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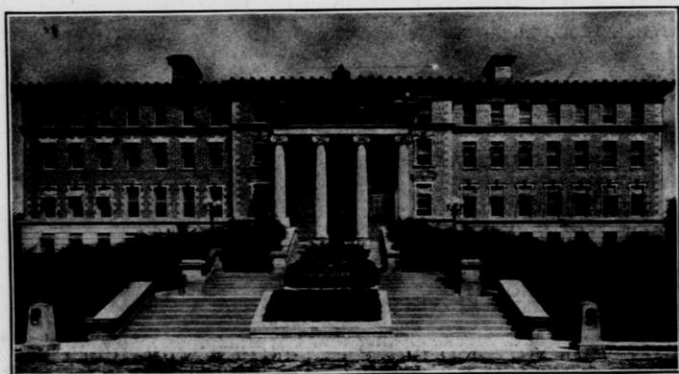
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BULLETIN OF THE UNIVERSITY OF WISCONSIN

No. 309: General Series, No. 178

THE UNIVERSITY OF WISCONSIN

COLLEGE OF AGRICULTURE



Agricultural Hall.

THE SHORT COURSE
IN AGRICULTURE

1909-1910

MADISON
Published by the University
July, 1909

CALENDAR

1909. Registration begins, Saturday, December 4.
Recitations begin, Monday, December 6.
Christmas, holidays, December 24 to 27.
Recitations resumed December 28.
1910. New Year's, legal holiday, January 1.
Washington's birthday, legal holiday, February 22.
Term ends March 10.
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SHORT COURSE FACULTY

CHARLES R. VAN HISE, President of the University.
HARRY L. RUSSELL, Dean of the College of Agriculture.
DANIEL H. OTIS, in charge of Short Course.

ALEXANDER S. ALEXANDER, Veterinary Science.
STEPHEN M. BABCOCK, Agricultural Chemistry.
EDWARD H. FARRINGTON, Dairy Husbandry.
JAMES G. FULLER, Animal Husbandry.
STEPHEN W. GILMAN, Business Practice.
JAMES G. HALPIN, Poultry Husbandry.
EDWIN B. HART, Agricultural Chemistry.
EDWIN G. HASTINGS, Agricultural Bacteriology.
GEORGE C. HUMPHREY, Animal Husbandry.
EDWARD R. JONES, Soils, Drainage.
JAMES G. MOORE, Horticulture.
RANSOM A. MOORE, Farm Crops.
CHRISTIAN P. NORFORD, Farm Crops.
CHARLES A. OCOCK, Agricultural Engineering.
DANIEL H. OTIS, Farm Management.
JAMES C. STEEN, Blacksmithing and Carpentry.
ANDREW R. WHITSON, Soils, Drainage.

JOHN ACCOLA, Swine Husbandry.
GUSTAVUS H. BENKENDORF, Farm Dairying.
LEWIS L. BOLSTEAD, Farm Dairying.
OCTAVE J. DELWICHE, Beef Cattle, Horses.
EDGAR W. FOX, Dairy Husbandry.
CLARENCE S. HEAN, Library Work.
GEORGE HUTTON, Horses.
JAMES JOHNSON, Horticulture.
FRANK KLEINHEINZ, Sheep Husbandry.
WILLIAM G. LOTTES, Blacksmithing.
WILLIAM E. MARKEY, Animal Husbandry.
JAMES G. MILWARD, Plant Life, Horticulture.
ROSEEL V. MORGAN, Carpentry.
HARRY L. POST, Farm Dairying.
AUGUSTUS J. ROGERS, JR., Horticulture.
HARVEY SANDELL, Soils, Drainage.
ALVEN L. STONE, Astronomy.
JOHN L. TORMEY, Animal Husbandry.
WILLIAM E. TOTTINGHAM, Agricultural Chemistry.

Entered as second-class matter June 10, 1898, at the post office at
Madison, Wisconsin, under the Act of July 16, 1894.

PURPOSE OF THE SHORT COURSE

The Short Course in Agriculture is designed to meet the needs of young men who desire to increase their skill and knowledge of agricultural science and practice by studying during the winter months.

This College of Agriculture has had 24 years experience in planning a course of study, selecting apparatus, equipping buildings and securing instructors and has succeeded in adapting this course perfectly to the needs of the ambitious young farmers of Wisconsin. The objects of the Short Course may be summed up as follows:

1. To give the largest amount of information and training in the shortest possible time without undue crowding, and thus enable young farmers, unable to take a long course, to reap many of the benefits to be secured at the University from the large expenditure of money by the state and the United States.
2. To give this information at the season of the year when the work on the farm is least pressing.
3. To enable young men from various portions of the state to associate with each other and meet prominent men from this and other states, and even from foreign countries.
4. To open the eyes of the young farmer to the many interesting facts and opportunities on the farm; to remove the drudgery from farm work; and to give him an inspiration along agricultural lines that will remain with him for life.
5. To help young men with little or no capital to secure positions where they can save money and gain valuable experience.
6. To uplift the farming interests of the state, to make better farmers, and more intelligent, useful citizens.



The College of Agriculture is a pleasant place to spend a winter.

