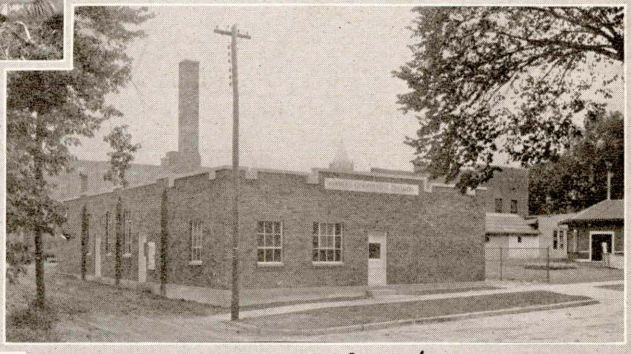
BUILDING IOWA'S AGRICULTURE

Efficient Production



Better Marketing

Home Projects

4-H Clubs

ANNUAL REPORT 1931

Extension Work in Agriculture and Home Economics

STATE OF IOWA

Community Program Planning

August 11, 1932

President R. M. Hughes,
Iowa State College of Agriculture
and Mechanic Arts,
Ames, Iowa.

Dear President Hughes:

I have the honor to transmit herewith a report of the field activities of the Iowa Agricultural and Home Economics Extension Service for the calendar year, 1931.

Respectfully submitted,
R. K. Bliss,
Director.

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ACKNOWLEDGMENT

The Extension Service and the county farm bureaus wish to acknowledge the help of the many organizations and individuals who took part in the following program. This includes the various agricultural organizations, educational and religious and social groups, commercial and civic bodies, the press and many interested individuals.

Cooperative Extension Work in Agriculture and Home Economics, Iowa State College of Agriculture and Mechanic Arts and the United States Department of Agriculture Cooperating. Extension Service, R. K. Bliss, Director, Ames, Iowa. (Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.)

EXTENSION SERVICE

AGRICULTURAL AND HOME ECONOMICS ANNUAL REPORT—1931

Iowa State College, United States Department of Agriculture and County Farm Bureaus Coöperating

"Learn While You Earn"

The purpose of extension work at Iowa State College is to bring additional educational opportunities to Iowa people.

The work of the Extension Service is primarily in the rural field although its benefits are extended to towns and cities. There are in the state something over 200,000 farms with approximately one million people living thereon. In order to cover this field most effectively extension work is conducted through organized groups of farmers. The state law designates the County Farm Bureau as the official county extension organization to coöperate with the Extension Service. The Extension Service, however, coöperates with all groups that desire help in educational activities. At the present time educational work is being conducted with the various farm organizations, including coöperative livestock, grain, butter and milk marketing associations. Educational helps are given to the various state supported associations, to commercial, civic, community and service clubs and to schools, churches, women's clubs and parent-teachers' associations.

Brief General Summary

During the past year the program has gone forward in spite of discouraging financial difficulties. In many cases farm conditions have increased the demand for additional information.

County extension agent reports show the total number of meetings and demonstrations held covering all lines of endeavor, including the follow-up work of local leaders and township meetings, to be 89,652.

Educational work in connection with meetings and demonstrations is, however, only a part of the program. Field agents report a total of 334,900 office calls, 235,070 phone calls and 75,379 visits to farms and homes. Personal letters written number 192,347 and the number of news articles published 34,416. A total of 468,700 pieces of literature was used in educational activities.

In club work there were, 1,821 women and 1,020 men who acted as committee members, leaders and assistant leaders of local boys' and girls' clubs. The total membership in 4-H clubs was 27,021, an increase of 2,678 or 11 percent over the previous year. The success of the 4-H club movement is largely due to the help of the local leaders.

In all lines of work extension field agents report, 8,656 men and 9,632 women or a total of 18,288 who gave of their time in one capacity or another to carry the program forward. Great credit is due them for the service which they have given.

The Extension Program

The program of the Extension Service has grown out of years of experience and the coöperation of some 60,000 Iowa farm families. The program recognizes that farming is not alone a way of making a living but also a way of life, and that any worthwhile rural program must take into consideration the home and the community as well as the distinctly farm operations. The field is so large that with the present public funds available it is necessary to enlist as much local coöperation as possible. To this end farmers have contributed through farm bureau memberships approximately $300,000 per year and what is estimated to be an equal amount in value through voluntary services.

The program has six general divisions as follows:

General Economic and Emergency Problems
Low Cost Production of Farm Products
Economical Marketing and Distribution
Home Project Activities
Boys' and Girls' 4-H Clubs
Community Organization and Development

General Economic and Emergency Problems

Taxation

On taxation the Extension Service has published and widely distributed Extension Bulletin No. 150 "The Tax System of Iowa." This bulletin has helped bring about a better understanding of our present tax system and has greatly encouraged an intelligent study of taxes. A state-wide campaign of education is being conducted by the Extension Service and county farm bureaus to show where the tax dollar goes. Finding out how the tax dollar is collected and how the tax dollar is expended are logical approaches to any intelligent study of our present tax system. This state-wide effort is being carried on through township farm bureaus, other farm groups and commercial and civic organizations.

Economic Information

For the past 10 years the Extension Service has published a monthly circular, "Agricultural Economic Facts", which has given information concerning the relative value of farm products as compared with manufactured articles or in other words, the purchasing power of the farm dollar. It has given trends in business which affect agricultural conditions, price conditions on farm products, the situation relative to storage holdings, car loadings, outlook information and special articles on tariffs, international trade, land utilization, and so forth. Some 12,000 of Iowa's leading citizens receive this pamphlet.

The Extension Service and county farm bureaus have conducted a continuous program of education on the larger economic questions. It should be remembered, however, that any changes made in such problems must come through majority action of the people or majority action of their representatives.

Emergency Problems

The Extension Service has given much attention to emergency problems arising as a result of the depression. During the past year a state-wide killing, curing and canning of meat campaign was carried out. A state-wide machinery fix-up and repair campaign was put on in all counties. At the present time a state-wide vegetable and fruit canning campaign is being carried out. This will be followed by a food storage and food conservation campaign. Assistance was given in setting up county relief committees. The Extension Service has helped in making federal crop production loans and in distributing supplies in drouth and crop failure areas.

Low Cost Production

The program of the Extension Service relative to crop production is closely related to the problem of land utilization. The federal and state governments are slowly developing a policy of ceasing to bring new land into cultivation until it is needed and a policy of taking marginal and submarginal land out of cultivation that is not now needed.

In Iowa, educational work is being conducted to encourage each farm operator to make a study of his own farm with the purpose of making a better use of his land. The equalization fee, a form of compulsory coöperation in the sale of farm products, and the domestic allotment plan, a form of regulation in the production of farm crops, have both been strongly advocated by farm groups. If any one of the many proposals for the more intelligent production of farm crops is carried out whether by voluntary educatonal methods as at present, or by proposed semi-compulsory marketing or production allotment methods, two definite policies would appear to be common to all, as follows: First, the gradual change of submarginal, marginal and poor land from cultivated areas to pasture range or timber areas; second, improved farming methods on more fertile land.

In short, all plans for land utilization thus far presented tend toward letting the poor land revert to pasture grazing or forest areas, and to better farming methods on the good land. What then should be the sound agricultural production policy, insofar as Iowa is concerned? Figure 1 shows land values in the principal crop producing states and will be helpful in determining this point.

The chart shows that Iowa land is valued from 14 percent above the value of land in Illinois to 252 percent above the value of land in South Dakota. If the proposed land utilization plan of farming the good land better and letting the poor land remain in or revert to grass and pasture and forest is correct, then Iowa has more urgent reasons than any other state to improve her farming methods.

Apparently the farmer most likely to succeed in producing

VALUE OF REAL ESTATE PER ACRE IN EIGHT MID-WEST STATES

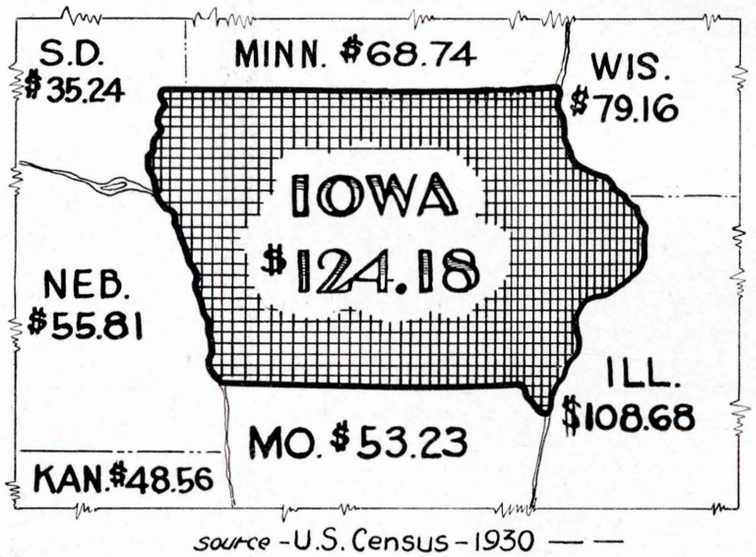


Fig. 1. Land values in Iowa compared with mid-west states.

crops on Iowa's highly fertile land will be the one who organizes his acres and machinery so as to get the most done for each hour of his labor, who plants the best seed and keeps the best livestock so as to reap any advantage that may come through quality of product and efficient use of feeds in producing livestock products and, finally, who markets his products coöperatively with other farmers in order to eliminate dumping and provide for orderly distribution. Such a plan carried out on the individual farm would mean in a large number of cases not cultivating some acres at all and seeding such acres to permanent pasture. It would mean the rotation of crops and the farming of the good land better. It would also mean a program of better livestock, better seed, better quality of product, better marketing facilities, more returns for each hour of human labor.

