

# Short course in agriculture: 1916-1917. 1916

University of Wisconsin. College of Agriculture Madison, Wisconsin: University of Wisconsin, 1916

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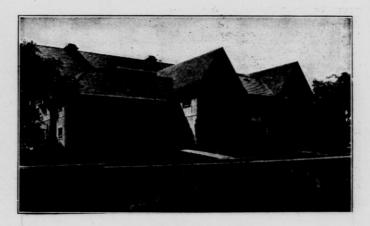
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# BULLETIN OF THE UNIVERSITY OF WISCONSIN Serial No. 799, General Series No. 596

#### SHORT COURSE IN AGRICULTURE



LIVE STOCK PAVILION

COLLEGE OF AGRICULTURE
OF THE
UNIVERSITY OF WISCONSIN

1916-1917

MADISON
Published by the University
June, 1916

#### CALENDAR

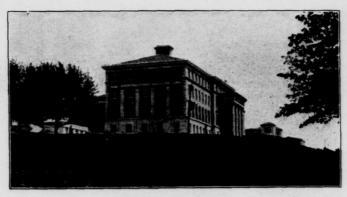
- 1916 Registration begins, Friday and Saturday, December 1 and 2. Recitations begin, Monday, December 4.

  Make-up examinations, December 14, 15 and 16.

  Christmas holidays, December 21, (at noon).
- 1917 Recitations resumed, Thursday, January 4, 8 a. m.. Term ends, March 15. Closing Day Exercises, March 15.

#### SHORT COURSE FACULTY

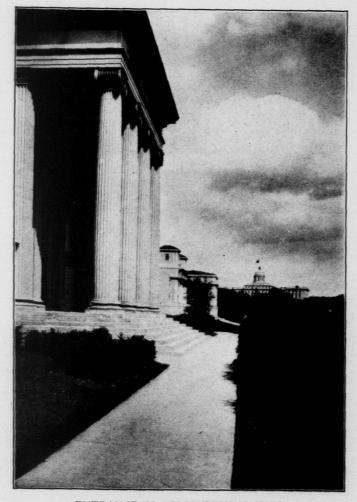
CHARLES R. VAN HISE, President of the University.
HARRY L. RUSSELL, Dean of the College of Agriculture.
DANIEL H. OTIS, Assistant Dean, in charge of Short Course.
A. S. ALEXANDER, Veterinary Science.
J. C. ELSOM, Gymnastics.
J. G. FULLER, Animal Husbandry.
C. J. GALPIN, Rural Institutions.
A. L. GODDARD, Carpentry and Blacksmithing.
J. G. HALPIN, Poultry Husbandry.
B. H. HIBBARD, Cooperation and Marketing.
G. C. HUMPHREY, Animal Husbandry. G. C. HUMPHREY, Animal Husbandry. G. C. HUMPHREY, Anima ridsoandry.
E. R. JONES, Drainage.
L. R. JONES, Plant Diseases.
J. G. MOORE, Horticulture.
R. A. MOORE, Agronomy.
A. C. OOSTERHUIS, Animal Husbandry. A. C. OOSTERATOR, Aminar Russaday,
D. H. OTTIS, Farm Management.
A. L. STONE, Agronomy,
J. L. TORMEY, Animal Husbandry,
W. F. TOTTINGHAM, Agricultural Chemistry
F. M. WHITE, Agricultural Engineering,
A. R. ALBERT, Soils.
J. W. BRANN, Horticulture and Plant Diseases H. A. BRUNSELL, Carpentry. H. A. BRUNSELL, Carpentry.
C. A. DAY, Dairying.
O. J. DELWICHE, Animal Husbandry.
J. I. ETHERIDGE, Agronomy.
E. W. FOX, Animal Husbandry.
L. F. GRABER, Agronomy.
C. I. GRIFFITH, Agricultural Engineering.
J. B. HAYES, Poultry Husbandry.
C. S. HEAN, Library Practice.
J. R. HEPLER, Horticulture.
J. L. HORWITZ, Dairying.
O. N. JOHNSON, Poultry Husbandry.
F. R. JONES, Agricultural Engineering. F. R. JONES, Agricultural Engineering. E. KIRST. Animal Husbandry. F. KLEINHEINZ, Animal Husbandry. A. H. KUHLMAN, Animal Husbandry. B. D. LEITH, Agronomy.
W. E. MARKEY, Animal Hustandry.
G. B. MORTIMER, Agronomy. G. B. MORTIMEN, Agrounday.
H. SANDELL, Soils.
A. A. SCHAAL, Agricultural Chemistry.
L. M. SCHINDLER, Agricultural Engineering.
R. N. SCHUMANN, Blacksmithing.
H. V. TENNANT, Agricultural Engineering.
OSWALD TISS, Dairying.
W. W. WIFE Saila. W. W. WEIR, Soils. W. H. WRIGHT, Agricultural Bacteriology. O. ZEASMAN, Drainage. L. R. ZERBEL, Agronomy. GEO. ZURIAN, Carpentry



#### AGRICULTURAL HALL Headquarters for Short Course Activities.

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ENTRANCE TO AGRICULTURAL HALL

Home Economics-Extension Building and University Hall as seen from the West.

#### OPPORTUNITIES FOR SHORT COURSE GRADUATES

The demand for well trained young men to take up responsible farm positions is much greater than the supply. The employment office of the College of Agriculture is constantly receiving requests for reliable young men. During the past year over 300 applications for help were received at this College.

The kind of positions which are open to Short Course graduates is indicated by the nature of the application, some of which are as follows: assistants on dairy farms at \$30 to \$35 per month; herdsmen and feeders, \$35 to \$50; gardeners and fruit raisers, \$30 to \$35; farm managers, \$40 to \$75; ranch foremen, \$60 to \$100; superintendents of farms, \$40 to \$100; teamsters, \$30 to \$40; tenants to operate farms on shares, poultrymen, etc.

Such positions do not attract all Short Course students as many realize that there is a much larger field with greater financial income in returning to their home farms and beginning operations in co-operation with their fathers or brothers.

#### PURPOSE OF THE SHORT COURSE

The Short Course in Agriculture was started in December 1885, with an attendance of 19 students. It was largely at the suggestion and insistence of the late Senator W. F. Vilas, that Dean Henry undertook the direction of this course. The course is designed to meet the needs of the young men who desire to increase their skill and knowledge of agricultural science and practice by studying during the winter months, when it is possible to leave the farm without serious inconvenience.

This College of Agriculture has had over 30 years' experience in planning a course of study, selecting apparatus, equipping buildings and securing instructors and has succeeded in adapting this course to the needs of the ambitious young farmers of Wisconsin.

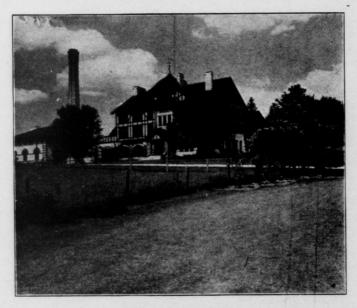
The six principal objects of the Short Course may be summed up as follows:

1. To give the largest amount of information and training in practical agriculture in the shortest possible time without undue crowding. This enables young farmers, unable to take a longer course, to reap many of the benefits to be secured at the College of Agriculture.

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 from foreign countries.

4. To awaken 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.



THE DAIRY GROUP

Practical work in all phases of farm dairying is given to the Short Course students.

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.

#### 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, which makes the studies practical and helpful to each student. 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.

