

CORNELL UNIVERSITY
OFFICIAL PUBLICATION

New York State College of Agriculture

A UNIT OF THE STATE UNIVERSITY OF NEW YORK

*Farm Study Courses * 1951-52*



THE MAIN GROUP OF BUILDINGS OF THE NEW YORK STATE COLLEGES

The lower left corner shows part of the hospital of the Veterinary College; the semicircular building is Bailey Hall, the largest auditorium on the Cornell campus; the large light-colored building above and at the right of Bailey Hall is Martha Van Rensselaer Hall, which houses the College of Home Economics; directly at the right of Bailey Hall, from left to right are Comstock Hall (entomology), Caldwell Hall (soils and agronomy), and Warren Hall (agricultural economics). In the center foreground is the Roberts Hall group: in the left wing, Stone Hall is the agricultural library, in the center are the offices of the dean, the director of extension, the secretary of the college, and other administrative offices; and the right wing houses the department of vegetable crops. In the lower right corner is the plant science building. Agricultural buildings not shown in this picture are Fernow Hall (conservation), Rice Hall (poultry), Stocking Hall (dairy industry), and Wing Hall (animal husbandry).

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NEW YORK STATE COLLEGE OF AGRICULTURE

Farm Study Courses

A GAIN American farmers are called upon for all-out production of crops and livestock products. As in times past, they will meet this challenge, competing as they must with industry for labor, supplies, and machinery.

How do the American farmers accomplish what seem to the rest of the world marvels of production? Hard work, ingenuity, improved farm machinery, and the incentives found only in a free economy are part of the answer. Equally important, however, is the vast amount of scientific knowledge coming from the federal and state experiment stations. This is adapted for local use and presented to the farmers by the Extension Service.

In New York State, the Extension Service has many ways of bringing to the attention of farmers both the fundamentals of good farming and the latest recommendations. The Cornell farm study courses are one means by which New York farmers have at their service all the facilities of their college of agriculture and experiment stations. For more



Modern farm machinery has reduced the drudgery of farming and increased the efficiency of farm labor.

than thirty years thousands of New York farmers have taken advantage of this opportunity for organized study without leaving home.

New York State farmers of every degree of learning and experience can benefit from one or more of the farm study courses. Their main investment is the small amount of time and effort required.

The courses do not attempt to take the place of college classes, and no college credit is allowed for them. They are meant to give the farmer a chance at spare-time study, by which he may glean from books and from lessons prepared and marked by teachers at the College new knowledge that will help him to earn more money and to get greater satisfaction from his job.

WHO MAY ENROLL

The student should have at least a grammar-school education and should be able to practice what he is taught.

So-called practical exercises are a part of most of the courses, and they show the application of the instruction given in the lessons. Incidentally, this requirement ensures that the efforts of the College are being spent on persons who are truly interested. Many students write that they find the practical work the most valuable part of their courses.

One may enroll at any time, and, since the lessons are sent out as the reports on the preceding lessons are received, the student's progress depends entirely upon his own initiative. A year is allowed for the completion of any one course, and a certificate is awarded by the College at the completion of each course. A student may enroll for only one course at a time.

The courses are available to residents of New York State only.

TEXTBOOKS AND COSTS

No tuition or other fees whatever are charged for the courses. The student must purchase his own textbooks, which, together with postage and necessary writing materials, constitute the only expenses. Some of the courses require no textbook. For most of the courses, one textbook only is required; for some, additional books are recommended as supplementary reading. It is often advisable to make a more thorough study of certain questions brought to the minds of the students by the courses, and students have appreciated knowing to what books they should refer.

HOW TO ORDER TEXTBOOKS

At the end of the description of each course are the name of the textbook required and the names of those recommended, with the name of the publisher of each. If the student is unable to buy the books at a

local bookstore, it is suggested that he send to the Cornell Co-op, Ithaca, New York. The Co-op will prepay the postage if the student says in his letter that he is enrolled for a Cornell farm study course. Orders for textbooks should NOT be sent to the College of Agriculture.

HOW TO ENROLL

The application blank at the back of this booklet should be filled in completely and sent to the Cornell Farm Study Courses, Ithaca, New York. A description of the facilities for doing the practical work in the course desired should be given in full. If a student plans several courses in sequence in one general subject, the order in which they will be taken should be planned ahead and consideration given to the time of year. For example, in enrolling for a poultry course in the fall, one should more properly select Poultry Flock Management than Chick Rearing.