In order to carry this plan out the individual Iowa farmer living on Iowa's high priced fertile soil needs more organization, more coöperation and more information. The production program of the Extension Service is based on the foregoing consideration and conclusions.

Dairy Extension Work

Dairy extension work illustrates the type of production program that has been carried on by the Extension Service. In dairying, the Extension Service has advocated not more cows but better cows—better fed, principally with home-grown feeds, and better cared for.

In order to get better cows the Extension Service has worked with county farm bureaus, coöperative creameries and dairy organizations. The Extension Service has organized cow testing associations in order to ascertain the amount of butterfat each cow produces and also to keep a record of feed costs in order to determine the cost of producing butterfat. For several years past approximately 100 of these cow testing associations have been in operation. In 1931 a total of 102 were in operation each employing a man as tester. In 1931 a total of 2,577 herds, or a total of 48,293 cows were tested and 4,799 cows were culled out and sold as money losers. The average production of milk per cow in these test associations was 7,655 pounds containing 303 pounds of butterfat. Figure 2 shows the progress that has been made by Iowa producers of butter.

In 1920, as shown by fig. 2 the factory production of butter was in round numbers 89,000,000 pounds; in 1930 it was 216,000,000 pounds or an increase of 142.6 percent. During the same period the number of cows increased from 1,291,000 to 1,340,000 or 3.8 percent. The butter made on farms has remained about constant since 1924 and probably about the same for several years prior to 1924, although no estimates for this period are available. It seems certain that the consumption of milk, ice cream and cream increased during the period from 1920 to 1930. According to the best information available the amount of cream shipped into the state is approximately equal to the amount shipped out. The fact is that the total amount of dairy products increased two and two-fifths times while the number of cows remained almost constant. The cost of producing the total amount of butterfat was greatly reduced through more efficient methods. This is a remarkable showing of increased efficiency in producing dairy products. It has helped farmers increase their net return for labor expended.

BUTTER PRODUCTION AND NUMBER OF MILK COWS IN IOWA

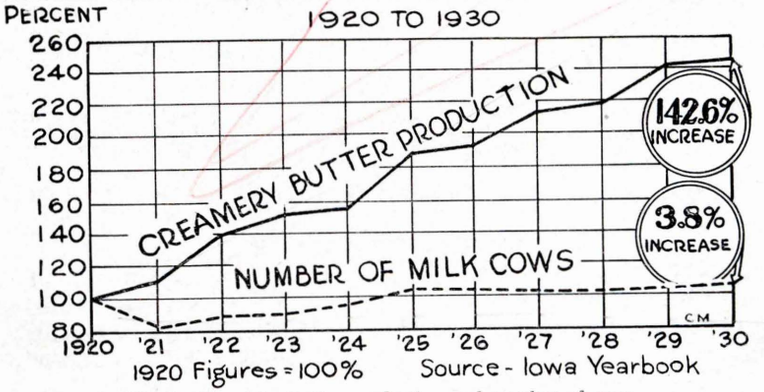


Fig. 2. Trend in butter production and number of cows.

In addition to the cow test association work, extension specialists, county agents and others in 1931 held a total of 1,614 meetings on dairy feeding, breeding and related topics.

Improvement in Quality of Butter and Milk

The Extension Service in coöperation with local creameries and the State Department of Agriculture has worked constantly to improve the quality of butter. The results are outstanding. At the present time, Iowa State Brand butter is recognized on the eastern markets as of the highest quality. By improving the quality of butter two important things have been accomplished; first, the producer receives more dollars for a given amount of butter and, second, the consumer will eat more butter of high quality than he will of low quality. Improvement of quality adds both to the price and the amount consumed. The improvement in quality of butter has added much to the income of Iowa dairy farmers.

Quality improvement work in 1931 was carried on by extension specialists in 31 creameries by means of cream scoring work. A total of 7,485 farms were reached and 47,160 samples of cream were scored.

Educational butter scoring work to bring about higher quality butter was conducted with 156 creameries. Three additional creameries qualified for the Iowa State Brand. Special assistance on quality improvement was given to the Iowa State Brand Creamery marketing organization.

City Milk Supply

Milk scoring to improve the milk supply was done in 10 cities. A total of 2,076 patrons were reached with 76 scorings. The total number of samples of milk scored was 18,088. This work

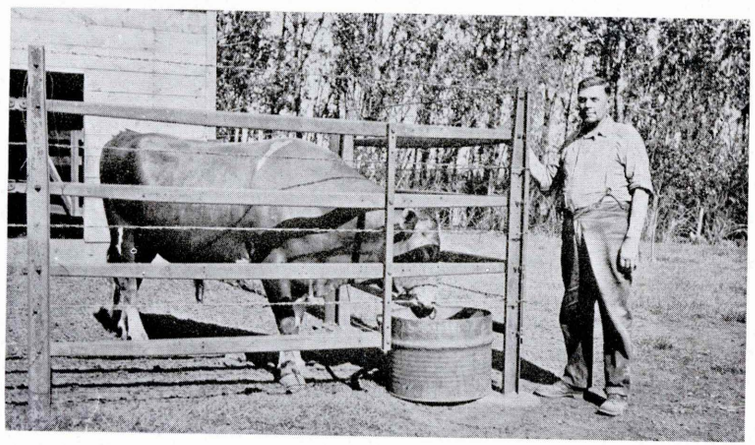


Fig. 3. Dairymen are being urged to keep the proven bulls, which means the use of older bulls. To protect the help the use of bull pens is urged. Here is one built strong and cheaply from an old automobile chassis.

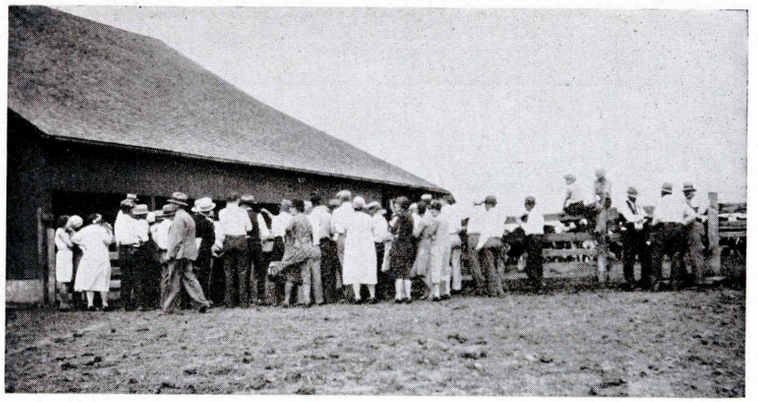


Fig. 4. Much interest is shown in cattle feeding tours. A number of feeders in these demonstrations have kept close records on feeds used and gains secured.

is a very important factor in improving the quality and increasing the quantity of whole milk consumed.

The great importance of the dairy program is shown by the fact that in 1930 dairy products accounted for about 22½ percent of the Iowa farmers' income.

Animal Husbandry Extension Work

With the aid of the Extension Service each county agent and county farm bureau conducted educational work in the feeding, selection, breeding and management of beef cattle, hogs, sheep and horses. In 1931 there were 1,791 local people who assisted actively with the work. Ninety-nine counties reported 1,492 townships reached with definite work. A total of 3,652 meetings and demonstrations on feeding and management were held with an attendance of 90,901.

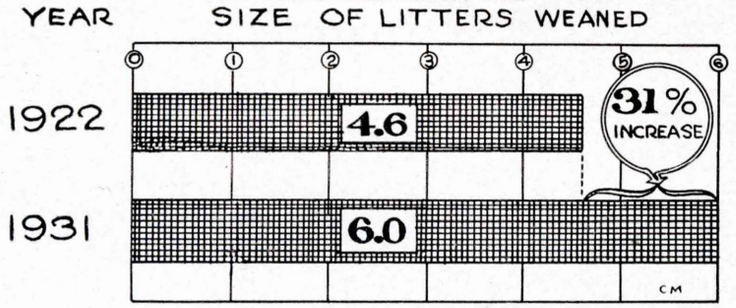
Pork Production

For a number of years the College has given special attention to the problem of increased efficiency in pork production. County agents and extension specialists coöperating with county farm bureaus and livestock marketing associations have given special emphasis to improved methods of feeding, care and management of hogs. A special effort has been made to encourage the open field method of producing pork. It seems certain that the cost of producing pork has been greatly reduced through improved sanitation and better feeding methods.