PLAN OF THE COURSE

The Short Course in Agriculture includes two winter terms of fourteen weeks each. Instruction is given by means of lectures, recitations, laboratory practice, demonstrations and conferences. The greatest opportunity is given for the students to secure answers to individual questions and to make the studies as practical and helpful to each student as possible. The course of study is so arranged that students are given an idea of the fundamental sciences underlying successful agriculture in so far as time will permit. Based upon these fundamental sciences, the principles and approved practices of profitable farming are explained.

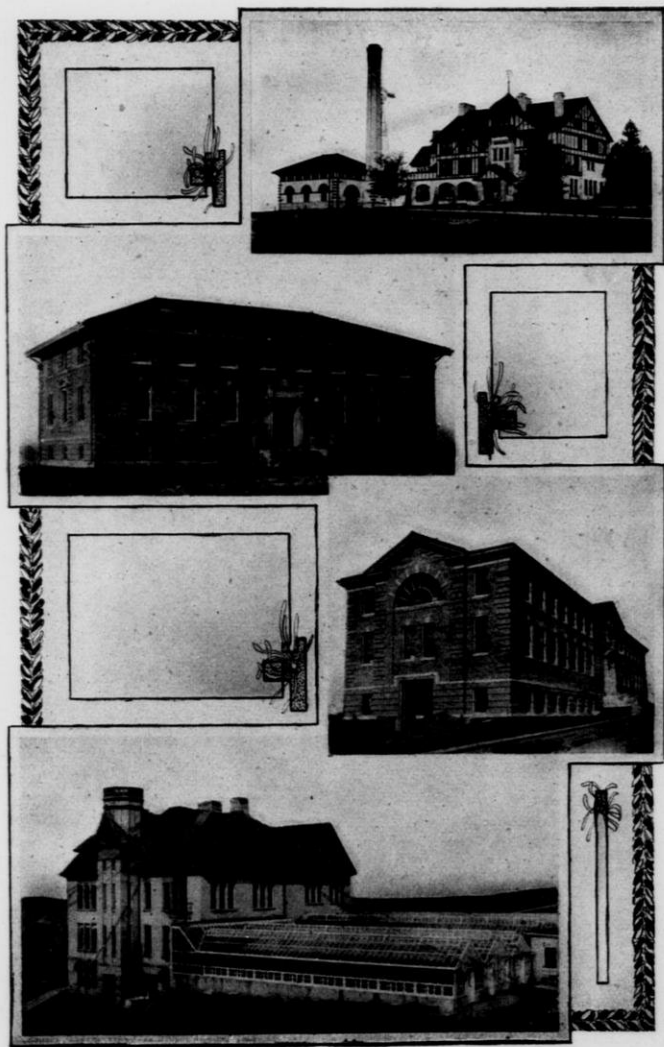
Text-books are used as an aid in understanding the lectures and laboratory exercises. In the laboratories, students are given practice in such subjects as stock and grain judging, grafting, budding and pruning fruit trees, testing seeds, laying tile drains, operating farm engines and machines, mixing rations for animals and examination of horses for soundness. Classes begin at 8 A. M. and continue throughout the day until 4 P. M., with a two hour noon intermission from 12 to 2 P. M. No classes are held on Saturday afternoons.

REQUIREMENTS FOR ADMISSION

Students should be at least 16 years of age and have a common school education to pursue the studies of the Short Course to the best advantage. No entrance examination is required. Experience has shown that young men at least 20 years of age who have a general knowledge of farming, preferably with a year's experience on the farm, can get the greatest benefit from the course. The Short Course is open to both sexes alike.

SHORT COURSE CERTIFICATE

Students who complete the studies of the Short Course in a satisfactory manner will be granted Short Course certificates duly signed by the Dean of the College of Agriculture. Certificates were first granted in 1895, 16 in number. The graduating classes have increased each year until in 1909, 165 students were recommended to receive certificates. The total number of certificates granted to date is 1,168.



FOUR BUILDINGS OF THE COLLEGE OF AGRICULTURE.

Hiram Smith Hall, Dairy Building (at the top), Agronomy, Agricultural Engineering, Horticulture-Soils with greenhouses (at the bottom).

FIRST YEAR SCHEDULE

Hour	Mon. and Tues.	Wed. and Thurs.	Fri. and Sat.
8-9	Agronomy, First 7 weeks. Agr'l Engineering, Second 7 weeks.	Horticulture.	Soils.
9-10 10-11	Section A. Agr'l Engineering. Library Practice.	Section B. Agr'l Engineering. Library Practice.	Section C. Agr'l Engineering. Library Practice.
9-10 10-11	Section B. Horticulture. Soils.	Section C. Horticulture. Soils.	Section A. Horticulture. Soils.
9-10 10-11	Section C. Agronomy. Business Practice.	Section A. Agronomy. Business Practice.	Section B. Agronomy. Business Practice.
11-12	Agricultural Chemistry.	Breeds.	Animal Husbandry First 7 weeks. Dairying, Second 7 weeks.
12-2	Intermission.		
	First third of term	Second third of term	Last third of term
2-4	Sec. A—Dairy. Sec. B—Stock Judging. Sec. C—Shop.	Sec. B—Dairy. Sec. C—Stock Judging. Sec. A—Shop.	Sec. C—Dairy. Sec. A—Stock Judging. Sec. B—Shop.