When a student completes a course and continues with a second course, as most students do, he should make a new application. He can thereby give his instructor the latest information about his farm business. Separate application blanks can be obtained from the office of farm study courses.

HOW TO ASK QUESTIONS

Students often wish questions answered about their own farm business. These should be in the form of a personal letter to the instructor, and such letters may be enclosed with lesson reports. The student should never ask questions on the same sheet with the lesson reports.

Description of Courses

THE following pages describe all of the Cornell farm study courses now available. Inquiries regarding courses other than those offered are welcome. At Cornell University only the College of Agriculture offers correspondence courses.

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT

FARMING AS A BUSINESS

10 lessons

Associate Prof. C. A. BRATTON

This course is designed for persons who plan to make farming their life work or to live in the country while working at a job in town. It is

an especially valuable course for persons with no recent farm experience or for those who have never lived in the country. It is also recommended for young people now living on farms but not yet in business for themselves.

In this course the student is given an introduction to the business of farming and to life in the country. Some of the subjects covered are differences between farming and other businesses and professions, differences between life in the country and in the city, why some farms pay better than others, marketing farm products, choosing and buying a farm or a home in the country, and ways for persons with limited capital and experience to get started in farming.

This course deals with the business side of farming rather than with how to grow crops and care for livestock. For example, it teaches the effect of the number of cows kept on a farm on the income made and why potatoes are grown in certain regions and not in others. The course does not, however, tell how to feed cows or how to fertilize potatoes. Other courses are available that deal with these problems of crop growing and livestock care and feeding.

Textbook: *Farm Management and Marketing* by Hart, Bond, and Cunningham, published by John Wiley and Sons, Inc., New York City. \$3.60.

ADVANCED FARM MANAGEMENT

10 lessons

Associate Prof. C. A. BRATTON

This course must be preceded by *Farming as a Business*.

The course deals with such subjects as farm layout and building arrangement, the farm-management point of view on farm power and machinery, the use of credit and capital, ways to get started in farming, practical farm records and accounts, and planning the organization and management of a specific farm business.

Textbook: Same as that for *Farming as a Business*.

MILK MARKETING I

10 lessons

Assistant Prof. E. N. SEARLS

This course deals with the factors to be considered in pricing fluid milk. A study is made of the distribution of milk production, inter-market supply problems, cost of production, and seasonality in milk marketing. The influence which retail milk prices, size of consumers' income, distribution of income, race and nationality, and other factors have on changes in the consumption of milk is presented. Prices for fluid milk are compared with all wholesale prices, food prices, prices paid by farmers, and prices received by farmers. Attention is given to various methods for pricing fluid milk so that the supply will be adequate to meet the demand.

This course is recommended for farmers, milk dealers, consumers,

and others who have an interest in learning about the basic considerations involved in pricing milk.

Textbook: *Report of the New York Milkshed Price Committee*. This booklet will be loaned to the student.

MILK MARKETING II

10 lessons

Assistant Prof. E. N. SEARLS

This course is designed to present information about the actual operations of the milk marketing industry. The marketing systems being used for fluid milk, cream, and other dairy products are studied first. The place of cooperatives in the milk marketing system is studied in one lesson. Then consideration is given to the marketing margin, that is, the difference between the price received by the farmer and the price paid by the consumer. One lesson is devoted to a consideration of dairy arithmetic.

About half of the course relates to the various state and federal regulations affecting the milk industry in New York State. Basic legislation that provides for the milk orders is reviewed, and then the orders for the Metropolitan New York and the Niagara Frontier (Buffalo) Marketing Areas are studied in detail.

This course is of interest to a wide variety of persons including farmers, milk distributors, high-school vocational-agricultural teachers and students, milk accountants, housewives, dairy plant employees, and others.

Textbook: There is no textbook. All reference material will be supplied with each lesson.



If all New York pastures were as good as this, fences would be less important. Improved pastures mean lower costs in milk production.

ANIMAL HUSBANDRY

FEEDING AND MANAGEMENT OF DAIRY COWS

10 lessons, 3 practical exercises

Assistant Prof. H. R. AINSLIE

Dairying is probably the most important single farm enterprise in New York State, and the demand for milk from near-by cities is increasing year by year. This, of course, makes efficient management of the dairy herd of great importance to both the farmer and the consumer.