It is difficult to procure definite information relative to increased efficiency in pork production. For several years past, however, the government has collected information relative to the size of litters of pigs produced in the United States.

Figure 5 shows that Iowa produced in 1922 an average of 4.6 pigs per sow. In 1930 the number of pigs per sow had in-

PERCENTAGE INCREASE IN SIZE OF LITTERS WEANED IN 1931 AS COMPARED WITH 1922



Source—Iowa Crop Reports

Fig. 5. The size of litters has increased.

creased to 6 or an increase of almost 31 percent. An increase in size of litters from 4.6 pigs per sow to 6 pigs per sow would require about 500,000 less brood sows to produce Iowa's usual crop of hogs. Iowa farmers are, therefore, saving the expense of keeping 500,000 brood sows through better methods of swine management.

It is interesting to note that this increased efficiency in producing larger litters did not result in producing a larger number of hogs. Evidently more information as to pork production did not increase the total number of hogs produced. It did, however, result in greatly decreasing the feed and labor bill for the number of hogs that were produced.

There has also been an improvement in quality of pork produced. Iowa market hogs have longer and deeper sides than they had 10 or 15 years ago. This means more lean meat and a higher quality of pork, and it should result in a larger consumption of pork.

Hogs and dairy products combined represent between 60 and 65 percent of the Iowa farmers' income. In these two fields, representing close to two-thirds of the average farmer's income, Iowa has made a fine showing of progress in decreasing production costs during the past 10 years.

Poultry Extension Work

Each county extension agent and county farm bureau supported by special help from the college conducts a continuous program along poultry lines. This work is done in coöperation with various local groups and poultry associations. There were 468 local people who gave active help in the work. A total of 636 meetings on the care, feeding and management of poultry were held with a reported attendance of 13,261.

Figure 6 shows a sharp increase in the production of eggs beginning about 1925. This increase followed the extensive poultry culling campaigns put on by the Extension Service and

COMPARISON OF CHICKENS AND EGGS PRODUCED ON IOWA FARMS

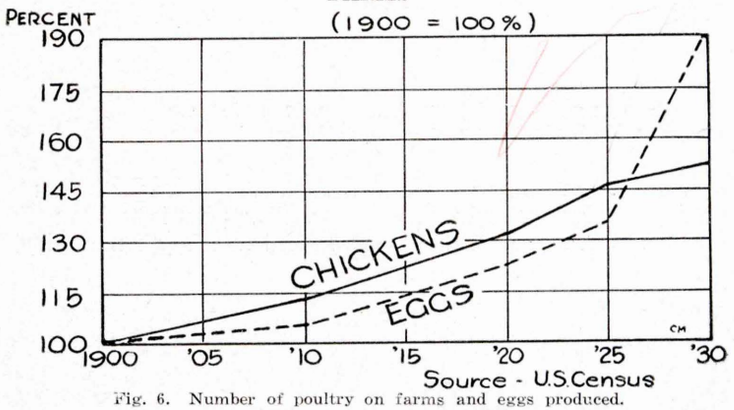


Fig. 6. Number of poultry on farms and eggs produced.

county farm bureaus. From 1925 to 1930 the number of chickens increased about 8 percent while the number of eggs produced increased 65 percent. The problem now is, as always, to get fewer and better hens. Plans are under way to greatly improve sanitation and disease prevention.

Dairy products, hogs and poultry represent about 70 percent of the average Iowa farmer's income. In these three lines, Iowa has made outstanding progress in cutting costs of production.

Animal Disease Prevention

Each county extension agent gives attention to methods of livestock management which will result in less disease. The open field system of pork production, turkey production and poultry production illustrates methods used. In addition to this the Extension Service maintains specialist help to give counsel and advice in difficult cases. Such work is done in coöperation with local veterinarians.

With the assistance of local veterinarians a widespread bot fly control campaign was carried on in 1931. A total of 107,731 horses were reported as being treated.

In accordance with a special Iowa law the Extension Service helped 59 counties hold hog cholera vaccination schools which were attended by 4,000 people of whom 1,625 received permits to use serum and virus.

Soils Extension Work

County extension agents and specialists report 598 soils meetings and demonstrations with an attendance of 24,477. County extension agents report tests of 39,075 samples of soil for acidity. There were also 715 samples of limestone tested. Reports show 227,727 tons of ground limestone used by farmers in correcting

soil acidity. There were also large amounts of phosphate and mixed fertilizers used.

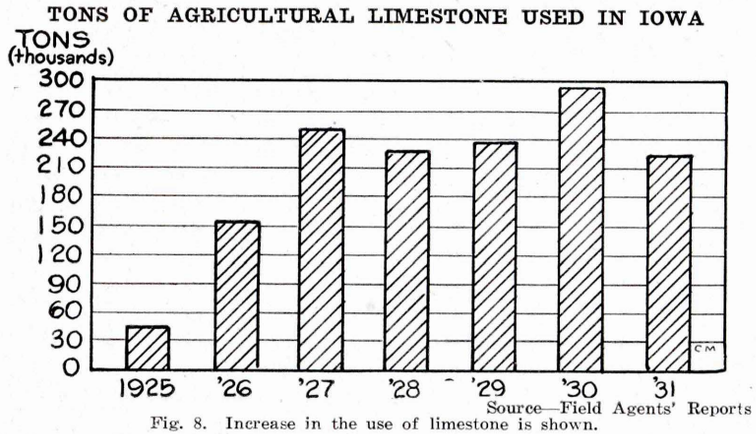
Two four-county soil improvement associations were in operation in southern Iowa. These soil improvement associations are attacking the soil problem in a systematic way. The work includes soil fertility demonstrations to determine the value of different kinds of fertilizers in soil building, terracing demonstrations to control the surface run-off water and thus prevent sheet erosion of soil, and tree planting demonstrations in sloughs and gullies to prevent ditch washing. The plan is to have these three types of demonstrations established in every community of coöperating counties.

Fig. 7. Treatment of special soils as those with an excess of alkali have been demonstrated with good results as shown in this Palo Alto County field.

Figure 8 shows the use of lime in the state by years. Undoubtedly this chart does not indicate all the limestone used. It shows that of which the county extension agents have a record.

Farm Crops

In crop production the Extension Service has strongly advocated a rotation of crops which if carried out would reduce the acreage of corn and oats by from 2 to 3 millions of acreas and make a corresponding increase in the acreage of clover, alfalfa, sweet clover, soybeans and mixed meadow and pasture. Such a program would increase soil fertility, reduce soil erosion by maintaining humus in the soil, and provide cheap protein in the form of legume hay and pasture for livestock production. It would immediately decrease the total number of bushels of corn and oats grown but would increase the number of bushels grown per acre. Eventually under such a system of rotation



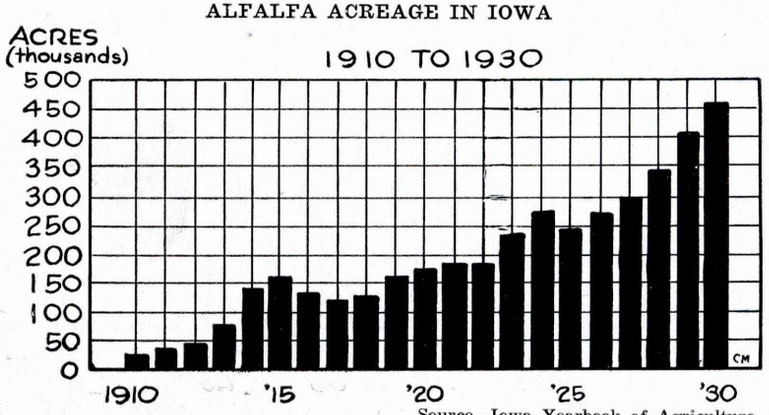
Source—Field Agents' Reports

Fig. 8. Increase in the use of limestone is shown.

Iowa would probably grow just as much corn and oats as at present but on fewer acres with less labor, power and machinery and consequently at less cost. At the same time and in addition to what is grown now, there would be a cheap supply of protein feed in the form of legumes for feeding purposes. Such a program would mean corn at less cost, protein feed in the form of legumes at less cost and more efficient feeds for livestock.

Farm crops work includes corn and small grains, legumes, meadows and pasture crops. Extension specialists and county extension agents held a total of 1,102 meetings with an attendance of 110,344. Agents reported 1,131 results demonstrations completed. There were 1,620 local people who coöperated.

