978. During the same period, the percentage of farms with sales in the \$20,000 to \$99,000 sales range rose from 8 percent to nearly 27 percent. But in inflationary periods, the use of current dollar sales as a measure of farm size considerably exaggerates the upward trend in the size distribution of farms. The largest 25 percent of all farms accounted for 77 percent of total cash receipts in 1960 and 85 percent in 1977. Such an inflation-free measure indicates that the upward trend in the size distribution of farms is real but not as dramatic as the use of current dollar measures would indicate.

The concentration of agricultural production in larger farms is the



result of many forces: a highly competitive agricultural sector, economics of size, a dynamic technology, and a strong demand for agricultural products, which provides both incentives and an internal source of capital for the new technologies.

In addition, a variety of governmental policies and programs with worthy objectives have produced unintended side effects. For example, Social Security and unemployment programs increase the price of labor, and tax policies such as interest deductions, investment tax credits, and rapid depreciation allowances decrease the price of capital. This encourages the mechanization of agriculture, which in turn contributes to the growth in size of farms.

To explore the possible role of state agricultural experiment stations' research in the changing structure of agricultural production, a 10 percent random sample of 1979 funded projects was drawn and classified into a variety of categories. The sample showed that over 74 percent of the research effort as measured in scientific years is devoted to agricultural production. A breakdown of production research showed that 28 percent was devoted to basic research; 3 percent was useful primarily to public governmental agencies; 7 percent primarily to small farms (under \$20,000 gross sales); 5 percent primarily to moderate-sized farms (\$20,000 to \$99,000 gross sales); 3 percent primarily to large farms (\$100,000 or more gross sales); and 53 percent equally applicable to all sizes of farms (size neutral).

Technological advances, more readily available to more aggressive farmers who have large capital and acreage, have hastened the shutdown of small farms and contributed to their absorption by bigger, nearby farms. The experiment stations have

played an important (but not exclusive) role in the development of these technologies. Without mechanical innovations, certain farmers could not have expanded their acreage as much or as quickly. Labor would not have switched as fast from food and fiber production to that of other goods demanded by a wealthy society. Without biological improvements such as crop and livestock breeding or chemical innovations such as fertilizers and pesticides, however, food prices in the nation would have been much higher, and food shortages around the world much more severe.

In addition, the development and adoption of mechanical innovations have been encouraged by policies that resulted in cheap capital and energy, and by tax policies that permitted rapid depreciation. Production technologies (chemical and biological innovations) were encouraged by cheap oil and price-support programs, which helped protect farmers against the price-depressing effects of increased yields.

Ultimately, the report states, policy decisions on agriculture research involve trade-offs between two widely held values—efficiency and equity. Pursuit of efficiency would seem to dictate research and extension efforts that concentrate on commercial farmers, whereas pursuit of equity would concentrate these efforts on small-farm owners.

Consumers, not farmers, says the task force, are actually the major beneficiaries of research and extension. The competitive economic structure of farming doesn't allow even early innovators to retain economic benefits of research and extension for very long. As adoption goes on, benefits accrue to consumers, especially those with low income, directly in the form of restrained

growth in food prices and indirectly in the form of a stronger dollar in international exchange, which lowers prices of imports and of domestic goods and services as a whole.

The trade-offs between efficiency and equity raise questions of goals. Do we want slow technological advances when agricultural export earnings are a major source of foreign earnings needed to buy oil? How much is society willing to pay in the form of direct and indirect subsidies to small- and moderate-sized farms to avoid concentration in the hands of a few? Do we want to implement a technological policy that de-emphasizes the substitution of machines for human labor? And which of these measures will be most acceptable and effective?

Here are the task force's recommendations:

- *experiment stations should pursue an aggressive agenda of research to increase agricultural productivity, with emphasis on the biological areas of research and management of farm resources;

- *extension services and experiment stations should devote more effort to small- and moderate-sized farms;

- *research should be increased in policy research related to agricultural issues such as economics of farm size, tax and credit policies, product and factor marketing systems, and financial risk;

- *research and extension should embrace with enthusiasm the funding of rural development and other human resource programs.

Keith A. Huston, the state agricultural experiment station Northcentral regional director, is chairman of ESCOMP (Experiment Station Committee Organization and Policy), which commissioned the study. Noland L. VanDemark, director of research in the College of Agriculture and Life Sciences at Cornell and director of the agricultural experiment station (Ithaca), is chairman of the ESCOMP subcommittee.

Committee members who prepared the report were: Hal O. Carter, professor of agricultural economics, University of California; Willard W. Cochrane, professor of agricultural and applied economics, University of Minnesota; Lee M. Day, committee chairman and director of the Northeast Regional Center for Rural Development, Cornell University; Ronald C. Powers, director, Northcentral Regional Center for Rural Development, Iowa State University; and Luther Tweeten, professor of agricultural economics, Oklahoma State University.

Formal Agreement Signed with Nanjing College

Last spring, a cooperative agreement between CALS and the Nanjing Agricultural College in China was developed when a delegation from the Ithaca campus was invited to China to explore opportunities for joint research programs; recently, a formal agreement was completed.

Financial support for the programs is being provided by the USDA's Office of International Cooperation and Development, which awarded \$99,000 to Cornell for the next three-year period to cover costs of travel, supplies, and communications for professors and graduate students from

both colleges.

Benefiting both the United States and China, initial exchanges will be in such areas as plant breeding and genetics, crop protection, animal science, agronomy, rural economics, and horticulture.

"China is a rich source of germ plasm for plants," said Joseph Metz, director of international agriculture programs at Cornell. "The U.S. will benefit directly from collections of genetic materials that will be used in domestic plant breeding programs. The Chinese have also been active in research on biological nitrogen

fixation, which is of great interest to us."

Nanjing (Nanking), once one of seven key agricultural colleges in the People's Republic of China, was closed 14 years ago at the start of the Cultural Revolution. Today, the Chinese government has given high priority to re-establishing Nanjing as one of that country's leading institutions.

Links between the two colleges go back more than half a century, when Nanjing and Cornell established a cooperative program that continued for several years. China and Cornell first

renewed exchanges of information and materials in 1974 when representatives from Cornell served on a team sent to China by the U.S. government, the National Academy of Sciences, and other groups.

China wants to modernize its agriculture to increase food production. Metz said the joint research programs will increase the scientific knowledge of crop and livestock production, and should have direct application on food production and better nutritional status of China's large population.

Alumni Profile: Ronald Space

More than 100 years ago, Ezra Cornell asked Luther Griswold to walk a hillside with him. He wanted advice on the suitability of the land: Would it be a fit place to found a university? Griswold said yes, and the rough pastureland became the foundation on which Cornell University was built.

Today, Ronald Space, great great grandson of Griswold, continues that connection between his family and Cornell. A 1953 graduate from the College, he is a dairy farmer in nearby McLean. His farm exemplifies the principles taught here and has been picked as the site for a critical energy project (see article p. 1).

A further connection is through Ron II, a student at the College ('81) majoring in dairy science and agricultural economics. An older son, Philip, graduated from Clarkson in 1975 and is a captain in the U.S. Army Signal Corps in West Berlin.

Ron's father, Ralph, attended the College, but his education was interrupted by World War I, and he was unable to return to school later. Ralph, who lives next door to his son, said, "It staggers me to see how the campus has changed. When I was a student, Tower Road was only a muddy lane, and they were just beginning to grade Lower Alumni Field. I can still remember coal being hauled across campus by horses."

Not far from campus is Dryden, where Spaces have lived for nearly 150 years. In 1955, Ralph recognized his son's interest in becoming a dairy farmer and bought a larger farm in McLean. They spent the first five years improving the soil by applying limestone and fertilizer. In 1959, they added a herringbone milk parlor (cows are positioned diagonally for easier milking access), an unusual

feature in those days, and expanded a barn to accommodate more cows.

Ralph retired in 1965, and Ron hired a full-time worker, who is still with him. A fire in 1971 wiped out the major barn and silo, but Ron recovered and continued to expand his farm.

He has 200 Holsteins, and after adding a new structure in 1979 is now able to accommodate additional young stock as well as dry (non-milking) cows. The total acreage, both leased and owned, is 550, with 400 tillable.

Discussing ways that a farmer can increase profits, Ron said he is cautious about machinery he buys. A farmer, he said, doesn't need the biggest, fanciest tractor available, one that is "so shiny you have to wear sunglasses to drive it," but one that simply gets the job done. He doesn't own a hay baler, because it's cheaper to have someone come in to do the baling.

He belongs to the Cornell Agricultural Management Information System, a computerized program that gives farmers a detailed monthly breakdown of receipts and expenditures of their farming operation. This is based on ledgers that his wife, Phyllis, regularly submits. Looking at a graph, he can see that while he invested \$7 more in fertilizer per crop area than most of the other 86 farmers in the group, he came out ahead because that extra investment yielded a reduction in food-and-crop expenses of \$1.40/100 pounds of milk.

When he started 25 years ago, his production was approximately 150,000 pounds of milk per employee, considered excellent at the time, and it is now over five times that rate.

"Farming is one segment of society that helps reverse inflation, because as

productivity goes up, inflation goes down," he said. "To succeed in farming, a person has to be aggressive, innovative, and well-organized."

In addition to farming, Ron has been an active charter trustee of Tompkins Cortland Community College and a member of the school board for two consecutive terms. Community involvement is important, he said. "I think you should try to leave your community at the end of your lifetime a better place than when you arrived."

He and Phyllis like to downhill ski and, during the less busy winter months of farming, go to nearby Greek Peak several times a week. They have taken skiing vacations in the Rockies and in Vermont.

One of the aspects of farm life she likes best, Phyllis said, is meeting visitors from College field trips. Regularly enrolled students, as well as agri-business executives and bankers attending seminars visit the Space farm to observe its management. One group of visitors from Scotland were fascinated by the corn on the farm apparently it isn't grown in that country. They asked detailed questions about such things as its culture and storage and how many ears are produced per plant.

With the already large population expected to double in the next decade, Ron said, farming can't afford to go backward. Conservation efforts need to be intensified and alternative energy sources need to be developed, or there will be a major change in the standard of living. "Since the energy shortage, Americans have cut back 10 percent in gas consumption. We can do more to conserve if we have the will and the incentive to do it."

Forest Ecologist Retires

Laurence S. Hamilton, a nationally known forest ecologist, has been named professor of forestry emeritus by the Cornell University Board of Trustees, following his retirement after nearly 30 years with the department of natural resources. Recently he began a second career as a research associate at the East-West Center in Hawaii where he is involved in research in tropical rain forests.

At Cornell, Hamilton taught courses in forest ecology, natural resources management, and international nature conservancy. His research activities included forest and wild-land use and planning, wild-land ecology, and land and water management.