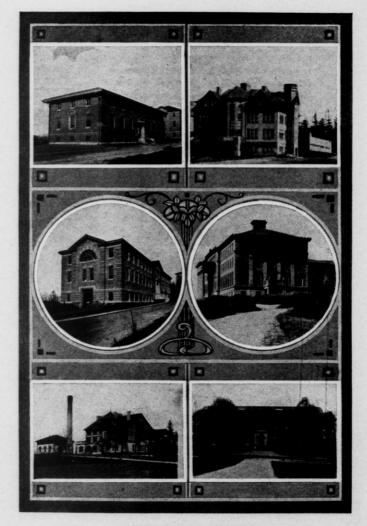
Text-books are used as an aid to understanding the lectures and laboratory exercises. In the laboratories, students are given practice in such subjects as stock and grain judging, grafting, budding and pruning fruit trees, testing seeds, laying the drains, operating farm engines and machines, mixing rations for animals and examination of horses for soundness. Classes begin at 8 a. m. and continue throughout the day until 3:30 p. m. with a 1 1-2 hour noon intermission from 12 to 1:30 p. m. No classes are held on Saturday afternoons.

#### STUDENT ACTIVITIES

The Short Course Literary Society is conducted by the students in the short course for the purpose of holding weekly meetings at which members of the Society participate in parliamentary drill, debating, and public speaking. These meetings are frequently addressed by prominent agriculturists and members of the faculty. Social features are often included and every Friday night during the short course is devoted to the Literary Society meeting.

A new feature, in the nature of an oratorical contest was introduced during the past winter. Contestants from both classes entered this contest. The organization is under the direction of Professor Otis and assistants.

The Agricultural Experiment Association is an organization of former students of the College of Agriculture for the purpose of conducting field tests with grains and forage plants, the growing and dissemination of pure bred seeds, and experimental field work with all departments of agriculture in co-operation with the Experiment Station. The annual meeting of this Association occurs in



A FEW OF THE BUILDINGS

Agronomy Building Agrl. Engineering Building Dairy Building Soils Building Agricultural Hall Horticultural Building January and students of the short course are given an opportunity to attend its sessions and become members. The present membership of this association is about 1,500. Prof. R. A. Moore is the secretary.

#### SHORT COURSE MUSIC

During the past year the University School of Music has undertaken the supervision of all musical activities of the Short Course. Instruction in Chorus or Glee Club work, Band and Orchestra, is now offered by the school, under the direction of one of the school of Music Instructors.

Members of these organizations are chosen by a competitive tryout, all students of the Short Course being eligible to compete for positions. These organizations furnish music for the Literary Society meetings, Y. M. C. A. gatherings, School of Music concerts, Short Course Closing Day and other public functions. Candidates for positions in the Band, Orchestra or Glee Club, should write to J. E. Saugstad, University School of Music, stating their plans and qualifications for music work.

#### REQUIREMENTS FOR ADMISSION

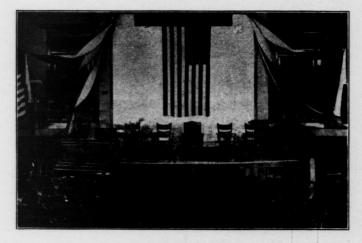
Students should be at least sixteen years old and have a common school education to pursue the studies of the Short Course to the best advantage. No entrance examination is required. Experience has shown that young men at least twenty years old who have a general knowledge of farming, preferably with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

#### STUDENTS ENTERING FROM COUNTY SHORT COURSES

Graduates of County Short Courses who have passed examinations satisfactory to the faculty of the College of Agriculture are admitted to the second year of the short course. Such graduates, however, should make their application for entrance two weeks or more before the opening of the Short Course.

#### STUDENT HEALTH

When Short Course Students enter the University they are given assignments of time for physical examinations, which are given by the Department of Clinical Medicine. The Medical Adviser's office is established for the general supervision of the students who may need medical attention. It is earnestly desired that all cases of



THE AUDITORIUM

Used for class work, literary society meetings, closing day exercises, etc.

student illness be promptly reported to this office, whether or not professional service is desired. At the same time it is hoped that students shall feel free to seek advice concerning the care of their health.

Minor illnesses and conditions affecting the general welfare of the University community are treated by the members of the staff, but students requiring special care are referred to specialists.

#### **EXPENSES**

Tuition. Tuition is free for residents in Wisconsin. In accordance with the action of the last Legislature, all non-resident students at the University of Wisconsin are charged tuition at the rate of \$124 for the full academic year of 36 weeks. For the Short Course of 14 weeks the tuition for non-residents is therefore \$48.21.

Fees. All students pay the following fees: Incidental fee, \$6.50; laboratory fee, \$7.00; breakage and key deposit, \$2.00; (unused portion returnable); total \$15.50.

Other Expenses. Students have reported living expenses during the short course as follows: room and board, \$75 to \$90; books, suits and supplies, \$20; fees, \$15.50; miscellaneous expenses, \$10 to \$20, totals about \$120 to \$140. It is possible for any thrifty student to take the Short Course for the expenses above mentioned, although many voluntarily spend considerably more than this amount.

Students should not carry 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.

Lists of rooms and boarding places will be prepared by a representative of the Y. M. C. A., who will be located in the corridor of Agricultural Hall during Registration days, to aid students in securing desirable accommodations. All students live in private homes, as the University has no dormitories or dining rooms for men.

Have mail addressed care of College of Agriculture, plainly marked "Short Course."

#### SHORT COURSE CERTIFICATES

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 Short Course has experienced such marked growth that in 1916 certificates were granted to 142 students. The total number of certificates granted to date, including 1916, is 2,337.

#### AGRICULTURAL BACTERIOLOGY

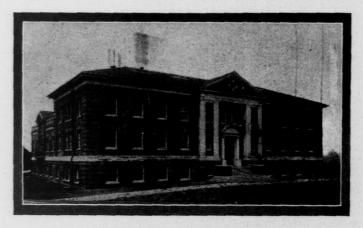
ASSISTANT PROFESSOR W. H. WRIGHT.

A series of lectures on the relation of bacteria to agriculture is given in the second year of the course. The main purpose is to acquaint the student with those phases of bacteriology which he should take into account in his daily life. With this idea in mind, especial attention is devoted to such subjects as nitrification, nitrogen-fixation, and the inoculation of legumes; the contamination of milk and the influence of its bacterial content on its value as food and for butter and cheese making; the preservation of foods and fodders. In the case of the transmissible diseases of animals, those that are of greatest importance to the live stock industry of the state are studied, especially as to their prevention. The relation of bacteria to the health of the farm home is considered in a discussion of farm water supply and sewage disposal.

#### AGRICULTURAL CHEMISTRY

ASSISTANT A. A. SCHAAL

This course treats, by lectures and demonstrations, of the application of chemistry to the farm. Such topics as the chemical ele-



THE AGRICULTURAL CHEMISTRY BUILDING

The application of chemistry to practical farming is shown by lectures given during the course.

ments contained in the air and soil and their relation to crops are discussed. Consideration is given to how 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 process 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.

The aim of this course is to interpret Agricultural Chemistry in the terms of farm practice. Demonstrations are given to show the properties of some of the more common elements concerned in plant and animal growth and farm products. The chemical composition of common insecticides and fungicides is also discussed.

#### AGRICULTURAL ECONOMICS

PROFESSORS B. H. HIBBARD AND D. H. OTIS; ASSISTANT PROFESSOR C. J. GALPIN; INSTRUCTOR O. JUVE

The work given by this department is designed to improve the business ability of the farmer by teaching methods of keeping accounts, methods of managing farms, and methods of selling the produce; and to point out means of improving the conditions of living in the country.