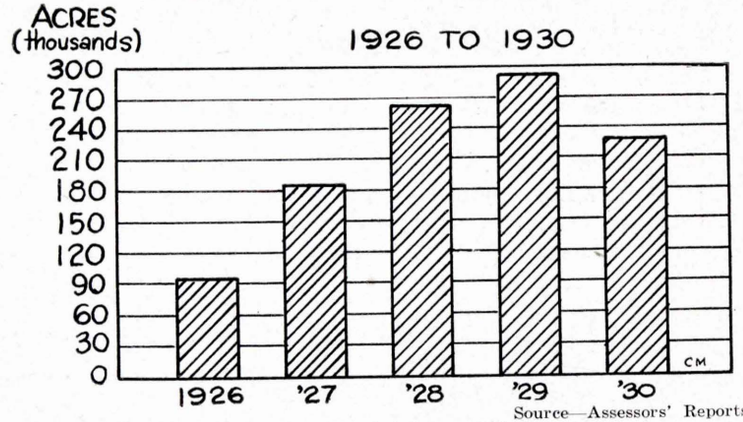
A total of 115 seed corn plot demonstrations were conducted in 49 counties. Both open pollinated and hybrid strains of seed were tested in these plots. The hybrids on the average yielded 12 percent more than the open pollinated strains.



Source—Iowa Yearbook of Agriculture

Fig. 9. Trend in alfalfa acreage is decidedly upward.

SWEET CLOVER ACREAGE IN IOWA



Source—Assessors' Reports

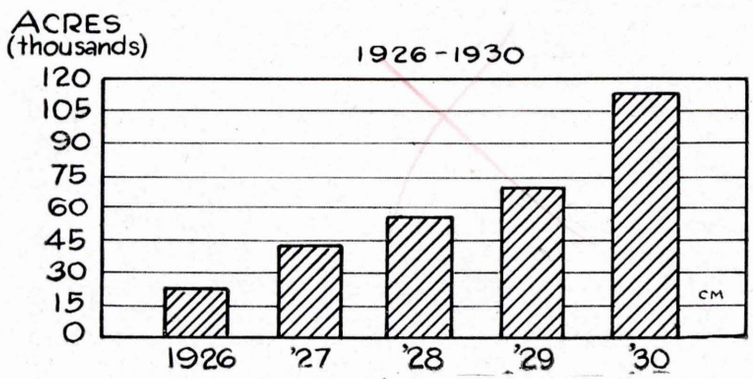
Fig. 10. Sweet clover has increased in Iowa.

Figures 8 to 11, inclusive, show graphically developments in increasing the acreage of legume crops.

Figure 9 shows a consistent increase in the acreage of alfalfa. The total acreage in 1930 was something over 450,000. On the average there are now 4,500 acres of alfalfa in each county or 280 acres in each township. Alfalfa supplies a cheap source of protein for livestock feeding. It makes the best of pasture for hogs, as a feed for dairy cows it is unexcelled and it is a great soil builder.

The amount of sweet clover grown has increased rapidly in recent years (see fig. 10). The total acreage is about 250,000 less than the acreage in alfalfa. Sweet clover is constantly gaining in favor as a soil builder. It adds nitrogen and humus to the soil. It is also used extensively as a pasture crop.

SOYBEAN ACREAGE IN IOWA



Source—Assessor's Report

Fig. 11. Soybeans are developing in usage.

The acreage of soybeans has made a rapid increase during the past five years (see fig. 11). The total acreage in the state is now about 110,000. Soybeans can be grown on sour soil and therefore, from that standpoint, have an advantage over alfalfa and sweet clover.

Plant Diseases and Weed Control

The principal effort along plant disease lines has been in treating seed corn to reduce disease losses and treating oats for smut. Treatment of seed corn used in demonstration plots has resulted in a substantial increase in yield. It is estimated that 2,800,000 acres of corn were planted with treated seed in 1932. Close to 1,000 acres of melons were planted with wilt resistant seed developed by the College.

Fig. 12. A demonstration group in Floyd County. Chemical sprays for weed eradication are recommended under certain conditions.

There is a constantly growing interest in weed control and weed extermination. A total of 597 meetings were held with an attendance of 24,000. County agents reported nearly half a million pounds of chemicals used in weed destruction. A much greater effort was made along the line of weed extermination through clean cultivation.

Fruit, Garden and Truck Crops

Each county extension agent gives attention to horticultural problems including truck and garden crops. The work in the field is supported by specialists from the College. Last year there were 1,186 local people who gave assistance to the program in their various communities. A total of 1,495 meetings and demonstrations were reported with an attendance of 18,900. Orchard spray notices giving time of applying sprays were sent to 12,594 growers in 59 counties.

Fig. 13. Potato demonstrations prove valuable each year. They have shown Iowa can become a much larger potato grower if right methods are used.

In potato work county agents reported 11,351 farmers in 71 counties using improved seed. Forty-three counties reported the use of 18,405 bushels of northern grown potatoes for seed. Owing to the financial situation, gardening has received great impetus during the past two years. Farmers were helped in procuring 15,071 pounds of lime sulphur, 7,755 pounds of lead arsenate, 12 power sprayers and 24 barrel sprayers.

Rural Landscaping

A widespread movement is on among farmers to beautify their homes and surroundings. Last year 331 landscaping training schools were held. These schools resulted in 1,695 follow-up meetings which were given by local leaders. Reports show that service has been given to 1,382 farmsteads, 6,133 home grounds and 28 civic parks. The Extension Service furnished landscaping assistance to the State Board of Conservation in caring for 39 state parks and 3 state reserves.

Forestry

The forestry work covers principally the planting of trees for windbreaks and the control of ditch erosion. A total of 773 windbreak demonstration plantings were put out in 89 counties. There were also 65 demonstrations of tree planting to prevent soil washing. This work was principally done to control ditch washing. A total of 88 pounds of black locust tree seed was distributed among farmers for that purpose.

Agricultural Engineering

Soil erosion control occupied a considerable part of the specialists' time. A total of 140 result demonstrations were completed. There were 34 counties that reported 205 farms building terraces to prevent surface washing. One farmer built 7 miles of terraces. There were 1,345 farmers who were assisted by the building plan service. This included 142 dairy barns, 419 hog houses, 528 poultry houses, 46 silos and 364 other buildings. Dynamometer tests to determine the pulling power of horses were held at 15 fairs; a total of 153 teams participated.

Fig. 14. Terracing is developing rapidly a means of erosion control. In 1931, 34 counties reported 205 farms building terraces mostly as demonstrations under the extension program. Above scene is on the Federal-State Erosion Control Farm, at Clarinda, with which the Extension Service is cooperating.

Insect and Rodent Control

Each year there are serious outbreaks of injurious insects. Insect control work is handled coöperatively with the State Entomologist and the State Department of Agriculture. In 1931 grasshoppers caused trouble. A total of 152 demonstrations in insect control were carried out. A total of 192,737 pounds of poison bran mash was used. Work was done in 19 counties on household and garden insects.

A continuous program of rodent control is under way. Agents report 522 farmers adopting ground hog control measures, 799 adopting control measures for ground squirrels, 1,761 farmers adopting control measures for pocket gophers, and 2,313 adopting control measures for rats.

Apiary Work

In the apiary demonstration work the past year, colonies managed under the direction of the extension specialist averaged 80 pounds of honey per colony. The average colony throughout the state produced 39 pounds.

A total of 6,942 colonies of bees were inspected for disease. Of these, 895 colonies were found diseased, 206 were treated and

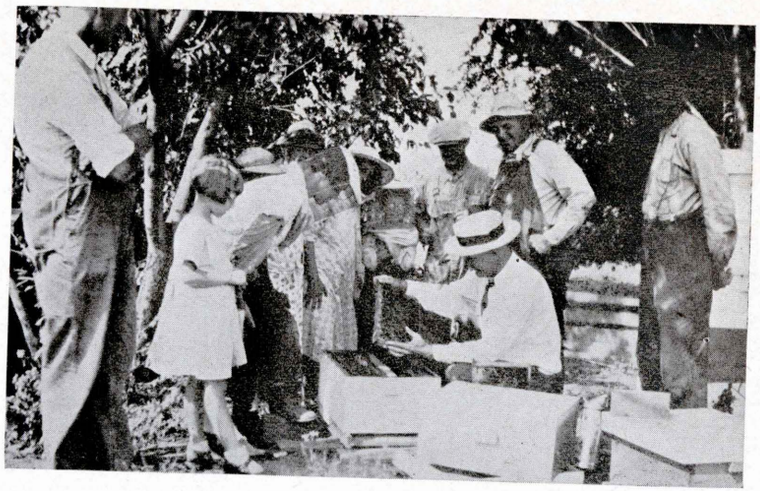


Fig. 15. Apiary demonstrations show that more than double the amount of honey can be produced by good care. This Lucas County group is studying the results of this work.

377 destroyed. There were also 3,638 colonies reinspected for disease. The inspection work is all done on an educational basis and under the direction of the State Apiarist who is also a representative of the Extension Service.

