

REPORT AND COMMENTS
on
AGRICULTURAL AND HOME ECONOMICS EXTENSION WORK
IN IOWA

Covering the Period
July 1, 1906 - July 1, 1914

Edited in 1952
by
R.K. Bliss

Iowa State College

Agricultural and Home Economics Extension Work
in Iowa - 1906 - 1914

FOREWORD

Available reports covering Agricultural and Home Economics Extension work from 1906 to 1914 are in typed form. They are individual reports and were not brought together in one complete statement. No administrative and specialist reports were made for the period July 1st, 1912 to July 1st, 1914 except a brief summary of Shortcourse work made in September 1914. Several brief County Agent reports were made in 1913 and 1914. Such typewritten reports as are available can be found in the College Library. Beginning with July 1, 1914 Extension reports have been printed and bound copies of such reports are in the College Library.

In view of the importance of early extension work in Iowa in laying the foundation for and giving direction to the Extension educational system it is desirable that the developments of this period be brought together in one statement. In doing this it is helpful to outline important phases of work that preceded the actual establishment of a separate department of Extension and which made a direct contribution to extension methods of teaching and organization. This is what the following pages attempt to do.

In order to present the record of Extension work during the first eight years in a more compact and readable form the various activities are grouped under the following general headings.

Shortcourses

County Demonstration Farms Including Soils Work
Beginning of County Agent Work
Educational Trains
Work with Farm Boys and Girls
Farmer Organizations and Dairy Test Associations
Fairs, Farmers Institutes, Picnics, Tours and Other Gatherings
Administration -- Extension Legislation.

SHORTCOURSES

The first Iowa shortcourse was held at Iowa State College in January 1901 and was planned by Dean C. F. Curtiss. It was confined principally to livestock judging and livestock management and was quite popular and successful.

In 1900 Prof. P. G. Holden while at the University of Illinois conducted a corn school for farmers. Prof. W. J. Kennedy who had recently come from the University of Illinois to Iowa State College knew of Prof. Holden's corn work and suggested that Holden be brought to Ames to conduct the corn judging and corn growing instruction in connection with the winter shortcourse in 1902. This suggestion was approved.

It was with some apprehension that corn work was added to the short-course program. The shortcourse the previous year had been confined to live-stock. It had been successful. But what about corn? Could a study of corn be made interesting to practical farmers? That was the question. It was cautiously decided to give a short period each day to corn.

Holden's corn work at the College Shortcourse in 1902 was strikingly successful. The farmers attending wanted more time for corn. They appealed to Holden. The shortcourse program could not very well be changed. An additional class in the study of corn was, therefore, arranged for 5 a.m. each morning. Farmers attending the class had to bring lanterns because the college electric lights were not on at that hour. The 5 o'clock class continued throughout the remainder of the course.

Any teacher interesting enough to induce a group of practical farmers to bring lanterns in order to have a five o'clock class in corn growing aroused the interest of President Beardshear of Iowa State College. He had a talk with Holden. Prof. Holden relates the following interesting account of his meeting with President Beardshear. "The first question he asked me was what I was going to do in the future. I said that when I learned enough I was going back into college work. He remarked 'we want you in Ames, you are an educator and good teachers are scarce. There are hundreds of people who can handle Funk's small project of 25,000 acres of farms'."

There were however, financial difficulties to be met in bringing Holden to Iowa. The college did not have enough money. But through the help of Uncle Henry Wallace and two farmers, Mr. Cook and Mr. Adams of Odebolt, \$600 of additional funds were turned over to the college and Holden was brought to Ames in the fall of 1902 with the title of Vice-Dean and Professor of Agronomy.

Shortcourse Taken From The College to the Country

The first shortcourse conducted in Iowa away from the college was held at Red Oak in January 1905. The story of how the shortcourse came to be taken from the college to other places in the state is an interesting one.

Uncle Henry Ebert and Mr. Milner both successful farmers in Montgomery County came to Ames in 1904 to make a request for a shortcourse school to be held at Red Oak, Iowa. When asked by Prof. Holden how they came to get the idea of holding a shortcourse at Red Oak Mr. Milner told the following story. He said there was a young man in their neighborhood who was well educated but sort of a happy-go-lucky farmer. The neighbors often spoke of him as being shiftless, his corn was poorly cultivated and weedy. Mr. Milner said he went to this young farmer and asked him if he wouldn't like to go to Ames and take the shortcourse. He said he didn't have enough money. Mr.

*Holden was at this time manager of Funk Bros. Corn Growing Operations and Seed Company in Illinois.

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Milner replied, "Young man, you go to Ames and take the course and I will pay your railroad expenses and your board. If during the next year you feel that the course wasn't worth your time and money, you needn't pay me back. But, on the other hand, if you feel that it was a good investment, you can pay me when you sell your corn." He went on to say that the young farmer attended the college shortcourse, became enthused about corn, got good seed, and took such good care of his corn crop that year that the neighbors were much surprised. They asked what in the world had happened to him that he had become so industrious and had such a fine-looking cornfield. Mr. Milner said, "I told them that he had been up to Ames to take the Shortcourse. The people said, that if going to Ames would do that for a fellow like him why don't we have a Shortcourse right here in Red Oak?"

Red Oak - First Local Shortcourse

When asked if he would come and put on a Shortcourse Prof. Holden replied, "Why surely I will come. If you put on a good Shortcourse School at Red Oak it will make every live community in the state want one," and he remarked further, "You folks are starting something which is of tremendous importance to Iowa."

Prof. Holden explained that it would be necessary to have a class room for livestock with heat and raised seats; a class room for work in corn, an exhibit room and a place for evening meetings. All this including the salaries and expenses for extra help would have to be furnished by the local people. It would require careful organization and much hard work. The farmers agreed to do the necessary work. A date was arranged and tickets at \$2.50 a person were sold to pay expenses of the week's school. Prominent people were selected to speak at the evening sessions. Prof. Holden took a group of students in farm crops to aid in conducting the work in corn and grains. Prof. Kennedy and Dinmore of the College handled the livestock work.

When the Shortcourse opened in Red Oak in Jan. 1905, there were nearly 300 enrolled consisting of young farmers, fathers and even grandfathers. The shortcourse was very popular in both livestock and grain departments. Home economics work was not included in the first shortcourse but was added at the following course in Jan. 1906 and from then on was always coordinated with agricultural work in all large shortcourses.

Other Shortcourses

In March 1906 Lenox, Iowa, held a shortcourse with Prof. Holden in charge. Prof. W. J. Kennedy, Head of the Animal Husbandry Department was booked to handle the livestock work at this course but could not come. He suggested to the Lenox people that I take his place in the livestock program, since I was farming a short distance from Lenox. This was my first introduction to local shortcourse work as a method of teaching.

Mt. Pleasant, Iowa sent a delegation of prominent people to the College to request a shortcourse. This shortcourse was held in December 1906. It was the first shortcourse to be held after the law establishing the Agricultural Extension Department which became effective July 1, 1906.

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(COW) Phases of Extension Work from 1906 to 1914

The Shortcourse An Effective Teaching Device

The local shortcourse was one of the principal educational activities of the extension service during the early years. It was a very effective teaching device and was successful and popular from the start. During the first 8 years of Extension - 1906 to July 1, 1914, 173 one week shortcourses in agriculture and home economics were held; 48 two and three day courses in agriculture and home economics were held and there were 160 shortcourses where home economics alone was taught. Altogether 381 shortcourses were held during this period.

The large short course required the services of not less than two teachers and helpers. The traveling and living expenses of the entire force plus the salaries of not less than

In order to understand the preliminary local effort required to conduct a shortcourse it is necessary to recall that farmers organizations were at a low ebb in Iowa in the early years of Extension. There were no general farm organizations such as the Farm Bureau and Farmers Union. A very few local granges were holding meetings. There were a few local farmers clubs. There was a small number of elevators. There were a number of cooperative creameries. Cooperatives, however, in those days did not take much interest in strictly educational projects outside of their special fields.

Under such circumstances it was necessary to devise some method of effectively stimulating local action, organization and support in order to have a successful shortcourse. Because of the success of the methods employed and because of the application of the principles developed to other phases of Extension work they are briefly recorded herewith.

Organizing a Shortcourse

A very careful procedure was followed in organizing shortcourses. It is not the purpose of this statement to go into all of the preliminary details in organizing a shortcourse but to call attention to some of the more important ones.

In order to be seriously considered for a shortcourse the community desiring it had to send a guarantee pledge to the Extension Department signed by 100 farmers and 100 business men in the community guaranteeing the expenses of the course. It was necessary to have expenses guaranteed because the college did not have enough money to finance the work. It was good organization strategy to have a large number of people sign the guarantee pledge since each signer then became in effect a stockholder in the enterprise. As a stockholder with his name signed to a pledge to make up any deficit that might occur each signer was anxious to see the shortcourse succeed.

The reasons for having 100 people living in town sign the guarantee were important. To begin with a shortcourse was a considerable undertaking for any community. It was necessary to have a livestock room with heat, good light and with raised seats in order to conduct the livestock class work. It was necessary to have a corn judging room large enough to seat from 150 to 200 people each with a tray of corn for study. It was necessary to have a Home Economics room with stoves, cupboards, tables and demonstration material, an exhibit room for corn and other products, and a large room or auditorium for

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night meetings. It was the responsibility of the city people to provide these rooms. It required considerable expense and work to make local arrangements. Each business man who signed the guarantee also became a potential worker for the course.

It was necessary to have a strong local shortcourse organization with several committees looking after the various phases of the work. It was necessary for a representative of the college to make two or three preliminary visits to a community in order to be sure that the buildings were in shape, livestock and grain arranged for and a premium list for corn, grain and home economic products worked out.

Shortcourse Tickets Sold in Advance

Since the cost of the one week general shortcourse to the local people in money alone averaged about \$1000.00 not including time freely given by officers and committees it was important that every effort be made to make it pay out. This was usually done in so far as possible by selling tickets to the shortcourse in advance. Men's tickets sold for \$2.50 or \$3.00 each, women's tickets sold for \$1.50 to \$2.00 each, day tickets usually sold for \$1.00 and single session tickets 50 cents. In addition classes were held at 4 p.m. for boys and girls for which a charge for the week of 50 or 75 cents was made. On the average 200 men and 100 women paid for season tickets. Usually about 50 boys and the same number of girls enrolled.

Tickets sold in advance always assured the success of the shortcourse. A stormy Monday or Tuesday even a blizzard did not prevent a good attendance of the tickets were already sold. On the basis of the relative value of the dollar in 1952 as compared with 1906 to 1914 a ticket worth \$2.50 to \$3.00 then would be worth from \$7.50 to \$10.00 now. People who paid that much for tickets came to the shortcourse classes regardless of the weather as they would now if they had enough interest in the work to pay from \$8.00 to \$10.00 for a week of class work.

It seems certain that attendance at shortcourses averaged much larger and even better work was accomplished because of making a charge for the work. Shortcourses where the people paid were far better attended than institutes where everything was free. Moreover people paid closer attention at shortcourses. The principle of people paying in part at least for what they get is a sound procedure. People are more likely to appreciate things that cost them money or time or both than they are for things that are given to them. This is sound philosophy in extension teaching. It is now carried out in practice through laws under which county farm bureaus operate and which requires farmers to raise private funds each year.

Conducting a Shortcourse

Shortcourse work was conducted on a systematic basis. All classes began on time and stopped on time. Doorkeepers checked the tickets at the door so that each one participating paid his share. The work was conducted on as high a plane of order and attention as prevailed in college class

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rooms. The high standards maintained in conducting the class work and the method of teaching with actual farm and home products corn, oats, alfalfa, hogs, cattle, horses, charts, farm equipment, cooking, clothing and other material being used in demonstrations and discussions in which the class participated largely accounts for the great success of shortcourse work. Students learned by doing as well as by hearing and seeing.

The shortcourse equipment was adequate. Grain, livestock and other materials were provided by the local people. For the large general one week shortcourses the Extension Service furnished a car of exhibits, a car of livestock and a baggage car of materials but this did not take the place of local exhibits and materials. These cars were transported free by the railroad companies as their contribution to the work.

A day at a one week shortcourse was carried out about as follows:

Agricultural Classes

8:00 A.M. Class in work, tying knots, splicing ropes, making halters and discussion of other subjects. Meeting held for those who could attend included high school students.

9:00 A.M. Agricultural students were divided equally and class work began at the same time in the livestock and farm crops departments.

The livestock work included the judging of a class of livestock of 4 or 5 animals. Beef cattle, dairy cattle, hogs, horses and sheep were used in class work. The work also included discussions of the care, feeding and management of animals. Feed racks, individual and colony hog houses, etc., were available for discussion.

The farm crops work included the judging of corn and other grains. Also discussion of the importance of a rotation of crops, soil management, growing alfalfa and other leguminous crops, etc.

10:30 A.M. Classes changed. Those who had been in the livestock department went to the farm crops department and those who had been in the farm crops department went to the livestock department.

12:00 Noon One hour's intermission.

1:00 P.M. Same as 9:00 A.M. except for a different kind of livestock. Classes in livestock and farm crops began at the same time.

2:30 P.M. Same as 10:30 A.M. with a change of classes.

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- 4:00 P.M. Classes dismissed. Many farmers had to go to their homes to do chores. However, a general session was held on some farm topics such as livestock feeding, soils, rotation of crops, poultry, etc., for those who could remain.
- 4:00 P.M. Special class for high school boys. This included livestock, grains and rope work.

Home Economics

- 9:00 -12:00 Lectures and demonstrations which included cooking, serving, sewing and discussion of home equipment and home management problems.
- 12:00 Intermission
- 2:00 P.M. Lectures and demonstrations along the foregoing lines.
- 4:00 P.M. Class for high school girls much the same as for adult women.

Night Meetings

- 8:00 P.M. Usually three night meetings were held. Oftentimes speakers other than those handling the shortcourse were brought in. Quite often a spelling contest for rural children was held on Friday night. I have a vivid recollection of pronouncing words on one occasion until 11:30 at night. I used up the local spelling book, President Taft's message to Congress and finally finished the contest on a group of "jaw cracking" words that I carried around in my coat pocket -- just in case they were needed. On this occasion they were needed.

On Saturday morning an examination was held covering the work of the week. The questions were printed so they could be kept and studied later along with the examination papers which were graded and returned.

A corn sale was held in the afternoon to distribute good varieties of corn and also to raise funds to take care of expenses.

The shortcourse work was carefully organized with specific duties and responsibilities for each person on the Extension Staff. In addition to those in direct charge of class work and their assistants there were also the following:

Advance man who preceded the opening of the course by a week in order to get everything in readiness.