SECOND YEAR SCHEDULE

Hour	First third of term	Second third of term	Last third of term
8-9	Animal Husbandry.	Bacteriology.	Agr'l Engineering
9-10	Veterinary Science, Monday, Tuesday, Wednesday.		
	Live Stock Breeding, two hours a week. Poultry Raising, one hour a week.		Business Practice, Farm Management or Library Work.
10-12	Section A—Stock Judging or Shop.	Agricultural Engi- neering or Shop.	Agricultural Engi- neering or Shop.
	Section B—Stock Judging or Shop.		Stock Judging or Shop.
	Section C—Agricul- tural Engineer- ing or Shop.	Stock Judging or Shop.	
12-2	Intermission.		
2-4	Agronomy or Horticulture.	Soils or Animal Husbandry.	
4-5:30	Barn Work and Gymnastics.		



PRINCIPAL BUILDINGS OF THE UNIVERSITY FARM.
The Live Stock Pavilion (at the top), Dairy Barn and herd, Horse
barn (at the bottom).

DEPARTMENTS OF INSTRUCTION

LIVE STOCK BREEDING, JUDGING, FEEDING, CARE AND MANAGEMENT

PROFESSORS A. S. ALEXANDER, G. C. HUMPHREY; ASSISTANT PROFESSOR J. G. FULLER; INSTRUCTOR FRANK KLEINHEINZ; ASSISTANTS JOHN ACCOLA, O. J. DELWICHE, E. W. FOX, GEORGE HUTTON, W. E. MARKEY, J. L. TORMEY.

First Year—The work in animal husbandry for first-year students consists of lectures and laboratory practice. By means of text-books and illustrations the students are taught the origin, characteristics, and utility of the various breeds of live stock. Lantern slides are used for illustrating and studying the characteristics of the different breeds of horses, cattle, sheep and swine. Special attention is given to the study of those breeds which are peculiarly adapted to Wisconsin conditions.



Animals of the best breeding and finish are produced at the College as subjects for student training in live stock judging.

Students are taught the composition of the several nutrients of feeding stuffs, and their relation to the growth, to the fattening of domestic animals, and to the conditions affecting digestion. Careful drill is given with feeding standards and in the compounding of effective and economical rations for the various classes of farm animals. The leading crops of the farm are discussed from the standpoint of their feeding value.

The laboratory practice consists of the study of live animals in the stock-judging rooms. In these exercises the students are taught the qualifications and use of the ideal animal. Having the correct ideal in mind, the student rapidly acquires the art of comparing animals, thereby locating their defects and merits. The first year study thoroughly acquaints the student with the ideal types of the several breeds of live stock, and the market classes to which they belong.

Second Year—The instruction given to second-year students is a continuation of the work begun in the first year. Much attention is given to the principles, methods, and practices of breeding. Students are instructed as to the value of a pedigree and to its various forms and uses as applied to pure-bred animals. Lectures are also given on the care and management of each class of live stock.

Students of the second year are given special instruction on the feeding and care of each class of live stock. Particular attention is given to the various feeds and combinations of feeds especially suited for various animals. Instruction is also given on the feeding and maintenance of animals for various purposes.

The laboratory work for second-year students includes the scientific classification of animals, and practical work in their care and management. Having been taught the ideals for the various feeds and classes of animals, the advanced students are given thorough training in competitive judging, which involves the rating of a class of animals according to their order of merit as specified for that particular class. They are also given instruction in grooming, fitting, and preparing stock for show or sale. The students are required to assist, to a certain extent, in the practical feeding and management of cattle, horses, sheep, and swine of the University farm.



The flock furnishes some of the leading International prize winners as well as excellent subjects for class-room use.

VETERINARY SCIENCE

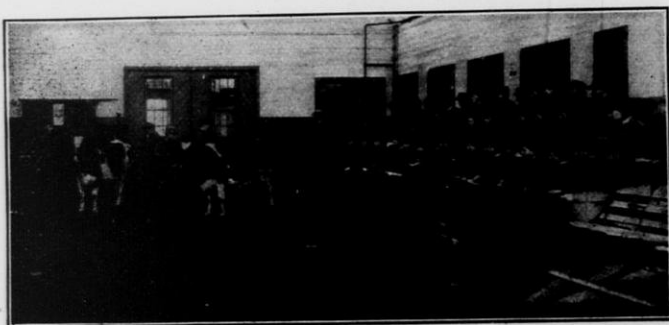
PROFESSOR A. S. ALEXANDER

In this course second-year students will be given instruction regarding the rudimentary anatomy and physiology of animals; also the nature, cause, and symptoms of the more common diseases and



A trio of draft horses owned by the University farm.

means by which they may, in many instances, be prevented. It will be the aim and object of the instruction to qualify each student to act as an intelligent, capable nurse of ailing animals, and to be able to recognize diseases, to give the first aid where necessary, and to properly carry out the orders of the attending veterinarian. During the course practical demonstrations will be given, simple operations will be indicated, methods employed in recognizing diseases and administering medicines will be taught. Full instructions will be given in the examination of horses for soundness, and students will be required to pass upon soundness of subjects selected for the purpose.