- A. Methods of Farm Bookkeeping. The aim of this course is to teach the elements of bookkeeping as applied to the farm. Methods of taking farm inventories and the keeping of cash accounts, and accounts with live stock, farm crops, etc., are considered.
- B. Methods of Farm Management. This course considers the farm as a unit. The aim is to show the student how the various farm operations may be organized and correlated so that the entire farm may be handled successfully and economically. Consideration is given to the location and size of the farm and its adaptability to the raising of crops and livestock, and the lay-out of the farm, the capital and equipment necessary for the various types of farming, and to the question of farm help. Trips will be taken to various farms to study their lay-out, equipment, and methods of management.

- C. Prices, Markets, Credits and Farm Contracts. The aim of this course is to study the conditions and forces which determine the prices of farm products, to describe methods of marketing, co-operative and independent, and to look into methods of securing farm loans.
- **D. Rural Institutions.** The purpose of this course is to discuss the peculiar problems of country life and outline methods of improving the conditions of life in the farm home and in the farmer's community.

#### **AGRONOMY**

PROFESSOR R. A. MOORE; ASSISTANT PROFESSORS STONE AND LEITH; INSTRUCTORS G. B. MORTIMER, A. H. WRIGHT; ASSISTANT L. R. ZERBEL.

The work in Agronomy will include a study of the culture and management, methods of improvement, and systems of rotation for farm crops suitable for Wisconsin conditions.

- A. Small Grains. Lectures on cultivation, harvesting, marketing, testing, uses, habits of growth, manufactured products, rotations, and fertilizers for the small grains. The laboratory work of this course aims to give the student a knowledge of the structure of the small grains, the points of distinction between the different varieties, and an intelligent understanding of the principles and practices of judging.
- B. Forage Crops, Weeds and Seeds. Lectures and laboratory work on corn, alfalfa, clovers and other forage crops. The lectures include a discussion of the best methods and practices in sowing, handling, testing, selection and improvement of the forage crops. The laboratory work will consist in type study and judging of corn.

Lectures upon weeds in reference to their introduction, classification, dissemination, identification and eradication will be given to second year students. The purity and germination of farm seeds as related to weed introduction and the farm profit will also be discussed. Field and weed seeds will be studied under the microscope and their characteristic shapes and markings noted. The student will also be taught to identify the weeds from which the seeds come and to associate the weed and its seed.

#### AGRICULTURAL ENGINEERING

- Assistant Professor F. M. White; Assistant Professor C. D. Livingston; Instructors C. I. Griffith, L. M. Schindler; Assistant F. R. Jones.
- A. Farm Buildings and Machinery. This includes lectures and laboratory work in the planning and arrangement of farm buildings. The lectures include a discussion on silos, concrete construction, ventilating systems, heating and lighting farm homes, gasoline engines, and general farm machinery. The laboratory work will be practical instruction in useful farm practices, such as soldering, tinning, pipe cutting and fitting, rope tying and splicing. and belt lacing.
- B. Advanced Agricultural Engineering The purpose of this course is to give the student a practical working knowledge of farm machinery and modern farm improvements. The subjects considered are a continuation of work begun in the first year. The majority of the work consists of practical exercises in the laboratory, supplemented with lectures. Laboratory work is given on steam and gasoline engines, farm implements, such as plows, binders, corn planters, cultivators, etc., and practical work in cement and concrete construction. In the lectures especial attention is given to farm water supply and sewage disposal, lighting, heating, and the ventilation of farm buildings.

#### ANIMAL HUSBANDRY

PROFESSOR G. C. HUMPHREY; ASSOCIATE PROFESSOR J. G. FULLER; ASSISTANT PROFESSORS J. L. TORMEY, A. C. OOSTERHUIS, FRANK KLEINHEINZ; INSTRUCTOR A. H. KUHLMAN; ASSIST-ANTS O. J. DELWICHE, E. W. FOX, E. KIRST AND W. E. MARKEY

The courses in animal husbandry given in the Short Course include live stock breeding, judging, feeding, care and management. The extensive herds and flocks of the University farm are supplemented by prize winning animals loaned by breeders of the state.

A. Breeds of Live Stock. By means of text books, lectures and lantern slide illustrations first year students are taught the history, characteristics and utility of the various classes and breeds of live stock.

- B. Elementary Stock Judging. A course in which first year students are taught by score card practice to distinguish between different types and breeds and to recognize their points and characteristics. The work done in this course fits the student to make comparisons and selections of animals for breeding and market purposes.
- C. Feeds and Feeding. The work consists of lectures instructing the student of the first year in the fundamental principles of feeding, balancing of rations and the composition and comparative values on the most important feeding stuffs.
- D. Advanced Stock Feeding. The aim of this course is to instruct the student of the second year in applying the principles of feeding to practice.
- E. Breeding and Management. Second year students are taught by lectures the principles, methods and practices underlying the breeding and rearing of farm animals.
- F. Advanced Stock Judging. The purpose of this course is to continue the student of the second year in the practice of judging livestock. To this end advanced training is given in the classification of farm animals and competitive judging based on a standard of excellence for each breed and type.
- G. Live Stock Management. A course for second year students, dealing with the practical methods of feeding and management of farm animals.

#### FARM DAIRYING

MR C. A. DAY AND ASSISTANTS J. L. HORWITZ AND OSWALD TISS

In Farm Dairying, students receive instruction in the general principles which are involved in the production and handling of milk and cream for city markets, creameries and cheese factories and the making of butter on the farm.

- A. Farm Dairying. Lectures will be given on the following subjects: composition of milk and other dairy products; the production of market milk and the handling of milk and cream for factory purposes; care and ripening of cream for farm butter-making; and marketing of dairy products.
- B. Farm Dairy Practice. The new Dairy Laboratory is equipped with the most approved apparatus for the testing of milk,

the separation of cream and the manufacture of butter. In this laboratory students are given practical instruction in all branches of farm dairying, including the testing of milk and cream, the detection



CLASS IN THE SEPARATOR ROOM
Students comparing different kinds of separators

of the more common adulterants of these products and the operation of hand separators, churns, butter workers, and other appliances of the dairy.

#### FORESTRY

The work given in Forestry is designed to show the relation of forestry to agriculture. Among the subjects studied are the care of the wood lot, windbreaks, shelter belts, tree planting, selections of species for planting, and methods of propagation, planting, and protection.

#### HORTICULTURE

PROFESSOR J. G. MOORE; INSTRUCTORS J. W. BRANN, J. R. HEP-LER, AND ASSISTANTS

Horticultural work in the short course is designed to give the student a knowledge of the principles underlying plant culture and their application to the growing of fruit and vegetable crops.

A. Principles of Plant Culture. A discussion of the processes of plant life in relation to the culture of the plant. Lectures will be given on structure of plants, plant processes, how plants reproduce, effects of external influences, methods of propagation, and ways of improving plants. Special consideration will be given to the culture of small fruits and vegetables.



SOILS LABORATORY
Students are instructed in the use of drainage instruments

B. Horticultural Laboratory Practice. This course is designed to supplement Course A. It consists of laboratory work and demonstration lectures on such subjects as seed and plant structures, propagation of plants, compounding insecticides and fungicides, control of orchard and garden pests, planting and pruning the orchard, planning and planting the garden and construction and manipulation of hot beds and cold frames.

- C. Tree Fruit Culture. Fourteen lectures on selection of site, fertilization, planting, soil management, pruning, spraying, varieties and other orchard problems.
- D. Advanced Horticultural Laboratory Practice. A laboratory course supplementary to Course C. Some of the subjects covered are preparation of spray material, spraying machinery, identification and judging of apples and potatoes, and the asexual propagation of economic plants.

#### LIBRARY WORK

#### LIBRARIAN C. S. HEAN

The aim of this course is to teach students to use books, papers, and bulletins as tools. 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. Papers will be written which will call for the study of some of the best books and bulletins.