Hamilton was instrumental in establishing the Resource Policy and Planning Program at Cornell and served as the program chairman since its inception in the early 1950s. "This pioneer program in resource management, which takes into consideration science, sociology, and economics, has helped to maintain our leadership in the solution of many environmental problems," remarked Harry Everhart, chairman of the department of natural resources.

Hamilton also has served as director of Cornell's Arnot Teaching and Research Forest, a 4,000 acre tract located near Newfield, NY that provides a living outdoor laboratory for students and faculty members.

A native of Ontario, Canada, Hamilton received a BS degree in forestry from the University of Toronto, an MS degree in forestry from the New York State College of Environmental Sciences and Forestry at Syracuse University, and a PhD degree from the University of Michigan.

Brake Appointed (continued)

would triple by 1980. He cautioned lenders to be prepared for increased demand, and his prediction came true — in 1977, three years ahead of schedule.

Brake was a guest scholar at the Brookings Institution in 1967-68 while on sabbatical leave to study policy implications of future capital and credit needs of US agriculture, and was later a contractor for USAID studying institutional issues and problems in small farmer credit programs in developing countries.

Prof. Brake grew up on a 500-acre general farm near Stanton, MI. His father's political career entailed a lot of traveling, and his children, with John acting as foreman when he reached high school age, ran the farm while he was gone.

He enjoyed his farm experiences, especially "seeing the rewards of your own labor," and it was a toss-up for him as an undergraduate at MSU whether to plan his curriculum eventually to become a farmer or a teacher. He started out as a non-preference major, then switched to agricultural education, receiving in 1955 the Borden Award for the senior with the top academic average. He went on to receive a master's degree in agricultural economics at MSU, and in 1959, received a PhD with a co-major in agricultural economics and experimental statistics from North Carolina State University.

When his father retired from farming in 1975, Prof. Brake became a part-time farmer with the help of a hired man, driving 70 miles from Lansing to Stanton every weekend. "I used to tell people, 'by having a non-farm job, I could afford to farm.'"

At Cornell, part of Prof. Brake's appointment is in extension, and he plans to have frequent meetings with farmers and lenders in the state to keep them informed about credit policies as well as to listen to problems they are having.

"What particularly attracted me to Cornell was the large degree of freedom here to do what you feel you should do, without concern for whether it's 2 percent more in an area than you're budgeted for."

"The agricultural economics department here is not only an outstanding department, but an improving one, a department of the future. It is making a major thrust in agricultural finance to make Cornell a center of excellence in this area."

He and his wife, Betty, a registered nurse who is surgical recovery room coordinator at the Lansing (MI) General Hospital, have four daughters: Susan, a graduate of the Cooley Law School in Lansing; Cathy, a senior at MSU; Jan, a sophomore at Purdue University; and Elisa, a senior at East Lansing High School. Betty will be joining him here in the spring when their youngest daughter graduates from high school.

Farm Techniques (continued)

was a revival of interest. In the past few years, there have generally been 15-20 students for the fall term, and 40-50 for the spring semester.

"People didn't always like this part of the curriculum," but farm experience has become almost fashionable. "It used to be that other students would give you a hard time and call you 'hay shakers' and other names; no one wanted to be seen in overalls or jeans. Now, people want to look like they're in agriculture whether they are or not, and practically everyone is wearing jeans or similar clothes."

Miller graduated from the college in 1940, with rural education as his major. "I came to Cornell to major in agriculture. When I got into one of those long lines in Barton to register, they said I had to have a major within agriculture. I studied a list of about 20 possibilities, and then turned to a friend behind me to ask what his was. It was rural education, and that's what I picked. I'm glad I did, it was a good choice."

Not long after he started teaching in Downingtown, PA, World War II started. Miller was a fighter pilot in the Air Force and a German prisoner

of war for a year. "The bulk of the POWs survived in the European theater, and maybe even learned a little about freedom."

After returning to the U.S., he spent four years as a Cooperative Extension agent in Erie County, was a dairy farmer for seven years, and then came back to Cornell to work.

Most of Miller's job in the Office of Farm Services involves preparing fields and providing tractors for various departments. He and his employees — five full-time workers year round and a number of part-time helpers in the summer — also raise and deliver most of the roughage used for the animals at the veterinary college and hay for the animal science department. He said, "We try to help every department, any time that we can, on anything."

He and his wife Lucy have four children, all living in Ithaca (and three grandchildren). Three are ALS graduates and currently work at Cornell — Jay '79, Dawn '70, and Laurel '69. Another of their children, Daren, graduated from the Syracuse University School of Forestry in 1973 and works for a local building contractor.



Freehand Drawing and Illustration



The fifth floor studios of Mann Library are filled with clear, unobstructed light, and the view is of blue distant hills and wind-blown treetops. "On many days," said Jack Lambert, gesturing toward the north, "we can see mist rising like a cloud from Beebe Lake."

Prof. Lambert '50, a faculty member in the department of floriculture and ornamental horticulture, teaches freehand drawing and illustration courses there, attracting students from throughout the University. Many major in landscape architecture, design, floriculture, or entomology, but others are in fields such as physics and human ecology who are interested simply in exploring their talent in art.

Art has been central to Lambert's life from an early age, even when his interests branched into studies in ornithology and anthropology. As a schoolboy in Ohio, he attended Saturday classes at the Dayton Art Institute and admired the Midwest images of Thomas Hart Benton. In high school, he got interested in bird watching, became an active member of the Audubon Club, and worked for a local natural history museum.

At Cornell, while he majored in ornithology, he continued to take coursework in anthropology and art, and during his senior year he assisted Prof. Elizabeth Burckmyer in the same drawing courses he now teaches.

While on an anthropology field trip in Peru as part of his graduate studies at the University of Michigan, he received a letter from Burckmyer asking if he'd like to come back here to teach drawing courses — an offer he accepted.

A painter who loves the fluid lines of water color, Lambert spent two sabbatical leaves in England studying watercolor painting and making sketches of castles, public gardens, and the English countryside. He studied woodcut printing in New York under Antonio Frasconi, painting and lithography at the California School of Fine Arts in San Francisco, and Sumi art at Berkeley. It is Japanese Sumi art, said Lambert, that probably had the deepest influence on his work and caused him to become more aware of tone and line. In this art form, "there is a different orientation toward people and nature. It's attuned to the natural harmony and immediacy of things."

His students learn this approach and the techniques that go with it,

along with the use of such media as pastels, pencil, and charcoal. When they aren't drawing the cow skull, dried weeds, massive spools of wire, or other endearing oddities around the studio, they're outside, weather permitting, recording campus forms and sights. At the Cornell Plantations, they can sketch thick groves of arbor vitae, ravines, wildflowers, and are rewarded, too, with the sight of birds or an occasional chipmunk.

Except for the advanced courses, there are no prerequisites, and students who have never pursued drawing or painting are welcomed. Other courses Lambert teaches are advanced drawing, perspective for landscape architects, and watercolor.

During one class — so relaxed it doesn't seem like a class at all — Prof. Lambert walked among the drawing tables to see how the students were doing. Looking at one sketch, he gently said, "I like this area, but this doesn't relate well over here. Your other drawing here is working very nicely." He showed a student how to press down lightly with a gum eraser to lighten the dark tone of her drawing. Another student, leaving, called out, "See you tomorrow, Jack," the first name adding another element of friendliness to the atmosphere.

"The difficulty in teaching," Lambert said, "is trying to understand each person individually, and then encouraging growth beyond a plateau where the student repeats what he or she has done successfully before."

"At the same time, you don't want to interfere. You need to be sympathetic and make suggestions, then back off if you sense that it may be an imposition on that person's style or viewpoint."

Ann Elliot, who teaches freehand drawing and scientific illustration courses in the department, agrees. She said, going over student sketches of a philodendron plant, "Look at these. Twelve different interpretations of the same subject, and they all have something special to say."

"More than anything else," she said, "these are courses in seeing." What you think you see and what is actually there may not be the same, she noted, a fact quickly learned by attempting to draw. "But, by looking first for the big, continual shapes in an object, the details will place themselves."

What she likes about teaching, Elliot said, is watching a student reaching out for a personal voice through drawing and the constant

necessity of re-examining her own ideas. "It's exciting, and it is such a positive experience to see students' pleasure when they solve a drawing problem." The consensus of three scientific illustrators at Cornell was a piece of advice to those aspiring to enter the field: solidly tie your illustrating to at least one science. You need to have, they said, a detailed understanding of what you're trying to convey.

Mitsu Nakayama recently retired after a 28-year career as an illustrator for the Bailey Hortorium. She was a general illustrator when the job became available in 1952, and Prof. Elizabeth Burckmyer had persuaded her to apply. "I had always disliked botany intensely and never took it, but the professors who were trying to fill the position were looking for someone with a specialty in pen and ink, which I had. They said to me, 'go out to the garden and draw some plantings.' They liked the drawings, but would hire me only if I would take Floriculture 10. I took the course, and with a lot of extra help," she joked, "I did well." The knowledge she gained from the course, she said, was essential to carrying out her work.

A medical illustrator at the Veterinary College, William Hamilton is also adviser to scientific illustrators at Cornell. Students from throughout the university meet in seminars to get hands-on experience in techniques and media and to learn facts such as the national starting salary range for medical and scientific illustrators (\$10,000-\$15,000). Hamilton also brings in people from the fields of medical communication, scientific art, and animation to give students an even broader exposure.

As an undergraduate, he majored in art and art history, with a minor in zoology. His medical illustration program in graduate school included courses in topics such as anatomy, histology, and physiology.

He said that for a scientific illustrator to succeed, it helps to be



Ann Elliot (left photo) discusses interpretive drawing of a philodendron plant during group class while Jack Lambert (right photo) critiques a student's work.

competitive and aggressive; to have either no, or a very large, ego so that having the doors of prospective employers slammed in your face won't faze you; and to be prepared to start out doing 90 percent graphs and charts and 10 percent art.

Once you're over these hurdles, though, there are personal rewards. "No matter how small the detail, I try to imbue my work with as much esthetic quality as I possibly can. I am, after all, an artist as well as an illustrator. Long after I'm gone, these drawings will live on; they're my little corner in immortality."

Robert Dirig BS '71, MS '74 works as a curatorial aide at the Bailey Hortorium, where a typical day might include everything from leading a tour to re-pasting on paper an 1888, beetle-chewed, botanical specimen.

Although he had drawn all his life, he said it was helpful to take the illustration courses here "to get insightful criticism from professionals, and to see how other students were dealing with pictorial problems."

He has produced illustrations for books, 4-H extension entomology bulletins that he authored, and the plant pathology herbarium at Cornell.