Dairying is paramount in Wisconsin and the judging of dairy cattle is given due emphasis in the Short Course.

The information acquired in this course will prove of great value in the breeding, judging, feeding, and general management of farm animals, and an excellent preparation for those who intend later to enter a veterinary college. As aids to the work, the department has skeletons of the horse and the cow; an Azoux life-size dissectible model of a horse, containing 3,000 named parts; Azoux models of separate and diseased parts; numerous veterinary specimens and a collection of modern veterinary instruments, casting apparatus, drugs, etc.

FARM DAIRYING

PROFESSOR E. H. FARRINGTON; INSTRUCTORS G. H. BENKENDORF, L. L. BOLSTEAD, AND ASSISTANT H. L. POST.

Farm dairying is taught by lectures and laboratory practice. Lectures will be given on the following subjects: the conditions which affect the yield, composition and value of milk; the production of milk for the making of butter and cheese; the principles involved in the separation of cream by the gravity and centrifugal systems; the handling of cream for direct consumption and for the manufacture of butter, etc.

The dairy laboratory in Hiram Smith Hall is equipped with the most approved apparatus for the testing of milk, the separation of cream and the manufacture of butter. In this



Practical training in farm dairying is given through actual practice in butter and cheese making in the laboratories.

laboratory students are given practical instruction in all branches of farm dairying, including the testing of milk and cream, the detection of the more common adulterants of these products and the operation of hand separators, churns, butter workers, and other appliances of the dairy.

POULTRY HUSBANDRY

ASSISTANT PROFESSOR J. G. HALPIN.

Lectures on the breeding, feeding and management of poultry under farm conditions are offered, supplemented by demonstrations of the selection of fowls for meat and egg production. The poultry department has just been established and every opportunity will be offered to those students who desire to secure an intimate knowledge of modern methods with poultry. Opportunity for supplementary reading in connection with the course is offered by the complete files of poultry journals and books to be found in the Agricultural Library. This course will be elective for second-year students.

AGRICULTURAL CHEMISTRY

PROFESSOR E. B. HART; INSTRUCTOR W. E. TOTTINGHAM.

This course treats by lectures and demonstrations of the application of chemistry to the farm. Such topics as the chemical elements contained in the air and soil and their relation to crops are discussed. Consideration is given to how



Intelligent management of the application of stable manures is essential to secure the maximum profit from Wisconsin farms.

the plant grows and feeds and the animal food products it yields. Especial attention is devoted to the chemistry and conservation of manures, the relation of feeding stuffs to their composition, and to the origin, composition and purchase of commercial fertilizers. Students receive instruction concerning the composition of domestic animals at various stages of growth and the processes involved in their use of the several nutrients of feeding materials. The commercially important constituents of milk and their relation to other dairy by-products are also studied.

AGRICULTURAL BACTERIOLOGY

ASSOCIATE PROFESSOR E. G. HASTINGS.

A course of lectures on the relation of bacteria to agriculture is given to the students in the second year of the course. The lectures are supplemented by reading and demonstrations in the lecture room and laboratory. Attention is especially given to those phases of bacteriology which are of greatest importance from the standpoint the farmer. The relation of the bacteria to the decomposition of organic matter, and the effect upon the fertility of the soil are studied, as are the relations of bacteria to the leguminous plants and to the rotting of manures.



The use of disinfectants to control common germ diseases of animals is fully discussed in the Short Course.

Those transmissible diseases of animals which the stock man and breeder is certain to meet in his work, are considered especially from the standpoint of prevention. The students are taught the use of the tuberculin test in order that they may apply it to their herds. The efficiency of the test as a means of diagnosis and the changes to be found in the body of the diseased animal are shown by slaughtering tuberculous cattle.

In dairy bacteriology especial attention is paid to the contamination of milk on the farm and its relation to the value of milk for the city market and for butter and cheese making. The distribution of disease by milk is also considered.

SOILS

PROFESSOR A. R. WHITSON; ASSISTANT PROFESSOR E. R. JONES, AND ASSISTANTS F. J. SIEVERS AND HARVEY SANDELL.

First Year—Students receive instruction in the principles of soil management, including the conditions affecting and means of maintaining fertility and good tilth. The chief subjects studied are the following: chemical composition of soils and the forms of material available to the plant as food; the water requirements of plants; the water holding capacity



Short Course students are given thorough training in the location and laying of tile drains since such drainage is needed by over 2,000,000 acres of Wisconsin lands.

of soils, and cultivation to conserve moisture; tillage to improve tilth; the soil conditions required by the different crops and the influence of rotation on the soil.

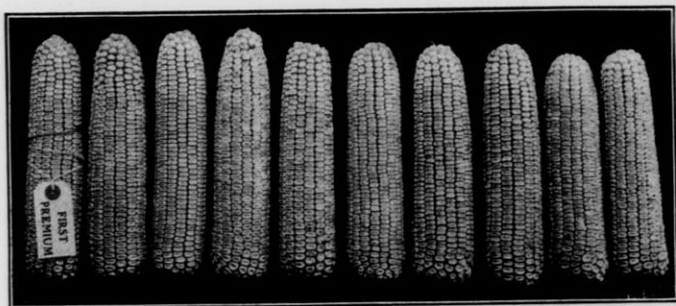
The course includes laboratory and demonstrational exercises planned to aid the student to understand the lectures.