#### PHYSICAL EDUCATION

#### DR. J. C. ELSOM, EXAMINER, AND ASSISTANTS

Every Short Course student will be given a thorough physical and medical examination, and will be required to take one one-hour period a week of developmental exercises, athletics and recreational games under capable direction. An opportunity for voluntary exercise and for the organization of basketball and other teams and the holding of athletic contests between classes, etc., will be given. These activities are carried on in the Stock Pavilion which has been equipped with facilities for this purpose, including gymnastic and athletic apparatus, lockers and shower baths. Lectures on hygiene and the laws of efficient living will be given by members of the Department of Physical Education.

#### PLANT PATHOLOGY

PROFESSOR L. R. JONES AND INSTRUCTOR J. W. BRANN

Owing to the demand for instructional work in the control of diseases of farm crops, the following course is offered.

Plant Diseases and Their Control. The aim is to give a general introduction to the subject. This will include such an acquaintance with the symptoms of the commoner and more important plant diseases of Wisconsin crops that one may recognize them on sight. Special attention will be given to the diseases of field crops, grains, etc., and also to those of fruits, potatoes, and other horticultural crops. Control measures and their application will be emphasized, and such use made of experiment station bulletins and other timely publications as will enable the student to read them understandingly thereafter.

Lectures, demonstrations, and individual laboratory work aiming to give first hand acquaintance with the symptoms of the diseased plants and the characters of the parasitic fungi and bacteria causing the diseases, including methods of over-wintering, spread, and control. Six two-hour periods each week during the last third of the second year.

#### POULTRY HUSBANDRY

Associate Professor J. G. Halpin; Instructor J. B. Hayes; Assistant O. N. Johnson

The Poultry department is equipped with modern poultry buildings, colony houses, a very complete line of incubators, brooders, and other poultry apparatus, such as cramming machines, bone cutters, etc. In addition, some twenty-eight varieties of poultry furnish ample material for poultry judging. These will be used to help the student become familiar with general poultry raising. An extensive file of poultry journals and books is to be found in the Agricultural Library.

A. Poultry Raising. Lectures on breeding, feeding and management of poultry under farm conditions with special reference to the keeping of fowls for meat and eggs. Subjects of breeding and feeding for winter egg production, poultry house construction, incubating and brooding, both natural and artificial, killing and

marketing dressed poultry, etc., will be included. A brief discussion of the common poultry diseases is given.

B. Demonstration and Laboratory Work. The first third of the time will be devoted to poultry house construction, and to market poultry, including the various methods of killing and dressing



FOR MORE AND BETTER POULTRY

Main Poultry building and colony houses at the University poultry plant.

market poultry, caponizing, and also the production and marketing of eggs. The second third will include the study of the various varieties of standard bred fowl. The third will include incubation and brooding, and a few brief discussions of some of the more common poultry diseases. A second year student may elect one, two or three of the units of Poultry B in lieu of any of the electives running parallel therewith.

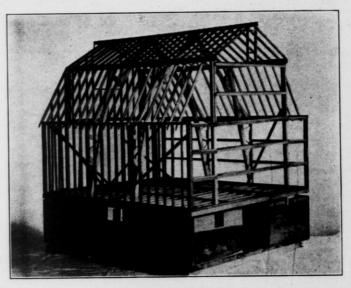
#### SHOP WORK DEPARTMENTS

SUPERINTENDENT A. L. GODDARD; INSTRUCTORS R. N. SCHUMANN, BLACKSMITHING; H. A. BRUNSELL, FARM CARFENTRY AND BUILDING CONSTRUCTION; ASSISTANT, GEO. ZURIAN

A. Elementary Carpentry. This work consists of instruction in the use of wood tools, how to sharpen and keep them in order, how to make and use such fixtures as the bench hook and miter

box, making tool box, knife box, book rack, model hay rack, or other articles that may be selected to illustrate various types of joints. Instruction is also given in reading the steel square and its use in building operations.

B. Elementary Forging. This course is arranged for first year students and includes instruction in the essential operations of forging, such as drawing out, upsetting, pointing, bending and welding mild steel, leading to the application of these operations in making useful articles such as bolts, chain links, rings, clevices of various forms, cold chisels, metal and stone drills, hammers, knives, etc. Instruction in hardening, tempering, drilling, riveting and soldering is included.



PRACTICAL CARPENTRY

Instruction in the use and care of tools and other phases of farm carpentry.

C. Advanced Carpentry. This course includes more advanced work to suit the needs of the individual student. The construction of stairs, window and door frames, cupboards, the making of models of houses, barns, and portable pens, and framing for concrete con-

struction are among the subjects that may be selected. Advanced instruction is given in the use of the steel square as applied to the cutting of rafters and other complex framing.

D. Advanced Forge Work. A continuation of first year work including more advanced practice. Welding steel of various grades, pointing and sharpening picks, plow shares, etc., brazing, welding, forging and tempering springs is included in practice work as time permits.

#### SOILS

ASSOCIATE PROFESSOR E. R. JONES; ASSISTANT PROFESSOR W. W. WEIR; INSTRUCTOR O. ZEASMAN; ASSISTANTS A. R. ALBERT, AND HARVEY SANDELL

The following courses in soils include lectures supplemented by laboratory exercises which demonstrate the principles taught in the lectures.

- A. Soil Fertility. Twenty-eight lectures on the soil and its relation to crop production. The principal subjects studied are: the soil, its origin and relation to plants and animals; conditions affecting plant growth; plant-food elements and crop needs; importance of water and tilth in agriculture; liming; relation of manure, and commercial fertilizers to crop yields and soil improvement.
- B. Laboratory Practice and demonstrational exercises planned to aid the student to apply the principles discussed in Course A.
- C. Land Drainage. Ten lectures on the theory and practice of land drainage. The economic and engineering aspects of land drainage are discussed upon the basis of Wisconsin conditions.
- D. (1) Soil Fertility or (2) Land Drainage. (1) Seven two-hour laboratory studies upon the texture, tilth, water-holding capacity, and lime fertilizer requirements of soils, and the movements of capillary and gravitational water in them. Also seven two-hour conferences on the special requirements of the typical soils as well as those of particular soils reported by students.
- (2) Seven two-hour exercises in the plant-house or out-of-doors with the surveyor's level, the plane-table, drain tile and tiling tools. Also seven two-hour exercises in planning drainage systems from topographic maps of typical areas and from sketches of particular areas furnished by students.

Students are required to elect either (1) or (2).

The fact that the State soils laboratory is operated in the same building with the classes in soils and drainage makes the class work of greater interest and value to students.

#### VETERINARY SCIENCE

PROFESSOR A. S. ALEXANDER; ASSISTANT PROFESSOR B. A. BEACH

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

It is the aim and object of the instruction to qualify each student to act as an intelligent, capable nurse for ailing animals, and to be able to recognize diseases, to give the first aid treatment where necessary, and to carry out the orders of the attending veterinarian.

The work is required of all second year students and consists of the study of the animal body in health and disease.

The structure and functions of the various organs of the body are considered first to acquaint the students with normal conditions. This is followed by a discussion of the causes, symptoms, prevention and treatment of the more common diseases of animals. When there is an opportunity, practical demonstrations are given the better to enable the students to recognize diseases and administer medicines. Careful instructions are given in the examination of horses for soundness, and students are required to pass upon the soundness of subjects selected for the purpose.