This course deals with practical problems of feeding and managing dairy cows economically. It is intended for persons who are actually in the milk-producing business or for those who have a chance to study a herd of cattle at first hand.

The following topics are covered: feeding for milk production, kinds and composition of feeds, fitting and management of dairy cows, cost of producing milk, housing, and causes and treatment of some of the common ailments and diseases of cattle.

Textbook: *Dairy Cattle and Milk Production* (1950 edition) by Eckles, Anthony, and Palmer, published by The Macmillan Company, New York City. \$5.00.

DAIRY HERD IMPROVEMENT

9 lessons, 1 practical exercise

Associate Prof. C. G. BRADT

The best management cannot produce satisfactory results from inferior cows. Thousands of dollars are wasted annually in this state alone in feeding cows that do not pay for their board. The efficient dairyman tries to improve the quality of his herd.

This course presents practical ways and means of getting better cows. First, the inferior cows must be identified and removed and then better ones obtained by better breeding practices. Breeding practices and methods of improvement that can be followed by all are presented clearly and in detail. The course should appeal to the man of limited means who realizes that good cows are essential to good profits and are easily within his reach.

Textbook: Same as that for Feeding and Management of Dairy Cows.

REARING CALVES AND HEIFERS

7 lessons, 2 practical exercises

Associate Prof. C. G. BRADT

The care a calf receives in the first few months can determine to a great extent whether or not it will make a good cow. This course, however, not only considers the essential steps in rearing the calf from birth to maturity, but it recognizes that more than good feed and care are needed to produce a good cow. So much depends upon the health and the vigor of the parents, as well as upon the sanitary conditions of housing and care, that these also receive attention.

The topics with which this course deals are the feeding of calves

both with milk and milk substitutes; housing, which includes ventilation and plans for stables and pens; losses from the common diseases of calves and heifers and how they can be prevented; and the importance of high-producing ancestry in the selection of calves to raise. Textbook: Same as that for Feeding and Management of Dairy Cows.

SHEEP AND WOOL PRODUCTION

9 lessons

Associate Prof. G. R. JOHNSON

Sheep are coming back to many New York farms. This course is valuable to producers of both wool and mutton and describes practices that successful shepherds in the state find profitable. It requires the management of a flock throughout the year.

This course considers such topics as establishing the flock, winter care and feeding, rearing lambs, the wool grower and the wool trade, common ailments of sheep, dipping, trimming the feet, parasites and parasitic diseases, stomach worms, summer feeding and care, feeding for market, winter or hothouse lambs, fitting for the show ring, judging sheep and breeds.

Textbook: *Sheep Science* by W. G. Kammlade, published by J. B. Lippincott Company, Philadelphia, Pennsylvania. \$5.00.

PORK PRODUCTION

10 lessons, 1 practical exercise

Prof. M. D. LACY

Pigs, rightly handled, fill an important place on many New York farms. This course deals especially with New York conditions and is based on the practices found profitable by practical swine producers as well as by scientists.

The subjects considered are the care of the herd throughout the year, brood sows and pigs, housing, forage crops, feeds, feeding and rations, sanitation, judging, breeds, breeding, and marketing. A study is made also of the cost of producing pork in New York State.

Textbook: *Pork Production* (1937 edition) by William W. Smith, published by The Macmillan Company, New York City. \$5.00.

BEEKEEPING

BEEKEEPING

13 lessons, 8 practical exercises

Associate Prof. W. L. COGGSHALL

Many New York farmers find beekeeping both a fascinating and a profitable side line to their farm business, and some have apiaries that demand their full time and attention. Bees are not unlike dairy cows or poultry in that the best care and the best management are needed to prevent disease and to have profitable production. The successful beekeeper must have a knowledge of how to market honey and other products of the apiary.

The lessons and exercises consider such topics as a survey of the beekeeping industry, apiary site and equipment, study of the colony and of the individual, state laws regarding bees, general care and management for both comb- and extracted-honey production, and grading and marketing honey.

Textbook: *Beekeeping* (revised edition) by Everett Franklin Phillips, published by The Macmillan Company, New York City. \$4.50. Recommended book: *Hive and Honey Bee* by Roy A. Grout, published by Dadant and Sons, Hamilton, Illinois. \$4.00.