Exhibit car man, who was in the car at all times to explain exhibits and who also arranged for groups from schools, luncheon clubs and others to visit the car.

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Paper man who saw to it that bulletins were distributed; that classes were provided with paper; that examination question papers were printed and ready for use on Saturday morning and that the papers were graded promptly and returned. He also got the names and addresses of the President and Secretary of farmers clubs, cooperatives, chambers of commerce and the names of any other important groups and individuals.

Baggage man whose duty it was to get all materials distributed promptly and gathered up again. Also to arrange for billing out cars to the next place to hold a shortcourse.

Livestock car man who took care of the livestock brought in the car and who helped local people get their livestock groomed and in good shape for class work.

In addition to the definite tasks listed above the foregoing men gave assistance in grain and livestock class room work.

Two and three day shortcourses did not have exhibit, stock, baggage cars but depended on local people to supply the necessary materials. They were

Philosophy of Shortcourse Extension Work

I have given the foregoing somewhat detailed description of the short-course work because it illustrates a philosophy that has been emphasized in Iowa Extension work. The philosophy or perhaps some would call it a plan is that the best way to make adult educational work a success in a community is to convince the local people that it is important to them and also that it is their major responsibility to organize and carry it through. The Extension Service then gives its technical help in carrying the project to completion. In short, the philosophy back of Iowa Extension work is the simple one of helping people to help themselves. This is similar to what our government now calls the Point 4 Program in international relationships.

The shortcourse was particularly effective because for one thing it required a large amount of work and effort on the part of local people to carry it through. It was effective because it gave opportunity for the ones conducting the classes to become well acquainted with those in attendance. One or even two day meetings such as farmers institutes or farm tours does not permit this close acquaintanceship. Out of this association with the faculty from Ames along with the experience gained in organizing and carrying through a shortcourse local leadership was developed in communities holding shortcourses. Community leadership was probably developed faster and more effectively in the early shortcourses than would have been the case had a definite effort been made to develop leaders.

This development of leadership in local communities laid the foundation for the swift organization of county farm improvement associations, and later War Emergency Food Associations at the beginning of World War I. These groups later adapted their present name of County Farm Bureaus. The principal result of Extension Work in Iowa was first of all to develop people. The early shortcourses accomplished this result in a most effective way.

It can be truly said that the local shortcourse was one of the most effective pieces of extension work that has ever been conducted by Extension Service

however conducted on a very high educational plane.

COUNTY FARM DEMONSTRATION PLOT WORK INCLUDING SOILS

Like many other important agricultural developments the idea of having County Farm Demonstration Plots at some central place in the county came out of a discussion among farmers. It came about in the following way. In the winter of 1903 a farmers institute was in progress at Hull, Iowa, in Sioux County. A discussion had arisen among the farmers present as to whether experiments conducted at Iowa State College would apply to conditions some 200 miles away in Sioux County.

Prof. Holden came into the institute while the discussion was in progress. A Mr. Hawkins called upon Holden to give his opinion. Holden's reply was "Mr. Hawkins you are discussing a matter of very great importance to agriculture." Holden held that local crops demonstrations close to the people were of tremendous value. He expressed the opinion that every county should put on demonstrations and have some one in the county to direct the demonstration plots, advise with the people as to their problems and work with farm boys and girls.

Sioux County Establishes County Demonstration Farm

As a result of this discussion county demonstration plots were arranged for and carried out in Sioux County in the spring and summer of 1903. The plan called for land, money and farm labor to be provided by the County through action of the Board of Supervisors. Thus all the people in the county supported the project through their taxes.

Local Organization Developed

There was no law requiring County Boards of Supervisors to make such appropriations. In order, therefore, to convince the board of supervisors as to the need of demonstration work it was necessary to enlist the active support of influential farmers and others. Thus local interest and organization had to be developed in order to get county demonstration farm plots started. The plan also stimulated the curiosity and the attention of the people which is the first requisite of a successful extension educational demonstration.

After the land had been donated by the County Board of Supervisors and the necessary funds allotted the next problem was to conduct the demonstration plots in an effective way. Prof. Holden's experience in Illinois with farmers and with the Funk Bros. Seed Company had convinced him that low acre yields from corn were due largely to poor seed. His idea was that farmers were planting weak and dead seed along with good seed and as a result they got low yields.

These first demonstration plots in Sioux County undertook the job of finding out what the actual situation was as regards the seed corn planted in that region. In order to do this seed corn was procured from a large number of farmers. It would be difficult to improve on the methods developed by Prof. Holden in these first county stations. Because of their importance as a method of extension teaching the plans developed are given herewith in some detail.

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Seed Corn for Demonstration Work Taken From Planter Boxes

First of all in order to make the demonstration most effective any possible doubt about the fairness of the demonstration had to be eliminated. The seed corn gotten from the different farms and planted on the plots must be the same as the farmer planted in his own fields or the demonstration would not be fair. In order to be sure that this was the case the seed was collected from either the farmers planter box or his seed corn sack in the field at the time of planting. A college representative usually collected the samples. He was driven through the country by a local man. As they drove along the road they would see some one planting corn. The college representative would go to the farmer and ask to take seed out of his planter box. For what, asked the usually surprised farmer? The answer was to plant on the county farm in order to compare the yield of corn from his seed with the yield of corn from seed gotten from other farms.

The unusual procedure of taking seed out of the planter box or out of the sack in the field was enough to arouse the curiosity of anyone. Sometimes the farmer was suspicious and refused to give the seed. Although I was in livestock work, I gathered the seed and planted one of these demonstration farms and there were two farmers who would not furnish seed.

Record Kept of Seed Corn - How Handled

The one who collected the seed had a card on which he wrote the man's name and address. He also recorded the name of the corn if the farmer knew the name. He made a record of whether the farmer had grown or bought the seed corn. If he grew the corn himself, how had he cared for it. Did he gather it before frost, or at time of gathering the corn in the fall, or did he go out to the crib and pick it out when planting time came in the spring? By the time this information along with the sample of seed had been obtained the farmer had it impressed on his memory that something of importance was being done on the county demonstration farm. His curiosity was definitely aroused. He did not forget that his seed corn was being compared with other farmers seed corn. From 60 to 80 samples of seed were collected from farmers in this way.

Seed Procured From Outside Sources

Approximately twenty other samples of corn were also procured from seed companies and seed corn growers outside of the county for the purposes of comparison with the farmers seed. Samples were purchased by farmers and turned over to the demonstration farms. This method of collection was recognized as being fair because the seed companies and seed growers did not know that their seed corn was being used on the demonstration plots. It was, therefore, the same quality of seed as that sold to all farmers.

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The samples were planted on the demonstration plots with great care. As even a tract of land as possible was staked out. In order to be exact all samples were planted by hand, three kernels to the hill. The size of each plot was 7 by 10 hills, about one-fiftieth of an acre. Each farmers sample was planted in three or four separate plots in different places in the field so as to give each sample as nearly as possible an equal show. Border rows were planted around outside of the plots to give protection at time of cultivation. Great care was taken to prevent errors.

The demonstration field was mapped and blue printed. Each farmers sample was given a number which was recorded with his name. Stakes with numbers on them were driven at the corners of plots.

Field Day Held in Late Summer

In the summer the farmers who furnished samples of corn were especially invited to a field day to look the plots over. The entire community was also invited. The forenoon was spent in going over the plots. Representatives of the college were on hand to explain the plot work. Each farmer knew his number and the plots grown from his seed. He could compare how his corn was growing, the stand etc., with his neighbors corn. And what striking comparisons there were! Some plots scarcely grew at all, others grew poorly and still others grew well. There were weak and strong stalks too. The plan could scarcely have been improved upon as a demonstration of the poor and good seed then being planted.

The people brought their lunch baskets and after lunch a talk was given on corn. The importance of selecting the corn early before frost could hurt it and then caring for it properly was especially emphasized. But Prof. Holden went further. He urged that six kernels out of each ear should be tested. The kernels to be taken two from opposite sides of the butt of the ear, two from opposite sides of the middle and two from opposite sides of the tip of the ear. He advocated a sawdust box test in which the ears were numbered and an exact record kept on each ear. Later the rag doll test was developed. Prof. Holden urged that testing seed corn and the selection of strong seed was the most profitable work that an Iowa farmer could do.

The county farm demonstration inspection days were well attended. Prof. Mosher who had direct charge of the work reports an average attendance, rainy days included, of 800 at each field day in 1906.

Demonstration Material Widely Used in Educational Work

In the fall the corn was carefully harvested by plots. The yield records were computed on the basis of bushels per acre. These records were published in the local papers. They provided the basis for educational work at shortcourses, institutes, on trains and at other meetings. The material was used effectively and continuously for educational work both in the county and throughout the state.

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I have given in some detail the farm variety test because it illustrates what amounted to real genius on the part of Prof. Holden in developing educational methods through demonstrations. There were also other tests in addition to farm variety tests carried out on these farms. There were, for example, in 1906 at the time the Extension Service was created the following plots and demonstrations already being conducted in ten counties.

1. Farm variety corn tests with seed procured from 60 to 80 farms.
2. Introduced variety tests that brought together for comparison samples of corn furnished by seed growers.
3. Field test of germination box tested corn to see whether testing corn in the sawdust box and then testing another sample of the same corn in the field showed any difference in germination.
4. Thickness of planting as to yield.
 - a. Number of kernels per hill.
 - b. Number of stalks per hill.

The county demonstration farms had shown at least forty years ago that four kernels or four stalks of corn per hill would produce more corn than a fewer number of stalks.

5. Butt, middle and tip tests to see whether there was any difference in the producing power of kernels from different parts of the ear.
6. Individual ear tests to see how different ears of corn about equal as far as anyone could tell by looking at them would actually grow and produce when planted. These ear to row tests showed that a fine looking ear of corn the same as a fine looking beef animal or hog was no sure prediction as to what anyone of them would reproduce.

As early as 1906 a few oat variety tests were carried out on County Demonstration Farms. Also work was under way with alfalfa growing, elimination of quack grass and other noxious weeds.

The county farm demonstration work was as already stated begun by Prof. Holden in 1903. In 1906 at the time Extension work was created by law there were 10 county farm demonstrations in operation. Each demonstration required from 10 to 14 acres of ground. The number of county farm demonstration farms from 1906 to 1914 averaged about 15 each year. That was about all that could be handled advantageously with personnel and funds available.

Poor Seed Shown to be One of Causes of Low Acre Yield

These early County Stations demonstrated fully and completely that poor seed was one of the principal causes of low acre corn yields in Iowa.

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They demonstrated the shocking carelessness of some farmers ~~followed~~ in selecting seed. Many farmers at that time selected seed from open cribs at planting time. The demonstrations emphasized the need of knowing whether or not an ear of corn would grow and grow strong which could only be found out by testing each ear.

The county stations also demonstrated clearly over and over again that seed corn shipped a long distance generally did not do as well as local seed. It was bad practice to ship seed from a distance either north or south, east or west. In short, it was fully shown that seed corn had to be acclimated. This, of course, applied to open pollinated seed corn, the only kind of seed corn available at the time.

Higher Yielding Varieties Located and Widely Distributed

The county farm demonstration plots located and promoted higher yielding varieties of corn. From the first the demonstration farms sought to discover high yielding varieties of corn by actual tests in the field. Professional seed men were encouraged to send seed for testing. Oftentimes the best seed was found on some nearby farm in the county. Always when a good yielding sample of corn was located, more of the same seed would be procured from the farmer or seed grower the next year and tried out again. From 10 to 15 of these best samples of seed were tried out each year. In this way the highest yielding varieties of corn were quickly and widely distributed throughout the county to the great benefit of all farmers.

In addition to corn as has already been briefly stated oat and alfalfa varieties came in for attention and demonstration. Also the killing of bad weeds such as Canada Thistle and quack grass was demonstrated. In the educational work soils, soil management and crop rotations came in for special attention.

Sioux County Developed Plan Under Which County Extension Work is Now Conducted

The county demonstration farm established in Sioux County pioneered in developing what are today generally recognized as standard methods in organizing, financing and conducting county extension work. The Sioux County plan provided for county support through the County Board of Supervisors. This included land, labor and county funds. It provided for state and federal support through the cooperation of the College. It also provided for organized cooperation and support and interest on the part of the farmers. In short, it developed a working partnership between the State Agricultural College, the county and organized farmers in conducting educational work.

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The County Farm Demonstration Plan required much work and effort on the part of the College. A College representative supervised the location, planting and harvesting of the plots. A College representative compiled the results, prepared the educational material and conducted or helped conduct the educational work in the county. In fact the equivalent of about four months of one College man's time was spent on each county demonstration farm project. This work was similar to County Agent work.

First Well Organized Permanent County Extension Program

The County Farm Demonstration Plan developed by Prof. Holden was started eleven years before the passage of the National Smith-Lever Act in 1914 and three years before the passage of the Iowa Extension Act in 1906. It was begun the same year that Sessan A. Knapp persuaded Walter C. Porter of Terrill, Texas to try out demonstration work on his farm. It was started $3\frac{1}{2}$ years before the first County Agent, W. C. Stallings, began work in Smith County, Texas in November 1906. In fact, there were 10 county demonstration farms in operation in Iowa in the spring of 1906. Sioux County crop demonstration work marked the beginning of organized County Extension work in Iowa and it was, I believe, the first county extension work in the United States that united the State Agriculture College, including the United States Department of Agriculture, the county commissioners and the farmers in the county in a partnership arrangement of financial support, education and management for the purpose of bringing about agricultural development and improvement.

Some Early Reports Published

Fortunately some of these County Farm Demonstration Reports were published and are now in the College Library available for study. In the spring of 1912 at the time Prof. Mosher left the central office to become one of the first "County Extension workers in Iowa he had ready for publication a summary of all the county demonstration work that had been carried on up to that time. Unfortunately this valuable material was not published. Mr. Mosher still has (1952) this material in his possession.

The record of county farm demonstration plot work would not be complete without a word about M. L. Mosher who took charge of the work as a member of the Extension Staff in 1906. Mr. Mosher was a tireless worker, careful, and methodical and with a great desire for exactness. He was a natural investigator. No item was too small for his attention. Every county farm was mapped and blue printed. Every plot numbered and recorded. Mistakes were almost nil under his skillful management. He was indeed a wise selection for this very important task.

Prof. Mosher later in Illinois by using the methods of selection developed in the Iowa County Farm Demonstration work discovered and popularized what was known as the Krug corn. This was a high yielding variety of corn developed by the Krug family through years of continuous effort. Krug corn was one of the highest yielding varieties of corn perhaps the highest for the main corn belt at the time Hybrid seed drove the open pollinated varieties from the field. Prof. Mosher tells me that one or more inbreds from the Krug

*J. R. Bliss started work as county agent in Scott County on the same day.