#### BOOKS REQUIRED FOR SHORT COURSE

#### First Year

Judging Live Stock	Craig
Feeds and Feeding	Henry
Testing Milk and its Products	Farrington and Woll
General Agricultural Chemistry	Hart and Tottingham
Field Crop Production	Livingston
Soils and Soil Fertility	Whitson and Walster

#### Second Year

Agricultural Bacteriology	Russell	and	Hastings
The Horse in Health and Disease			Hadley
Field Crop Production		I	ivingston
Land Drainage			Jones
Gas Engine Principles			Whitman
Instructions for Traction and Stationary I	Engineers		Boss

#### **OUTLINE OF WORK FOR SHORT COURSE STUDENTS**

A standing of 60 or above in every subject is required for a Short Course Certificate. Students who have any deficiencies in first year work, *must* make up this work during the week preceding the Christmas recess, December 14, 15, and 16, 1916.

#### Required Work for First Year Students:

Agricultural Chemistry. 24 hours. Lectures.

Agricultural Engineering A. 8 hours. Lectures. 30 hours. Laboratory.

Agronomy A. 14 hours. Lectures. B. 56 hours. Laboratory.

A. Breeds. 28 hours. Lectures.

Animal Husbandry B. Stock Judging. 48 hours. Laboratory. C. Feeds. 16 hours. Lectures.

Dairying A. 14 hours. Lectures. B. 40 hours. Laboratory.

Farm Bookkeeping. 32 hours. Laboratory.

Forestry. 8 hours. Lectures.

Horticulture A. 28 hours. Lectures.
B. 28 hours. Laboratory.

Library Practice. 28 hours. Laboratory.

Soils. A. 28 hours. Lectures. B. 28 hours. Laboratory.

Gymnasium, 14 hours,

#### First Year Students must take either Carpentry or Blacksmithing.

Carpentry A. 40 hours.

Blacksmithing B. 40 hours.

#### Required Work for Second Year Students:

Agronomy B. 27 hours. Lectures.

40 hours. Laboratory.

D. Feeds and Feeding. 25 hours. Lectures. tures.

Animal

Husbandry

E. Breeding and Management. 22 hours. Lectures.

F. Live Stock Practice. 18 hours. Lectures.

Bacteriology. 29 hours. Lectures.

Farm management. B. 28 hours. Lectures.

Rural Institutions, D. 11 hours. Lectures.

Prices, Markets and Credits. C. 12 hours. Lectures.

Horticulture C. 17 hours. Lectures. D. 34 hours. Laboratory.

Poultry A. 18 hours. Lectures.

Soils C. 10 hours. Lectures. D. 32 hours. Laboratory.

Veterinary Science. 42 hours. Lectures.

Gymnasium. 14 hours.

#### Work which may be elected by Second Year Students:

Agricultural Engineering B. 56 hours. Laboratory.

Animal Husbandry F. (If this is elected it must be taken twothirds of the year) 112 hours. Laboratory.

Plant Diseases. 56 hours. Laboratory.

Poultry B. (May take one, two or three units.) 56 hours. Laboratory.

Shop, A. B. C. or D. 56 hours. Laboratory.

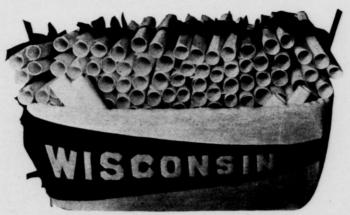
(Students must have one of these electives for each third of the course.)

Any course which is elected by a student cannot be dropped without first securing the permission of the Short Course Committee.

### DISTRIBUTION OF GRADUATES AND FORMER STUDENTS

A total of 4,694 students have attended the Short Course in Agriculture since it was established in 1885. It is interesting to note that every county has been represented at some time since the beginning of the course. During the past year 65 counties in the State sent representatives to the Short Course in Agriculture. In addition to these there were students enrolled from 10 other States. Of the 403 enrolled, 74.1 per cent were farm boys.

Graduates of the Short Course are now successful farmers in many parts of the United States and in several foreign countries. Many former Short Course students have pursued advanced studies and are now holding prominent positions in agricultural colleges and experiment stations.

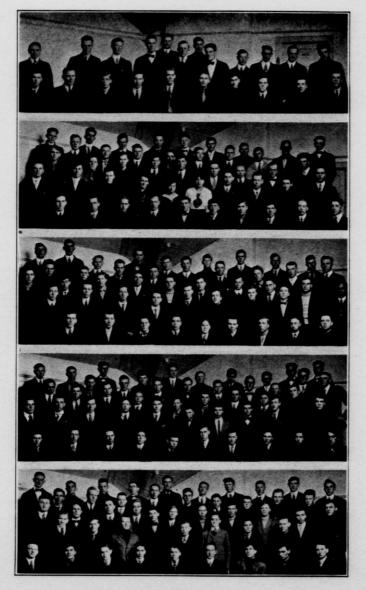


CERTIFICATES READY FOR DISTRIBUTION 142 students completed the Short Course in 1916.

#### FIRST YEAR SHORT COURSE STUDENTS 1915-16

Viroqua Mt. Horeb	Foster, Henry B	Charlestown Ind
341 77		Dan icoto will, little.
Mt. Horeb	Fuller, Stanley	
Chicago, Ill.	Gates, Ryerson D	Fontana
Chicago	Getzin, Henry W	Milwaukee
Shehovgan Wis	Cill Edmin P	Madigon
Common	Glasser Fred W	Richton, Ill.
Maidan Daala	Good Edward C	Hubertus, Wis.
Maiden Rock	Gordon Le Roy W	Nelsonville
Milwaukee	Courdour Claude I	Flambeau
Thiensville	C C V C	Oebkoeb
Pine River	Grai, Kurt G	Tala Passat III
Pecatonica, Ill.	Green, Charles E	Lake Forest, III.
West Salem, Wis.	Green, Leslie A	
Milton	Green, Paul C	Baraboo
Baraboo		
Delayan		
Rockford III.	Haight, Joe	Madison
Bruce Wie		
	Hampton, Clark	Lancaster
CI 1 W	Hanna Sylvan	Mt. Horeb
	Hansen, Harry E	Kilbourn
Deerheld	Hanson Hector I.	Rice Lake
Lake Mills	Harnes William G	Neenah
Evanston, Ill.	Harness, William G	Chiango III
Arkansaw, Wis.	narting, Fred F	Tudington Mich
Edgemont, S. Dak.	Haskell, W. Howard	Ludington, Mich.
Racine, Wis.	Hass, Arthur A	Merrill, Wis.
Tabor, S. Dak.	Henry, Frederick M	Poynette
Markeean Wie	Hess, George S	Franksville
Mazomania	Hoe Roy A	Milwaukee
Annala	Hoetz, Christopher P	Rockfield
Argyle	Hoffman, Bennie	Verona
Bryant	Holcomb, Glenn E	Palmyra
Strong s Prairie	Housephuh Anton (	So Kankanna
Freeport, III.	Hood Fronk	Genesee
Tunnell City, Wis.	Uull Uareld U	Whitewater
Madison	Huma Dabart I	Endower
De Soto	nume, Robert 1	Eliucavor
Milton Jet.	Incold Food	Monroe
Grafton		
Grafton	Inablin I con	Wannaga
Olney III	Jackini, Leon	Chicago III
Marshall Wie	Jackson, Charles C	Wast Day Win
Vanosho	Janz, Jacob	West Bend, Wis.
Endonish III	Jarr, Thorval A	Manitowoc
Frederich, III.	Johnson, Arthur F	Milton Jct.
M. TT 1 TT	Johnson, Sophus J	Denmark
Mt. Horeb, Wis.	Johnston, Marvel	Lime Ridge
Sheboygan Falls		
Madison	Karsk, Arnold F	Pecatonica, Ill.
Cedarburg	Kauth Joseph A	So. Germantown, Wis.
Whitewater	Kelly Murray T	Chinnewa Falls
	Volcov Formert B	Delavan
Hancock	Keisey, Forrest D	Winter
Kilhourn	Kles, Frank	E4 Athingon
Ambou III	Klement, Leslie	Tt. Atkinson
Ettrick Wie	Kleppe, Lauren, O	Belleville
Endower	Kolpke, William L	Chippewa Falls
Engeavor	Kohn, William	Lodi
Oconomowoc	Kollock, Henry	Bancroft
Osceola	Korfmacher, Carl	Cottage Grove
Osceola	Krohn, Edwin F.	Lancaster
Cambridge		
Chicago, Ill.	Lang, Paul M	Chippewa Falls
	Lange, Louis J	Watertown
Wheaton, Ill.	Langer, Frank J.	Kenosha
Lancaster, Wis	Lawrenz, Harold L.	Reedsburg
	Chicago Sheboygan, Wis. Sawyer Maiden Rock Milwaukee Thiensville Pine River Pecatonica, Ill. West Salem, Wis. Milton Baraboo Delavan Rockford, Ill. Bruce, Wis. Serena, Ill. Sheboygan, Wis. Deerfield Lake Mills Evanston, Ill. Arkansaw, Wis. Edgemont, S. Dak. Racine, Wis. Tabor, S. Dak. Markesan, Wis. Tabor, S. Dak. Markesan, Wis. Madison Olney, Ill. Mr. Horeb, Wis. Sheboygan Falls Madison Cedarburg Whitewater  Hancock Kilbourn Amboy, Ill. Ettrick, Wis. Endeavor Oconomowoc Osceola Cambridge Chicago, Ill. Wheaton, Ill. Lancaster, Wis.	Sheboygan, Wis. Sawyer Maiden Rock Milwaukee Milwaukee Thiensville Pine River Good, Le Roy W. Gordon, Le Roy W. Gordon, Le Roy W. Gordon, Le Roy W. Gordon, Claude J. Gordon, Claude J. Gordon, Claude J. Gordon, Le Roy W. Gordon, Le Roy W. Gordon, Le Roy W. Gordon, Le Roy W. Gordon, Claude J. Gordon, Le Roy W. Gordon, Claude J. Green, Charles E. Green, Paul C. Green, Paul C. Green, Paul C. Hall, Harold L. Hampton, Clark. Hanns, Sylvan Hanns, Fred P. Harting, Fred P. Hoffman, Bennie Holcomb, Glenn E. Housechuk, Anton C. Hood, Frank Hull, Harold H. Hume, Robert I. Jackin, Leon Johnson, Arthur F. Johnson, Sophus J. Johnson, Sophus J. Johnston, Marvel