Dirig said aspiring illustrators should have a strong background in science, then set out to gain experience by freelancing for research projects and publications. Be prepared also, he warned, to have illustrating be only one of a myriad other duties in a job.

His pleasure in drawing is obvious, as he carefully presents a sampling of illustrations and talks about the particular pen or approach that was used. With each, he tells with appreciation the traits and habitat of the rare butterfly or plant that was drawn.

Those interested in a scientific illustration career should see copies of the *Guild of Natural Science Illustrators' Newsletter*, based at the Smithsonian Institution (P.O. Box 652, Ben Franklin Station, Washington, DC 20044). The newsletter's topics range from techniques to schools, and it also prints lists of professional illustrators to whom people can write for additional information and advice.

Ag Quad Restoration Project

Phase I of the Ag Quad Restoration Project has been completed, with 48 trees planted to replace the stately elms lost to Dutch elm disease. The Floriculture Club donated and planted the first tree in 1977, a skyline honey locust. Tulip poplar, sugar and red maple, red and black oak, American linden, sweet gum, autumn purple, and American basswood are among the trees set out to restore the once lush, green canopy over the quadrangle.

Six of the hemlocks planted were originally donated in 1964 to the Cornell Plantations as seedlings by the late George H. Rockwell '13. An American basswood was donated by the family of J. Nelson Spaeth '19, of Urbana, IL. The tree has a special significance to Spaeth because his doctoral dissertation was on the species. The family made the donation through Spaeth's grandson, Steven, a graduate student in agronomy. John Ewanicki '51, an Ithaca arborist, installed the plantings. He also contributed his time to finding the best varieties available and donated a tree in honor of his class.

Plans were started in 1975 when former dean W. Keith Kennedy set up a committee to develop restoration ideas. Its members were Carl Gortzig, chairman of the department of floriculture and ornamental horticulture; Prof. Marvin Adleman, program coordinator, landscape architecture; Prof. David Bates, director, L. H. Bailey Hortorium; and James Yarnell, staff planner in the Division of Planning and Facilities. Beyond replanting of trees, they explored modernization of paths and creation of new areas for reading and relaxing.

From the beginning, students were involved in helping design the plans. A site analysis by Pamela Rooney '77, landscape architecture, was a starting point for a studio project in one of Prof. Adelman's courses. An exhibit of the 18 student proposals was displayed in Mann Library; included were ideas for a lily pond and Zen rock garden.

Because existing ALS and Cornell budgets include only basic maintenance costs, the restoration efforts have been funded exclusively by private contributions. A plaque, to

be placed in the lobby of Mann Library, will mark and explain the types of trees donated and will identify the donor's name and the name of the person in whose honor it was given.

Phase II of the project is restoration of the landscape in front of Mann Library, to begin after spring 1981. The restoration will add lights, benches, and bicycle racks to the area across the entire front facade of the library. Concrete and bricks will be used to create a plaza, and new shrubs will replace those that have deteriorated. Particular attention will be paid to the entrance of Mann Library because "it is a focal point of the quadrangle, not only visually but also functionally," according to Adleman.

Once work begins, the restoration will be completed in less than six months. A brochure on the project can be obtained by writing to: Ag Quad Restoration Project, Office of Development and Alumni Affairs, 205 Roberts Hall, Cornell University, Ithaca, NY 14853.



The Agriculture Quad when stately elms provided expanses of shade.



The Quad today. Elms are gone, but new plantings promise a return to former elegance. Mann Library at end of quad will soon be graced with shrubs, benches, and patio.

Rural Development Study Begins in Tunisia

Measurements of the success of rural development projects often are elusive because they rely on expensive, large collections of data, centralized computers, and subjective questionnaires. They also have tended to examine outcomes only for a limited target population.

A study, headed by Frank Young, professor of rural sociology, departs from this traditional approach. Funded by USAID (United States Agency for International Development), Young's study will set up an information system to assess rural development projects in Central Tunisia with the goal of helping Tunisians and AID officials determine which forms of assistance are valuable and lasting.

The Tunisia project will be available both as a data file for policy decisions by Tunisians and as a model for techniques that can be applied to the analysis of any rural development program.

By looking at an overall development project over a period of years, rather than at isolated elements such as road building or well drilling, a comprehensive understanding of a country's rural organization, particularly how they are affected by and effect change, can be achieved. The well-being of an entire community or region is measured, using indicators such as whether poverty was alleviated across-the-board by development projects.

Tunisian professionals have been trained to set up and maintain their own information system so that data can continue to be collected after Cornell researchers and USAID are no longer involved. A small computer has simplified the process and will facilitate autonomy and continuity.

The data collected so far show, after analysis, that sedentary herders (for example, herders of goats) have the poorest housing, followed by those involved in mechanized or

irrigated agriculture, indicating that the agricultural aspects of development are having little impact on poverty so far. The herders cause the most ecological damage, because of overgrazing done by their animals. An unexpected finding is that where there are many religious institutions in an area, there are fewer ecological problems. "Statistical 'radar'" said Young, "turns up things not easily seen."

Awareness of organizational, religious, and other important factors will enable Tunisians to understand the direction their country is going and wants to go, what its citizens' needs are, and how to make progress given their strengths and limitations.

Working with Young on the project are Fernando Bertoli MS '71, PhD '73 and Sandra Cowles Bertoli MS '69 of the University of North Carolina at Charlotte.

Hood Named Associate Research Director

Lamartine F. Hood has been appointed associate director of research for the College and also named associate director of the Cornell University Agricultural Experiment Station.

Noland L. Vandemark, director of research for the College, said that Hood will have major responsibility for administration and coordination of research programs in food science and related areas including biochemistry, microbiology, horticulture, nutrition, toxic chemicals, and recombinant DNA.

Hood has been a faculty member of department of food science since 1968.



EXTRA

A L U M N I U P D A T E

Taietz Heads State Group

Philip Taietz, professor emeritus in the department of rural sociology, has been elected president of the New York State Association of Gerontological Educators. The association provides a forum for educators from academic institutions, social service agencies, health facilities, and related organizations to stimulate inquiry into a wide range of local, state, and national issues in the field of aging.

A professor in the college for 29 years (until his retirement in 1976), Taietz conducted research and taught courses on aging, retirement, and public policy. In 1953, he organized the Cornell Institute for Nursing Home Administrators. The institute was one of the pioneering efforts in the United States to upgrade the quality of nursing home care through university-affiliated training programs.

Taietz was co-director of the Interdisciplinary Student Task Force, sponsored by the Alfred P. Sloan Foundation, which studied the problems of older Americans. In 1975, he was a visiting professor at the Andrus Gerontology Center, University of Southern California, and in 1979, a senior fellow at the Australian National University.

Co-chairman of the first board of directors of the Tompkins County Senior Citizens Council, he also served on the board of directors of the Family and Children's Service and on the former West side Community Center in Ithaca.

Round Up



The Round Up '80 audience was treated to some friendly rivalry between Cornell agriculture fraternities. Paul Gallagher '82, an animal science major and student representative to the ALS Alumni Association board, represented Alpha Zeta. Bemused by his comments was Melanie Lapinski '82, "little sister" of Alpha Gamma Rho.

The second annual Round Up, 1981, sponsored by the ALS Alumni Association, will be held this year on Saturday, September 26.

Starting at Bailey Hall at 9:30 a.m., the program will feature a tribute to Stan Warren, Professor Emeritus of Farm Management. It will include recognition of outstanding alumni and 50-year (1931) grads.

At noon, there will be a chicken barbeque on the Ag Quad, weather permitting, followed by a football game between Cornell and Colgate at 1:30 p.m.

The chicken barbeque and tickets to the game will each cost \$5. All alumni and friends are invited.

Complete information and reservation forms will appear in the August UPDATE.

Alumni Elected Cornell Trustees

John S. Dyson '65, and Bernard W. Potter '43, have become members of the University board of trustees. Joseph P. King '36, who served until last June, was elected emeritus trustee.

Announcement of the appointments was made to the board during its January meeting in New York city. Under its Land Grant charter, Cornell has provisions for representation on its 62-member board from both private and public sectors.

Appointed by Governor Hugh Carey, Dyson replaces Trustee Emeritus Morton Adams '33, a member of the board from 1965 to 1980. Dyson will serve through June 30, 1985. Dyson was an ex-officio Cornell trustee while he was the state's commissioner of agriculture and markets and commissioner of commerce. He has been a member of the advisory councils for the NYS School of Industrial and Labor Relations and the NYS College of Veterinary Medicine at Cornell. In addition to a BS degree, he has an MPA degree from Princeton University. His home is in Millbrook, NY.

As the newly elected president of the NYS Agricultural Society, Bernard Potter is automatically an ex-officio member of the Board of Trustees. A farmer in Truxton, NY, Potter is a former director of the New York State Fair. His daughter, Bernice, is a junior at the college. Potter succeeds Charles Riley, who served on the board for five years, having been elected president of the agricultural society annually during that period.

\$25,000 Starts Keeton Professorship



Prof. Keeton and post-doctoral student Mel Kreehen, now at the University of Pittsburgh's department of biology.

The William T. Keeton Professorship in Biological Sciences has been established to honor the late Prof. Keeton, who died August 17 at age 47. He was the Liberty Hyde

Bailey Professor of Biology, an internationally known authority on bird orientation and migration, and the author of a widely used biology textbook.

"Faculty members in the Division of Biological Sciences wish to solicit gifts for the chair in memory of Professor Keeton," said W. Keith Kennedy, Cornell provost. "The executive committee's authorization... to establish the Keeton professorship is the first step in the solicitation."

Kennedy said there will be broad solicitation of gifts from faculty members, colleagues, and students at Cornell, from former students, and from scientists throughout the world.

A gift of \$25,000 has been donated toward the chair by Robert S.

Morison, professor emeritus and first director of the division of biological sciences, and his wife, Berry. The Morison's gift, to be given over the next three years, must be matched by gifts from others.

First Honoree for Leaders' Fund



Florence Fallon, left, is presented a certificate by Bob Jensen, board member of the Farm Credit Banks of Springfield, MA. The organization contributed \$5,000 to the ALS Agricultural Leaders' Fund in memory of her husband, Ed Fallon, a nationally recognized agricultural leader, prominent Syracuse, NY businessman, and executive vice-president and chief executive officer of the Syracuse branch of Agway.

Cynthia Westcott, Plant Doctor

Cynthia Westcott PhD '32 turned the liability of being a woman in a field dominated by men, science, into a life of adventure.

While finishing her thesis, she took a civil service examination for a federal job and got this rating: "#1 — Female, prospects of certification and appointment uncertain because there is little or no demand for female eligibles."