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corn were used in from 80 to 90% of the hybrid corn varieties that were first developed.

Soil Building and Conservation

Prof. Holden recognized the tremendous importance of soil building and conservation and set up a separate department the first year of Extension to care for it. During the first six years the soils work was headed up by Prof. A. H. Snyder. Snyder was both a trained scientist and a good publicist. He had rare ability in putting material together and was an excellent selection for these early days of soils work. At the close of 6 years of Extension, Snyder had attracted the attention of E. T. Meredith, later Secretary of Agriculture, and became editor of *Successful Farming* in Des Moines. Still later he became agricultural editor at the University of Maryland from which position he recently retired.

Snyder worked closely with county farm demonstration work. He also worked closely with the field soils experimental work then being carried on by the Experiment Station. In 1906-07 the Experiment Station arranged for a number of plots on the different soil types of the state, Snyder helped to put the results from these plots in both exhibit and printed form so that it could be used more effectively in educational work.

The following excerpts are taken from the first report (1906-07) of

Professor Snyder:

. . . . "corn being the money crop has been grown continuously for a long series of years in many cases and where any rotation of crops has been followed it has usually consisted in merely changing the land by introducing a crop of oats at intervals of greater or less length. The fact that statistics show 46 acres of corn to each acre of clover and 30 acres of oats to each acre of clover demonstrates that a comparatively small portion of the cultivated land in the state is at present subjected to a rotation which includes a leguminous crop. The value of a definite plan of cropping cannot be too strongly emphasized

"although Iowa is a stock-raising state and a large percent of the crops raised is fed upon the farms, it is nevertheless true that much of the fertility removed from the soil by crops fails to find its way back into the soil. The truth of this statement is obvious to anyone who travels over the state and has the opportunity to observe the numerous barnyards and feed lots located upon the banks of a stream or a ditch where the most valuable constituents of manure are rapidly leached out and carried away by the water. It cannot fail to impress one with the idea that the farmers give more attention to securing good drainage in their feed lots than to conserving the elements of fertility in the manure....

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Drainage

"The fact that approximately one half as great an area as is planted in corn annually in the state of Iowa is partially useless and in many cases is an actual source of loss to the farmer owing to the lack of proper drainage has justified devoting considerable time to emphasizing the importance and practicability of providing ample artificial drainage for land which is not thoroughly drained naturally. Many tile drains are poorly laid out and it is important to emphasize the fact that a system of tile drainage should be looked upon as a permanent improvement and the necessity of using greater care in laying tile drains."

Cooperative arrangement with the Experiment Station

"Arrangement was made whereby the major portion of *experimental work could be conducted in cooperation with the soil section of the Experiment Station.... The plan of the experiments was such as was decided upon by the two departments. The soil section of the Experiment Station shall have the right to publish complete results in bulletin form and the Extension Department shall have the right to use them in a demonstrative way in lectures, etc., or for holding meetings at the various fields at the time when the most important and most interesting features of the work are best shown by the growing crops....

***Three experiment fields have been installed within the past year (1906-07): one at each of the following places - Humeston, Manning and Conrad. They are designed to test the effect of applying the three main elements of plant food - nitrogen, phosphorus, and potassium - alone and in their several combinations, the object being to determine whether or not any of these elements are present in too small an amount to meet the full demands of the cropThe rotation followed consists of corn 2 years, oats 1 year, and clover 1 year. Thus two sections of crops will be planted to corn each year, one to oats, and one to clover....The relative effect upon the soil of a continuous culture of one crop, of a rotation without a leguminous crop, and of a rotation including a leguminous crop are being tested....

"In addition to these a similar Iowa experiment is being conducted on a somewhat smaller scale near Sioux City and some special work upon a peaty swamp soil at Somers....Arrangements have been made with a number of farmers for conducting experiments upon their home farms."

The first bulletin published by the Extension Service was on the unsolved problem of properly saving and utilizing farm manures. Each short-course had its session on soils and soils fertility. Maintaining soil fertility was one of the main arguments advanced for livestock and dairy farming.

*We would now call it demonstrational.

**A number of these fields dating from 1906-07 were carried on by the Experiment Station for many years.

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I record these facts in order to inform people of a later generation that the conservation of soils and soil fertility was made one of the important first objectives of Extension work in 1906. Soils losses were not so evident forty-six years ago as now. Information concerning soils and their preservation was not at that time very extensive. People were not so conscious of the need of paying careful attention to their soils, as is now the case. Extension education from the beginning recognized the importance of the soil and laid the foundation for the present soil conservation programs.

In his final report in 1912, Prof. Snyder said:

"The six years which I have been connected with this Department have witnessed a remarkable change of sentiment on the part of the people in general toward soil work and soils problems. During the first few years of my work it was by no means easy at all times to gain a hearing upon subjects pertaining to fertility, and it is not stating the situation too strongly to say that the great majority of farmers listened in a very desultory manner, even many of those who were studying their business from the standpoint of improved stock and improved gain.

"It is certainly most gratifying to note the interest taken in a discussion of soil problems in the past year or so, and suggests to me that now is the time when much can be done along this line, and not only can much be done, but immense good can be accomplished for the future of the state. The people are ready and anxious for information regarding their soils, and the most serious handicap to successful extension work along that line is the meagerness of definite data concerning Iowa soils. It takes years to obtain reliable data concerning many of the most important soil problems, and it is nothing less than a short sighted policy for a great agricultural state to delay in providing ample funds for carrying on soils experiments."

BEGINNING OF FULL TIME COUNTY EXTENSION WORK

During the years 1911 and 1912 there was considerable discussion as to ways and means of making extension education work continuous in counties through local organization and the employment of full time workers. There were both national and local incentives for the establishment of permanent extension work in counties. Texas is credited with having the first full time county agent who began work in November 1906. This work grew out of the effort organized by Dr. Knapp to combat the boll weevil and also to improve agricultural conditions generally.

County Agent work in the south grew rapidly to meet a great need. It received large financial support from the General Educational Fund of the Rockefeller Foundation. In 1910 the work was in progress in 455 counties and 450 agents were employed.

This southern work was directed from Washington as reported by Dr. Knapp in the 1909 Yearbook of the Department of Agriculture. Wrote Dr. Knapp, "The farmers' cooperative demonstration work is conducted by a special agent in charge, who reports direct to the Chief of the Bureau of Plant Industry. There are five general assistants and a full office force; also a corps of field agents is employed, classified according to territory in charge, as State, District and County Agents. These agents are selected with special reference to thorough knowledge of improved agriculture and practical experience in farming in the sections to which appointed. The county agents are appointed mainly on the advice of local committees of prominent business men and farmers conversant with the territory to be worked. Each agent has in charge the practical work in one or more counties, strictly under such general directions as may be issued from the central office at Washington, D.C. District agents are expected to have not only a knowledge of scientific agriculture, but to be practical farmers and to have had considerable experience in the demonstration work. State agents are strong and capable men, who have shown their ability to carry out successfully the instructions of the central office over a large territory, and they are especially qualified for the work by the possession of the tact necessary to influence men."

It will be noted that the early county agent work in the south was controlled and directed from the United States Department of Agriculture in Washington and with little administrative authority on the part of the state, county or Land Grant College.

Beginning of County Agent Work in the North

The office of *Farm Management, U.S.D.A. in cooperation with the Chamber of Commerce of Binghamton, N.Y., the Delaware and Lackawanna Railroad, and the New York State College of Agriculture employed an agent to

*True History of Extension Work - page 73.

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work in Broome County and adjacent counties in New York on March 11, 1911. The headquarters for this work was in the farm bureau of the Binghamton Chamber of Commerce. The name Farm Bureau was soon adopted by organizations of farmers supporting the county agent work in New York, and was then taken up by similar organizations in other states.

As compared with the work in the south the northern work included active cooperation and supervision of the Land Grant Colleges. As has already been noted the County Farm Demonstration Plan organized by Prof. Holden in Sioux County provided for State, County and farmer support and a working arrangement of supervision and education among the three cooperating agencies. This plan set up in Sioux County in 1903 is now the accepted way of doing County Extension work in the United States.

Development of Full Time County Extension Work in Iowa

In May 1912 Prof. M. L. Mosher made a special report to me as Acting Superintendent of the Extension Service relative to the matter of placing an agricultural extension man in each county. Prof. Mosher had made a quite careful study of the problem and because of the fact that he actually outlined the work of Iowa's first County Extension Agent his recommendations are given in part herewith. Said Prof. Mosher under the heading:

County Extension Man

"The time has come when some one Iowa county should be encouraged to hire a trained agriculturalist to live in the county and assist with the direction of the various lines of agricultural work of the county. This is being done in other states and countries. In some places it is being done under state or national supervision with state aid and in some places under the supervision of an independent association financed by the commercial interests of the cities within the territory interested.

"In North and South Dakota, Better Farming Associations have been organized to carry on this line of work. Men are stationed in the counties under the supervision of a State Superintendent. H. F. Patterson, a graduate of this institution is in charge of the work in South Dakota. This work is being financed by the commercial interests of Minnesota and the Dakotas. The Associations cooperate with the Agricultural College and Experiment Station in conducting the work.

"Men in Woodbury, Clinton, Scott, and Page Counties have spoken or written to me regarding the organization of their counties for definite agricultural work. I have talked with several and have mentioned the plan publicly in a few instances. There has nearly always been a hearty response. I feel sure that such work will be organized in several counties within a few years. I believe, too, that this work could best be directed by the State College rather than by an independent organization such as is found in the Dakotas. This would prevent needless duplications.

"The following is a brief statement of the work which I have in mind that such a man could do in the county."

Prof. Mosher then recommended that a county demonstration farm similar to those already in operation be established in each county with a full time worker in charge. He would give special attention to soil fertility and expand the activities and the demonstration farm in other ways and direct demonstration work and improvement of seed on the county farm. This last work would thus be the same as the County Farm Demonstration Work.

Recommendations

Mosher recommended that the College and Experiment Station, through the Extension Department agree to provide the following things:

1. "General oversight and supervision of the work.
2. "Additional men and women for short courses, institutes, picnics, etc.
3. "Printed matter for distribution in the county.
4. "Improved small grain seed to be grown at the county farm or elsewhere for distribution in the county.
5. "Assistance in selecting a competent man to do the work."

Mr. Mosher recommended that the following conditions should be required of the county where this work will be done.

1. "Definite arrangements for at least three years continuous work should be made, with the intention of making it permanent. A man would need at least three years time to develop the work and get results.
2. "The expenses should be paid by both town and country people. The farmers should pay part of the expenses. People appreciate most, things which cost them something. If the farmers help pay the expenses they will feel that the expert is their man, their servant, as he should be.
3. "It should be understood that the man would act as a county representative of the State Agricultural College, working in close cooperation with the Extension Department and State Experiment Station.
4. "The Board of Supervisors should appropriate the \$300 for experimental work on the County Farm, as they are permitted to do by law.
5. "Suitable office rooms and equipment should be provided. Such rooms and equipment would very probably be provided by the Commercial Club of the county seat.
6. "Not less than \$3000 annually should be provided to carry on this work. A man of experience, competent to begin this work cannot be secured for less than \$2,000 a year to begin with and he would probably require more after the first year. At least \$1000 should be available annually for office help, stationary, charts, traveling expenses, etc.

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7. "Some organization such as the Commercial Club, County Grange, or Short Course Association should guarantee the finances of the undertaking."

Mosher also recommended the immediate appointment of five men to give full time to county farm demonstration work. Each man to have charge of three counties. This virtually meant five full time county extension agents for fifteen counties and would have prepared the way for full time extension workers.

The first real pioneering for a full time county extension worker in Iowa was done in Clinton County. Mr. Mosher's first annual extension report in 1906 called attention to the work of George E. Farrell, County Superintendent of Schools in Clinton County with farm boys and girls along corn lines. Later this same County Superintendent had much to do with getting County Agent work started in Clinton County. The following was reported by Prof. Mosher the first County Agent. Mosher's early reports are given herewith in some detail since it describes the beginning of an important new line of work.

Organization of County Agent Work in Clinton County

"The Clinton Commercial Club under the leadership of C.F. Terhune, Secretary, and George E. Farrell, County Superintendent of Schools, and with the support of a few leading farmers of the county started the movement. The Council of Grain Exchanges, with an office in Chicago, had offered \$1000 of what was known as the Sears Roebuck money for starting out work in the county provided a similar amount was raised among the farmers in the county. During June of that year (1912) a series of meetings were held in all of the townships in the county. These meetings were addressed by the writer (Mosher) who was then a member of the Extension Department of the Iowa State College of Ames, Mr. George E. Farrell, county Superintendent of schools who had done considerable very creditable work with the boys and girls clubs and by Mr. C. F. Terhune, Secretary of the Clinton Commercial Club. Following these meetings sufficient subscriptions were made by farmers of the county so that the requirements for securing the Sears Roebuck funds were met and the Clinton Commercial Club felt justified in guaranteeing the additional expenses for a three year period.

"Arrangements were made that fall (1912) whereby the U.S. Department of Agriculture paid \$1200 per year towards the salary of the county agent and furnished the franking privilege enabling him to send out circular letters without having to pay postage.

"At that time the connection between the county agent work and the Clinton Commercial Club was very close. Those farmers who subscribed money to support the work virtually became members of the Clinton Commercial Club with the understanding that all such fees should go towards the support of agricultural work.

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"The work continued practically on this basis for a little more than two years. During the winter of 1912 and 1913 township organizations were formed in nearly every township of the county. Officers were elected and a membership fee of \$1.25 per year decided upon, with the privilege of anyone paying more if he so desired. Eighty percent of the membership fees in the township associations was turned over by the treasurer to the agricultural committee of the Clinton Commercial Club. The remaining twenty percent of the membership fees was retained by the local association to pay the expenses of local meetings.