Foster, Henry B	El Paso, Texas
Foster, Henry B	Hartland, Wis.
Gates, Ryerson D	Fontana
Getzin, Henry W	Milwaukee
Gill, Edwin R	Madison
Glaeser, Fred W	Richton, Ill.
Good, Edward C	Hubertus, Wis.
Gordon, Le Roy W	Nelsonville
Graf Kust G	Oshkosh
Green Charles E	Lake Forest, Ill.
Green, Leslie A.	Hilbert, Wis.
Green, Paul C	Baraboo
Gates, Ryerson D Getzin, Henry W. Gill, Edwin R. Glaeser, Fred W. Good, Edward C. Gordon, Le Roy W. Gourdoux, Claude J. Graf, Kurt G. Green, Charles E. Green, Leslie A. Green, Paul C. Gutschenritter, Arthur J.	Hartford
TT . 1. T	M. Jinan
Hall, Harold L	Milwaukee
Hall, Harold L. Hampton, Clark. Hanna, Sylvan. Hansen, Harry E.	Lancaster
Hanna, Sylvan	Kilbourn
Hanson, Hector L	Rice Lake
Harness William G	Neenah
Harting, Fred P.	Chicago, Ill.
Haskell, W. HowardL	udington, Mich.
Hass, Arthur A	Merrill, Wis.
Henry, Frederick M	Poynette
Hess, George S	Franksville
Hoetz Christopher P	Rockfield
Hoffman Rennie	Verona
Holcomb. Glenn E.	Palmyra
Hanson, Hector L. Harness, William G. Harting, Fred P. Haskell, W. Howard Hass, Arthur A. Henry, Frederick M. Hess, George S. Hoet, Roy A. Hoetz, Christopher P. Hoffman, Bennie. Holcomb, Glenn E. Housechuh, Anton C. Hood, Frank	So. Kaukauna
Hood, Frank	Genesee
Hood, Frank Hull, Harold H	Whitewater
Hume, Robert 1	Endeavor
Ingold, Fred  Jacklin, Leon  Jackson, Charles C  Janz, Jacob  Jarr, Thorval A  Johnson, Arthur F  Johnson, Sophus J  Johnson, Bophus J  Johnson, Marvel  Jones, Glen  Karsk, Arnold F  Kauth, Joseph A  Kauth, Joseph A  Kelly, Murray T  Kelsey, Forrest B  Kies, Frank  Klement, Leslie  Kleppe, Lauren, O  Kolpke, William L  Kohn, William  Kollock, Henry  Korfmacher, Carl  Krohn, Edwin F  Lang, Paul M	Monroe
Jacklin, Leon	Waupaca
Jackson, Charles C	Chicago, Ill.
Janz, Jacob	West Bend, Wis.
Jarr, Thorval A	Milton Ict
Johnson, Arthur F	Denmark
Johnston Marvel	Lime Ridge
Jones, Glen	Merrimac
Karsk, Arnold F	Pecatonica, Ill.
Kauth, Joseph ASo. Ge	ermantown, Wis.
Kelly, Murray T	Chippewa Falls
Kelsey, Forrest B	Winter
Klement Leslie	Ft Atkinson
Kleppe, Lauren, O.	Belleville
Kolpke, William L	Chippewa Falls
Kohn, William	Lodi
Kollock, Henry	Bancroft
Korimacher, Carl	Cottage Grove
Kronn, Edwin F	Lancaster
Lang, Paul M.	Chippewa Falls
Lange, Louis J. Langer, Frank J. Lawrenz, Harold L.	Watertown
Langer, Frank J	Kenosha
Lawrenz, Harold L	Reeasburg