Treated as an equal by her classmates and professors in plant pathology, she was surprised by the double standard in hiring practices. "I learned that there were very few jobs for a woman graduate assistant, but none when she had completed her work and was ready for a career." Eventually she got a part-time assistantship as a bacteriologist at the New Jersey Experiment Station in Rutgers, where she tested legume cultures.

After a couple of years there, she stopped by the New York Botanical Garden to see her Cornell mentor, Prof. H. H. Whetzel, who was working on a project there. He suggested she consider a career in plant doctoring, noting that she was probably too independent-minded to work for others all her life anyway and might be happier to strike out on her own.

She and Irene Dobrosky, an entomologist, formed a business partnership and hung up "The Plant Doctor" shingle in Glen Ridge, NJ (Dobrosky, now Van De Water, got her BS in '23, MS in '24, and PhD in '28, all from ALS).

Westcott said, "We were greener than grass in practical lines, but we didn't know it, and some of the time we stumbled on the right answers.



Irene had to tell one man that the insect he brought in for identification was a human, rather than a plant louse."

Although they didn't advertise, being determined to conduct business just as a medical doctor would, they got favorable publicity in the newspapers and soon had a lot of work with garden clubs and private estates.

Her specialty was roses, the subject of her thesis. The highlight of each year at her Glen Ridge home was Rose Day, when she opened her gardens to allow the public to see her flowers at the peak of bloom. She answered questions and made punch and cookies for her guests — as many as 700 of them.

As her fame spread, she received quantities of letters asking for advice about roses and was inundated with

work and exhibits. In six months in 1937, she made 478 visits to gardens, gave 22 lectures, wrote 33 articles, took 500 photographs of pests, spent four days at garden club exhibits, opened her garden for a spraying exhibition, attended several conventions, carried out experiments in her garden, and kept up with a big batch of scientific journals.

In 1943, she worked at Spring Hill, near Mobile, Alabama, on the azalea petal blight for the federal government. Although it was wartime, the government sponsored the research because azaleas were economically important to the South, both for the tourist industry and nurseries.

She isolated the fungus, and through trials with various sprays and methods, proved that a particular experimental spray applied directly to the plants was able to control the disease. She wrote to Prof. Whetzel to tell him the news, and he replied: "It is with a good deal of pride that I learn that one of my old students and assistants has put it over the boys who heretofore worked on the blight. The Cornell training does show up, doesn't it?"

Westcott wrote articles for *Jersey Life*, *The New York Times*, *Better Homes & Gardens*, *House & Garden*, and *American Home*. She contributed to garden encyclopedias and was author of *The Plant Doctor*, *Anyone Can Grow Roses*, *Are You Your Garden's Worst Pest?*, *The Plant Disease Handbook*, *Garden Enemies*, *The Gardener's Bug Book*, and an autobiography, *Plant Doctoring is Fun*.

The last is a humorous catalog of mishaps, discoveries, and friendships. She was called on by garden clubs

and organizations all over the country, and her account is filled with spectacular gardens and estates, warnings of Texas gila monsters that hang on like bulldogs and have to be pried off, insect scales dripping from palm trees as she suns on a Florida beach, and the always-present question, "You're traveling ALONE?" She visited experiment stations and universities to see old Cornell friends whenever she could in her travels and kept in touch with dozens of them over the years.

In 1962, she moved to a retirement community near Croton-on-Hudson, New York. "After I moved up here, I thought I could live without roses but found that I couldn't, so I planted a few plants here and then a few more. Now I have 350 or 400 plants and had a Rose Day until the year before last." The National Convention of the American Rose Society recognized her accomplishments at a national convention in 1975 with a presentation about her life, and named a Jackson and Perkins hybrid tea rose in her honor.

A new edition of Westcott's *Plant Disease Handbook* has recently been revised by R. Kenneth Horst, professor in the department of plant pathology, an effort she is proud of. A fifth edition of the *Gardener's Bug Book* is being revised by John Weidhaas, former Cornell entomology professor.

Although she hasn't fully recovered from a rare viral disease she got several years ago, she recently wrote a feature article for the journal, *Plant Disease*, on "The Education of a Plant Doctor," and another, "Roses in Retrospect," for the 1980 *American Rose Annual*.

Whetzel-Westcott Fund

"The application of scientific discoveries to the solution of practical problems calls for quite as much ability and initiative as does pure research: I sometimes think more. Beware of getting into the frame of mind that puts extension work and practical application in a lower category than pure research."

Herbert Hise Whetzel, who wrote these words to a former assistant, came to Cornell as a grad student in 1904, and by 1907 he was professor in and head of the department of plant pathology, which he had just created.

He wrote alone or with others nearly 300 publications, organized two scientific societies, and edited the leading journal of plant pathology.

He advised some of his students to go into private practice as plant pathologists, and Cynthia Westcott was one of the first to succeed as a "plant doctor."

To honor Whetzel and Westcott, a fund has been started. Proceeds from it will go in part to support the Whetzel-Westcott Lecture Series, featuring guest speakers from around the world. Already nearly \$3,000 has been raised.

Those wishing to contribute should write to the Office of Development and Alumni Affairs, 242 Roberts Hall.

Journalism Award Honors Sheila Turner Seed

An annual journalism award for undergraduate students has been made possible by a new endowment, the Sheila Turner Seed Memorial Fund. It is to be awarded to a female junior majoring in communication arts who is contemplating a career as a photojournalist or documentary photographer. The award winner will receive \$500 and the chance to be an apprentice writer at *Scholastic Magazine* in New York City during the summer between her junior and senior years.

The fund is in tribute to the late Sheila Turner Seed, a former writer and filmstrip producer for *Scholastic Magazine*. She graduated from the College of Home Economics at Cornell in 1958, took a magazine writing course in communication arts here, and had a diverse career in journalism.

She began her career in her native Chicago area as a writer for *The Jewish Sentinel*, *The Sun-Times*, and *The Gary (Indiana) Post Tribune*. She joined *Scholastic Magazine* in 1966, working simultaneously for *Scope Magazine*, and later became director of *Scholastic's* Youth News Service and wrote most of the stories that went across its wires.

Why young people broke the law, used drugs or alcohol, or rebelled against their families or society were

special interests of hers, and she pursued stories about these issues across the country in print, sound, and photography.

In 1968, she made a record "Law, You, the Police, and Justice," that was widely distributed among schools and legal organizations.

The selection of students for the Seed award will be made by the department of communication arts through a faculty committee composed of the department chairman and instructors in the courses Magazine Writing, Visual Communication, Print Media Lab (*Cornell Countryman*), and Newswriting.

Students will be invited to apply for the award during the spring term. The committee will choose a winner and a runner-up, and an award certificate will be presented to the top two candidates.

An amount of \$12,600 has been donated to the endowment fund so far by members of the Seed family, *Scholastic Magazine*, and other friends and colleagues of Sheila Turner Seed.

State Park Named for Late Alumni

The state of New York has honored the late Max Shaul '42, who died in a farm accident in 1979, by naming a park in Fultonham after him.

Formerly Toepath Mountain State Park, the Schoharie County recreation area came into existence in the 1950s with a donation of 50 acres of land by Shaul, whose farm adjoined the Toepath Mountain.

A vegetable grower, Shaul was considered one of the state's leading farmers. On the boards and councils of numerous agricultural and educational institutions, he was a member of the late Governor Nelson Rockefeller's Commission for the Preservation of Agricultural Land in New York state, and was a recipient of one of the Ford Motor Company's national farm efficiency awards for corn production. He received the Outstanding Alumni award from the ALS Alumni Association in 1978.

At the time of his death, he was in his second term on the Farm Credit panel and serving as its vice-chairman.



MacMillen and Company: College Connection with Alumni

The executive director of the CALS Alumni Association and Assistant to the Dean is an exuberant man ideally suited to a position that involves "generating enthusiasm to fellow alumni" about what's going on at the College. That man is **Glenn MacMillen '54**.

His duties include working with the admissions office to provide alumni with help in both admissions and placement, guiding public relations, and in general, keeping the College in high profile.

"I match the interests of alumni and friends with the needs of the College," Glenn said. "I thoroughly enjoy this job, the super cooperative efforts of the faculty and staff. "We have the largest paid alumni association at Cornell, by far the most active, and we are the only college at Cornell that has its own development committee. Compared to other colleges of agriculture, we're way ahead in giving: last year, we received over \$3.5 million in private support, including endowments — the highest in our history."

Faculty and alumni working toward a common goal, he said, are responsible for such a degree of success. He regards the ALS Development Committee as central in helping the College with its private support needs. Alumni committee members actively convey program and research needs to businesses, foundations, and individuals throughout the country. In letters he receives from alumni, Glenn commented, many refer to a particular professor or course that shaped their eventual careers; he shares that same feeling about the College. Born and raised on a dairy farm in Cobleskill, NY, he said he might still be on a "small, marginal farm" had it not been for the needed boost in morale that J. P. Hertel, Secretary of the College, and A. W. Gibson, director of resident instruction, gave him. They persuaded him to finish his education despite "mediocre" grades and difficulties in juggling several jobs while attending school full-time. "They had more faith in my potential than anyone else, including myself."



He majored in general agriculture and communications, with dairy husbandry as his special emphasis. Although he didn't pursue farming, agriculture has always been an important part of his career. Before coming to his current job in 1978, he was a Cooperative Extension 4-H agent in Chemung County for 18 years and executive director of the NYS 4-H Foundation.

Glenn's 4-H work was related to farms and to wilderness activities. In 1973 he created a program called TODAY (Today's Outdoors Develops America's Youth). It was a youth environmental awareness program and included backpacking, survival training, and hiking.

While he no longer works for 4-H, Glenn is still close to it: his thirteen year-old daughter, Alice Beth (Ollie) belongs, and is enrolled in a variety of livestock projects. She is raising three ewes, five lambs, two pigs, a horse, geese, ducks, a flock of laying hens, broilers and twelve turkeys. She has earned and saved \$1,000 from her projects, and neighbors call on her for help in solving problems with their sheep. His wife Flower '57 has been a volunteer 4-H leader for 24 years and is currently chairwoman of the Tompkins County 4-H program committee.

They have another daughter, Bonnie Jean, who is a freshman here majoring in behavior and social sciences. Their son Barry is a senior at Potsdam and is currently practicing teaching in Baldwinsville. Because "today's students are

tomorrow's alumni," one of the development office's major goals is to get students more involved in the Alumni Association, sometimes as speakers at Association district meetings. Student-alumni relations are the special forte of **Jim Bays '74**. As public affairs officer and assistant to MacMillen, he is invited to attend student meetings and social functions, works with Alumni Association district directors in coordinating and speaking at regional get-togethers, answers general admissions questions from alumni, helps answer inquiries about gift-giving, and acts as liaison between the placement office and alumni. He is also the coordinator of the NYS 4-H Foundation.