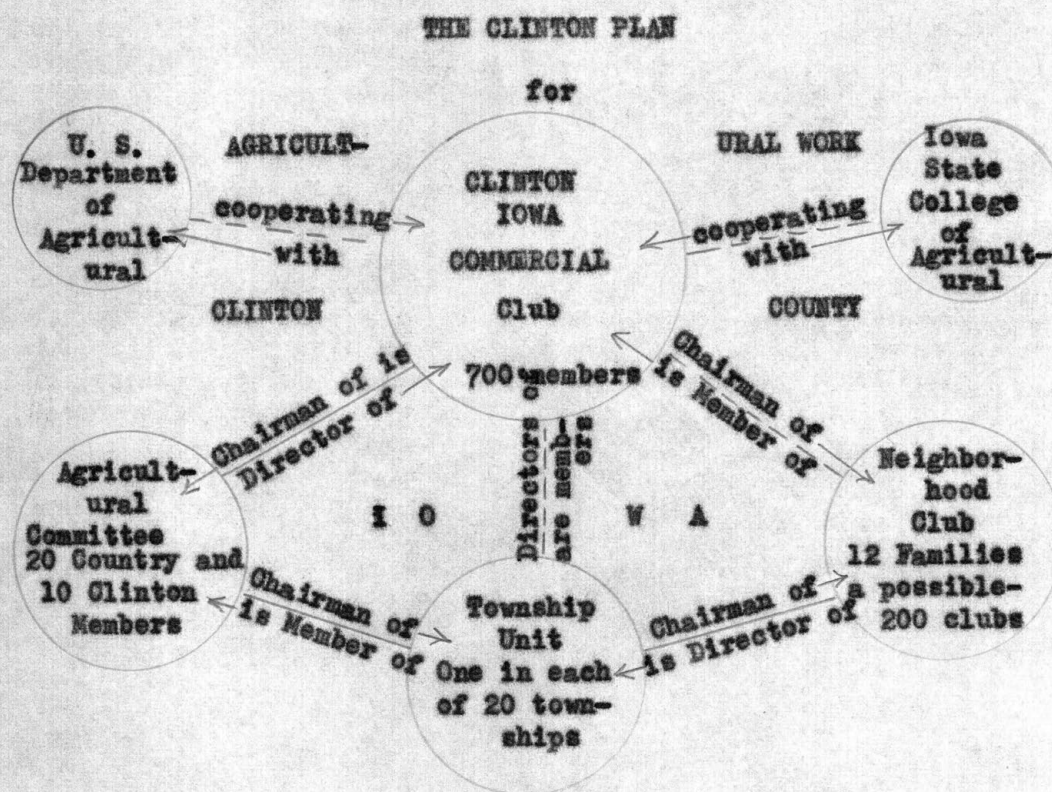
"By winter of 1914 and 1915 it was generally recognized that it would be better for all concerned that the agricultural work be separated entirely from the Commercial Club. A membership campaign was carried on and sufficient interest and subscriptions secured to warrant organizing what was known as the Clinton County Farm Improvement Association. Headquarters was established at De Witt and the office moved to that place so that the county agent would be more nearly in the center of the county in order that he might better serve the people all over the county. The Clinton Commercial Club continued to support the work the third year by paying \$1000 to the newly organized Farm Improvement Association.

"Even after the work was separated from the Commercial Club the matter of financing it was difficult and during the fall of 1915 the bankers of the county came to the rescue and subscribed between one and two thousand dollars in order that the work undertaken might be completed. This in brief is a history of the organization for three years and four months up to December 31, 1915."

The following diagram was issued by the Clinton County Commercial Club

CLINTON *PLAN
FOR AGRICULTURAL BETTERMENT

Combining City and Country as a single unit.



Clinton, Iowa, combined with Clinton County, is the
**first to employ an Agricultural Expert in the State of
Iowa, the fifteenth in the United States and the first of
all upon this plan.

** This evidently refers to the northern states. Actually the South had many
agents working at that time.

* Issued by Clinton County Commercial Club

Scott County Begins County Extension Work Sept. 1, 1912

G. R. Bliss, began similar work as County Agent in Scott County on the same day as Clinton County. However, the preliminary organization work was principally developed in Clinton County. Prof. Mosher's experience in County Farm Demonstration Work gave him a running start on the work in Clinton County.

Schoolhouse Seed Corn Meetings Held in Sept. 1912

I find the following account in a report made by Mosher to the Chief of the Bureau of Plant Industry dated July 1, 1913 concerning the first 10 months of work in Clinton County. The county work began September 1, 1912. During September the new agent held 95 meetings in schoolhouses reaching 1169 school children, 85 teachers and 1926 patrons making a total of 3180 persons.

"At these meetings demonstrations of methods of selecting and storing seed corn were given. Stalks of corn showing good and poor characteristics were taken into the school rooms. Two simple methods of hanging up seed were shown. The reason why the freezing of undried corn kills the germ was explained. Good and bad places to store seed were suggested. We endeavored to make the lessons so practical that they would appeal to the men present and so simple that the boys and girls could understand them.

"Partly because of the very bad condition of seed corn the spring of 1912, and partly because of these schoolhouse meetings there was an unusually large amount of seed saved in the fall of 1912. Men who had formerly sold many patented seed corn hangers reported that they could do no business with men whose boys and girls "learned at school how to hang up seed corn with binder twine."

County Agent Busy From the Start

County Agent Mosher was a very busy man. There was the county demonstration farm to plan, hog cholera to be combatted, a county fair to attend; two shortcourses to hold and two institutes to attend, a series of winter corn meetings to be held, farm visits to be made, letters to be written and mailed and the organization to be maintained.

Altogether during the first ten months 164 meetings were held with a total of 16,925 people in attendance. There were 117 office visitors and 114 farm visits were made. Seventeen hundred personal letters and 5778 circular letters were mailed making a total of 8478. Ten carloads of lime were distributed.

Eighteen townships were organized with 443 members and membership fees amounted to \$1139.35.

In doing this work Mosher traveled 1700 miles by railroad, 2697 miles by auto and 161 miles by team making a total of 4558 miles.

County Farm Demonstrations

Mr. Mosher's most important work was on the county demonstration farm. This demonstration the first year had to do with corn and alfalfa.

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The Clinton County Corn Test - Mosher Report

"The Clinton County corn test was begun the winter of 1912 and 1913. Meetings were held in every township in the county that winter and men were asked to bring in seventy ears of corn each. One hundred and fifty-three men brought in such samples, 97 of which were selected for field trials. A careful germination test was made of each ear and from those ears showing perfect germination forty of the best appearing ears were selected. A few rows of kernels were shelled from each of the forty ears and mixed together to make the sample of seed useful used in the field trials. In the spring of 1913 the 97 samples were planted side by side on the county farm near Charlotte. Each sample was planted in eight different plots. In the fall the corn from each plot was weighed and representative ears saved. From these ears samples were exhibited at a series of meetings held in seven or eight places in the county during the winter of 1913 and 1914.

"In the spring of 1914 seed was secured from 19 of the men whose corn had given best results in 1913. These 19 samples were planted on six farms in different parts of the county. During the winter of 1913 and 1914, 43 samples of corn which had not been included in the field trials of 1913 were secured and planted on the county farm in the same manner as were the 97 samples in 1913. From these 43 samples eight were selected as the best.

"In the fall of 1914 a considerable quantity of seed was secured from the half dozen men whose corn had given best results the first two years. This corn was planted on several farms in 1915. The corn which gave the highest average yield for the three years that the test was conducted was that furnished by P.E. Eggers of Bryant. The Studeman corn, however, which was nearly as high yielding for the three year average and which was a decidedly earlier type of corn has proved most satisfactory and is the one which has had general distribution over the county."

In a recent conversation Prof. Mosher said that within three or four years 80% of the corn in Clinton County was being planted from high yielding varieties of corn located in the county by the County Demonstration Farm. Prof. Mosher's work in corn in Clinton County was outstanding.

Introduction of Limestone - Mosher Report

"I have a very definite memory of the first demonstration showing the value of limestone on alfalfa and clover in Clinton County. The first was on the farm of E. C. Forest who then lived in Outriver Township where he had spread some plaster from an old house on part of an alfalfa field. The increased growth of the alfalfa was very apparent and a considerable number of people were taken to see this field.

"A second demonstration was on the farm of Frank Coverdale who had been growing sweet clover for a good many years at that time. Many will recall the big sweet clover picnic which was held on his farm and attended by men from several other counties and from some counties in Illinois. Mr. Coverdale had used a little limestone on some very small patches of sweet clover that spring and the increased growth due to the use of limestone was very apparent to everyone who attended the picnic.

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"Severa car loads of limestone were used in the county work that first year. I note in my report for the year ending December 31, 1913 that we reported approximately 500 tons of limestone used that year, for the year ending December 31, 1914, 1200 tons were used and for the year ending December 31, 1915, 1500 tons were used. With the use of limestone came the successful growing of alfalfa.

Soil Treatment Tests

"During the season of 1914 in co-operation with the Soil Department of the Iowa Experiment Station a series of soil tests were arranged for in the various types of soil in Clinton County. Four series of plots were laid out that year on the farms of John Olson; Olive Township, Warren Walrod; Welton Township; Nis W. Ostergaard; Eden Township and M. H. Federson, Outriver Township. These results indicated very definitely the value of the use of limestone and phosphate, either in the form of rock phosphate or acid phosphate, for soils of the type represented on that farm. If the soil tests on that farm may be continued for the next twenty years I doubt whether there is any work that was undertaken during the first three years of the farm bureau work in Clinton County which would have proven of as great value to the people of the county as the starting of these soil treatment tests." It is not the intention of this report to go into detail as to the early County Agent work further than to report in some detail the work in one county.

G. R. Bliss Begins County Agent Work in Scott County Sept. 1, 1912

G.R. Bliss started work in Scott County on the same day that Mosher started in Clinton County. However, the preliminary organization work was principally developed in Clinton County. The first year's work of Bliss in hog cholera control attracted wide attention. His report shows more than 17,000 hogs vaccinated because of the efforts of the new organization.

J. W. Coverdale Appointed Asst. State Supervisor of County Agents

On December 1, 1912, J.W. Coverdale of Clinton County, a former student at Ames accepted the position of Assistant State Supervisor of County Agents. Coverdale had had farm experience and had unusual organizing ability. He was one of the farmer organizers of Clinton County and understood both the organization and the nature of the work to be developed. He was an excellent choice to head up the organization work.

Other Counties Employ Agents

Following the organization of Clinton and Scott Counties five additional counties were organized in 1912-13 as follows: A.A. Burger began work in Black Hawk County ^{Dec-1-1912} December 1, 1912; Rex J. Davidson in Montgomery County, December 1, 1912; W.A. Posey in Clay County, March 10, 1913 and L.O. Wise in Wright County, June 1, 1913. Three more counties were organized in 1914.

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The county extension workers office rapidly became the educational center around which the farm improvement association, later the County Farm Bureau, the test associations and other farm groups centered. His office became a clearing house for difficult farm questions and farm problems. If he could not answer the questions himself he got in touch with those who could or if there were no answers such questions were referred to the experiment station.

EDUCATIONAL TRAINS

Iowa corn educational trains were operated in order to help solve a bad seed corn situation. There had been a hard freeze in the early fall of 1903. It frosted the corn while still moist and much good seed was killed. By late winter it was apparent that poor seed corn would be the rule for Iowa's 1904 crop unless something was done about it.

Prof. Holden was appealed to for help by the agricultural press and the Iowa Grain Dealers Association. Holden suggested that each local elevator get three farmers to send 10 ears of corn each to Ames to be ear tested. This was done. Later a meeting of grain men, agricultural editors and farmers was held in Des Moines and Holden reported that out of 1256 ears received at Ames only 60% would grow. Holden took a sawdust seed corn testing box to the meeting in Des Moines to show how the tests were made.

Those present at the Des Moines meeting were thoroughly convinced that something should be done. But what? Holden said he would drive from town to town and show farmers how to test individual ears. Someone suggested that a train would reach a lot of farmers in a short time. This suggestion met with approval. W. H. Given, Superintendent of the Des Moines Valley Division of the Chicago Rock Island Railroad agreed to furnish a train. Prof. Holden agreed to take charge of the educational work.

First Seed Corn Train

The first seed corn train left Des Moines over the Rock Island Railroad the third week in April, 1904. It had one large coach for speaking purposes and a combination dining car and pullman to furnish accommodations for lecturers.

Prof. Holden did the speaking for the first three days making 48 talks in the coach and two at night meetings held in halls. The railroad station talks were of twenty minutes duration. After the first three days another coach was added for lecture purposes and station stops were lengthened to thirty minutes. Under the new schedule the number of talks each day averaged from eight to twelve. Holden also had additional help in conducting meetings.

Message Simple, Direct and Effective

One end of the speaking coach was fitted up with charts, seed corn testing boxes showing corn in various degrees of germination and devices for hanging up corn. The talks were simple, direct and to the point. The audience was hurried into the car as rapidly as possible and the talk began as soon as they were seated. Prof. Holden explained the testing of corn so simply and earnestly that farmers wondered why they had not thought of it before.

Prof. Holden, among other things explained the seed corn testing box which was a simple affair. Two inches of wet sawdust on the bottom of the box, a piece of muslin the size of the box marked with one and a half inch squares and each square numbered to be placed over the sawdust. Then, Prof. Holden demonstrated taking two kernels from the opposite sides of the butt of the ear, two from the opposite sides of the middle and two from opposite sides of the tip. The ear to be turned slightly as the kernels were removed.

Six kernels from each ear were placed in one of the squares of the cloth and the ears were then laid away so that each ear would correspond with the square on the cloth. Another heavy wet cloth was placed over the kernels and the box kept in the living room or a reasonably warm place. Holden advocated keeping for seed only the ears that grew six kernels strong. Other ears were to be discarded. It was a most convincing demonstration of how to get seed that would grow.

Select Seed Corn Early - Before Frost

Holden advocated gathering seed early before frost and drying it out before freezing weather. He showed how hanging the corn up to dry with each ear separated could be easily done with binder twine. But in spite of this care in selecting the corn and caring for it Holden insisted on testing six kernels from each ear. He argued that this was the best use a farmer could make of his time.

Material from County Demonstration Farm Used

When the first corn train was run there was already information available from the Sioux County Demonstration Farm which showed marked differences in yield, among farmers' samples. This information along with other information was put on charts. The demonstration was given with great skill and was most convincing.

In addition to the talks by Prof. Holden, lectures were given by two students who were later to become prominent in agricultural affairs. They were M. L. Mosher who later did outstanding work in farm management in Illinois and N. L. Wilson, the present Director of the National Extension Service. J. J. Jones and A. D. Shamel of the U. S. Department of Agriculture, a former assistant of Holden, also gave lectures.

Seed Corn Lectures Very Popular

The seed corn trains were very popular. A report published in the Iowa Register May 12, 1905 states that during the years 1904 and 1905, 1235 lectures and demonstrations were given on corn in 770 towns and 145,363 people were reached. Seed corn trains traveled nearly 10,000 miles. Most of the demonstrations and lectures were given on coaches each of which could by crowding seat about 100 people.

Oftentimes enough people to fill two or three coaches would be waiting at the station. In such case more than one lecture or demonstration was given concurrently. It is worth recalling that this early work was done before an Extension Department had been established.