FIRST YEAR SHORT COURSE CLASS

Leach, Leonard L	Wautoma	- Reid, George R.	Independence, Wis.
Lehnerts, Edmund J	Arcadia	Reinertson, Reinert M	Valders
Lester, Clayton T Lewis, Clyde J	Antioch, Ill.	Richardson, Gim L	Beloit
Lewis, Clyde J	Woodbine, Ia.	Rees, Edward R	Chicago, Ill.
		Rees, Edward R	Pleasant Prairie, Wis.
Lichtenwalner, Arthur H. Lillich, William H. Lillic, Ethan A. Lindsay, John E. Lipsitz, Bessie. Ludlam, James E. Her Luedeman, Wm. F.	Merrimack	Ross, Roland W	Mineral Point
Tillia Ethan A	Arlington Heights III		
Lille, Ethan A	Doodsburg Wig	Rupf, Edwin F Ruskell, Raymond H	Wheaton III
Lindsay, John E		Dalai Dana Ju	Polmont Win
Lipsitz, Bessie	Grand Rapids	Ruskell, Raymond H	Deimont, wis.
Ludlam, James EHen	nlett, L. I., New York		4 1 11 117
Luedeman, Wm. F	Green Bay, Wis.	Saemann, Maurice K	Adell, Wis.
		Sewall, Lewis A	New London
Lyon, Earl C	New London	School Edward G	Chicago III.
		Schilstra, James	Pleasant Prairie, Wis.
McCabe, John H	Wannaca	Schlawin, Walter W Schmidt, Elmer C Schroeder, Leonard	Cochrane
McCabe, John H.	Done	Sahmidt Elmar C	Wrightstown
McChesney, Robert G	Date	Cabroades Toopsed	Comp Dougles
McGinnity, Alphonsus A. McIlraith, Hugh R.	Edgerton	Schroeder, Leonard	Oceanomore
Mcliraith, Hugh R	Medtord	Schuster, Wm Scott, John C	Oconomowoc
McKay, John A	Franklin, Tenn.	Scott, John C	Caledonia
McKay, John A	Merrimac, Wis.	Semnicht, Warren	Lake Geneva
MaManua Wahh	Pregon	Sether, Carl M	Iola
McWethy, Fred O	Dixon III	Shaw Jesse W	Baraboo
McWeelly, Field C	Superior Wie	Sipple, Alfred H	Menomonie
McQueen, rimay R	White-motor	Smith, Bradley O	Rloomer
Magoon, Ernest L	w nitewater	Smith, Theodore H	Dolomen
Mallien, Joe A	Brussels	Smith, Theodore H	Delavan
Mantz, Milton M	Richheld	Stanley, Edward O	Superior
Marmon Potor	Antigo	Spear, Leo W Stearns, Arlington C	Plainheid
Martens, Chas. F. Meagher, George P.	Egg Harbor	Stearns, Arlington C	Weyauwega
Meagher George P	Chippewa Falls	Stemmler Wm	Milwaukee
Melster, Arthur	Combridge	Stury, Anton	Elkhorn
Meister, Arthur	Nam Lieben	Bully, Alleon	
Meng, George	New Lisbon	Tamms, Walter	Milmouleac
Mertes, John F	South Range	Tamms, Walter	Willwaukee
Metcalf J. Harlan	Spring Green	Taylor, Mason G	w neeling, III.
Miller, Howard E	Janesville	Tenpas, William J	Arpin, Wis.
Miller John T	Madison	Tenpas, William J Thompson, George W	Merrillan
Molter, Herbert	Marshfield	Truch Wolde P	Spring Green
Moths, Alvin C	Fredonia	Tschudy, Emil	Monroe
Moths, Aivin C	Nll-	Tutton, Sam	Polmyro
Muhlenkamp, Leo	Norwaik	Tutton, Sam	aimyra
			New London
Negard, Vivian	Northfield	Virchow, Ludwig C	New London
Nelson Newell	w nitenali	Vogel, Arthur M	Superior
Noleon Ray A	Ft. Atkinson	Voltz, Fred	Clear Lake
Molgon Sigurd R	Raldwin		
Northey, Royal	Palmyra	Wakefield Charles A	Clinton Allegheny, Pa
Northey, Royal	I amyra	Wett Herbert C	Allegheny Pa
		Washa Tam C	Fond du Lac
Ohnstad, Oliver COllivier, Edward LO'Neil, Timmie H	Menonomie	weeks, 10m S	C
Ollivier, Edward L	Philadelphia, Pa.	Welch, James M	Spooner Audubon, Ia
O'Neil, Timmie H	Kilbourn, Wis.	Weston, Lewis E	Audubon, 18
Otto, Alfred H	Oconomowoc	White, Helen H	Chicago, Ill
		Whitham, Doris M	Chicago, Ill Whitmar Farms, W. Va Balsam Lake, Wis
Dalmhash Coores A	Annleton	Wilcox Charles R.	Balsam Lake, Wis
Palmbach, George A Palmer, Chas	Aslington Heights III	Wild Ed I	Elmwood
Paimer, Chas	Aringon neights, in.	Williams Vanneth	Kenosha
Parins, Celestin	Green Bay, wis.	Williams, Kenneth	Madient
Parins, Celestin Paulson, Blaine	Taylor	williamkowsky, Morris	Madisor
Peik Carl J	Chilton	Williams, Stanley A	Bear Creek
Peters, Charles F.	Pepin	Witte, Fred H.	Bear Creek
Peters, Charles F Petersen, Carl T	North Lake	Wood, Walter C	Albany Mondov
Pingh, Ralph B	Kankauna	Wright, Ralph S	Mondov
I mga, maiph D			
Raeder, Wm	Sugar Duch	Zimmermenn Clarence	HWausau
Raeder, Wm Ramsay, John S	Dort 1	Zimmermann, Clarence	RWausau
Ramsay, John S	Primghar, Ia.	Zimmermann, nerbert	It