Agricultural Education in Schools

An extension specialist worked in 70 counties assisting schools in teaching agriculture to students who expect to teach in one-room rural schools and who are required by law to make preparation for the teaching of agriculture. The state course of study includes 46 exercises that are planned for giving instruction in this subject. Approximately 4,000 rural schools in 41 counties were reached with prepared series of lessons based on exercises in the state course of study in elementary agriculture.

Agricultural Economics Extension

Agricultural Economics work which includes the marketing of farm products, farm management and farm accounting, bulks large in the Extension Service program. In addition to the extension specialist help from the College, county extension agents each spent on the average 39 days in agricultural economics work. A total of 2,226 meetings and demonstrations were held with an attendance of 94,890.

Farm Accounting and Farm Organization

The Extension Service is making a special effort to encourage farmers to study their farming operations through the keeping of records on their own farms and through a study of records kept by other farmers. This study helps in determining how

to use land, labor, capital and machinery to best advantage. It also helps to determine production costs.

There were 70 counties that did work in farm management including farm accounting work with 393 local people assisting. Agents in 63 counties reported that 1,333 farmers kept farm accounts throughout the year. There were 1,529 farmers assisted in making inventory and credit statements. Seven hundred forty-five farmers were given assistance relative to leases.

Two four-county farm management associations were in operation. These associations are an organized effort on the part of farmers to solve their problems through the keeping of farm records enabling a careful study to be made of each individual farm and also the farms as a group. One of these associations has its headquarters at Ackley with 108 farmers coöperating; another has headquarters at Gowrie with 105 farmers coöperating. A third farm management association, with Cedar Rapids as headquarters, was organized in the fall of 1931.

Marketing Farm Products

The Extension Service has worked constantly with organized groups in order to reduce marketing costs. This work has had to do with the marketing of livestock, grain, butter, wool and poultry products. Most of this effort has been along coöperative marketing lines. One of the principal problems confronting American agriculture is that which has to do with the distribution of agricultural products so as to provide for orderly marketing, thus preventing a glut on the market at harvest time and a famine later. Another problem is the production and sale of high quality products. These are the particular fields in which coöperative marketing is endeavoring to render a service to both producers and consumers. Consumers as well as producers are vitally interested in and will benefit by such a program.

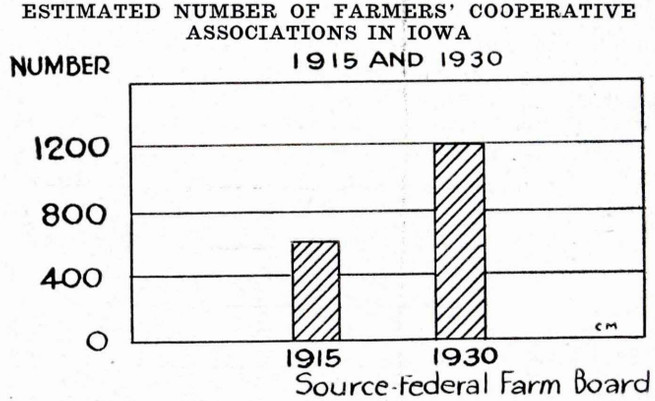


Fig. 16. Cooperatives have increased in recent years.

Figures 16, 17 and 18 show the development of coöperative marketing in Iowa from 1915 to 1930.

It will be noted that there has been a marked increase in the number of coöperative marketing associations in Iowa since 1915. The past year has been an unusually hard one on coöperatives in the same way that it has been hard on private business. However, the mortality among coöperatives has probably not been so great as it has been in private business.

It will be noted that the total amount of business done by coöperatives has doubled since 1915. Iowa is now one of the three leading coöperative marketing states. It shows that Iowa is gradually becoming coöperatively minded. Farmers generally must become coöperative in spirit before coöperation can be expected on a large scale.

Agents in 71 counties report that assistance was given to 223 coöperative livestock marketing associations. A total of 230 meetings were held with an attendance of 27,228.

In grain marketing 100 elevators were given assistance. Forty-six general meetings were held with an attendance of 3,513.

In dairy marketing 185 creameries were given assistance. A total of 285 meetings with an attendance of 22,725 was reported by agents. The Iowa State Brand Butter Marketing Association was notably successful and made outstanding progress both in volume of business and in quality of product produced.

In poultry the principal effort was made to improve quality through selling on the basis of grade. There were 194 farmers and dealers meetings and demonstrations which reached 15,068 people with egg grading demonstrations. Surveys of farm sales indicate an increased return through graded selling over straight run selling of 3 cents per dozen. Meetings were held with farm groups relative to marketing eggs coöperatively. Figure 18 shows the development of graded egg buying in Iowa. This

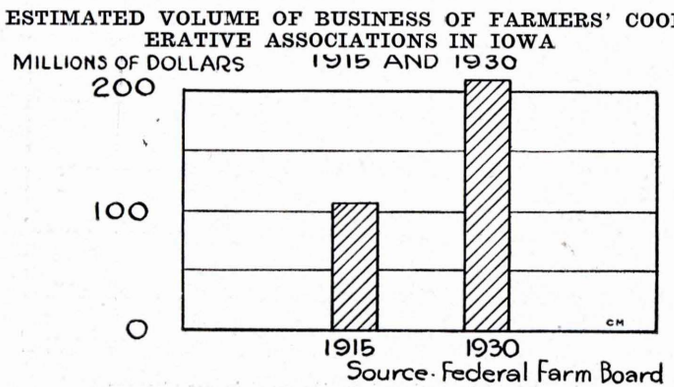


Fig. 17. Increases in business of cooperatives since 1915.

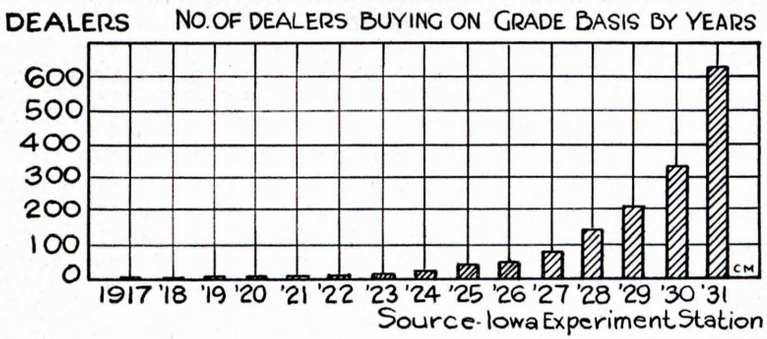


Fig. 18. The trend in graded egg buying is upward.

chart shows a healthy increase in the number of dealers buying on the basis of grade, which is probably the first step towards improving egg marketing conditions.

Broadcasting Marketing Reports

Through the coöperation of the United States Department of Agriculture and "up to the minute" broadcast of livestock, poultry, and grain market reports is maintained over the College Radio Station. It is literally true that an Iowa farmer can get as much and as early information relative to agricultural market reports in his own home as he can in any other place.

Buying Farm Supplies

Iowa farm products during the spring of 1932 when exchanged for the things which farmers have to buy would purchase only about half as much as they would purchase in pre-war (1910-1914) times. In other words, the purchasing power of the farm dollar when exchanged for the articles which farmers must buy had only about one-half of its pre-war value.

In order to get as much purchasing power as possible farmers in many instances have collectively bargained for stock feed, fuel and other products. In other cases they have organized coöperative enterprises such as coöperative oil companies. Especially in connection with the coöperative grain movement they have purchased fuel, lumber, feed and seed coöperatively. In all these efforts the Extension Service and county farm bureaus have given helpful assistance.

Boys and Girls 4-H Club Work

Boys' and girls' club work is of great value now and will be of still greater value and importance in years to come. This will be true because of the present importance of increasing the educational opportunities of rural children and thereby supplementing the work of the rural schools. Iowa has progressed in her educational plans until practically every city and town

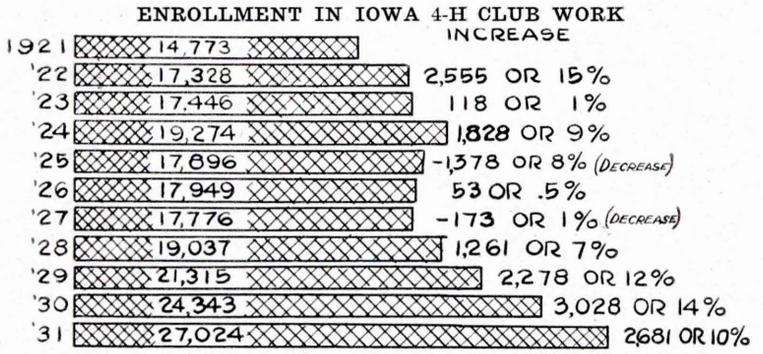
has fine school buildings and fine school equipment. Some rural districts have good school equipment but nevertheless there are 9,000 one-room schools.