Second Year—Students are given laboratory work in soil physics, including studies in mechanical analysis, water holding capacity, and the rate of capillary movement in different types of soil. After a brief study of the conditions influencing rainfall and the factors relating to the disposal of the same, they are given a course in drainage, including levelling, making plans, and laying tile. Daily lectures precede the laboratory period.

FARM CROPS

PROFESSOR R. A. MOORE, ASSISTANT PROFESSOR C. P. NORGDORF,
AND INSTRUCTOR A. L. STONE.

First Year—The aim of the first-year course is to give the student an intelligent understanding of grain judging in the laboratories by practice work in judging, testing and grading of corn, barley, oats, wheat, rye and buckwheat.



Exhibition of corn grown by a former Short Course student showing the ideal toward which all students are instructed.

Students are given a series of lectures and laboratory exercises on cereals. The plan of the work outlined by the Experiment Association will be taken up and discussed in detail.

Second Year—Students are given lectures and labo-

oratory exercises on forage, fiber and root crops. It is necessary for second-year students to finish the work in grain judging before taking up the work with forage, fiber and root crops. The aim of the instruction throughout the course is to fit the students to judge samples of grain in a systematic manner. Best methods of testing the seed, planting, cultivating, harvesting, and curing crops are discussed.

FARM MANAGEMENT

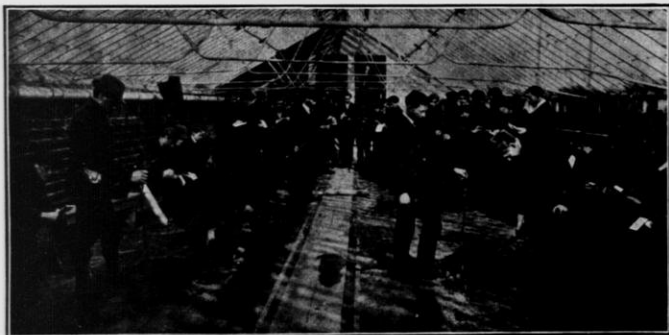
PROFESSOR D. H. OTIS.

This course teaches how to plan the various operations of the farm so as to enable the individual farmer to conduct his entire farm successfully and economically. This includes the size and location of the farm, its adaptability, crops, livestock, the laying out of the farm plan, the equipment necessary for the various types of farming, the capital necessary to get a start, and the farm help. It is expected that trips will be taken to various farms to study their methods and equipment.

HORTICULTURE

PROFESSOR _____, ASSISTANT PROFESSOR J. G. MOORE,
INSTRUCTORS J. G. MILWARD, A. J. ROGERS, AND
ASSISTANT J. JOHNSON.

The horticultural work of the Short Course has been arranged to meet the demands of the ordinary farm. The first-



Indoor practical work in horticulture is a profitable part of the work in this department.

year work is designed to give the student a general and comprehensive knowledge of the subject of plant life. Students who elect horticulture in the second year will be given an opportunity to study the special phases of horticultural work more in detail.

First Year—Two lectures a week will be given which will consider the various factors of environment as they apply to the culture of plants. Laboratory work will consist of seed testing; study of seed and plant structure; plant growth; the handling of cold frames and hot beds; the growing of vegetables; and the compounding of insecticides and fungicides.

Second Year—Special attention will be given to the problems connected with farm orchard management. Laboratory practice will be given to the student as far as practicable in handling the orchard equipment of the department. Propagation of fruits, spraying and pruning will be given special attention. The lecture work will consist of directions for choosing locations; methods and plans of planting; and special treatment for the various fruits. Specimens of the common orchard insect pests and diseases will be studied in connection with methods of controlling them.

BLACKSMITHING AND CARPENTRY

SUPERINTENDENT J. C. STEEN; ASSISTANTS W. G. LOTTES, BLACKSMITHING; R. V. MORGAN, FARM CARPENTRY AND BUILDING CONSTRUCTION.

This course embraces instruction in carpentry and blacksmithing given in the Machine Shops of the College of Engineering. It is so planned and directed as to cover the fundamental principles of each branch. The student completing the course will be able to take proper care of edged tools, cut rafters, splice timbers, frame buildings, make gates, tool chests, and to do the ordinary carpentry of the farm. A course of lectures is given on the growth and development of timber, and its preparation for use in manufacturing and building construction. A course in wood turning may be taken by students who feel the need of such work.

A number of our students have, after leaving us, built blacksmith shops on their own farms, and, at spare times, perform all the common blacksmithing required. This course is optional with both first and second year students.