FRUIT GROWING

ORCHARD FRUITS

17 lessons, 8 practical exercises

Associate Prof. L. J. EDGERTON

Fruit growing in New York becomes more exacting each year. It is necessary to produce good fruit economically if one is to be a commercial fruit grower. This requires technical knowledge and good management. Also, the farmer with the home orchard gets great satisfaction from taking proper care of his trees even if the profit he may make from them is not important.

The lessons and practical exercises cover almost every aspect of growing orchard fruits, from selecting the site and establishing the orchard to harvesting, grading, and packing the fruit.

Textbook: *Modern Fruit Production* by Gourley and Howlett, published by The Macmillan Company, New York City. \$5.00.

SMALL FRUITS

10 lessons, 5 practical exercises

Associate Prof. L. J. EDGERTON

Small-fruit growing is an important industry in certain sections of New York, and this course has been especially helpful to many growers.

The lessons are arranged according to the kinds of fruit studied: strawberry, bramble, grape, currant, and gooseberry. For each, the lessons cover such operations as planting, harvesting, and insect and disease control. The practical exercises allow field practice in similar operations. The student is given some choice in the exercises.

No textbook is required. The course is based entirely on bulletins from Cornell, Geneva, and other experiment stations. These bulletins are sent without charge as needed.

POULTRY HUSBANDRY

POULTRY FLOCK MANAGEMENT

14 lessons, 5 practical exercises

Mr. F. E. ANDREWS

Poultry keeping, as a business or as a part in diversified farming, occupies a prominent position in New York agriculture. Poultry re-

spond to proper care and are seriously affected by mismanagement. Thus a good working knowledge of the science and practice of poultry keeping often means the difference between a profitable enterprise and one that ends in loss and failure. The lessons and practical exercises in the course help the student to learn good practices and to avoid many of the losses that come to those who lack this knowledge.

This course deals with the management of a laying flock and covers selection of a breed; housing, feeding, culling, and breeding; diseases; and general poultry management. It deals also with the marketing of poultry and eggs. The student must have a flock of hens or have the management of one.

Textbook: *Poultry Science and Practice* by Winter and Funk, published by J. B. Lippincott Co., Philadelphia, Pennsylvania. \$5.50.

Recommended book: *Modern Poultry Farming* by L. M. Hurd, published by The Macmillan Company, New York City. \$4.50.

CHICK REARING

8 lessons, 4 practical exercises

Mr. F. E. ANDREWS

Raising baby chicks can be one of the most interesting and at the same time one of the most discouraging aspects of the poultry business. The most experienced poultrymen will be likely to lose many chicks, and beginners sometimes have a mortality that is discouraging indeed.

Every aspect of caring for chicks from the time they are a day old until they are mature pullets ready for the laying house is thoroughly covered. A study is made also of brooding systems and of brooder houses and stoves, pointing out the essential features to be looked for when purchasing a brooder stove. Students, after completing this course, often express wonder that any of their chicks ever reached maturity with the care which they were accustomed to give them.

Textbook: *Modern Poultry Farming* by L. M. Hurd, published by The Macmillan Company, New York City. \$4.50.

BACK-YARD POULTRY KEEPING

6 lessons

Mr. F. E. ANDREWS

Many who live in villages or in suburbs of cities or who live on farms keep a small flock of hens to provide eggs and meat for family use. Often these flock owners are unfamiliar with the care and management that chickens require to remain healthy, grow normally, and lay well. To meet this need, the College offers this elementary course in poultry keeping. Those who have, or plan to have, a larger poultry enterprise are advised to enroll for the Poultry Flock Management or Chick Rearing course.

No textbook is required. All material for study is furnished in mimeographed reading references and in printed bulletins.

AGRICULTURAL ENGINEERING

FARM MECHANICS

8 lessons

Associate Prof. C. M. EDWARDS

To be able to make minor repairs on a harness or to splice a broken hay rope on the farm immediately when needed not only saves money but time, which cannot always be reckoned in dollars and cents. This course teaches one how to do these along with many other operations that a farmer should be able to do. Although only eight lessons are required, the student may select these from a total of fifteen, and, of course, if he wishes, he may do all of them.

Instruction is given in the following subjects: rope work, soldering, harness repairing, belts and pulleys, fitting saws, sharpening edge tools, caring for small hand tools, and common rafter framing.

No textbook is required. There is a small cost for the supplies needed for some of the lessons. These supplies, however, can be used on the farm later when actual need for them arises.