Seed Corn Trains-First Important Effort to Reach All Farmers

The seed corn trains conducted in Iowa were the first important efforts in the United States to reach all farmers with specific information on an important agricultural problem. From this standpoint alone they marked the beginning of a new era in education. Newspaper publicity concerning the trains and the methods

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advocated was very large and widespread. Practically every paper in the state cooperated. Within a few years 200,000 copies of a bulletin on the selection and care of seed corn were distributed. There were very few farmers in Iowa that did not know about the seed corn trains and the importance of selecting good seed.

Iowa Corn Yields Increased by Millions of Bushels

There was, of course, no way of actually determining the results of this widespread educational program for better seed corn through trains, county demonstration farms, publicity, shortcourses and institutes. The overwhelming opinion in Iowa was that many millions of bushels of corn were added to Iowa's corn crop. The more careful selection and care of seed corn received an impetus that reached every community in the state and it was never lost. The seed corn campaign was the most successful mass agricultural educational campaign up to that time.

Educational Trains Used in Several Lines of Work

Educational trains were a prominent part of Iowa Extension work from 1906 to 1912. They crossed and recrossed the state. These educational trains included not only corn work but there were also oat trains, dairy trains, live-stock trains, soil trains, and what was designated as the Breakfast Bacon Special. On several of the trains an additional lecture car was added for home economics work which was handled by Miss Knowles and her assistants.

It is not my intention in this brief report to attempt to describe each of the separate trains, how they were set up, what they taught, and how they were operated but rather to group them together and give the general way in which all were handled. I was at one time or another on all of the foregoing kinds of educational trains. I spoke on most of them and much that is written here comes from personal experience and observation.

The Educational Train

The educational train was a device for reaching more people in more places in a shorter time. The train usually had two or three lecture coaches although some of the trains as already indicated had an extra coach for home economics work. All trains had a baggage car and a combination pullman and dining car. The railroad company provided the train and also furnished eating and sleeping accommodations. Until passes were prevented by law the railroads also furnished free transportation to college people. Every possible comfort was provided for speakers.

Petition Required to have Train Stop

Attendance at local stations depended as always on local interest and effort. To get the necessary interest, fifty farmers were required to sign and send in a petition requesting that the train stop and also promising to do what they could to get out an attendance. Material was published in papers giving the hour of arrival and information concerning the purpose of the train. In the later years of train work the Extension Service sometimes found it worthwhile to send an advance man ahead of the train to see that all local arrangements had been made.

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Most stops were scheduled for a period of a half hour. Generally the lectures and demonstrations were given on the train although sometimes they were given in a nearby lecture hall. Night lectures were always given in a hall. During the stop of 30 minutes people had to be gotten on the train, seated and then gotten off again. From eight to twelve stops a day were made.

Much Demonstration Material Used On Trains

The lecture cars were always fitted up in one end with charts and other demonstration materials depending on the subject presented. As already pointed out the corn trains had charts, the sandust test box, later the rag doll, for testing corn and also other equipment. On the oat trains in addition to charts a demonstration in treating oats for smut was given.

On the livestock trains in addition to charts, small individual and colony hog houses were shown. Also samples of protein feeds including a bunch of home grown alfalfa hay would be shown. Economical livestock production was emphasized. On the Bacon Special the Morrell Packing Company furnished a car of packing house exhibits with a member of the company present to make explanations.

On the dairy trains in addition to charts there were testing apparatus for testing milk and also samples of feeds as described for other livestock trains.

Charts, materials and home conveniences were used in the home economics work. In the train work, things to see in demonstrating practices were always used. The educational work was attuned to both the ear and the eye.

Method of Handling People

The trains were run as nearly on time as possible. When a train came into a station the engineer usually pulled the whistle back and let it shriek reminding everyone within hearing that the special was arriving. Because of charts and materials set up in one end of the car it was necessary for people to enter and leave at the same end of the car. A careful system was carried out in getting people on and off the coaches. A member of the college staff or train staff was on the lower step when the train pulled into a station. The one to conduct the lecture and demonstration was standing on a raised platform in the end of the car. The seats next to the speaker were filled first. The more people who crowded into the car, the better for the speaker. There is something contagious about crowding and numbers. I have often seen three in each seat and one sitting on the arm of the seat thus doubling the seating capacity.

There were no preliminaries, no introductions and no stories. Everything was intensely earnest and business like. The one in charge had an important message to deliver and he started delivering it as soon as the people were in and seated. The lecturer paid no attention to time but watched for a signal from the rear of his car which was the cue to close and get the people off of the train.

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Lecture Centered On One Subject

The intense way in which the work was centered on one subject for 30 minutes was quite effective as a teaching device. The way the people kept coming to trains indicated their popularity. The way in which educational trains were supported by railroads and by the press of the state gave evidence of what the public at large thought about it. Educational trains contacted regions, towns and people that had, heretofore, not been touched by the College. The trains literally reached almost every community in the state. They were powerful help to a small staff of Extension workers in taking education to the people. They were spectacular and the daily and weekly press gave large space to them. Everybody knew about the educational trains. They helped lay the foundation for widespread educational work soon to follow.

Movement Spreads to Other States

As a comment on the wide influence of Iowa educational trains it can be pointed out that the movement spread to other states. In 1906 educational trains had been operated in 21 states. Various agricultural problems were presented to people by means of trains. The movement reached its peak in 1911 when 71 educational trains were run in 28 states with an attendance of 995,200 people. The educational train was by this time being supplanted by more intensive methods due to more finances and larger personnel. Let it be remembered, however, that the educational train did a tremendous service for agriculture in the early days of extension by making it possible for a few workers to reach many people.

FARMER ORGANIZATIONS AND DAIRY TEST ASSOCIATIONS

In 1906 at the time the Extension Department began work, farm organizations in the state were at a low ebb. There were no Farm Bureaus, no Farmers Union, only a few granges and a few isolated farmers clubs. In the field of farm cooperatives there were many small cooperative creameries and a few co-operative grain elevators. Agricultural organization was indeed in a low state at that time.

Moreover, there was a general and widespread feeling that farmers could not cooperate or work together in an organized way. This feeling prevailed even among farmers. The sharp rise of the Grange in the eighteen seventies and its equally precipitous decline tended to confirm this belief. A generally accepted opinion was that it was useless to try to organize farmers. They were considered to be too independent and individualistic. The organization of the Iowa Corn Growers Association as a result of the Ames Short Course gave evidence of a new spirit that was developing in Iowa agriculture.

Farmers Clubs Encouraged

It was apparent, however, to the newly created Extension Service that if the mass of the people were to be reached with Extension education it would have to be accomplished through organization. In the early fall of 1906 I find in my notes kept at that time that I was working on the preparation of a leaflet setting forth the advantages of farmers organizing clubs in order that they might more effectively study their problem. Also a leaflet giving a proposed constitution and by laws was prepared. These two leaflets were among the earliest printed by the Extension Service and were distributed in the winter of 1906 and 1907. The preamble to the Constitution and by laws for farmers clubs was as follows:

"Realizing the importance of organization in promoting the best interests of agriculture along social, moral, educational and financial lines, and believing that such organization, by including the whole family in its membership will tend to promote a higher ideal of home life, and also believing that such an organization will be a valuable means for the interchange of ideas and the securing of ends that will be of general benefit to the community we the farmers of _____ do hereby adapt the following constitution and by laws."

This preamble describes the pattern that has guided the general organizational activities of the Extension Service. Always the educational and social were emphasized and always the entire family was included. Farmers clubs began organizing on the foregoing basis in the winter of 1906 and 1907. This was the beginning of what later became a widespread family type of organization that spread over the state.

In order to determine how the plan would work I presented it to a meeting held in the winter of 1906-07 on a farm close to my home in southern Iowa. As a result a farmers club was organized and remained active until the county farm bureau came into existence and took its place.

One of the first policies established by the Extension Department was, therefore, to assist farmers to organize. This was done in order to enable the Department to reach more people with educational helps. On Saturdays at the conclusion of the short course the plan for organizing farmers clubs was presented and farmers were urged to organize. Organization of farmers clubs was urged at institutes and other agricultural gatherings.

State Federation of Farmers Clubs Organized

By the summer of 1911 neighborhood farmers clubs had become so numerous that a meeting was arranged on the State Fair Grounds in Des Moines for the purpose of federating the local clubs. The meeting was called to order by Prof. Holden and a general discussion was held. C.W. Hunt of Logan, a graduate of Iowa State College and a long time member of a local farmers club was elected President. H.A. Wisewanger of Onawa, Iowa, was elected Secretary. An executive committee was appointed. Hunt later became President of the Iowa Farm Bureau Federation. Wallaces' Farmer reported under date of September 11, 1911 that the attendance at the farmers club organization meeting on the State Fair Grounds exceeded all expectations. Thus was the foundation being laid for further organizational development among farmers.

Help Given to Granges

As a young man Prof. Holden belonged to the Patrons of Husbandry (Grange) in Michigan. He was particularly impressed with its value to farm communities and gave the then struggling Iowa Grange every encouragement.

In 1906 there were, however, only a very few granges in the state. A.B. Judson and his family in southwest Iowa were given credit for keeping the grange alive for a number of years. A state meeting was held each year even though practically the only grangers present were members of his family, his relatives and a few others. Nevertheless the State Charter was retained and the regular annual meeting was held.

At one time a man was employed on the Extension Staff for the purpose of organizing granges. The objective was to provide an organizational means through which more people could be reached in an effective way with educational material. A grange was organized on the college campus with Prof. Holden as Master. I was at one time Master of the Iowa State College Grange. However, with all this effort the number of granges increased very slowly. I find in my notes that 15 local granges were organized in the fiscal year ending July 1, 1909.

Organization Necessary to Reach People

In my annual report submitted July 1, 1912 I find the following statement. "Iowa farmers are slowly but surely awakening to the need of organization. Every member of the extension department on every occasion has emphasized this need and as a result, a considerable number of granges have been organized over the state. I believe this is one of the most important lines of work that the extension department is called upon to encourage. It is manifestly impossible for a department at the Iowa State College to reach more than a very small fraction of the people of the state directly but they can, through organization, come into direct touch with an every-increasing number. Not only is this true

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but the organization itself solves many of the problems peculiar to the neighborhood. With a large number of granges throughout the state, it would be possible to increase the efficiency of short courses, farmers' institutes, colt shows, picnics; build up and develop a correspondence school and also promote the teaching of agriculture in the high schools and rural schools. Every effort should be made to further the organization of granges." The following statement was made on farm clubs.

"I have emphasized the necessity of organizing granges not because they are superior individually to the farmers' club, but because of the national organization which binds them together as a unit and hence enables them to accomplish more than they could singly. The club does for the community virtually the same thing as the grange. The trouble in the past has been, however, to keep them going. In order to overcome this difficulty, the state organization of farmers' clubs already mentioned, was started at the State Fair last year. It should receive every encouragement and every effort should be put forth to encourage our farmers to organize clubs. In some communities the club will necessarily be the only farmer organization because of the conviction against secret organization."

Short Courses Organization

Whenever and wherever a short course was set up a temporary organization was required in order to make the course effective. The short course organization required the participation of both men and women and both town and country people. It was, therefore, a truly community type of organization. It required an immense amount of local work, which in turn necessitated a president, an active executive committee, and chairmen of several important committees to carry the program through. I was chairman of the Extension committee on the organization of short courses and know first hand the great amount of work required on the part of local people to make a successful short course.

Since the organization for short courses is discussed under the chapter on short courses I will not discuss it here further than to observe that the organization of short courses provided a most efficient laboratory for the training of future farm leadership in the farm movement. The 381 General and Home Economics Short Course organizations set up from 1906 to 1914 were a very practical means of training leadership that quickly organized the state for support of the government in the first World War. They were the active force back of the county agent movement and the county War Emergency Improvement Associations. (Later County Farm Bureaus.)

Creamery Organization

It had always been an accepted practice on the part of the College to give assistance to groups of farmers who wished to organize creameries. This service was continued by Extension. However, the problem in the northeast section and other dairy sections of the state in 1906 was not to organize more creameries. There were too many small creameries inadequately supplied with milk as it was. The problem was to get more milk in order to make these creameries prosperous. The Extension Service energies were principally given

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to ways and means of supporting existing farmers creameries rather than building more creameries and also towards the problem of increasing the production of cows being milked. Poor cows like poor seed corn were handicapping efficient agriculture.

Cow Test Association - Canadian Plan

The cow test association developed a new type of organization set up primarily to both increase the production of milk and decrease the cost of production. An attempt was made in 1907 to organize a test association on what was then known as the Canadian plan which required farmers to bring samples of milk to the local creamery for each cow once each month. This did not work very well. Out of some 30 farmers who started only 4 completed the year.

Cow Test Association - Danish Plan

On March 23, 1909 Mr. Helmar Rabild of the U.S.D.A. conferred with representatives of the Extension Service and Dairy Department relative to organizing cooperative cow testing associations in Iowa. The United States Department of Agriculture had made investigations concerning test associations that were operating in Denmark. In fact Mr. Rabild had lived in a community that operated one of the associations before he left his native country of Denmark and was quite enthusiastic about the value of testing cows in herd improvement.

After a study of conditions in the state, it was decided to make the first attempt at organization near Waterloo. This section of the state was considered the best because of the generous cooperation in dairy improvement work always given by E. R. Shoemaker and H. E. Colby of Kimball's Dairy Farmer. It was also chosen because the Extension Service had held short courses both in Waterloo and Cedar Falls. I had charge of the livestock work including dairying in connection with these short courses and was personally acquainted with many of the prominent dairy farmers in that region. The Orange Creamery five miles south of Waterloo and the Benson Creamery a few miles west of Cedar Falls were selected as promising places to make a beginning.

Black Hawk County Selected to Try Out Cow Testing Work

On March 24, Mr. Rabild and I went to Waterloo. We spent the next ten days driving through the country discussing cow testing work with farmers, phoning to different individuals and holding meetings. We first conferred with Mr. Colby, Editor of the Kimball's Dairy Farmer and then made our first trip to Benson, near Cedar Falls. This was considered a promising place to make a beginning because of the good work done in that region by Mr. Ballantyne, the buttermaker. Ballantyne had been talking test associations for the past year or two and had already paved the way for a permanent organization. He also took time to drive around the country with us for two days and we were enabled to meet and present the plan of testing cows to a large number of Benson Creamery's best patrons. In this way and by means of the telephone, a good

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deal of information was disseminated and considerable enthusiasm was worked up.