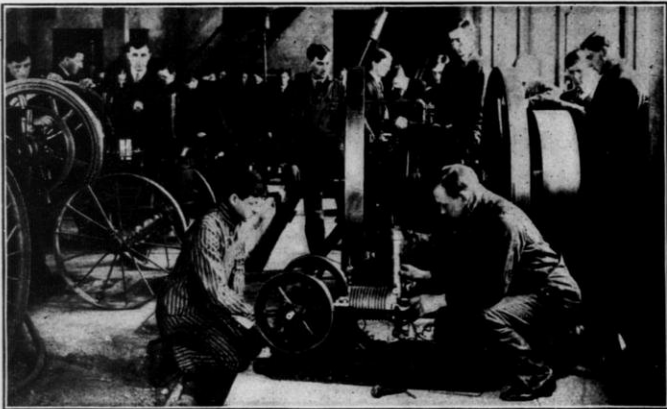
An advanced course in blacksmithing will be offered to second year students who have completed the first year's work, consisting of welding Bessemer steel, brazing rings and saws, welding calks on horse-shoes, forging and tempering springs, tongs, hammers, anvils, etc.

Drill will be given in dressing and tempering plow shares, axes, grub hoes, and picks to those students who provide these articles. Work not mentioned, that students are interested in, will be taken up providing there is sufficient time.

AGRICULTURAL ENGINEERING

ASSISTANT PROFESSOR C. A. COCK.

This department offers instruction in rural architecture and farm machinery. The work in architecture will include the designing of barns, silos, piggeries, small poultry houses, etc. The instruction in farm machinery embraces lectures



Farm motors and machinery from the smallest to the largest are demonstrated and explained in the farm power laboratory.

and laboratory work with ordinary farm machinery, plows, harrows, cultivators, planters, mowers, etc.

In the second year an elective course will be given, which may be elected with courses in shop work and stock judging. This course will cover one-third of the term.

BUSINESS PRACTICE

PROFESSOR S. W. GILMAN.

This course will treat of three general subjects, book-keeping, commercial law, and general business management. The work in bookkeeping will include elementary principles of bookkeeping; simple theory of accounting; handling of cash book and journal; drills in farm transactions; partnership accounts; determination of losses and gains, including both lectures and laboratory drill.

Under the head of commercial law the following subjects will be treated: formation of contracts; classes of agreements; necessity for "consideration"; fraud and misrepresentation; law affecting sales of goods; warranties; titles; interest and usury; banks and deposits; bills and notes; law of real property; fences; cattle trespass; support of land; conveyances of interest in lands; wills; mortgages; liens; leases; assignment and sub-letting.

The general business management of the farms will be taken up along the lines of: business aspects of farming; direction, management and tenancy; farm equipment; illustrations of good and bad business methods; marketing of agricultural products; function of the market; direct selling; credits and collections.

LIBRARY WORK

LIBRARIAN - C. S. HEAN.

The aim of this course is to teach the student to use books, papers, and bulletins as tools.

First Year—Lectures will be given on classification and other library methods, and on the literature of agriculture, including books and serial publications. These lectures will be supplemented by practical work in the use of books. Special attention will be given to the best ways in which to read and study newspapers, farm papers, bulletins, etc., methods of keeping files and records of valuable articles read, how to get government as well as state bulletins and reports, how these may be filed and indexed so as to be a ready and valuable reference for the busy farmer.

Second Year—Review of subjects covered by first year's course, and more advanced reference work. Students will be

required to compile bibliographies of subjects which are covered by their course, to the end that they may know what is written and how to find all the available material on any given subject. Papers will be written by all the members of the class which will call for a study of all the references listed in one of these bibliographies.

THE SHORT COURSE LITERARY SOCIETY

This organization is conducted by the students in the Short Course in Agriculture for the purpose of creating interest and securing practice in parliamentary drills, debating, essay writing and public speaking. Weekly meetings are held at which programs are given by members of the society occasionally assisted by members of the faculty and other speakers. The society's work will be under the direction of Messrs. Marquis, Otis and Stone.

In connection with the Literary Society students taking the Short Course during recent years have organized a band, an orchestra and a quartette or glee club.

The Agricultural Experiment Association is an organization of former Short Course students for the purpose of conducting crop tests in co-operation with the Agricultural Experiment Station. The annual meeting of this association will occur February 10-11, 1910, and students of the Short Course will be able to attend all of the interesting sessions.



The 1908-1909 Short Course Band.

GRADUATES AND FORMER STUDENTS OF THE SHORT COURSE

Since the Short Course was established in 1885, a total of 2,780 students have received the benefits of this special instruction during the winter months. The course has grown



Short Course students have come from every important agricultural county in the state. This map shows the number per county.

almost constantly and the yearly increase in attendance ranging as high as 86 in 1908. Some 341 of these students have come from other states and countries, many foreign lands being represented.

Graduates of the Short Course are now engaged in farming in several foreign countries. Over 90 per cent of those who have taken the Short Course are actually engaged in farming or in some work connected with agriculture. Many of them occupy responsible positions having had no other special agricultural training except the Short Course, supplemented by farm experience.

	Attendance
1885-6	19
1886-7	25
1887-8	27
1888-9	41
1889-0	27
1890-1	17
1891-2	45
1892-3	68
1893-4	66
1894-5	102
1895-6	90
1896-7	105
1897-8	156
1898-9	195
1899-0	252
1900-1	297
1901-2	295
1902-3	299
1903-4	310
1904-5	312
1905-6	322
1906-7	327
1907-8	393
1908-9	461
1909-	461

Growth of the Short Course since it was begun in 1885. The increase last year was greater than ever before and the growth for the last two years has been more than double the growth of the previous seven years.