Because of the depression, strict economy is now a necessity. This means that the great majority of country boys and girls will have about the same school buildings and school equipment for years to come that their parents and grandparents enjoyed when they were in school. On the other hand, urban boys and girls will have superior buildings and superior equipment. The inevitable result will be that the educational handicaps placed in the way of rural children as compared with urban children will be relatively greater during the next few years than in any other period in the past 60 years.

Club work is, therefore, tremendously important now because it helps to close the gap between the opportunities offered to the city youth and the opportunities offered to the rural youth. It should and does receive the cordial support and encouragement of all public spirited citizens. It should receive much larger support in the future because it is helping to meet a real vital and imperative need.

The year 1931 marks another advance in boys' and girls' club work. The total enrollment in 1930 was 24,343. The total enrollment in 1931 was 27,024, an increase of 2,678, or 11 percent. Of this number 3,553 boys and girls, or 13 percent were not in school. Club work gave them an opportunity to continue their education. There was also a sharp increase in the number of local leaders who gave assistance. The quality of work is improving. Programs are better planned and more effectively carried out.

Figure 19 shows the development of club work by years from 1920 to 1930. This chart reveals a gratifying and steady increase in enrollment for several years past. The average age of club members is almost 15 years, which shows that the work appeals to boys and girls of high school age.



Source—Iowa Extension Reports

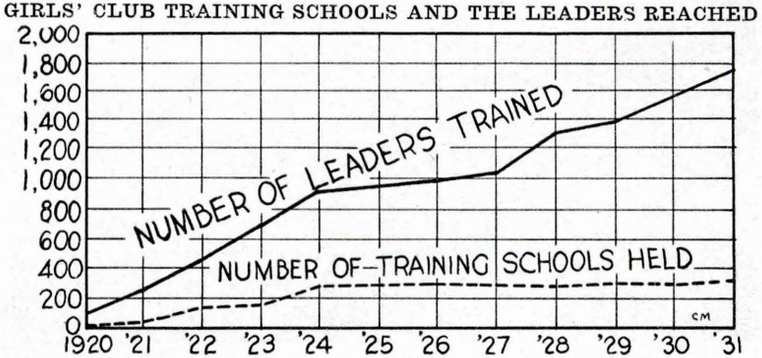
Fig. 19. Chart reveals 4-H club enrollment by years.

The following table gives the enrollment by projects for 1931 and a comparison with 1930:

	1931	1930
Clothing	8,978	5,003
Swine	3,850	2,988
Home Furnishing	2,750	3,016
Baby Beef	2,495	2,303
Dairy Calf	2,209	2,310
Bread	2,061	2,700
Canning	1,205	2,863
Poultry	1,065	1,222
Sheep	710	722
Garden and Potato	428	473
Corn	381	281
Beef Heifer	257	178
Colt	234	230
Health	156	
Forestry	121	36
Farm Record	78	69
Bee	18	14
Landscape	14	
Alfalfa	8	21
Rabbit	6	14
TOTAL	27,024	24,343

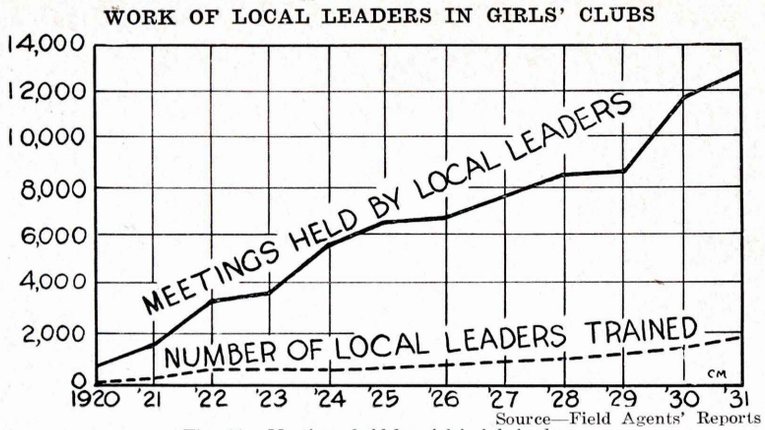
The success of the work has been largely due to coöperative local leadership developed through leader training schools put on by extension specialists. Last year there were 1,821 women and 1,020 men or a total of 2,841 who gave help in the capacity of local leaders and assistant leaders. How this leadership is developed and how it works is shown in figs. 20 and 21.

Figure 20 shows the number of training schools held under the direction of extension specialists and the number of local leaders trained in girls' clubs. Since 1920 the number of training schools held by specialists has remained constant. The number of local leaders attending training schools, however, has increased rapidly. In 1924 about 700 were developed while in 1931 almost 1,800 were trained.



Source—Field Agents' Reports

Fig. 20. Girls' club training schools held and leaders trained shown by chart.



Source—Field Agents' Reports

Fig. 21. Meetings held by girls' club leaders.

Figure 21 shows graphically the increased activity of local leaders in holding meetings with local clubs. There is a steady increase in the number of local leaders and a sharp increase in the number of meetings held by local leaders. In 1931 local leaders held a total of 13,000 meetings with local clubs or about 7 for each leader. This makes a remarkable showing of effectiveness for money expended since all of the local leaders' meetings are given as a voluntary service.

Four-H club girls contributed to the programs of 1,446 farm bureau meetings and 1,081 other community meetings during the year. Four-H girls gave 6,870 individual demonstrations at local club meetings. A total of 1,015 demonstration teams gave 2,750 demonstrations reaching 171,710 people.

Four-H club girls learn by doing. Reports show that club members made as part of their work 64,192 loaves of cereal bread,

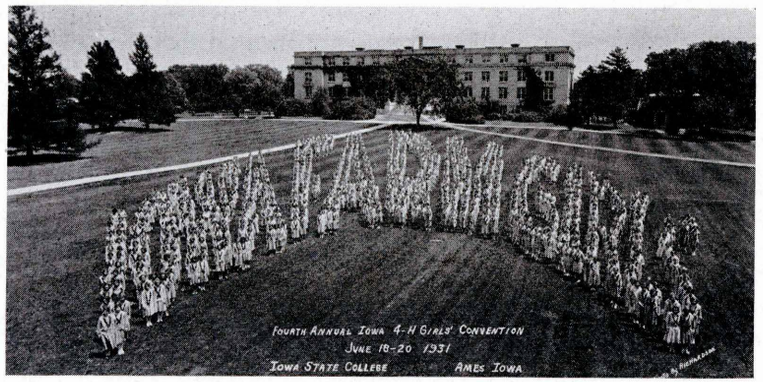
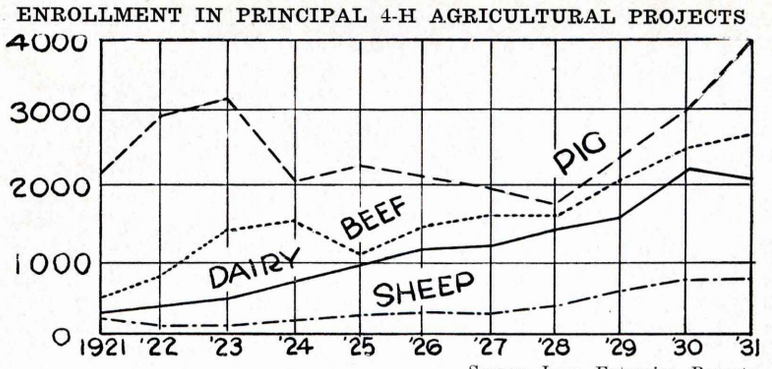


Fig. 22. Nearly 1,500 girls made up this impressive picture during their annual Convention at Iowa State College.



Source—Iowa Extension Reports

Fig. 23. Trend and growth of livestock club enrollments.

64,889 bakings of quick bread and served 55,711 balanced meals. Planning, planting and canning is the slogan of the canning clubs. Reports show 37,828 quarts of fruits and vegetables canned and 1,257 pounds of meat cured. Club members made 22,305 garments in connection with clothing work. In home furnishing they remodelled 2,200 rooms and made 5,984 articles of household furnishings.

There were 4,722 Four-H girls who had physical examinations in connection with their club activities and 6,837 who competed in the music appreciation contests.