"The key to success for this kind of office is a team effort, where everyone has a mix of responsibilities," Jim said. "That way, each is familiar with the other's activities and can stand in when necessary."

Jim grew up in Smyrna, NY, a small town of 400 in Chenango County, located near Colgate University. It was "a very rural area in the hills. I wouldn't trade growing up there for anything."

After graduating from Cornell, he joined his father, an agricultural entrepreneur, to work for his feed company and farming operation. Following that, he was assistant lobbyist for the NYS Farm Bureau and then a special assistant to the commissioner of agriculture and markets in Albany.

Jim maintains close contact with the family dairy farm, going to

Smyrna every few weeks to polish his milking skills as well as raising his own cattle there. In Ithaca, where he lives with his wife Jan, he often gets together with friends to play the trumpet, and plays golf, basketball, and tennis.

Judy Stolberg is indispensable to the running of the development and alumni affairs office. She administers Alumni Association membership subscriptions; schedules appointments, meetings, and frequent out-of-town trips for Glenn and Jim; keeps track of checks coming in, making sure they go to their designated funds; handles a phone that rings almost non-stop with inquiries ranging from where alumni are now living to the procedure for making a donation; helps organize new projects such as the Round-Up; and helps prepare brochures for memorial and other funds.

An avid horsewoman, she owns two Welch ponies and has a strong interest in all animals, an enthusiasm that shows in her work communicating information about agricultural research and other ALS programs.

She sews many of her own clothes, likes to bake, and garden. Before coming to this position in 1979, Judy worked in the ALS research office.

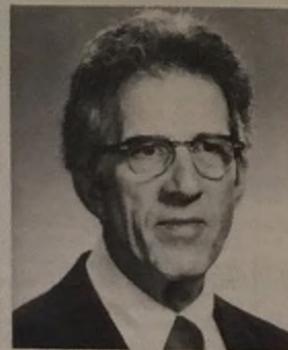
Joining the staff in January, **Wilma Foley** has come full circle in her career at Cornell. In years past she worked in the department of extension and information, now known as communication arts, and later at the veterinary college for Drs. Myron Fincher and Francis Fox. In 1961, she and her husband Ed moved to Lake Placid where he was a farm superintendent for the college's Uihlein Foundation Potato Seed Fund and she was a secretary for the Lake Placid High School.

Following his retirement in 1980, they moved back to Ithaca, where they own 150 acres of land in Ellis Hollow, and are now completing a home. Feeding birds and identifying wildflowers on nature walks are two pastimes Wilma plans to continue at their new property. She and Ed have a grown son, Michael, who lives in Lake Placid.



An important adjunct to the Alumni Office is the ALS Development Committee, alumni who take the message of the college's research and program needs throughout the country. From left to right, starting in the back row: former dean Charles Palm, Garry King, Robert Smith, Clifford Lueders, Laing Kennedy, and Joseph King. Front row, left to right: Robert Ladd, chairman Joseph Pendergast, Myron Fuerst, and Glenn MacMillen. Absent from the picture are John Hoff, David Nagel, William O'Connor, Jean Rowley, John Sullivan, Esther Bondareff, and Edward D. Hill.

Harlan Banks Library Fund



To honor Harlan Banks, professor emeritus of paleobotany, several of his former students have started a library fund in his honor. Stephen Scheckler '66, PhD '73, Judy Skog PhD '72, and Lawrence Skog PhD '72, initiated the

endowment income fund and have raised \$700, including their own contributions, so far.

In a letter describing the honor, the former students said: "Many graduates of the college can still remember the fascination with which we listened to the masterful lectures and demonstrations of Prof. Banks." They said his exuberance and excellent teaching inspired enthusiasm for the study of plants.

The fund will be combined with university investment funds, and Mann Library will receive money to purchase a couple of paleobotany books every year, indefinitely. Each acquisition will have a bookplate in honor of Banks.

Donations may be made directly to the Harlan P. Banks Library Fund, or a portion of one's annual Cornell gift can be designated for it.

Alumni Profile: Philip Dorf



Phil Dorf '24 is the author of many books and articles, including the widely used *Visualized American History*, a senior high school text with pen and ink illustrations that depict historical events. At Cornell, he is probably best known for his books, *The Builder: A Biography of Ezra Cornell*, and *Liberty Hyde Bailey: An Informal Biography*. Reprintings of both were recently done under the imprint of the DeWitt Historical Society of Tompkins County.

He recently donated 300 copies of the Ezra Cornell biography and 200 of the Liberty Hyde Bailey biography to the college, both editions dedicated to his late wife, Bergljot. The College will distribute the books as gifts to donors; it also will sell them. Another project he proposed, a reprinting of Bailey's *The Holy Earth* is now in progress. Dorf contributed \$3,000 toward its printing costs, and this book too is dedicated to his wife and will be available for fund raising. He is determined, he said, to perpetuate her name through dedications in books and through a special book collection in her honor at the Norwegian school where she taught.

Dorf's writing career started as a way of supplementing his salary as a high school teacher. When he began teaching in 1927, after receiving a

master's degree in history and education from Columbia University, his salary was \$1,900. The Depression forced teachers in the Bronx high school where he taught to give up one month's pay, a big chunk in a small salary. In 1932, Dorf turned to writing history books in his spare time. His success enabled him to leave teaching in 1942, go into farming, and concentrate more fully on writing.

He continues to live in Norway, but comes to Ithaca now and then to do research on a new history book. His days are filled, he said, with revising the last draft of the book. "Freelance writing, especially in the field of history and biography, is a very lonely occupation. Unlike a novelist, you cannot go to cocktail parties because you put in eight to ten hours a day on research. The novelist can get an idea at a party that can be used in a book, but a historian cannot; it's just lost time."

Through the years, he has donated large quantities of his books to the University and the CAIS development office, as well as giving substantial monetary donations, and is proud of the letters of appreciation he's received for his efforts. His ties to Cornell also include two sons, David '55, Hotel Administration, and Daniel '60, H.R.

Active Private Support Programs

ALS is very diversified. There are hundreds of projects, programs, and activities from every department in countries all over the world. The College has over 33,600 alumni. Judging from the response and support, our alumni are interested in every conceivable subject. Many alumni channel their support to the college directly to specific programs.

The following endowments (interest bearing accounts) are in various stages of development—some just starting, others already reaching the endowment level (\$5,000) but still regularly receiving support; the first four are described in separate articles, and the amount donated at the time of this writing follows the fund name.

W. T. Keeton Professorship Fund - \$23,000+.

Whezel-Westcott Fund - \$3,000. A lectureship fund for Plant Pathology.

Ag Quad Restoration - Phase II - \$20,000 matching grant. This is a general solicitation program. All graduates to be contacted.

Harrison-Trimberger-Slack Dairy Cattle Evaluation and Selection Fund - \$27,000+ in cash plus pledges totaling \$12,850. Donors of over \$300 will be recognized on a plaque to be displayed in the Animal Science Department.

Agricultural Leaders' Fund - \$6,042. A new college support program initiated last year. An endowment to recognize outstanding agricultural leaders. Gifts may be given in tribute or in memory of an individual. When gifts of \$2,000 or more are given, the name of the person honored will be added to a special plaque outside the Dean's office in Roberts Hall.

Alan Westheimer Memorial Fund - \$6,000. Alan Westheimer '77, son of

Mr. and Mrs. Paul Westheimer, was killed in a tragic automobile accident last fall. This tribute has been established by family, fraternity brothers, and friends to send a qualified Alpha Gamma Rho member each year to Israel for a term's study.

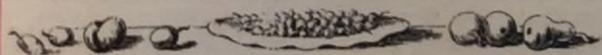
Harold E. Moore, Jr. Memorial Fund - \$5,035 Friends and colleagues of Dr. Moore established this fund to insure the continuation of his work with Bailey Hortorium.

Harold A. Willman 4-H Fund - New Friends of Professor Harold A. Willman have asked that a 4-H Animal Science tribute be established. We will be assisting the New York State 4-H Foundation with this fund-raising effort. ALS alumni can designate their gifts to this fund.

Vö-Ag Education Scholarship - The School of Education with strong support from ATANY (Agricultural Teachers Association of New York) has initiated this scholarship fund. The lack of interest in becoming a teacher of agriculture is a real concern to New York agriculture. This scholarship is aimed at providing incentive for more eligible students.

Whitton Powell Memorial Fund - \$2,500. A \$2,500 challenge has been offered to insure the success for a \$5,000 endowment book fund for Mann Library. Powell was the librarian from 1946-1969.

Alumni interested in learning more about our programs should contact Glenn O. MacMillen at the Office of Development and Alumni Affairs, 242 Roberts Hall, Cornell University, Ithaca, NY 14853. Gifts can be made by writing a check payable to Cornell University with the name of the fund.



Alumni Reunion Breakfast-June 13, 1981

The ALS Alumni Association will sponsor the Annual Reunion Breakfast again this year. It will be held on Saturday, June 13 at 7:45 a.m. at North Campus Union. President V. Michael Holloway '73 has announced that in addition to the annual meeting of the Association, we will honor our retiring faculty members.

Tickets will be available at the door. They will not be mailed out in advance. Please return reservations by June 1 to:

Glenn O. MacMillen
ALS Alumni Affairs Office
242 Roberts Hall, C.U.
Ithaca, NY 14853

Dean David L. Call will briefly recap some highlights, activities, and special events at our College for the past year. Others will receive awards and recognition.

The annual Alumni Association meeting, traditionally very short, will include election of new officers and directors. All alumni and friends are invited.

"C'mon Back"

One of the thrills of working in the Office of Development and Alumni Affairs is the opportunity to welcome alumni back to campus. Recent graduates seem to enjoy the return visit almost as much as the old timers.

A return to campus does more than feed nostalgia—it generates enthusiasm. Alumni return in greatest numbers for reunion weekend and the class programs, the ALS annual meeting and breakfast, and the ALS Round Up. Many College and department programs and activities bring additional numbers back.

In addition to the "remember when" and the comments about the buildings going up, the buildings coming down, the decimation of the trees and shrubs, there are the "Ohs" and "Ahs" of the new programs, updated equipment, and advanced technology. Many times there is an "I didn't know that," or an "I know someone you should know."

Those who do come home think it's great. The feeling of enthusiasm is contagious. It's evident in the regional Get Togethers and all the on-campus events.

Our college has an enthusiastic student body and a dedicated faculty. They're here because our alumni are supportive. You can join the "in group" by making plans now to return to campus. Here are this year's dates:

June 12-14 Reunion Weekend with special reunion class programs
June 13 ALS Alumni Association annual reunion and breakfast meeting
Sept 26 Annual ALS Round Up

Plan now to join us. Call the Office of Development and Alumni Affairs for details.