Many former Short Course men have pursued advanced studies in agriculture and are now holding prominent positions in the colleges of agriculture and experiment stations in the country. Nearly every county in the state is represented and delegations from various counties are rapidly increasing from year to year.

THE BENEFITS OF THE SHORT COURSE

Short Course a Profitable Investment

I estimate that my investment in the Short Course pays 200 per cent annually. It should do that for any one with a few years' experience. I figure the cost of the investment of the Short Course at \$500—\$200 for time and \$300 for expenses during the two terms.—W. R. Holcomb, Minnesota.

Since 12 years ago I have increased my earning capacity 400 per cent, one-fourth of which was due to the Short Course. There are other things one gets at the Short Course, which I value as much or more than the increase in earning power.—A. T. Bruhn, Iowa County.

The Short Course increased my earning capacity \$5 to \$10 per month and enabled me to understand why different things were done on the farm.—C. T. Peterson, Burnett County.

As an Inspiration to Better Farming

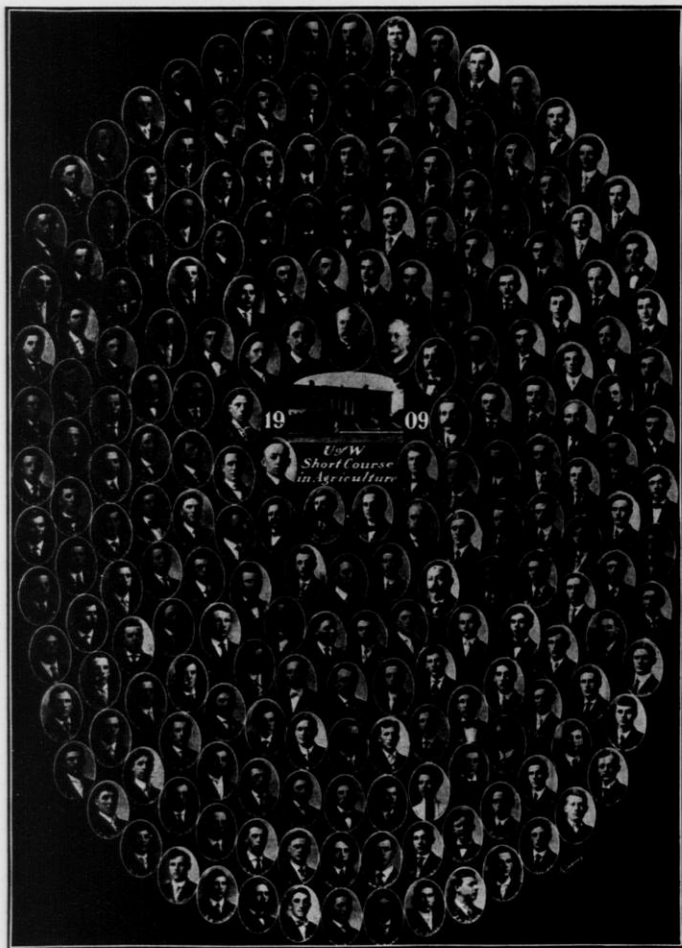
The Short Course created in me a desire for pure-bred stock and several things learned during the term were worth the cost of the whole course. If people realized the benefit of such a course the college would not be able to accommodate those who would come.—George P. Tubbs, Outagamie County.

The Short Course has made me love the farm by showing the great possibilities of farming. Its value to me has been inestimable and I sincerely wish that every boy on Wisconsin's farms today could take the Short Course.—O. R. Frauenheim, Sheboygan County.

The knowledge gained during my attendance at the Short Course is of practical use every day in my profession as a veterinarian in that it enables me to converse intelligently with farmers on almost any farm subject. I am also able to prescribe proper rations for feeding an animal in diseased condition.—W. G. Clark, Marinette County.

The Short Course is a great mind broadener, letting one into the whys and hows of things so that one can make every stroke count.—F. F. Phelps, Illinois.

I never enjoyed school life before as I did the Short Course. In my estimation it is indispensable to any young man with an agricultural trend of mind.—R. E. Daly, Bayfield County.



THE GRADUATING CLASS OF THE SHORT COURSE 1909.

These young men have received as thorough training as 28 weeks in a well equipped institution under the direction of a capable corps of instructors can furnish. That they are well equipped to become successful farmers has been repeatedly proven by the success of former students.

TUITION AND FEES

For residents of Wisconsin: tuition, free; incidental fee, \$5; laboratory fee, \$2; gymnasium fee, \$.75; breakage and key deposit, (of which the balance not needed is returnable), \$2; total, \$9.75.

Residents of other states: tuition, \$15; laboratory, \$12; incidental, \$5; lecture, \$10; gymnasium, \$.75; breakage and key deposit, unused portion returnable, \$2; total, \$44.75.