Iowa stands high in the quality of livestock club work. A well rounded program of study, health, recreational and social activities is carried out by the leaders. In addition the club members fed 3,858 beef calves, 354 purebred beef heifers, 2,752

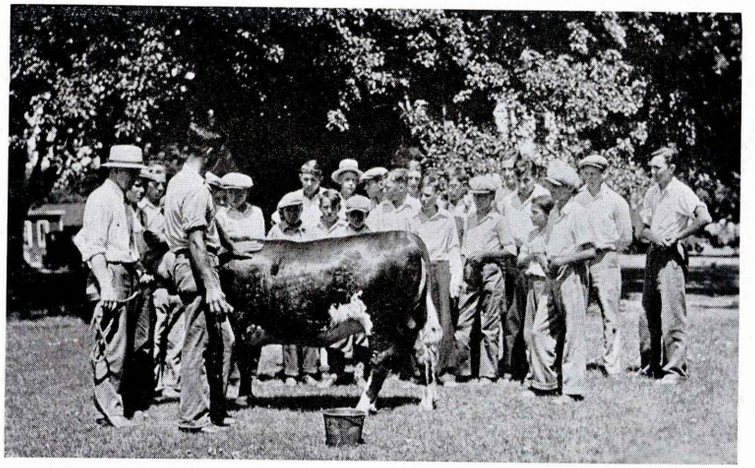


Fig. 24. Boys clubs hold tours to different member's farms at which demonstrations are given. This is a Cerro Gordo County scene.

dairy calves, 4,175 sows and market pigs, and 1,207 litters containing 7,966 pigs raised, 512 ewes and 593 lambs, and 23,737 chickens raised. Some other products including corn, alfalfa, colts, etc. were owned by the club members. A conservative estimate (even at 1931 prices) showed that club members owned $713,936 in livestock and crops produced. They also won $65,537 in prizes during the year.

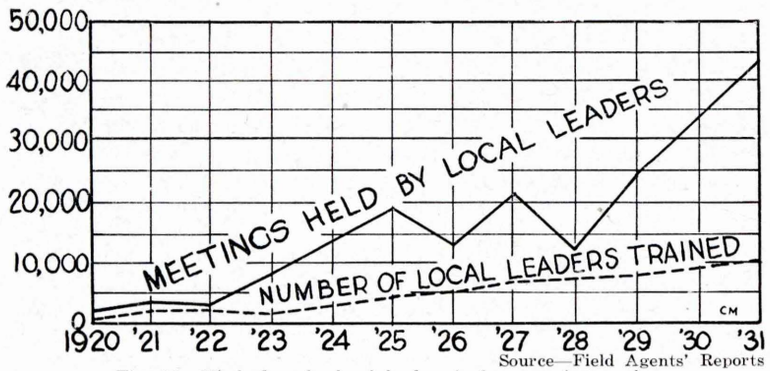
Home Project Work

Home project work has been greatly modified by financial conditions. Home economics specialists have organized their work so as to give every possible assistance in helping farm women to meet present-day problems. Care in planning meals, making as much use as possible of what the farm affords in the way of foodstuffs, wise selection of clothing, care of furniture, home accounts and a study of housework so as to save time are some of the ways in which project work has developed. Always, however, this development has for its purpose the maintaining and raising of living standards and not in lowering them.

In conducting home project work along clothing, foods, home furnishing, home management and child care and parent education lines, the rural women have developed the local leader training method to a very high degree. This method of teaching does two things; first, it enables a much larger number of people to be served with a given number of college extension specialists and, second, it develops local leadership.

It will be noted on the chart that the local leader work began actively in about 1920. In 1931 there were approximately 10,000 local women who received training in training schools conducted by extension specialists. These women then held on their own account a total of a few more than 40,000 meetings or an average of four for each woman. The total attendance at follow-up meetings was 238,737.

WORK OF HOME PROJECT LEADERS



Source—Field Agents' Reports

Fig. 25. Work done by local leaders in home project work.

Fig. 26. Home project leaders study good methods through training schools given by extension specialists. The leaders then reached 238,737 people through their demonstrations.

These local leader meetings have been a potent factor not only in extending the practical benefits of Home Economics work into a large number of communities but they have been effective in developing new ideas, new interests and new friendships on the part of rural people.

The following is a brief summary of results attained in home economics project work.

Clothing

In the clothing project local leaders reported that 6,986 different women adopted one or more of the suggestions given. They also reported 8,999 garments made, 18,891 patterns adopted and 1,308 garments purchased using lesson suggestions. Leaders reported that 1,574 women improved foot health through a wiser selection of shoes and 1,278 adopted improved practices in care of clothes.

Home Furnishing

In home furnishing local leaders reported that 27,506 different women adopted suggestions or did some piece of work given at the training schools. They also reported 22,610 baskets and trays made, 7,050 accessories made, 5,554 articles dyed, 4,863 pillows made, 3,608 lampshades made, 2,221 windows decorated, 1,833 slip covers made, 1,549 linoleums resurfaced, 1,242 new quilts made, 2,047 old treasured family quilts and coverlets studied and much valuable old furniture refinished.

Home Management

Local leaders in the home management project reported that 18,967 homes adopted improved methods of home management, 10,520 homes adopted additional labor-saving equipment, 3,924 home grounds were improved, 1,925 women kept home accounts and 1,851 women studied better organized working plans.

Fig. 27. This illustrates how a group of women acting as local leaders study nutrition subjects. Emphasis has been placed on "economy without reducing standards" the past year.

Nutrition

The nutrition project was stressed, "living at home and living better." Special emphasis has been placed on growing larger and better farm gardens, on canning surplus fruits and vegetables and on canning and curing of meats for home use. A better diet including a liberal use of whole milk and butter has been emphasized.

Local leaders reported that 1,500 farms planted a better selection of vegetables and more of them, 1,800 improved their standards in food selection and 1,900 practiced greater economy in buying without lowering standards.

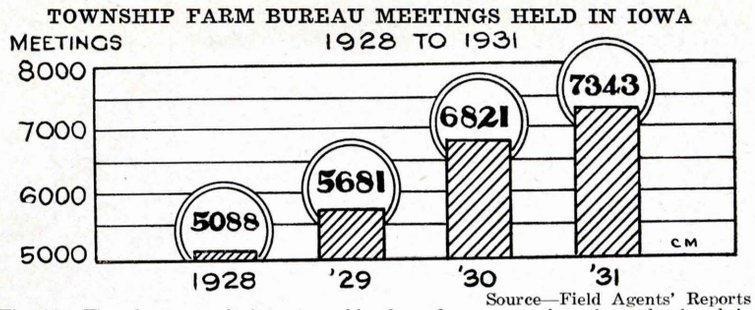
Child Care and Training

Local leaders reported 1,820 follow-up meetings. Leaders reported 285 cases where parent-child relationships were definitely improved and 269 homes where a more constructive use of money on the part of children had been worked out. Health improvement was made in 285 cases and improved habits were reported in 373 cases. A total of 1,298 books were read by parents and children.

Rural Organization and Community Activities

The Iowa Extension Service has striven constantly to get farmers to support general farm organizations and to meet together in groups for study, social, recreational and community development. Program helps have been supplied to organizations that would make use of them.

In farm bureau membership Iowa has led the next nearest state by 10,000 families.



Source—Field Agents' Reports

Fig. 28. The chart reveals how township farm bureau meetings have developed in the last few years.

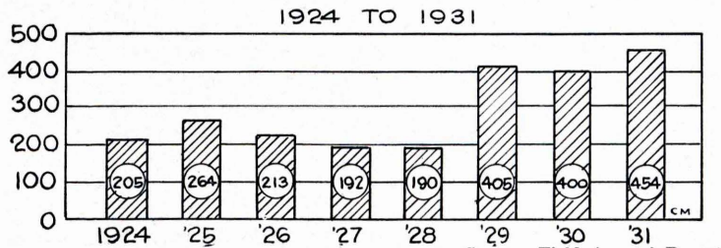
During the past four years township farm bureaus have increased the number of meetings held from 5,088 in 1928 to 7,343 in 1931 (six counties not reporting). These meetings were educational, social and recreational. They furnish an excellent medium through which to discuss agricultural information. Every sort of topic pertaining to agriculture and related industries is discussed in them. Music, plays and drama also have their part in the program. Here the future leaders of agriculture are being trained.

TOWNSHIP FARM BUREAUS SUPPLIED WITH MONTHLY PROGRAM HELPS

Many farm bureaus arrange their township meetings with great care and publish a record of the year's activities. These yearbooks are a factor in good community organization and show the interest farm bureaus are taking in these meetings.

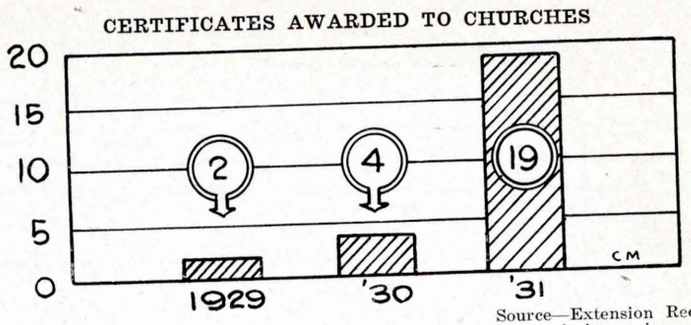
The program service furnished by the college is both timely and suggestive. Special material on special topics is furnished by the College to any organization or individual that desires it.

During the past few years the Extension Service has been developing educational activities in connection with churches. Figure 30 shows the development of Class A rural churches. The Class A rural church meets certain definite requirements relative to its rural membership and the agricultural life of the community.