Glenn O. MacMillen
Assistant to the Dean

RETURN COUPON

Yes, I plan to attend the ALS Reunion Breakfast and Annual Meeting on June 13, 1981.

Enclosed is my check for _____ reservations @ \$5 each.

Please make checks payable to: ALS ALUMNI ASSOCIATION

Name: _____ Class: _____

Address: _____



Undergraduate Honors Program

Perspective on scientific research and intensive academic training are some of the benefits of the undergraduate honors program. To be eligible, undergraduates have to have a 3.0 grade average and 55 credits.

After students make written applications to the program, their faculty advisers and the faculty members who will be supervising the honors project, the chairperson of the appropriate honors committee decide whether the students' research projects meet acceptable criteria. Departments within the college can choose to participate in seven areas: animal science, biology, entomology, natural resources, physical sciences, plant sciences, and social sciences. Honors committees for each area are formed from among participating faculty members.

The student expands on a piece of research attached to an ongoing project at the College. Those who successfully complete the program receive a bachelor of science degree with honors. Those who complete it and have at least a 3.3 grade point average may graduate with honors and with distinction.

During the first ten years (1965-75) of the program, 134 students were recommended for the degree. In recent years, 25 to 30 students have completed the program each year, half completing with distinction as well.

The dean and the director of instruction support the program through an allocation of \$5,000 per year, an amount that covers primarily laboratory supplies. The associate director of instruction in the College is responsible for the coordination of the honors program.

Standards are high, and the required research paper is nearly at master's degree level. Papers are often, with slight modification, eligible for publication in scientific journals. As in graduate theses, students are

given oral examinations on their papers by a faculty and student committee and have to defend their methods and conclusions.

Karl Niklas, assistant professor in botany and chairman of the honors committee in plant sciences, said the program gives students insight into the process of research through training in laboratory techniques and problem solving. "They are able to seek answers to questions no one has posed before. When they solve a research problem, it's a wondrous experience for them to have found an answer on their own."

Tina Barney '80, now a graduate student in animal science here, said her experience with the program was very positive. "While an undergraduate, I planned to go to the vet college, with the thought of eventually opening a clinical practice; I hadn't considered research. To many students, the image of research was of people locked in an ivory tower pursuing something that wasn't particularly rewarding. Just the idea of going to grad school and the research it involves gives a lot of students cold feet. But once you've run an experiment and gone through the process of a thesis, you feel you can do it again."

She said the contact with professors and students involved in designing projects and in carrying them through "makes you feel that you're no longer anonymous at a huge university."

Prof. Niklas believes their participation will also enrich those students who don't complete the program or who don't plan to go on to graduate school. "Education is a circumstance that improves the quality of a person's thinking," he noted, and it is this experience itself, not the associated prestige, that has lasting value. Similarly, "Pursuing the degree with honors is as worthwhile as actually receiving it."

Urban Horticulture Institute

The greening of our cities is the goal of the new Urban Horticulture Institute, established here last fall. Initial work will focus on New York City, but results will be applicable to many other urban areas and will be disseminated through Cornell Cooperative Extension.

The new Institute complements the successful urban gardening program of Cooperative Extension in NYC. In the last four years, thousands of vegetable gardens were started in vacant lots and on rooftops as a result of the program.

Carl Gortzig, chairman of floriculture and ornamental horticulture, said the main objective of the Institute is to "study the problems of plants in an urban environment to help them survive in this setting, and thereby to improve the quality of these environments for people."

Research facilities for the Urban Horticulture Institute are on the Cornell campus in Ithaca and at the Bronx Botanical Garden. The Institute staff also will work closely with horticulturists at the Carey Arboretum in Millbrook, the NYC Cooperative Extension staff, and horticultural institutions in the New York metropolitan area and across the state.



Many factors contribute to plant failure in New York City: inadequate space and soil, air pollution, salt, dog urine, insects, disease, and lack of water.

"The city consists of many microclimates," points out Nina Bassuk, the horticultural physiologist leading the Cornell project, "and environmental conditions can change within 20 feet."

During the first year, an analysis will be made of soil conditions and root growth, including the effects of concrete, underground obstacles, restricted planting space, and temperature and water variables.

Research will explore whether plants can survive in rubble-strewn lots that abound in the city, and what effects composted sewage sludge might have. "We plan to study whether by pulverizing much of the rubble and improving the soil, an effective growing medium can be developed to eliminate the need to import good soil."

Of particular interest to her is the "tree of heaven," the *Ailanthus altissima*, of *A Tree Grows in Brooklyn* fame. While most trees survive only 3-15 years in the city, it is relatively long-lived and flourishes even in the harsh and devastated areas of the South Bronx.

Scientists believe the Institute's findings can have far-reaching benefits in creating a healthier, more esthetically pleasing environment.

Program Promotes Local Food and Agriculture

"Thinking globally, acting locally," according to Phillip Snyder, is the guiding philosophy of the Program for Local Food and Agriculture. Snyder is coordinator for CRESP, the Center for Religion, Ethics, and Social Policy, sponsor of the project.

CRESP is an independent, non-profit, educational institution chartered by the Board of Regents of New York State and affiliated with Cornell by formal agreement. Besides a number of core projects, it has study groups, workshops, and individual events that integrate ethics and social practice.

Snyder and two faculty members in the rural sociology department, Frederick Buttel and Paul Eberts, are the key people in the exploratory program. They will work closely with area farmers, Cornell Cooperative Extension agents, community leaders, other faculty members, work-study students, and volunteers.

Conceived four years ago and begun last year, the project's goal is the development of a diversified, sustainable food system that will increase local self-reliance and provide reasonably priced food to poor people. Findings from the project (considered a pilot study) may help other communities across the country to strengthen their agricultural base. Groundwork for the study included

a survey of institutional buyers, contacts with small farmers throughout Tompkins County, and informal discussions with people involved in existing food cooperatives.

Some of the issues to be investigated are: how to extend the traditional growing season by introducing foods such as Chinese greens that can be grown in colder weather; how to make food preservation such as canning more readily available to people; how to reduce energy consumption through innovations such as solar grain dryers; how to minimize energy use and transportation costs from producer to consumer; how to increase the use of nature's mechanisms for pest control; and what are the most economical, efficient outlets for selling and buying food.

"With continued population pressures, global political problems, and a deteriorating environment," said Snyder, "we increasingly must rely on our locality."

He emphasized that this is not a form of isolationism but rather a return of local power. If each community would increase their self-sufficiency instead of depending on other parts of the world for goods, then in times of shortages and political upheaval, potential crises might be averted.

Cheap petroleum in the 1940s through 1960s, Snyder asserted, made commercial agriculture feasible, but that system of agriculture is now in jeopardy. "Also, if there were a national fiscal crisis, such farms would be in bad shape because of the high debt they typically incur."

David Rindos '69, who is working toward a PhD in plant taxonomy and is interested in the project, concurred with Snyder's view about the hazards in depending on specific regions of the country and world to provide food. "A can of tomatoes from California," he said, partly joking, "is three-fourths gasoline." He added that because much of agriculture depends in the western United States on "fossil" water (water in aquifers created during the glacial period) the inevitable end of that supply will have serious ramifications. Similarly, Suffolk County in New York State, a heavy producer of potatoes, relies on a lens of fresh water floating on salt water; when it's depleted, there may be a severe water shortage. "Water shortages," he predicted, "will be the next, long-running crisis." Areas such as Tompkins County, which now have plentiful, clean, water will therefore need to conserve this increasingly dwindling resource.

How to give plant breeders more free rein in the types of research they

carry out is another avenue the project will explore. Rindos suggested that instead of having just a few varieties of corn or other vegetables that share genes and therefore susceptibility to the same diseases, plant breeders should develop a wide variety of stock. As it is, he said, too often scientists are forced to resolve immediate demands without concern for long-run consequences.

To extend and make best use of locally grown crops, more food preservation is needed. One idea they will look at, said Buttel, is a community cannery. For a small charge, consumers could bring in their produce and use sophisticated facilities and equipment and have access to the expertise of a cannery staff. Such canneries have been tried elsewhere, he said, and have proved very popular.

Because the program is investigating a variety of options, suggestions and proposals are welcome. "We're excited about the prospects for this program," said Paul Eberts, "and we would like to make contact with people and receive their suggestions." Letters should be sent to Program for Local Food and Agriculture, Cornell University, 323 Warren Hall, Ithaca, NY 14853.



Isles of Shoals: Marine Science Classrooms

The Isles of Shoals, lying six miles off the Maine and New Hampshire coasts, is a cluster of nine rugged islands: Appledore, Duck, Smuttynose, Malaga, Cedar, Star, Lunging, White, and Seavey's.

Appledore, the largest with 95 acres, is the home of Shoal's Marine Laboratory (SML), where each summer 150 students from across the country come to study marine life. The lab is a joint Cornell University-University of New Hampshire marine science facility, funded in part through this college.

The Shoals have been inhabited on and off since the sixteenth century—their wild, natural beauty and diverse marine and terrestrial environments attracting fishermen, writers, and biologists. Appledore remained more or less abandoned from 1941 to 1971, when a group of faculty members from Cornell (led by botany professor John Kingsbury) and from the University of New Hampshire chose it as the site of a summer field station to teach marine science.

Kingsbury had visited the Shoals in his youth and returned for a week in the summer of 1966 to lead field trips to Star Island. Impressed by the biological richness of the islands and surrounding waters, he arranged with other Cornell professors to offer an introductory course in marine science. Cornell professors originally involved with the lab were Oliver Hewitt, professor emeritus, wildlife management; Perry Gilbert, professor emeritus, neurobiology and behavior (arts); John Barlow, associate professor, oceanography; John Anderson, professor emeritus, zoology (arts); and Edward Raney, professor emeritus, conservation (ag).

In 1973, after new facilities were built and old ones renovated on Appledore Island, equipment was transferred from Star and a full-scale program begun.

Besides Cornell and the University of New Hampshire, the SML core faculty comes from such institutions as Brown University, Dartmouth College, Drew University, Georgetown University, and the University of Miami. Special lectures in each course are given by coastal planners, engineers, lobstermen, fishermen, and other experts from industry, government, and academia.

Although the principal function of the Shoals lab is undergraduate education, it also runs programs for teachers, alumni, and other groups. It hosts many one-day gatherings of groups such as the Cornell Alumni of New Hampshire, the Piscataqua Garden Club, and the New Hampshire Legislature, and is often visited by school groups and coastline cruising vessels. One faithful group, the Barnacles, holds an overnight reunion there each year. They are New Hampshire alumni who took courses at a summer field station on the island before World War II.