Beginning of Pioneer Test Association Orange Township

The first organization meeting was held March 29th at the Enon Church four miles south of Waterloo in Orange Township in the Orange Creamery District. Orange Creamery patrons had already been "sold" on the cow test association idea. In fact the Extension Service had conducted a Canadian type of cow testing taking their own samples of milk and bringing them to the creamery to be tested. One trouble with this plan was that during the very busy months of the summer, the farmers found it difficult to bring their samples in. However, they believed in the value of testing cows. At the Enon Church meeting Mr. Rabild presented the work in detail and Mr. Colby and I made short talks. The results of the meeting were most gratifying as something over 200 cows were promised.

Beginning of Benson Test Association

On March 30 a similar meeting was held at the Benson schoolhouse near Cedar Falls. This meeting had been well advertised and there was an excellent attendance. Here again Mr. Rabild presented the general details of the plan and with very gratifying results, since 230 cows were promised at this meeting.

The next three days were spent in driving through the country and making personal solicitations for the required number of cows. Mr. Rabild took one team and I took another. In this work we were assisted by interested farmers and by Mr. Colby. At least one interested farmer always went along with us. I recall that Mr. Morgan and Mr. Hilton of the Benson district gave of their time in driving through the country and in giving their approval to the work. Also in the Orange Township District Mr. Colby and Mr. Switzer, Secretary of the Orange Creamery drove through the territory and gave their personal support and assistance. At the end of three days strenuous driving the Benson Creamery had 26 farmers with 378 cows pledged and the Orange Creamery 25 farmers with 383 cows pledged.

Test Associations Self Supporting

The general agreement entered into by each farmer was as follows: "Whereas Pioneer Dairy Testing Association has been organized for the principal purpose of providing means for the cooperation of its members in the weighing and testing for butter fat of the milk of cows periodically and for the improvement of their dairy interests and whereas, it is proposed by said association to engage a suitable person for that purpose as soon as enough subscriptions are obtained to warrant said association to engage such person; we the undersigned members of said association each for himself and not one for the other, severally agree to pay the sum of \$1.00 a year for each cow set opposite our respective names to said association for that purpose, said fees to be paid in quarterly installments in advance. The first payment to be made as soon as such person is engaged by said association. Each one of us also agrees to furnish board and lodging for said person for at least one day each month and convey him to his next place of work. Said person shall not work Sundays but shall have board and lodging over Sunday at the place where he is working Saturday."

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Interesting Incidents in Early Organization Work

Some very amusing instances occurred while organizing these early test associations. In those days we drove livery teams and had plenty of time to stop and talk. One day my driver saw a farmer coming down the road who had quite a large herd of cows. He suggested that I talk with this man about the dairy test association although he expressed some doubt as to whether or not he would go into it. We, however, stopped him and my driver explained what we were trying to do and introduced me. I proceeded to explain what the cow testing association proposed to do. He looked at us rather blankly at the start and then his eyes grew wider and wider and finally he said in a rather pitying way, "you fellows want me to go into a cow test association in order to find out the amount of butterfat my cows are giving and pay money for it. What I want to know is can't you fellows tell when milk is yellow?" "Giddap" to his team and he was gone. Well, we didn't find many like that but we did strike a few.

Cow Testers Had To Be Trained

This finding of suitable men was a rather difficult problem. I, of course, had my other work to attend to along Animal Husbandry lines and men who wanted to do cow test association work on the basis of the salary that could be paid with the collection of \$1.00 per cow for the farmers were scarce indeed. It was not an attractive enough salary to get a college graduate to undertake it. It was, therefore, necessary to find someone else or at least to find a college man who would do it for the experience.

I finally got an out-of-state man, Mr. George H. Florence, who had had dairy experience in Wisconsin to come here to undertake this work. We also succeeded in convincing one of our dairy students, Mr. Geo. Patterson, to undertake the testing of cows during his summer vacation. I, therefore, proceeded to train these men in the techniques of running a cow test association. It was something of a case of the "blind leading the blind" for I did not know much about it myself. I, however, did train them how to figure rations carefully and keep records. Through the cooperation of the Dairy Department, the men were trained how to take samples of milk and how to do the testing.

Pioneer and Benson Cow Testing Associations Started June 11, 1909

It was June 11, 1909 before the two cow test associations were started; one the Pioneer south of Waterloo and the other Benson at Cedar Falls. It was regrettable that so much delay took place between the organization of the Associations and the actual setting up of the program. However, the associations moved off in very good shape without anyone dropping out. This I considered most fortunate. In fact, at the time the associations were started I visited many of the members who had signed previously in the spring and talked the matter over with them again.

Benson Association Holds Picnic

In July, I wrote to the Secretary of each Association and suggested a picnic to be held sometime during the summer. The Benson Association acted on

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this suggestion and a very successful picnic was held in Morgan Grove on August 25. Each member brought his basket and the lunches were placed on a common table. An orchestra from Cedar Falls helped to liven things up. Mr. Van Pelt, Mr. Jarnigan, a newspaper man from Cedar Falls; Mr. Bush of the Extension Department and I made short speeches. Viewed from the educational and social standpoint this picnic was one of the best and succeeded in accomplishing the purpose of getting the members of the association into closer touch and harmony with one another.

According to agreement Mr. Patterson left the association on the 11th of September to take up work again at the college. Mr. Bush of the Extension Department took charge of the association for three weeks and then turned it over to Mr. Persinger a new man who had been trained and who finished that year. This changing of men caused dissatisfaction and made it somewhat difficult for Mr. Persinger to get started but, nevertheless, he did a very good job.

Associations Buy Cow Feed Cooperatives

In October, I wrote to the two test associations and urged them to call a meeting and discuss the advisability of purchasing feeds together in large quantities. The Pioneer Test Association through the efforts of Mr. Florence secured prices from different firms and by pooling orders and buying early they succeeded in getting their feeds considerably cheaper than could otherwise have been done. While I do not have definite figures to show just what was saved, I feel sure in saying that the cost of the association for the entire year was saved on feed purchases alone.

The members of the Benson Association neglected to get together early enough to obtain the full benefit of cooperation in buying their feedstuffs but they did make an agreement with the local dealer whereby the members of the association secured their feeds at a considerable reduction in price. Several members told me that they saved the cost of the association in this way alone. Thus the test association accomplished other valuable results than the testing of cows for butterfat.

Association Creates Enthusiasm

The following observations from my notes taken at the time will give some idea of how the test associations worked. The association creates enthusiasm and stirs up energy. It does this because of the friendly competition promoted in the community. No one likes to be at the tail end of the list and hence everyone makes an extra effort to improve his methods. For example, a man in one of the local test associations had long held the reputation of being exceedingly careless in taking care of his barn and in his dairy methods generally. One day the local buttermaker happened to pass by this man's place and noted that things looked unusually tidy. A little investigation brought out the fact that the tester was coming the next day. This man was being helped by comparison and actual demonstration. He didn't especially relish a position at the tail end of the list so he got busy and really improved his methods.

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I also find this statement in my notes. The following suggestions based on observation and experience may be helpful in organizing future dairy test associations. Don't promise or don't imply more than can be lived up to. For example, don't promise that the man sent to handle the work will be able to tell the farmers all there is to know about feeding dairy cows. Promise that the man who takes charge of the association will be able to tell or find out what is known about the feeds the farmer is feeding. He can figure the nutritive ratio of the feeds fed and also be able to tell what successful dairymen are feeding at other places. He can also test milk and give information as to what each cow is producing. The farmer can then draw his own conclusions. Promise little and do much. I have found this method quite necessary and effective in organizing cow test associations.

By 1912 ten *cow test associations had been organized and eventually reached over 100 in the state. They were very successful from the beginning in increasing the amount of butterfat produced and in decreasing the cost of production. The principal value to the state, however, was in the widespread publicity given to the actual results which encouraged dairymen everywhere to make improvements. The Dairy Test Association was a very effective educational device in increasing milk production.

The Following Is Taken From My Report
July 1st, 1912

The dairy test association is organized for the purpose of increasing the production of the cows. That it has been very successful in accomplishing this purpose is shown in the case of the Pioneer Test Association. In 1910 the average butterfat production was 23 $\frac{1}{2}$ lbs. per cow; in 1911, 260 lbs. per cow or an increase of 26 lbs. of butterfat worth \$8.66 per cow. We have in the state of Iowa, about 1,500,000 milk cows. An average increase similar to that brought about in the Pioneer Association would increase the gross profit of the cows of the state by thirteen millions of dollar or \$130,000.00 to each county. The increase in production, however, is not the only financial advantage gained by the man who has his cows tested. This very clearly was shown in a combination sale of milk cows held at the farm of W.E. Loveland near Janesville. The cows in the sale had all been tested and the auctioneer in selling each cow read her butterfat record for the previous year. The cow owners are of the opinion that they received at least \$20.00 per cow more because of having their cows tested and the buyer on the other hand is better satisfied since he knows a little more about what he is getting.

There are, however, indirect benefits that come from the test association which in my opinion, are of more real value to the community than are the financial advantages already mentioned and these are the general improvement of the community along intellectual, social and moral lines. It is necessary

*The cow test association was the forerunner of the farm management association. These two types of educational organizations have been unusually successful in increasing farm efficiency in production.

for the members of the test associations to get together occasionally to discuss topics pertaining to the dairy business, such as the purchase of feed, the best method of combining feeds, marketing the product, breeding, etc. These meetings begun in a technical way, to discuss a particular subject, have broadened out in many cases into a social gathering or farmers' club which includes every member of the family and in which the program covers other problems pertaining to the farm and to the community. As a result, more interest is taken in the schools, roads and social conditions generally.

One of the communities first organized in a dairy test association has been benefitted distinctly by meetings of this character and now holds a regular club meeting once a month and a picnic each summer. It is this larger view of the benefits derived from the test association that strikes most forcibly those who are interested in the future prosperity and welfare of the community. Such organizations as the dairy test association, financed as they are for the most part by the men who receive benefits, tend to develop the community by helping people to help themselves rather than by pauperizing a community by teaching people to expect to have certain benefits given to them without effort on their part.

Farmers' Cooperative Elevators

In 1906 when the Extension Service was created farmer owned cooperative elevators were having a hard struggle for existence. They were fought by old line elevators and oftentimes had difficulty with the railroads in securing suitable building sites along the railroad.

In view of assistance given by the Western Grain Dealers in organizing seed corn trains the early grain cooperatives unfortunately associated the college seed corn improvement work with the group that was causing them trouble. The College has always worked with all groups in the state that would work with it. Holden, of course, did not discuss elevators in any way. He advocated better seed corn which was good advice for both old line and co-operative elevators and particularly good for farmers.

It was my good fortune to make a contact with Adam Middleton a farmer near Eagle Grove who was prominent in the cooperative elevator movement and also C. G. Messerole, Secretary of the Farmers Grain Dealers Association. Through these contacts I attended a number of elevator meetings in the early days of Extension and was able to explain the position of the College and thus to do away most of the criticism. This contact begun in this small way later developed into real cooperation between the college and farmers cooperative elevators.

Boys' and Girls' Clubs Organization

A state organization of Boys' and Girls' Clubs appears in the chapter on Club work. This organization was formed in January 1910 and by the summer of 1914 had 14,000 members.

FAIRS, FARMERS' INSTITUTES, PICNICS, TOURS AND OTHER GATHERINGS

Agricultural Societies Authorized in 1838

The Iowa Legislature early adopted the policy of encouraging farmers to improve the farm business. The first territorial legislature in 1838 passed an act authorizing the incorporation of county agricultural societies. The objective of this legislation was to encourage self-help education.

The territorial legislature of 1841 extended the act providing for county agricultural societies to include township societies. This was an evident intent to reach practically all farmers. The 1841 act also provided for a territorial or state agricultural society. The act requested the U. S. Government to supply \$1200 from the United States Treasury in support of agricultural societies in Iowa. Thus did the Iowa legislature make an early appeal for federal aid for agriculture.

This early territorial legislature authorized agricultural societies to hold meetings, publish material, conduct fairs and exhibits and regulate the price of admittance to members. They were also authorized to award premiums on "such articles, productions and improvements as they may deem best calculated to promote the agricultural household manufacturing interest of the territory having special reference to net profits which accrue or are likely to accrue from the mode of raising the crops or stock or the fabrication of the article....."

In 1851, the Iowa State Legislature appropriated funds for the support of agricultural societies on condition that each society receiving aid would raise an equal amount but not to receive more than \$50 from the State Treasury. Thus did the Iowa State Legislature adopt a policy that is still in force of supporting farm groups provided such groups would make a special effort of their own to improve. It may be said that the Iowa State Legislature more than 100 years ago established a policy similar to the government's present Point 4 program, even while the state was still a territory.

Fairs Including Exhibits

County agricultural societies authorized by the Legislature to conduct fairs and exhibits were the first agricultural educational devices to be developed by farmers in Iowa. The county agricultural society was a forerunner of the county fair. What is generally considered the first agricultural society was held in Van Buren County on October 12, 1843. It had principally to do with talks on agriculture. The first state agricultural society meeting and fair was held in Fairfield in October, 1854.

These early agricultural societies were distinctly educational. They had talks by prominent people. They developed exhibits of livestock and other farm products from which they changed gradually into what we now know as the county and state fairs. State, District and County Fairs have remained strong through the years. Their principal educational objective in the early days of extension work was as it is now the case to bring together exhibits of farm products for comparison, judging and demonstration.

Extension Cooperated Fully With Agricultural Fairs

From the first the Extension Service was called upon to give all possible help to fairs during the fair season which occupied about two months of time. This help was usually given by judging exhibits and explaining the placing of exhibits. In the livestock work the plan of giving reasons for the placing of livestock was early developed and added much to the educational value of such work. Interest in the judging work was always much greater when careful reasons for placings were given. Corn, small grain, vegetables, fruits, home canned goods, clothing, and home furnishings were judged by Extension Specialists. Corn and livestock judging contests for boys were conducted.

Exhibits furnished by the college were also developed for fairs. The first Extension Fair exhibit had to do with soil and was shown in 1906. An exhibit was made by the Extension Service at the State Fair in Des Moines in 1907. Extension workers were busy with county fair exhibits during the fair season.

County and other fairs have always been popular with the people. They were in the early days of extension as now principally a means of pleasure and recreation but the educational value of the exhibits was also very real. One who desires can learn much at a State, District or County Fair. The principal contribution of Extension to fairs in the early years of the Extension Service was to make them more educational.

Farmers Institutes

Counties desiring a farmer's institute could get \$50.00 support from the state by meeting certain rather simple requirements. The requirements provided for a membership organization of not less than 50 persons who would each pay one dollar membership fee. It was also necessary to form an organization and elect officers. A meeting place had to be provided by the local people but this was usually a simple matter. Often times meetings were held in the courthouse or the city would furnish a hall. All institutes had competitive exhibits of farm produce. Often these exhibits were large and a separate hall had to be provided for them.