CONCRETE WORK ON THE FARM

6 lessons

Associate Prof. C. M. EDWARDS

Most farmers are fairly expert in using concrete, but they could get even better results if they knew all the fine points that must be observed to ensure concrete work which will endure and be attractive. One who has successfully completed this course should feel competent to do any sort of concrete work ordinarily required on a farm from building walks to laying cinder blocks.

The topics covered are selection of materials; designing a workable mix; building forms; mixing, placing, finishing, curing concrete; building with concrete masonry; farm and home concrete project. The last lesson is to help the student with an actual piece of concrete work needed on his farm or around his home.

No textbook is required for this course. All reading materials are sent as needed and without charge.

SOILS

SOIL MANAGEMENT

14 lessons

Assistant Prof. L. SALTONSTALL

Good soil management is essential to the economic production of crops. Improper management can deplete the best soils in a few years, and, on the other hand, soils that are not naturally productive can often be made so by drainage, by crop rotation, by growing legumes, and by the use of lime and fertilizer. It is evident, therefore, that a practical knowledge of soil management and fertilization is of the greatest importance to every farmer.

Each lesson in this course is closely related to an actual farming operation. The following topics are covered: selecting the soil and

planning its management, growing the crop, controlling the water supply, tilling the soil, manuring, fertilizing, managing field soils, managing pasture soils, managing garden and lawn soils, and managing fruit soils.

Textbook: *Farm Soils* (fourth edition) by Edmund L. Worthen, published by John Wiley and Sons, Inc., New York City. \$3.60.

VEGETABLE CROPS

COMMERCIAL VEGETABLE GROWING

14 lessons

Associate Prof. H. J. CAREW

Vegetable production is an important type of farming in New York State, and it is increasing in importance yearly as the agriculture shifts from general to specialized types. This course is intended for persons who are engaged in vegetable production as a business and for those who contemplate going into vegetable production on a commercial scale.

The first eight lessons cover the general aspects of vegetable growing, such as soils for vegetable growing; soil preparation; manures, green manures, and commercial fertilizers; plant growing; construction and management of hotbeds and cold frames; and the harvesting and handling of vegetable products as these operations are carried on in New York State. The remaining five lessons are on specific crops or, in some cases, on groups of crops. The student is allowed to select the particular crops, or group of crops, he wishes to study. The practical exercises show the application of the lessons to vegetable growing according to the season of the year.

Textbook: *Vegetable Crops* (fourth edition) by H. C. Thompson, published by the McGraw-Hill Book Company, New York City. \$6.00.

HOME VEGETABLE GARDENING

10 lessons

Associate Prof. C. B. RAYMOND

The newer knowledge of human nutrition emphasizes the need for liberal supplies of vegetable foods for all the family throughout the year. The home garden contributes to fuller use of vegetables and offers garden freshness and quality, as well as recreation and interest. The garden delivers food for the table without paying the heavy toll of distribution costs. All of these factors are especially important on the farm where the use of vegetables is often slighted unless they are grown on the place.

This course is open to all home gardeners, farm, suburban, or city, and to young people of high-school age, especially those who have carried on a year or more of garden project work.

The course considers nutritional relations, objectives, equipment,

soil management including use of lime, fertilizers, manures, and organic matter, seeds and varieties, plant growing, garden planning and planting, cultivation and weed control, irrigation, insect and disease control, maturity and harvesting, and storage. Four of the ten lessons are devoted to the major crop groups.

Textbook: *Vegetable Production and Marketing* by Paul Work, published by John Wiley and Sons, Inc., New York City. \$3.60.

APPLICATION FOR ENROLLMENT

(Please print or typewrite name and address)

Return this blank when filled out to Cornell Farm Study Courses, New York State College of Agriculture, Ithaca, New York. Put questions you want answered now on another sheet, and be sure to put your name and address on it.

Date Course you wish

Name in full

R.F.D.

Street Post office

County, N. Y.

How much time can you devote to study?

What is your object in taking the course?

.....

Give the names of schools attended and number of terms in each

.....

Outline briefly your experience with the subject of this course; tell whether as owner, owner's son, tenant, hired man, or in other status.

.....

.....

What is your occupation? Age

If a farmer, what position on the farm?

Note: Use a separate sheet to give specific information about your farm or your plans for farming.