Credit courses vary in length. The month-long marine field courses give a broad view of the marine sciences, with emphasis on the intertidal zone. The lab also offers advanced courses

in various specializations, including invertebrate embryology, chemical oceanography in the field, and coastal and oceanic law and policy.

Microscopes, continuous-flow seawater tables, lectures, field trips to intertidal sites, collecting trips, scuba diving, snorkeling, and traveling in small boats to examine sea organisms, all give an intimate contact with marine existence. Students also carry out transect studies, in which they are assigned a series of squares on the shore between high and low tides, and identify to their professors each form of life they encounter in them.

In cooperation with the Sea Education Association of Woods Hole, SML sponsors a Sea Semester for Cornell students at Woods Hole and aboard the sailing vessel, "Westward" (Woods Hole is a village located on a peninsula off Cape Cod, on which are located the Sea Education Association, the National Marine Fisheries North Atlantic Laboratory, the Marine Biological Laboratory, and the Woods Hole Oceanographic Institution.) The Shoals lab offer adults non-credit courses in marine biology, ornithology, and nature photography.

The environment on Appledore Island, a Registered Historic Site and a State of Maine Critical Natural Area, is complex and unspoiled. A small colony of seals breeds in the region, and dolphins, pilot whales, and finback whales make annual visits to the feeding grounds. Gulls nest in the island by the thousands—as many as 10,000 in the summer—along with smaller numbers of snowy egrets, glossy ibis, and several species of herons. More than 125 species of pelagic (sea) and inland birds use the island as a migratory resting spot.

Another attraction on Appledore is a garden planted by students and professors, the Cornell Plantations, and a garden club that duplicates one planted 100 years ago by Appledore resident Celia Thaxter. Thaxter, a successful writer in the 19th century, hosted authors and painters on the island and became well-known for her spectacular garden. Her book, *An Island Garden* (recently re-issued with an introduction by John Kingsbury), gave exact details on plant varieties and cultivation, enabling today's garden nearly to duplicate hers.

The Shoals Marine Laboratory is under the direction of John B. Heiser of Cornell and assistant director Arthur Borrer of the University of New Hampshire. The business manager of SML is Don Thompson, and the engineer is Ron Harelstad, who is in charge of maintaining and operating the facilities on the island. The Ithaca office is run by Linda Mahon.

For the summer 1981 season, Kingsbury will participate in a course at Shoals Marine Laboratory for Cornell's Adult University.

For more information about SML programs write to G-14 Stimson Hall, Cornell University, Ithaca, NY 14853 (winter); or Box 88, Portsmouth, NH 03801 (summer).



Brochure Explains Real Estate Gifts

Just off press is a brochure containing three booklets outlining tax advantages and other monetary benefits from donating land to the college.

It was written by Richard Gottschalk, retired staff member and estate affairs specialist of Cornell's development office. Also involved in its preparation were Cornell faculty members Robert Smith, professor of agricultural engineering, and Joseph

Bugliari, professor jointly of business law and agricultural economics.

Expert information on farm sales with retained life income, income tax deductions, and savings in capital gains tax liability are among the many topics covered.

If you would like a free copy, request Gifts of Real Estate from Office of Development and Alumni Affairs, 242 Roberts Hall.

Student Faculty Committees

"At other colleges students have gotten upset over not having a say in the kinds of policies that are set, but here we do have a say," said Sue Levitt '81. "It's fantastic to be able to voice your opinions and have them count."

Sue was speaking about her role as vice-president of AgPAC, the student leadership group within ALS that recruits and selects students for the many student-faculty committees throughout the College of Agriculture and Life Sciences through which students exchange viewpoints with administration and faculty members about the direction in which the College is going. Students on the student-faculty committees also make suggestions for improving policies and academic procedures. Richard Church, director of admissions, said that students add a different perspective in considering issues. "They know how a particular decision—for example, the potential of admitting freshmen at mid-term—might affect students, which may not occur to an administrator. We respect their opinions."

Here is a look at these committees:

AgPAC (Student Positive Action Council) chooses undergraduate representatives for the seven other committees from student applications and interviews conducted by a selection committee. These representatives are also members of AgPAC and they regularly report on their committee's activities to the membership. Sue Levitt chairs the committee.

Graduate student representatives are picked by their individual department graduate clubs. Those serving on the committees make periodic reports to their council or club about the content and conclusions of the committee meetings, and in turn receive information about topics that should be covered in future sessions.

The **Policy Committee**, composed of 12 faculty members, one graduate student, and two undergraduates, sets all policies dealing with the faculty and with education. It has reviewed such issues as student reaction to courses, the timing and procedure of the required freshman math exam, and the need for a scientific writing course. It also oversees all the other committees. Currently, its members are working on a new course evaluation form and procedure. The committee is administered by Robert Cooke, director of the college's office of instruction.

The **Academic Achievement and Petitions Committee** attends to leaves of absence, low grades, dropping and adding courses, and similar matters. Administered by Donald C. Burgett, coordinator of student affairs, the committee meets once a week to consider and act upon petitions submitted by students. It has two student and six faculty members.

The **Committee on Academic Integrity**, a board of review, reviews matters of academic integrity, such as cheating on exams and plagiarism. Cases are brought before it by students who appeal earlier decisions by their instructors and professors. This committee is also administered by Donald Burgett.

The **Mann Library Committee's** purpose is to promote the effectiveness of Mann Library as an "instrument of educational process." According to Mann's head librarian, Henry Murphy, the student member of the committee was instrumental in gaining an 11 percent increase in the library's acquisitions budget last year. In addition to its student representative, the committee has three faculty members.

Two committees, the **Scholarship Committee** and the **Curriculum Committee**, are administered by Prof. Helen Wardeberg, associate director of instruction. The duty of the three faculty members and one student serving on the Scholarship Committee is to administer loans and scholarships. Reducing the amount of red tape involved in student aid and insuring that regulations and procedures are equitable are among its concerns. The Curriculum Committee meets every month to consider and decide on new courses. It serves to implement policy established by the faculty and the Educational Policy Committee; to evaluate all new programs, specializations and courses; and to resolve conflicts and encourage improvement in the instructional program.

The **Admissions Committee** considers any matters submitted to it concerning admissions policies and practices. Three students participate in discussions about items such as recruiting efforts, how to inform potential transfer students about the courses they should take prior to applying here, what the general ratio should be of those with farm and non-farm backgrounds, and the best time to notify students of their advanced standing credit. It is administered by Roger P. Natzke, associate director of instruction, and Richard Church, coordinator of admissions.

Landscape Pioneer Dies



Joseph Pullman Porter, a professor emeritus of ornamental horticulture at Cornell and pioneer in landscape architecture, died in Ithaca recently at the age of 86. Known as "Tip" to colleagues and friends, Porter had been on the faculty for 40 years until his retirement in 1957. A highlight of his career, shown here, occurred in 1978 when Cornell presented him with

a special citation honoring his 65 years of unbroken ties with the College as student, faculty member, and emeritus professor. Shown presenting a scroll are W. Keith Kennedy (right), University provost and then dean of ALS, and Carl F. Gortzig, chairman of the department of ornamental horticulture.

Adult University Offerings

The "family education vacation" concept is a special feature of CAU (Cornell's Adult University), which includes a complete camp for children while adults enjoy an educational vacation.

CAU is based on the idea that one role of a university should be to provide a bridge between the traditional, formal education, and the informal, continuous one.

The program offers one-week, non-credit courses on-campus during the summer, plus off-campus weekend seminars during the fall and spring. While originally conceived as serving alumni, the program has changed and now offers general adult education for all interested people.

Here's a brief listing of 1981 ALS-related courses.

Paleontology: the Record in the Rocks — Harlan Banks, botany; a look at earth's history as revealed by fossils; includes lectures, field trips, and labs (July 5-11)

Streamside Ecology — Ronald Howard, natural resources; a new approach to basic game fishing; includes lab and field experiences, optional fly-tying and rod building (July 5-11).

Our Living World of Nature — Richard Fischer, environmental education; investigates the wonders and beauty of nature in Cornell's woods, fields, and wetlands (July 12-18).

Don't Let the State Take It! Estate Planning for Everyone — Joseph Bugliari, business law, Dale Crossman, business law, and Robert Smith, agricultural finance; how to protect your assets, conserve income, make intergenerational transfers of family assets, and avoid taxes through proper estate planning (July 19-25).

Flower Arranging Made Fun — Raymond Fox, floriculture, and Vera Fox; how to make artistic floral arrangements from weeds, wildflowers, and gardens (July 19-25).

The Gorgeous Gorges of Ithaca — Verne Rockcastle, science and environmental education; tours and exploration of the natural history, geology, botany, micro-climatology, and beauty of some Ithaca gorges rarely seen by tourists (July 19-25).

Day Packing — Verne Rockcastle; a look at plant and animal ecosystems in their natural surroundings while leisurely hiking the Finger Lakes Trail (July 26-August 1).

Nutrition: Facts and Fantasies — David Levitsky, nutrition; a focus on food faddism, junk foods and their role in our diets, nutrition and diet relating to health problems, and additive and regulatory safeguards (July 26-August 1).

The Siren of the Sea — John Kingsbury, botany, Shoals Marine Laboratory (also: Cushing Strout, English, and Kenneth Evett, art); a look at the extraordinary botany of the sea, and the literature and art that have been inspired by it (August 2-8).

The Home Greenhouse — Richard Lewis, Cornell Plantations, and guest lecturers; design and management of affordable, energy-conserving greenhouses, including growing and caring for the plants that thrive in them (August 2-8).

While there is no registration deadline, enrollment is limited, and those interested in attending are advised to inquire early. Information and registration forms from: Cornell's Adult University, 626B Thurston Avenue, Ithaca, NY 14850.

4-H Foundation: Funding Source for Innovation



Innovation and experimentation in 4-H programs are made possible in large part through the catalytic role and support of the 4-H Foundation. The foundation, a private, non-profit corporation, was created in 1948 to provide research and development funds for the 4-H program in New York State. It does not develop programs of its own, but instead seeks and accepts resources and dollars for new ones or for modifying existing ones in order to reach new audiences.

Donations come from a variety of sources, including voluntary payroll deductions from Cornell and other employees, and from foundations, businesses, and organizations.

Program proposals to the foundation are reviewed by George Broadwell, assistant director of 4-H, secretary of the foundation, and associate professor of education at the college. For specific subjects, he refers proposals to professors with expertise in those fields, and for any administrative questions, to others in the 4-H office here for review. Prof. Broadwell's recommendations for approval are submitted to the foundation, whose trustees then vote whether to approve or reject the projects.