EXPENSES**Actual Expenses of Students Taking the Short Course**

	First Year	First Year	Second Year	Second Year
Room		\$17.50		\$17.25
Board	\$45.15	45.00	\$58.90	49.00
Books, suits and supplies.	11.54	21.10	12.75	8.05
Fees	10.75	7.75	7.75	7.75
Miscellaneous	17.21	5.20	8.75	7.44
Visiting Stock Farms....	4.10
Total.....	\$94.65	\$96.55	\$92.07	\$89.49

Students should not bring large sums of money in currency or checks but should place their surplus money in a bank and draw upon it from time to time by check or certificate. Bring Post Office money orders instead of checks or drafts to avoid the necessary identification at the bank. Large sums of money should not be carried in the pockets or left in rooms.

Have mail addressed to room number or care of College of Agriculture, marked "Short Course."

RULES FOR STUDENTS

Absences and Excuses—Absences from lectures and other exercises may be excused by the class officer when such absences are due to sickness or other good reasons, which he may consider satisfactory. When an excuse is accepted, the absence does not stand against the student in examinations.

A student having three or more unexcused absences from a course of lectures or other exercise is not given a standing at

the examination in the subject. His paper, if written, need not be marked by the instructor.

Breakage—All apparatus, furniture, or supplies broken or removed from the building by the students will be charged to the person responsible for the damage; if the person or persons responsible for the damage are not known, the loss will be equally divided among all the students.

Department—All students are expected to conduct themselves in a gentlemanly manner and the use of coarse language or tobacco is strictly prohibited in or about any of the college buildings. Frequenting saloons and drinking intoxicating liquors is forbidden.

BOOKS, SUITS AND SUPPLIES

First-year students will need one white suit and one blue suit to be used in farm dairying and live stock judging. These can be purchased locally at about the cost of \$1 per suit.

The following books will be used and may be purchased at local stores at the prices mentioned:

"How to Keep Farm Accounts," Steiner.....	\$1.75
"Feeds and Feeding," Henry.....	1.25
"Testing Milk and Its Products," Farrington & Woll.....	1.00
"Types and Breeds of Farm Animals," Plumb.....	1.25
"Rules of Order," Roberts.....	.60
"Chemistry of the Farm," Farrington.....	.95
"Principles of Plant Culture," Goff.....	1.00
"Soils," Burkett	1.00
"Notes on Soils," Whitson.....	.35

Second-year students will need one blue suit of overalls for work in barns and shops. The following books will be required:

"Agricultural Bacteriology," Russell & Hastings.....	\$1.10
"Veterinary Studies for Agricultural Students," Reynolds.	1.50
"Notes on Drainage," Jones.....	1.10

OTHER COURSES IN COLLEGE OF AGRICULTURE

The Long and Middle Courses in Agriculture covering four and two full college years respectively, are offered to those prepared to take up regular University work. Many students taking the Short Course have been led to realize the value of more advanced study and have returned to pursue the Long and Middle Courses. Details concerning these courses may be had upon request to Dean H. L. Russell, College of Agriculture, Madison, Wis.

Courses in Home Economics for young women prepared to take regular University studies are offered in the Department of Home Economics of the College of Agriculture. These courses are designed to meet the needs of those who desire training in home making, as well as others who are planning to teach domestic science in the schools. For separate circular concerning this course address Miss Abby L. Marlatt, Madison, Wis.

The Farmers' Course, a 10 days' course of popular lectures, demonstrations and exercises in practical agricultural science beginning early in February. Open to farmers over 25 years of age. For circulars and other information, address Professor D. H. Otis, Madison, Wis.

The Winter Dairy Course, a 12 weeks' course beginning early in November, including lectures, laboratory and practice work in the manufacture of dairy products. For circulars, address Professor E. H. Farrington, Madison, Wis.

The Summer Dairy Course, a 10 weeks' training course in dairy factory operations for beginners. Students are admitted any time during the spring or summer after March 1. For particulars, address Professor E. H. Farrington.

The Special Dairy Course for creamery and cheese factory operators and managers covers 10 days and includes addresses and laboratory demonstrations. Given at the time of the Farmers' Course. For details, address Professor E. H. Farrington.

The Women's Course, a week's course of lectures and demonstrations on various phases of Home Economics, cooking, nursing, etc. Given during the Farmers' Course. For details, address Miss Abby L. Marlatt.

OPPORTUNITIES FOR SHORT COURSE GRADUATES

The benefits, which young men from the farms derive from the Short Course have become so well known among prominent farmers and stockmen and others that the College of Agriculture is constantly receiving applications for Short Course students to take positions as herdsmen, farm superintendents, foremen, and managers, etc., on the farms in this and other states. During the last years numerous requests have been received and a large number have been assisted in securing positions.

Aside from those helped to employment during the Short Course a large proportion of those who have attended the course have returned to their own home farms and have increased their financial income as a result of practicing what they have learned at the College of Agriculture. The course is not intended to train men to take positions but primarily to equip the young men of Wisconsin to aid in improving the agriculture of the state.

THE SHORT COURSE IN AGRICULTURE

Application for Admission

I hereby apply for admission to the Short Course in Agriculture for the term beginning December 4, 1909, and closing March 10, 1910.

Should I change my address before December 5, or should anything occur which will prevent my attendance, I will at once notify you, that my place can be filled by some other applicant.

Name Age.....

Postoffice

State County.....

Dated....., 1909.

Persons desiring to take the Short Course in Agriculture the coming term are requested to fill in the above blank, tear off, and send to Professor D. H. Otis, Madison, Wis.