SECOND YEAR SHORT COURSE CLASS

#### SECOND YEAR SHORT COURSE STUDENTS

Adams, Wayne Akins, Leslie Akins, Leslie Alton, Cyril P R Ames, Lloyd Angelroth, Chaz. H Baackes, Karl Bavry, Rudolph W Barlos, Otto T Bathum, Soren C Bauer, Victor W Benecke, Ernest H A Borhnstedt, Leo S Boothroyd, Fergus C Bowe, Roy E L Boye, E Brenstedt, Leo S Boye, E Boye, E Boye, E Boye, E Boye, E Boye, E Brenstedt, E Breyfogle, Hugh H Wes Breyfogle, Laurence G Wes	Sayner, Wis. Egg Harbor Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Ioomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. Tullman, Ill.	Huppert, Clifford G Huppert, Loren W Husten, Lauren E  Isken, Armin.  Jackson, Vernon W Jamison, Stanley I Jessup, Don C Jewel, E. Harold Joeckel, Harvey G Johnson, Alf N Johnson, Rudolph B  Kirkhoff, Gilbert G Kiel, Fred C Knanstein, Wm	Campbellsport Ft. Atkinson Ft. Atkinson Ft. Atkinson Eagle Brownsville Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn Bassett Manitowoc
Baackes, Karl Bavry, Rudolph W Bartos, Otto T Bathum, Soren C Bauer, Victor W Benecke, Ernest H. A Borhnstedt, Leo S Boothroyd, Fergus C Bowe, Roy E. L. Ocot Boyce, Eugene C Brennan, George Bresette, Edward A. A Breyfogle, Hugh H Wes Brevfogle, Laurence G Wes	Sayner, Wis. Egg Harbor Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Ioomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. Tullman, Ill.	Huppert, Clifford G Huppert, Loren W Husten, Lauren E  Isken, Armin.  Jackson, Vernon W Jamison, Stanley I Jessup, Don C Jewel, E. Harold Joeckel, Harvey G Johnson, Alf N Johnson, Rudolph B  Kirkhoff, Gilbert G Kiel, Fred C Knanstein, Wm	Ft. Atkinson Ft. Atkinson Eagle Brownsville Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn Bassett Manitowoc
Baackes, Karl Bavry, Rudolph W Bartos, Otto T Bathum, Soren C Bauer, Victor W Benecke, Ernest H. A Borhnstedt, Leo S Boothroyd, Fergus C Bowe, Roy E. L. Ocot Boyce, Eugene C Brennan, George Bresette, Edward A. A Breyfogle, Hugh H Wes Brevfogle, Laurence G Wes	Sayner, Wis. Egg Harbor Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Ioomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. Tullman, Ill.	Isken, Armin.  Jackson, Vernon W. Jamison, Stanley I. Jessup, Don C. Jewel, E. Harold. Jockel, Harvey G. Johnson, Alf N. Johnson, Rudolph B.  Kirkhoff, Gilbert G. Kiel, Fred C. Knanstein, Wm	Brownsville  Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn  Bassett Manitowoc
Baackes, Karl Bavry, Rudolph W Bartos, Otto T Bathum, Soren C Bauer, Victor W Benecke, Ernest H. A Borhnstedt, Leo S Boothroyd, Fergus C Bowe, Roy E. L. Ocot Boyce, Eugene C Brennan, George Bresette, Edward A. A Breyfogle, Hugh H Wes Brevfogle, Laurence G Wes	Sayner, Wis. Egg Harbor Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Ioomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. Tullman, Ill.	Isken, Armin.  Jackson, Vernon W. Jamison, Stanley I. Jessup, Don C. Jewel, E. Harold. Jockel, Harvey G. Johnson, Alf N. Johnson, Rudolph B.  Kirkhoff, Gilbert G. Kiel, Fred C. Knanstein, Wm	Brownsville  Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn  Bassett Manitowoc
Baackes, Karl Bavry, Rudolph W Bartos, Otto T Bathum, Soren C Bauer, Victor W Benecke, Ernest H. A Borhnstedt, Leo S Boothroyd, Fergus C Bowe, Roy E. L. Ocot Boyce, Eugene C Brennan, George Bresette, Edward A. A Breyfogle, Hugh H Wes Brevfogle, Laurence G Wes	Sayner, Wis. Egg Harbor Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Ioomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. Tullman, Ill.	Isken, Armin.  Jackson, Vernon W. Jamison, Stanley I. Jessup, Don C. Jewel, E. Harold. Jockel, Harvey G. Johnson, Alf N. Johnson, Rudolph B.  Kirkhoff, Gilbert G. Kiel, Fred C. Knanstein, Wm	Brownsville  Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn  Bassett Manitowoc
Bartos, Otto T. Bathum, Soren C. Bauer, Victor W. Benecke, Ernest H. A. Borhnstedt, Leo S. Boothroyd, Fergus C. Bowe, Roy E. L. Oeol Boyce, Fugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G.	Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Homowoe, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. t Pullman, Ill.	Jackson, Vernon W Jamison, Stanley I Jessup, Don C Jewel, E. Harold. Jockel, Harvey G Johnson, Alf N Johnson, Rudolph B Kirkhoff, Gilbert G Kiel, Fred C Knastein, Wm	Eau Claire Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn Bassett Manitowoc
Bartos, Otto T. Bathum, Soren C. Bauer, Victor W. Benecke, Ernest H. A. Borhnstedt, Leo S. Boothroyd, Fergus C. Bowe, Roy E. L. Boyee, Fugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G.	Racine Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Homowoe, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill. t Pullman, Ill.	Jamison, Stanley I. Jessup, Don C. Jewel, E. Harold. Joeckel, Harvey G. Johnson, Alf N. Johnson, Rudolph B. Kirkhoff, Gilbert G. Kiel, Fred C. Knanstein, Wm	Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn Bassett Manitowoc
Bathum, Soren C. Bauer, Victor W. Benecke, Ernest H. A. Borhnstedt, Leo S. Boothroyd, Fergus C. Bowe, Roy E. L. Boyee, Eugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G.	Madison Jefferson Milwaukee Trempealeau Chicago, Ill. Iomowoc, Wis. Waupaca Lake Geneva Bayfield t Pullman, Ill.	Jamison, Stanley I. Jessup, Don C. Jewel, E. Harold. Joeckel, Harvey G. Johnson, Alf N. Johnson, Rudolph B. Kirkhoff, Gilbert G. Kiel, Fred C. Knanstein, Wm	Appleton Camby, Ind. Richland Center, Wis. Jackson Westby Rose Lawn Bassett Manitowoc
Boothroyd, Fergis C. Ocol Bowe, Roy E. L. Ocol Boyce, Eugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Breyfogle, Laurence G. Wes	Chicago, III. iomowoc, Wis. WaupacaLake Geneva Bayfield t Pullman, III. t Pullman, III.	Joeckel, Harvey G. Johnson, Alf N. Johnson, Rudolph B. Kirkhoff, Gilbert G. Kiel, Fred C. Knapstein, Wm	Jackson Westby Rose Lawn Bassett Manitowoc
Boothroyd, Fergis C. Ocol Bowe, Roy E. L. Ocol Boyce, Eugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Breyfogle, Laurence G. Wes	Chicago, III. iomowoc, Wis. WaupacaLake Geneva Bayfield t Pullman, III. t Pullman, III.	Joeckel, Harvey G. Johnson, Alf N. Johnson, Rudolph B. Kirkhoff, Gilbert G. Kiel, Fred C. Knapstein, Wm	Jackson Westby Rose Lawn Bassett Manitowoc
Boothroyd, Fergis C. Ocol Bowe, Roy E. L. Ocol Boyce, Eugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Breyfogle, Laurence G. Wes	Chicago, III. iomowoc, Wis. WaupacaLake Geneva Bayfield t Pullman, III. t Pullman, III.	Joeckel, Harvey G. Johnson, Alf N. Johnson, Rudolph B. Kirkhoff, Gilbert G. Kiel, Fred C. Knapstein, Wm	Jackson Westby Rose Lawn Bassett Manitowoc
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Boyce, Eugene C. Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G.	Waupaca Lake Geneva Bayfield t Pullman, Ill. t Pullman, Ill.	Kirkhoff, Gilbert G Kiel, Fred C Knapstein, Wm.	Bassett Manitowoc
Brennan, George Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G. Wes	Lake Geneva Bayfield t Pullman, Ill. t Pullman, Ill.	Kiel, Fred C Knapstein, Wm	Manitowoc
Bresette, Edward A. A. Breyfogle, Hugh H. Wes Brevfogle, Laurence G. Wes	Bayfield t Pullman, Ill. t Pullman, Ill.	Kiel, Fred C Knapstein, Wm	Manitowoc
Breyfogle, Hugh H. Wes Breyfogle, Laurence G. Wes	t Pullman, Ill. t Pullman, Ill.	Knapstein, Wm	Manitowoc
Breyfogle, Laurence GWes	t Pullman, Ill.	Anapstein, win	
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Grennell, victor C	Drandon	Oldenberg Albert H C	Antion
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Hamm, Bertrand A Harlan, Jay F. Heffron, Donald	New London	Oldon, I coci D	
Hoffron Donald	Wannakaa	Pahlke, Nathan A	Tuncou
Helms, Erwin H.	Rolmont	Potton Wayland P	Boscobel
Hennel Herbert F	Demont	Poderson Thee	Glenwood City
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Hinkamp, Frank R.	Monrce	Peterson Edmin	Curtiss
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Pink, Leo Pleshek, Frank S	Shawano
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Rock Donald A	Plymouth
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Rosenthal, Fred	Mondovi
Runde, Elmer	Sinsinawa
Sampe, Fred C	Manitowoo
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Sebion, Thore I	Westby
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Schea, Maurice T	Campbellsport
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Swenson, Walter R	Sister Bay
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Thome, Fred Thompson, Ellef N	Wautoma
Thompson, Howard A	Wautoma
Thomsen, Peter J	Genoa Jet
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Whipple, William S	Genoa, Ill.
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Woelffer, Walter A	
Wood, F. D.	Owen



#### SHORT COURSE IN AGRICULTURE

#### **Application for Admission**

To the Manager of the Short Course,

University of Wisconsin, Madison.

I hereby apply for admission to the Short Course in Agriculture, for the term beginning December 1, 1916. I have had......years experience on a farm.

If this application is accepted, I promise to conform to all the rules and

regulations of the school as to payment of fees, attendance, etc.

Should I change my address before December 1, 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
Post Office	
County	State
Dated	
Fol	d here
I have been induced to take the S (kindly indicate by a X what influence	Short Course byd you to take the Short Course).
His name(Give name of the former Short Course stu	ident who influenced you to take this Course)
Address	
The Short Course Circular	Influence of School Teacher
Announcements of Farm Papers	Influence of County Superintendent
Announcements in Local Papers	Influence of College Instructor
Exhibits at County or State Fair	Influence of some Friend
Other influences, and remarks	

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# MANAGER OF SHORT COURSE COLLEGE OF AGRICULTURE Madison Wis.