There are ten trustees and two ex officio members: chairman Glenn Edick '40; vice-chairman Daniel Costello; David Patchin '62; George Broadwell '53, '69 (ex officio); Randall Brown '68; Hal Lihout; Donald MacVean '60; Bette Jane McCabe; Lucinda Noble '54, director of Cornell Cooperative Extension (ex officio); Clarence Rappleyea, Jr.; John Ten Eyck; and Charles Wolf. James Bays '74, public affairs officer

for the office of development and alumni affairs, is resource coordinator.

The 4-H Foundation has had a substantial role in the state's youth program. Although 4-H receives federal, state, and county funds as part of Cornell Cooperative extension, its basic budget covers primarily continuous programs and allows minimal expansion into new program areas. Since 1970, the foundation has allocated \$834,000 to counties in the state; 31 percent for statewide programs; 8 percent for statewide, multicounty programming; and 61 percent for county pilot programs.

While maintaining its strong rural heritage, 4-H is also making significant contributions to urban youth. In Monroe County, a Mobile Teaching Unit equipped with woodworking, electronic, sewing, and cooking equipment was taken to poor, city youths who had no meeting place near their homes. The concept spread to other counties, such as Saratoga, where a bus was adapted to carry programs to youths who live in mobile home parks. This multiplier effect is typical of 4-H Foundation work, with its projects often adopted by other counties and states and continued by public funding.

In recent years the foundation has funded:

- A Teen Vegetable (Tioga County and Marketing Project (Tioga County) teaches teen-agers how to grow vegetables and to market the produce they harvested. The teens then use their new skills to help others in the community with their gardens.
- A continuous, statewide 4-H Teen Ambassador project trains youths in

public speaking and other communications techniques. The Ambassadors provide information about 4-H to other community groups.

- TODAY (Today's Outdoors Develops America's Youth) in Chemung County teaches young people wilderness survival, backpacking, snowshoeing, and other outdoor activities.
- The Young Environmentalist Service Program, Oswego county, has as its training site the Oswego Forest. Now funded by the federal government through the County Office of Manpower and Training, the program puts low-income youths and unemployed adults to work in environmental fields.

Said Broadwell, "The foundation made possible the initiation of a number of programs that, without those private funds, could not have been developed. It has improved the quality of existing programs by providing extra materials and has stimulated new thinking and spurred creativity."

"Alumni and friends of the NYS 4-H youth program can now contribute to the 4-H Foundation and receive Cornell or class credit through a new fund, the 4-H Program and Leadership Fund. Those wishing to make donations or to receive more information should contact: James B. Bays, Resource Coordinator, 202 Roberts Hall, Cornell University, Ithaca, NY 14853 or George J. Broadwell, Assistant Director, Cooperative Extension, at 109 East Roberts Hall, Cornell University, Ithaca, NY 14853.

Gerald Fink Awarded Cancer Endowment

Gerald R. Fink, professor of biochemistry, has been awarded a lifetime American Cancer Society Research Professorship of Biochemistry.

The professorship, effective until his retirement, is one of 22 chairs funded by the American Cancer Society to foster cancer research. Of the 22 recipients of the award, four are Nobel Laureates. Fink was awarded the endowment for his "meritorious work, and his potential for continuing research, in cancer."

A faculty member here since 1967, Fink is an international authority on genetics, particularly the molecular biology and genetics of yeast. His research focuses on how genes in a cell are "turned on and off," and why the wrong genes are activated in cancer cells.

Author of more than 50 scientific articles, he is editor of *Gene and Molecular and General Genetics* and former associate editor of *Genetics* and the *Journal of Bacteriology*. He has served on numerous study panels, including an American Cancer Society panel on virology and cell biology, a National Science Foundation panel on genetic biology, and a National Institute of Health panel on environmental mutagenesis.

Fink received a BS degree from Amherst College and MS and PhD degrees in genetics from Yale University. Before coming to Cornell, he worked as a postdoctoral fellow at Yale and at the National Institutes of Health.

Minicomputer Dairy Management Project

Computer software and hardware may become as familiar as milking machines to many farmers by the end of the 1980s. Development of an on-farm, multidisciplinary computer network to help prepare for the new wave in farming has been made possible by a five-year, \$240,000 grant awarded to the College by the W. K. Kellogg Foundation.

During the first two years of the project, software (program instructions given to the computer) will be developed to make available to farmers information about production and management practices, as well as about individual herds, through the use of an on-campus computer.

In the second phase of the project, minicomputers will be placed on four selected New York farms, with herds ranging in size from 60 to 200 cows. Farmers will operate the computers, with regular assistance from a field supervisor.

By 1990, the typical NYS dairy farm may have more than a million dollars invested in livestock, buildings, machinery, and land, and spend \$300,000 or more per year on other expenses. The minicomputer will be able to monitor data necessary for effective management and other decisions, including the automatic identification of animals, and it will have the ability to examine relationships between milk production, body weight, the nutritional and reproductive status of

individual cows and expenses for each, feed inventories, and purchases and sales for the total farm business.

The on-farm computer also will use data stored in more sophisticated computers, including information from the New York Dairy Herd Improvement Cooperative, Dairy Records Processing Laboratory, and the Cornell Agricultural Management Information System.

A final component of the project will be the evaluation of the system's ability to improve the management and profitability of farms.

"The program not only will encompass information required by the farmer but also will open the vast potential for communication and information flow between farmers, Cornell Cooperative Extension agents, specialists, and faculty members at Cornell," said project director Wayne Knoblauch, associate professor of agricultural economics.

Knoblauch will coordinate the project and work with Robert Milligan, assistant professor of agricultural economics, on the business management phase of the program. Charles Sniffen, associate professor, and R. David Smith, assistant professor, both in the department of animal science, and Jeff Davidson, senior extension associate in the NYS College of Veterinary Medicine at Cornell, will head the production management aspects of the project.

Empire Farm Days Move to Cornell

The Northeast's largest farm-oriented event, the Empire Farm Days, will be hosted by the College for the next two summers. Sponsored by the Empire State Potato Club, it is expected to attract more than 100,000 people to the Animal Science Teaching and Research Center (T&R Center) at Harford.

Dates this year will be August 11, 12, and 13, when visitors will see exhibits and tour crop demonstration plots, livestock, and agricultural engineering projects such as methane production and wind energy. In 1982 the event will be on August 10, 11, and 12.

Gearing up for the event is a large group of faculty and staff members. Samuel Slack, professor emeritus of animal science, is activities coordinator at the T&R Center. Richard Guest, professor of agricultural engineering, is on the Empire Farm Days committee, working with members of the Empire State Potato Club and other representatives in coordinating the annual show.

On the administrative contact committee are Noland VanDemark,

director of research at ALS, R. J. Young, chairman and professor of animal science, Carl Pearce, Cooperative Extension programs coordinator, Richard Guest, and Samuel Slack.

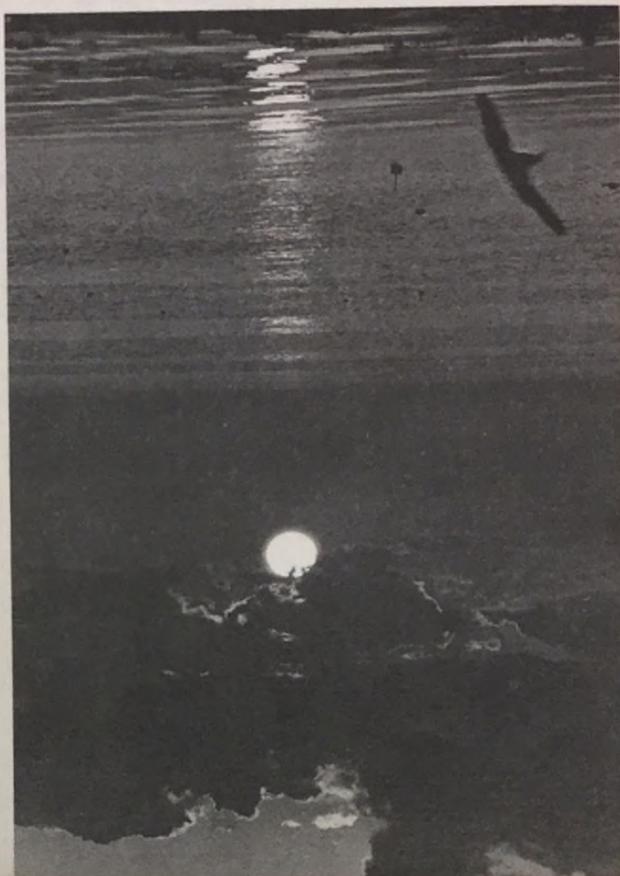
Coordinating the show-and-tell exhibit tent of research and extension projects are Glenn MacMillen, director of the office of development and alumni affairs, Richard Church, director of admissions, and Glenn Applebee, extension associate in Cooperative Extension.

Crop demonstration plots showing plant varieties and management practices are being overseen by William Pardee, chairman and professor of plant breeding and biometry, Robert Seaney, professor of agronomy, Wayne Knoblauch, assistant professor of agricultural economics, and Wesley Gunkel, professor of agricultural engineering.

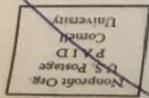
Tours and exhibits of the T&R Center facilities are being planned by Murray Elliot, professor of animal science, William Greene, extension associate in animal science, and Richard Koelsch, extension associate in agricultural engineering.



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Two Alumni Win Outstanding Young Farmer and Rancher Award

Edwin Drexler '74 and Clark Decker '74 have received the New York Farm Bureau's 1980 Outstanding Young Farmer and Rancher Award, presented during the NYFB annual meeting ceremonies in December in Monticello.

They, and a third recipient, Roger White of Gasport County, topped statewide competition in the semi-finals.

The award is given to a New York State farmer under the age of 30 in recognition of superior farming practices and management. Organizational and community leadership are considered along with successful management of a farm operation.

Ed and Pauline Brooks Drexler, who both majored in animal science, operate a 200-acre farm in Smyrna, New York, and are planning to move this spring to a new farm in the Fabius area of Onondaga County.

Clark and Nancy Decker run a 560-acre dairy farm in Winthrop, New York.

January Dairy Days



Eugene C. Meyer (left), editor of Hoard's Dairyman, a national farm magazine published in Wisconsin, with Robert J. Young, professor and chairman of Cornell's animal science department. Meyer was keynote speaker at January Dairy Days. He spoke of the "severe cost-price squeeze" facing farmers across the nation.

Calendar

- June 12-13 Reunion Weekend, Booth at Barton Hall, Ithaca
- 13 Alumni Association Reunion Breakfast, Annual Meeting
- 13 Alumni Association, Executive Committee Meeting
- Aug 11-13 Empire Farm Days, Teaching and Research Center, Harford
- Sept 26 2nd Annual ALS Round Up, Ithaca; Cornell vs. Colgate
- Nov 7-8 Cornell Homecoming Weekend

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