Source—Field Agents' Reports

Fig. 29. The use of the extension program service has spread.



Source—Extension Records

Fig. 30. The interest of rural churches in rural porgrams is increasing.

College Radio Station

The radio station is operated jointly by the agricultural and engineering extension services. It leads among radio stations in its market news, agricultural and home economics programs. A total of 2,034 educational programs were broadcast in 1931. In addition to the strictly educational programs, 845 entertainment programs of educational value were broadcast.

A radio book club was organized for people living on farms and in villages without library facilities. The club has 660 members with a library of 696 books. It is self supporting.

Through market reports, weather reports, educational and entertainment numbers, the radio station broadcast 8,588 programs in 1931.

Visual Instruction Extension Work

The Visual Instruction Service is conducted coöperatively by the agricultural and engineering extension services. Motion picture films, film slides and glass lantern slides are distributed throughout the state. The total number of exhibitions of slides and films was 7,115, with a total reported attendance of 683,769. Slides and films are used by county agents, vocational agricultural teachers, county farm bureaus and other farm organizations, schools, Y. M. C. A.'s and churches.

News Service Work

The news service is conducted to supplement and strengthen the project work and keep the public informed concerning the best farm and home practices. In addition to 768 news stories prepared for 29 departments last year, the extension editor established a mat service by means of which Iowa newspapers can get stereotype mats of pictures for their farm pages. A total of 2,798 mats was furnished to papers. The larger portion of the stories written reach either the 500 weekly papers or the daily groups of about 50 papers and sometimes both.

Educational Tours to the College

The Extension Service coöperates with the county farm bureaus and faculty of Iowa State College in arranging and conducting tours of inspection of the work that the college is doing and its equipment. During the year 53 county farm bureaus made tours with a total attendance of 2,021. In addition to these county groups, the Extension Service and the college were hosts to many other miscellaneous groups.

Literature Published

July 1, 1930-June 30, 1931

Name and Nature of Publication	No. Pages	No. Copies	Total Pages
ADMINISTRATION			
Extension Service Aids Marketing and Farm Management	16	8,000	128,000
Annual 1929 Report	72	10,000	720,000
Extension Bulletin order	1	10,000	10,000
Monthly Report of Field Agents	2	3,200	6,400
Payroll Voucher	1	2,000	2,000
Farm Bureau Voucher F. B. 305	1	10,000	10,000
Outline Map of Iowa	1	10,000	10,000
Specialist Monthly Report	2	1,500	3,000
Township Secretary Book	43	1,000	43,000
Inventory of Equipment and Supplies F. B. 309.8	1	600	600
Farm Bureau Budget F. B. 309.6	1	1,000	1,000
Financial Report F. B. 309	2	1,000	2,000
AGRICULTURAL ENGINEERING			
Bul. No. 33—List of Farm Building Plans	16	10,000	160,000
Bul. No. 172—Terracing to Reduce Erosion	8	15,000	120,000
ANIMAL HUSBANDRY			
Bul. No. 169—Growing and Marketing Iowa Wool	8	10,000	80,000
Bul. No. 174—Feeding and Management of the Brood Sow and Litter	12	15,000	180,000
Draft Horses—Score card	1	5,000	5,000
Market Barrow—Score card	1	5,000	5,000
Fat Steers—Score card	1	5,000	5,000
Dairy Cattle—Score card	1	5,000	5,000
CLUB MATERIAL—BOYS			
Iowa 4-H Sheep Club Record	8	15,000	120,000
Iowa 4-H Club Poultry Record Book	11	5,000	55,000
Home Record Book—Iowa Baby Beef Club	15	5,000	75,000
Third Year Dairy Calf Club	1	2,000	2,000
First Weighing Certificate Baby Beef Club	1	10,000	10,000
Iowa Baby Beef Club Regulations	1	5,000	5,000
Purebred Gilt Club	1	3,000	3,000
2nd Year Dairy Calf Club	1	2,000	2,000
1st Year Dairy Calf Club	1	3,000	3,000
Market Pig Club	1	3,000	3,000
Market Litter Club	1	3,000	3,000
Purebred Beef Heifer Club Report Blank	1	5,000	5,000
Colt Club	1	1,000	1,000
Purebred Sow and Litter Club	1	3,000	3,000
Baby Beef Club Feed Report Card	1	15,000	15,000
Livestock Exhibit Card	1	5,000	5,000
CLUB MATERIAL—GIRLS			
The Complete 4-H Outfit	12	10,000	120,000
The Spirit of 4-H	8	10,000	80,000
The Iowa 4-H Club Uniform	4	10,000	40,000
Home Furnishing Primer	15	10,000	150,000
4-H Clothing Club Record Book	8	8,000	64,000
Iowa 4-H Bread Club Record Book	7	5,000	35,000
Iowa 4-H Home Furnishing Record Book	8	8,000	64,000
My 4-H Club Canning Record Book	8	5,000	40,000
My 4-H Clothing Club Record Book	7	10,000	70,000
Iowa 4-H Secretary Book	32	4,000	128,000
Beat Your Own Record Book	48	15,000	719,000
4-H Girls' Club Program	8	10,000	80,000

Name and Nature of Publication	No. Pages	No. Copies	Total Pages
DAIRY MANUFACTURE			
Cream Score Sheet	1	10,000	10,000
Milk Control Summary	1	5,000	5,000
Milk Control Score Card	1	25,000	25,000
Gold Medal Diploma	1	2,000	2,000
DAIRY PRODUCTION			
Poster—More Money From Your Cows	1	1,000	1,000
Milk Cooling Vats	1	3,000	3,000
FARM CROPS AND SOILS			
Bul. No. 168—Alfalfa in Iowa	8	15,000	120,000
FORESTRY			
Bul. No. 166—Tree Planting A Part of Erosion Control	4	15,000	60,000
HOME ECONOMICS			
CHILD CARE AND TRAINING			
Treasures in Books for Boys and Girls	20	10,000	200,000
Behavior Problems	12	10,000	120,000
CLOTHING AND MILLINERY			
School Clothes	11	10,000	110 000
Decorative Stitches	12	10,000	120,000
Line in Dress	12	10,000	120,000
FOODS AND NUTRITION			
Sandwiches	8	10,000	80,000
Wholesome Desserts	16	10,000	160,000
Foods for Mother and Infants	12	10,000	120,000
Home Canning for Good Nutrition	12	15,000	180,000
Hot Lunches at School	16	10,000	160,000
Building for Future Good Health	12	10,000	120,000
Standards for Cooked Foods	19	10,000	190,000
Building for Efficiency Through Good Diet	8	15,000	120,000
Salads and Their Preparation	8	10,000	80,000
When We Entertain	12	10,000	120,000
Simple Guide for Meal Planning	1	20,000	20,000
Score Card for Diets	1	10,000	10,000
NUTRITION PICTURE STORIES			
1—Eat to Live	2	10,000	20,000
2—The Story of Natural Cereal Foods	2	10,000	20,000
3—The Story of Too Much Sugar	2	10,000	20,000
4—The Story of Milk	1	10,000	10,000
HOME FURNISHING			
Chair Caning	8	10,000	80,000
Pillow Covers	7	15,000	105,000
HOME MANAGEMENT			
House Cleaning Up-to-date	12	30,000	360,000
Selection of Kitchen Utensils	16	15,000	240,000
Finishes and Furnishings for the Kitchen	16	15,000	240,000
Use of Time in the Home	8	15,000	120,000
Personal Efficiency and Planned Leisure	12	15,000	180,000
Planning for Large Quantity Meals	12	15,000	180,000
MARKETING			
Bul. No. 159—Egg Grades and Grading	8	10,000	80,000
Bul. No. 160—Why Market Eggs by Grade	8	10,000	80,000
Bul. No. 173—Marketing Iowa's Poultry Products	16	10,000	160,000
Survey Blank	2	1,000	2,000
MISCELLANEOUS MATERIAL			
Beekeepers' Quarterly—Oct. Jan. Apr. July	8	18,000	144,000
Better Iowa—Vol. 16—Nos. 33, 35, 37, 39, 41, 43, 45, 47, 49, 51 Vol. 17—Nos. 1-3; Extra No. 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31	4	1,050	4,200
PLANT PATHOLOGY			
Bul. No. 171—Weeds and Their Control	32	25,000	800,000
POULTRY			
Bul. No. 146—Straw Loft Poultry House	11	20,000	220,000
Bul. No. 155—Control of Poultry Lice and Mites	16	20,000	320,000
Bul. No. 156—The Common Poultry Diseases	16	20,000	320,000
Bul. No. 170—Laying Flock Selection and Culling	20	15,000	300,000
PUBLICITY			
Mat Service for Iowa Newspapers	8	1,000	8,000
VETERINARY			
Bul. No. 167—Horse Nose Flies Can be Controlled	4	20,000	80,000