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Farmer's Institute Held at Cedar Falls in December 1870

This first Iowa Farm Institute was initiated by President A.S. Welch of Iowa State College and was held at Cedar Falls in December 1870. Professor I. P. Roberts, early member of the faculty of Iowa State College and for thirty years Professor and dean of Agriculture at Cornell University, credits President Welch with the first farmer's institutes in the United States conducted by an agricultural college off the college campus. This first institute was held 36 years before the creation of the College Extension Service.

Extension Service Aids Farmer's Institutes

The early mimeographed reports of the extension service show that a large number of Farmer's Institutes were attended. The farmer's institute rendered a real service to agriculture in the early days.

It covered all sorts of agricultural and home economics subjects and each member of the Extension Service was called upon from time to time to take part in meetings. Extra help had to be employed by Extension to fill institute dates during the Institute season.

The Farmer's Institute varied greatly in interest and attendance depending upon the effectiveness of local organization. Sometimes farmers attended in large numbers, sometimes the attendance was small. Always a time for questions and discussion on the part of the audience was given. This feature added to their value.

Corn and small grain exhibits and home economics exhibits were held in connection with institutes with extension workers usually judging the exhibits. Also livestock shows were held at Institutes and judging contests for boys in corn and livestock were held.

The short course, the county farm demonstration, the agricultural trains, and in 1912 the coming of the county farm improvement associations (later County Farm Bureaus) all represented the newer and more concrete methods of adult education in agriculture. The farmer's institute as a method of teaching was in the early days of Extension giving way before these more popular and effective methods.

Picnics, Tours, and Other Gatherings

Extension Service Specialists were kept busy attending summer meetings. These meetings were held in connection with field days on county demonstration farms and in connection with other agricultural projects of interest. They were held under the management of cooperative elevators, creameries and dairy test associations. Chautauquas, boys' and girls camps, school meetings and school tours booked Extension workers. The foregoing meetings were primarily educational.

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Another type of meeting also called for extension help. Such meetings could be classified as carnivals, barbeques, Old Settlers meetings and picnics. Such meetings were primarily recreational but the extension worker's part of the program was educational. They did much in disseminating information promoting good will and pioneering the way for future extension activities. Colt shows were often held in connection with these general meetings.

Tours were held in order to inspect local fields and demonstrate work and farm projects. Farms that had made a success in some phase of agriculture were visited. Tours were popular in the early days of the County Agent movement. They were then as now distinctly educational.

National Graduate School Held at Ames in 1910

An event of importance to the development of Extension work in the United States occurred at Iowa State College in July 1910. At that time a two weeks graduate school for the benefit of agricultural teachers and research workers was held each year at some Land Grant College or at the United States Department of Agriculture.

In 1910 this meeting was held at Iowa State College. Many prominent educators and scientists attended. Among them were Dr. K. L. Butterfield, President of the Massachusetts Agriculture College and Dr. A. C. True, interested in the development of Extension work. President Butterfield was at the time chairman of a Land Grant College Committee especially appointed to study extension work and make recommendations. Dr. True representing the U.S.D.A. worked in close collaboration with this Land Grant Committee.

Dr. True served as Dean of the Graduate School in 1910. Some of the people attending the graduate school were interested in Extension and Dr. True arranged for additional time for discussions concerning Extension methods and techniques. Since the meeting was being held at the Iowa State College Campus, Prof. Holden was invited to explain the work being done in Iowa.

Prof. Holden Explains Extension Work at the Graduate School

Professor Holden responded by assembling and displaying the materials which the Extension Service used in the Iowa work. The material included well illustrated large cloth charts covering the subjects of corn, small grain, soils, livestock, dairying, horticulture, agriculture, engineering school work and the various home economics subjects. There were literally hundreds of these charts averaging about five feet in width and five or six feet in length. It was an imposing array of chart material. There were also sawdust seed corn test boxes, rag doll testing cloths, quite complete cases of weed seeds in bottles and extensive collections of insects. There were various models of hog houses, feed racks, model silos and other buildings. There was available for this exhibit the material that went into the winter exhibit cars, plies and rope halters, farm power plant, glass jars showing the effect of the corn worm on corn roots, glass jar displays showing the effect of the tuberculosis in animals, a set of products made from corn, bottle samples of intestinal worms in hogs, etc. on display.

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Extension Becomes One of Important Features at Graduate School

It is no exaggeration to say that those attending the school were quite surprised and astonished at the amount of material then being used in Extension work in Iowa. It is also true that extension work as presented by Prof. Holden while not on the printed program nevertheless became one of the most important features of the graduate school. The county demonstration farms setting forth the efforts of farmers in the county cooperating with Iowa State College in improving seed corn and other farm practices were discussed and explained. Undoubtedly these discussions did much to encourage the development of Extension work throughout the U.S. This meeting was held about four years before the passage of the Smith-Lever Act.

Extension Relationships Discussed

The discussions changed over from materials and methods of conducting extension work to some times rather heated discussions of organization, management, coordination and control of Extension. Some of these discussions lasted until late at night. In these discussions Dr. True of the U.S.D.A. proved to be a wise and constructive chairman and councilor. He had already given much sound and constructive thinking to the questions of relationships between the Colleges and the Department of Agriculture and also concerning relationships within the Colleges.

President Butterfield Made Fine Contribution to Discussion

This brief review of an early national extension event would not be complete without a word about President Butterfield. Butterfield was a man of broad sympathies and creative ideas. In a talk at the graduate college he gave a list of suggestions along extension lines that were far ahead of the time in which he spoke. He had a fertile mind pregnant with ideas. Butterfield was the dreamer, the inspired man. His Michigan College classmate, Holden, was an idea man too but also a realist. Holden sorted out the best ideas and made them realities in extension teaching. Both performed a great early and constructive service for Extension.

At the close of the Graduate College the members of the school in order to show their appreciation of the helps given along extension lines passed the following resolution --

Ames, Iowa

July 27, 1910

Whereas, the Agricultural Extension Workers in attendance at the Graduate School of Agriculture have received numberless personal helps, many courtesies, and much valuable instruction from the Department of Agricultural Extension of Iowa State College, -- be it resolved

First. That Superintendent Perry G. Holden and his associates are entitled to and are hereby tendered the hearty thanks of their fellow workers in the Extension field for the promptness and effectiveness with which they responded to our request for special instruction in Extension purposes, organization, and methods. We confess ourselves their willing and lasting debtors.

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Second. That Professor Holden and his staff illustrate in an admirable way the idea that Extension workers ought to be as thoroughly equipped for their difficult task and as completely devoted to it as men of the highest grade in other departments of college work, in order that they may most effectively serve the people who can not go to the College for instruction.

D.W. Working
 E.W. Wilson
 J.E. Rice
 (Committee)

EXTENSION LEGISLATION AND ADMINISTRATION

Professor Holden in his report covering the first year of extension work dated July 1, 1907 gives the following account of the immediate events leading up to the enactment of the law establishing the Extension Service. Said Professor Holden --

"Three years ago when the Corn Trains had pretty thoroughly covered the state, stopping at six hundred and seventy towns, passing through ninety-six of the ninety-nine counties, traveling nearly ten thousand miles, and one thousand and eighty-five talks or lectures had been given to more than one hundred and twenty-seven thousand people, and more than thirty thousand bulletins had been distributed, and the work was near the close for the season, the question as to the future of this kind of education was raised and discussed by such men as Geo. A. Wells, Secretary of the Iowa Grain Dealers' Association, who acted as manager of the Corn Train; Joe Trigg, editor of the Register & Farmer; Henry Wallace, Editor of Wallaces' Farmer; Hon. J.H. Sage, Director of Weather and Crop Service of Iowa, and W. H. Maness, Industrial Commissioner for the Chicago, Burlington and Quincy Railroad.

Among the conclusions reached were the following:

- "1st. That this kind of work is needed; that it is fundamentally correct, based upon the greatest fact in modern education, viz; that education is for every one, and therefore must be carried to every one.-- and this is Extension work.
- "2nd. That the people are ready and anxious for it, as shown by the remarkable attendance at the meetings and the interest taken in the work.
- "3rd. That it should include two lines of work:
First and most important, a force of men who should devote their entire time to discovering the fundamental needs of the people and through such means as Short Courses, County Experiment Stations, Farmer's Institutes, Special Trains, etc., help to improve these conditions and better the methods, not of the occasional person who is able to attend college, but of every citizen who farms directly or indirectly. It was also argued that out of all this would come greater interest in this greatest and most honorable of occupations, agriculture, and a greater interest in and love for, the best of all homes, the Farm Home. All this means greater efficiency for the individual, that is, the laborer, the real producer of wealth. It means a greater and better citizenship

for Iowa,---and, after all, the greatness of a state is measured by the average efficiency of its citizens.

Second, that it should include a Correspondence School of Agriculture, to the end that thousands of men and women on the farms could have some of the benefits of Agricultural Education. During the winter months there is considerable time at home each day for study. It is practically impossible to go away to attend even a two weeks' Short Course, owing to the chores which demand attention each day. The importance of this was all the more apparent, too, from the fact that no agriculture whatever is taught in our rural or city schools.

"The purpose of the school is to fit for life's work; yet agriculture, the direct business of one-half the people of Iowa, is foreign to the school curriculum. This is equally true of domestic science and manual training in the rural school. Therefore, it was apparent that agricultural education and help must come through either an Extension force or through correspondence, or both. There were other considerations which made it important to provide some regular and systematic way of taking care of the outside College work.

"The demands for this outside help had become so numerous and urgent that the regular help of the college departments could not well take care of it without seriously neglecting the instructional or experimental work, or both. On the other hand, the outside work has been much neglected and often poorly done because of lack of time, equipment and special fitness for it."

"Two things were apparent:

"First, That a direct appropriation was necessary to organize and maintain the work.

"Second, That it should have its headquarters at the Iowa State College.

"As a direct result of these conferences a bill was formulated and introduced into the Thirty-first General Assembly, and became a law in the following form."

Be it enacted by the General Assembly of the State of Iowa.

Section 1. Agricultural Extension Work.---The Iowa State College of Agriculture and Mechanic Arts is hereby authorized to undertake and maintain a system of Agricultural Extension Work. Under this system the said college shall be authorized to conduct experiments in the various portions of the state, and in giving instructions wherever, in the judgment of the college authorities, it shall be advisable, in reference to the various lines of agricultural work maintained upon the college grounds at Ames, Iowa. The college authorities are authorized to give instruction in corn and stock judging at agricultural fairs, institutes and clubs, and to aid in conducting lectures and demonstrations on the growing of crops and fruits, on stock raising, dairying, land drainage, and kindred subjects, including domestic science. This work shall be so planned as, in the judgment of the college authorities, is best calculated to carry to the communities remote from the college the benefit of the skilled instruction given by the teachers of said school and the results reached in the work of the experiment station.

Section 2. Experimental Work.--- Especially shall this work include an analysis of soils and experiments in reference to the growing of crops upon the same, investigations relating to the improvement of corn, small grains and forage plants; the maintenance of the fertility of the soil; the breeding, feeding and management of livestock; investigations relating to animal diseases, the origination, introduction and management of fruits, the production and marketing of dairy and other farm products.

Section 3. Appropriation.---For the purpose of carrying out the provisions of this act there is hereby appropriated out of any funds in the State treasury, not otherwise appropriated, the sum of fifteen thousand (\$15,000) dollars. Said appropriation to be available on and after the first day of July, Nineteen Hundred and Six; provided, that the funds appropriated by this act shall be expended according to plans agreed upon by the President, the Dean of Agriculture and the Board of Trustees of the Iowa State College of Agriculture and Mechanic Arts."

Approved April 10, A.D. 1906.

Plan of Organization as Reported by Supt. Holden

"In organizing the work under the law, two general plans were discussed:

"1st. To divide the appropriation made for this work between the various Agricultural Departments, depending upon them to secure special help for the Extension work.

The objections offered to this plan were:

"(a) The danger that the members of the Legislature would feel that it was simply another means of securing added appropriations for the various departments.

"(b) No one could be held directly responsible for the use of the appropriation as a whole.

"(c) That the Extension work would not be so well done under this plan as when placed in the hands of a Department whose business it was to attend to that particular work.

"In other words, when the money and work was assigned to the various departments, it was held that some departments most interested or in sympathy with this kind of work would push it, while others would neglect it, do it poorly, or largely divert the funds to local department needs. Experience had shown that, when several lines of work were to be conducted, as at the Short Courses, it was better that some one person have authority to make all arrangements, determine dates, assign help, etc; otherwise, some one department might cause delay or defeat the whole plan.

"2nd. The second plan proposed was to place the Extension work in the hands of a separate department which should bear the same relations to the College authorities as other departments, the head of the department to be responsible for the use of the appropriations; consequently the head of the department must also determine what is most needed or essential and what methods or plans will be most effective under existing conditions in Iowa and with the money available."

The second plan was adopted by the College Trustees.

The College Trustees adopted the following rules covering expenditure of Extension funds:

- 1st. The local expenses of all lectures, demonstrations, short courses, and other forms of agricultural education shall be borne by the communities in which they are held, and so far as possible the traveling expenses of lecturers and workers in attending to such work shall be met by the committees or organizations served.
- 2nd. The agricultural Extension funds shall not be used for supporting any feature of education or experimental work that is carried on at Ames, except such assistance ~~auxiliary~~ as may be rendered in connection with the special two weeks Short Courses and a Summer School.

The report goes on to say that:

"In discovering the agricultural needs and in devising means for carrying out the work it was understood that the Department would naturally do what any other Department does,---avail itself of its various means of securing valuable information.

- "1st. By consulting with the heads of the various departments to the end that work of the Extension Department and the various College Departments should as far as possible be harmonious.
- "2nd. By studying agricultural conditions throughout the state. The members of the Department are constantly brought into close touch with the real conditions and needs of the people.
- "3rd. Through the ordinary correspondence and by means of answers to letters sent to a large number of farmers in every section of the state, making inquiries along certain definite lines.

"The work of the Extension Department has been organized and carried out according to this plan. I can say for this policy that it has worked splendidly during this first year of its trial. There has been no more friction than must naturally be expected in setting in motion any new piece of machinery. In fact, I hardly see how there could have been less of real trouble."

At the time the decision was made creating a separate department or division to administer Extension work Dean G.F. Curtiss was serving on a Land Grant College Extension Committee of which Dr. Butterfield was chairman. Dean Curtiss had undoubtedly done some careful thinking on Extension organization in connection with this committee work as indicated in the unanimous recommendation of the Land Grant Extension Committee made in November (1906) which reads as follows -

"Your committee would recommend --

(1) that each college represented in this association organize as soon as possible a department of extension teaching in agriculture, co-ordinate with other departments or divisions of the agricultural work, with a competent director in charge, and, if possible, with a corps of men at his disposal. This department should take on, just

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so far as possible, all phases of extension teaching now performed in other ways. Your committee hopes at some future time to suggest a scheme of organization and effort which would be applicable to most institutions. At present, however, it merely advises this initial and all important step - that of having an official whose chief business it will be to foster, to systematize, and to organize for the institution all the phases of extension it cares to assume."

At a time of change six years later when Prof. Holden resigned to run for Governor and Prof. W. J. Kennedy was made acting head of Extension work, the Extension Service was taken out of the Division of Agriculture and placed directly under the President.

The decision of the Board of Education reads as follows -

"By action of the Board of Education, the extension work of the College, which now relates to all of the Divisions of the College, was placed under the immediate supervision of the President. As far as possible it is carried on in cooperation with the deans and staffs of the different divisions."

The action of the Board was logical because Home Economics which had heretofore been a part of the Agricultural Division was at the same time made a separate division. Home Economics Extension work had come to be one of the major activities of the Extension Service. Veterinary Extension was also receiving consideration. Work with the science division was in the offing. The Board reasoned that the Dean of Agriculture should not administer extension work that came under the subject matter jurisdiction of other Deans. This decision was certainly in accordance with the thinking of Dean Curtiss, who had given much study to the problem and he was also the one who was most affected by the decision of the Board of Education.

In 1907 the Iowa State Legislature reaffirmed its approval of Extension work in the following act -

SECTION 1. Agricultural extension and experiment work. That the Iowa State College of Agriculture and Mechanic Arts is hereby authorized to continue and to extend the system of agricultural extension work, authorized by the Thirty-first General Assembly. Under this system, the said college shall be authorized to conduct experiments in the various portions of the state and to give instructions in agriculture wherever, in the judgment of the college authorities, it shall be advisable, with reference to the various lines of agricultural work maintained upon the college grounds at Ames, Iowa. The college authorities are authorized to give instructions in corn and stock judging at the agricultural fairs, institutes and clubs, and to aid in conducting short courses of instruction at suitable places throughout the state; to give lectures and demonstrations on the growing of crops and fruits, on stock raising, dairying, land drainage and kindred subjects, including domestic science. This work shall be so planned, as, in the judgment of the college authorities, is best calculated to carry to the communities remote from the college, the benefits of the instruction given by the teachers in

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the state college and the results reached in the work of the experiment station.

SECTION 2. Appropriation - how paid. For the purpose of carrying out the provision of this act, there is hereby appropriated out of any funds in the state treasury, not otherwise appropriated, the sum of twenty-seven thousand dollars (\$27,000), annually for the agricultural extension work; said appropriation to be available on and after the first day of July 1907; to be paid quarterly upon the order of the board of trustees of the Iowa State College of Agriculture and Mechanic Arts.

Approved April 13, A.D. 1907.

State appropriations up to July 1, 1914 were as follows -

July 1, 1906 to June 30, 1907	\$15,000.00
July 1, 1907 to June 30, 1908	27,000.00
July 1, 1908 to June 30, 1909	27,000.00
July 1, 1909 to June 30, 1910	32,000.00
July 1, 1910 to June 30, 1911	32,000.00
July 1, 1911 to June 30, 1912	50,000.00
July 1, 1912 to June 30, 1913	50,000.00
July 1, 1913 to June 30, 1914	73,000.00

In addition to the foregoing considerable funds, land and services were furnished by County Boards of Supervisors. Beginning in 1912 the U.S.D.A. began furnishing funds for county agent work and for club work. The finances for county agent work during the first years came principally from funds other than state funds. The amounts of money contributed by local people in taking care of local expenses providing unpaid local help and in paying the expenses of extension workers and the salaries of extra help in connection with short courses and other activities amounted to a large sum. It appears that the amount of money furnished from other than state funds plus local unpaid services must at least have equalled the state appropriation during the first years.

Students of Extension will be interested in the first extension budget. The staff was for the most part just out of college and inexperienced. They were the raw human material with which Professor Holden had to work.

Summary of State Expenditures for Extension Work
July 1, 1906 to July 1, 1907

\$15,000 Agricultural Extension Funds, Now Used, Work Done, etc.
Salaries of Eight Members of the Department are as follows:

	<u>Began Work</u>	<u>Mo's</u>	<u>Rate</u>	<u>Amount</u>
P.O. Holden Superintendent	July 1st	12	\$3,200.	\$3,200.
J.W. Jones Horticulture	July 1st	12	\$1,500.	\$1,500.

	<u>Began work</u>	<u>Mo's</u>	<u>Rate</u>	<u>Amount</u>
A. H. Syder Soils	Sept. 1st	10	\$1,400.00	\$1,166.66
R. K. Bliss Animal Husbandry	Aug. 15th	10½	\$1,200.00	\$1,050.00
M. L. Mosher Farm Crops	Aug. 1st	11	\$1,000.00	\$ 933.33
Mary F. Rausch Household Economics	Aug. 15th	10½	\$ 900.00	\$ 787.50
J. C. Guthrie Dairy	Nov. 1st	8	\$ 800.00	\$ 533.33
G. E. Stayner Secretary	July 1st	12	\$ 900.00	\$ 900.00
				<u>\$10,070.82</u>

	<u>Amt. Approp't'd.</u>	<u>Amt. Used to</u> <u>July 1st</u>	<u>Unused</u>	<u>Deficit</u>
Steno. and other help	\$1,475.00	\$1,475.00		
Furniture	400.00	400.00		
Maps, Charts, Photo's and Supplies	600.00	600.00		
Stationery, Printing, Bulletins, and				
Traveling Expenses	2,374.53	2,374.53		
Library			\$30.92	
Salaries	<u>\$10,095.91</u>	<u>\$ 10,070.82</u>		
		Balance	\$56.01	\$191.52
Bills unpaid		\$247.53		
Unused		<u>56.01</u>		
Deficit		<u>191.52</u>		

The average salary of members of the Department during the first year, not including that of the Superintendent, was eleven hundred dollars.

County Extension Work Established by Law in 1913

The state legislature elected the fall of 1912 was one of the most creative and constructive in the history of the state. The drive for better farming, better homes and a greater Iowa had had its effect. Along educational lines the legislature broke away from the past and made the State Superintendent of Public Instruction and County Superintendent of Schools appointive and also provided for the teaching of agriculture in rural schools. The legislature provided for "County Corporations for Improvement of Agriculture, Animal Husbandry and Horticulture." In short they provided for County Extension work.

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It is a matter of pride to Iowans that this law definitely providing for County Extension work was passed a year before the passage of the National Smith-Lever Act in 1914.

The following excerpts are taken from the law providing for county extension work.

The original act "authorized the incorporation in each county of the state of an association for the advancement and improvement of agriculture, animal husbandry and horticulture, to define the powers and rights of such association and its members.---"

The 1913 law provided that "The affairs of the incorporation shall be conducted by a president, a vice-president, a secretary and a treasurer who shall perform the duties usually pertaining to such positions, and by a board of directors of nine members of said incorporation elected at an annual meeting on the first Monday of January of each year. Not more than two directors shall be residents of the same township, when elected. All officers and directors shall hold their positions for one year and until their successors are elected.---"

It provided that "yearly dues of the members of this incorporation shall be one dollar, payable at the time of applying for membership and on the first Monday of January of each year thereafter. No member having once paid dues, shall forfeit his membership until his or her subsequent dues are six months in arrears.

"And citizens of the county and any non-resident owning land in the county shall have the right to become a member of the incorporation by paying one year's dues and thereafter complying with the articles of incorporation and by-laws."

The law provided that no compensation should be paid to the president, vice-president, treasurer or to any director. It provided for cooperation with the Iowa State College.

The law provided for an annual report and how the money was to be expended. "The treasurer of said incorporation shall receive all funds belonging to said incorporation and all taxes collected as herein provided and shall pay out the same only on bills allowed by the board of directors, such allowance to be certified to by the president or secretary."

In the foregoing fundamentals the law passed in 1913 has been clarified but not changed.

The first law provided for a vote of all the people in the county on the question of a yearly tax of not to exceed \$5000 in order to procure funds for Extension work. This part of the law was later amended to require an annual contribution of \$1000 in gifts and memberships from not fewer than 200 farmers and land owners. When these dues and gifts have been collected and the organization formed as required by law the county board of supervisors are required to appropriate \$2.00 for each \$1.00 raised annually by the association but not to exceed \$3000 in counties under 25,000 inhabitants and not to exceed \$5000 in counties with 25,000 inhabitants or more. The only exception to the foregoing occurs in Pottawattamie County which is divided into an eastern and a western part and which can appropriate \$7000 for county extension work.

The county extension law was amended again in 1951 authorizing a county to appropriate \$5000.00 for general extension work and an additional \$2000.00 for a home economist or a youth assistant.

State Early Established Principle of Giving Support to Farm Organizations and Agencies

The principle of providing public funds for the support of agricultural organizations, associations and agencies had been established by the Iowa State Legislature long before the County Extension organization was set up.

The first agricultural organizations to receive state aid were the county agricultural societies. A state law approved February 5, 1851, provided that "every incorporated agricultural society now existing or hereafter to be organized according to law within the state as soon as it raised an amount not less than \$25.00 to be expended by such society for the encouragement of agriculture will be entitled to a like amount from the state treasury. But no more than \$50.00 in any one year will be paid."

This state aid to farmers through agricultural societies was established more than 100 years ago.

On January 21, 1853, an amendment to the foregoing law was enacted which increased the amount of state funds to a county society to \$200.00.

In January, 1855, the legislature passed an act appropriating \$1000 annually to the State Agricultural Society and providing that \$100.00 of this amount be used to pay a deficit on the first State Agricultural Society meeting held in Fairfield in 1854.

The objective of the legislature in the first grant of aid was educational. The purpose was to disseminate information among farmers through general exhibits, competitive exhibits, demonstrations, lectures and publicity. The method employed by the State was to give assistance and encouragement to organized groups of farmers who could give substantial evidence of their interest in agricultural development.

The fundamental reasoning back of state support was evidently to help farmers meet their own problems. If, therefore, farmers were willing to make a special effort to improve agriculture by putting their own time and money into the effort, the state would then give additional support in helping them disseminate educational information.

The following State and County organizations now receive tax support.

- The State Fair Board
- County and District Fairs
- Farmers Institutes
- The Iowa State Dairy Association
- The Iowa Beef Cattle Producers Association
- The Iowa Horse and Mule Breeders Association
- The Iowa Swine Producers Association
- The Iowa Corn and Small Grain Growers Association
- The Iowa Sheep Growers Association

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State Horticultural Society and affiliated groups such, for example as -The Iowa Beekeepers' Association, the Federated Garden Clubs, The Iowa Vegetable Growers' Association, the Iowa Fruit Growers' Association and others. All of these groups receive public support either directly or indirectly from the State Horticultural Society.

All of these groups have one requirement in common. They must have an organization or association and they must elect a president, vice-president, secretary and treasurer. In short, an organization and certain other requirements must be met before state funds become available. All officers with the exception of the State Fair Board which receives a per diem for actual days must serve without pay.

Soil Conservation Districts

The Soil Conservation Districts Law is the most recent effort on the part of the State Legislature to enable farmers to organize for a particular purpose. This law differs from the laws already mentioned in that control is restricted to land owners. A minimum of 20 percent of the land owners within the territory proposed to be organized into a district, must sign a petition requesting it before arrangements can be made to conduct a vote. In the final vote to determine whether a soil conservation district will be organized only land owners can vote.

A state committee is provided for the general administration of the soil conservation districts law. The farmer members of the State Committee work on a per diem. The State Secretary of Agriculture and the Director of Extension of Iowa State College are ex-officio members of the State Committee. Once a district is formed it has large powers as far-reaching and in many ways more far-reaching than any of the foregoing organizations. Soil Conservation Districts must cooperate with Iowa State College in research and educational work.

Cooperative Associations

The state has enacted liberal and enlightened laws for the guidance of cooperative associations. One provision of the laws governing cooperative associations enables them to use a small percentage of their surplus funds in educational and promotional work. Undoubtedly Iowa's cooperative laws have been an important factor in developing the strong agricultural cooperative associations which we have in this state.

Law Creating Iowa Agricultural College Included State-wide Work

It is interesting in connection with early development of extension to note that the organic law of 1858 providing for a State Agricultural College and Farm, opened with the following statement. "An act to provide for the establishment of a State Agricultural College (now Iowa State College) and farm with a Board of Trustees which shall be connected with the entire Agricultural interests of the State of Iowa."

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And again in outlining the duties of the secretary of the board the law states: "He shall (a) encourage the formation of agricultural societies throughout the state and (b) purchase, receive and distribute such rare and valuable seed plants, shrubbery and trees as may be in his power to procure from the general government and other sources and as may be adapted to our climate and soils, (c) he shall encourage the importation of improved breeds of horses, asses, cattle, sheep, hogs and other livestock, (d) the invention and improvement of labor saving implements of husbandry and diffuse information in relation to the same; (e) and the manufacture of woolen and cotton yarns and cloths, (f) and domestic industry in weaving, spinning, sewing and such other household arts as are calculated to promote the general thrift, wealth, and resources of the state."

The early Iowa law makers were creative and inventive in their thinking. In characteristic pioneer fashion they were not held down by precedent. They wanted a college close to the people even though it did involve a new approach. They wanted all farm people to be directly benefited by the college whether they went to college or not.

The Iowa law creating an agricultural college passed in 1858, four years before the National Land Grant College Act in 1862, was more prophetic on what has actually taken place, than the National Act. It stamps the Iowa Legislature of 1858 as a creative and inventive group.

I have cited the various acts of the Iowa Legislature in order to point out the chain of events that led up to the passage of the Agricultural Extension Law in 1906 which, I believe, was the first specific agricultural legislation enacted in the United States. Extension work in Iowa in 1906 already had a running start. In 1913 the legislature came to the assistance of extension again by the passage of the County Extension Act, one year before the passage of the Federal Smith-Lever Bill in 1914.

The Iowa Legislature for more than 100 years has followed the principle of encouraging farmers to help themselves. Funds have been provided on a grant-in-aid basis with the provision that farmers will provide at least an equal amount of money and administer the funds free of charge.

The plan has worked unusually well. There has been very little misuse made of funds and practically no scandals. There has been no financial incentive to be elected to office.

Under the laws formulated by the Iowa State Legislature, Iowa has made a most distinguished contribution to the development of extension education among farm people.