

UNIVERSITY OF IDAHO
COLLEGE OF AGRICULTURE
EXTENSION DIVISION

E. J. IDDINGS
DIRECTOR

BIENNIAL REPORT
OF THE
EXTENSION SERVICE
IN AGRICULTURE AND HOME
ECONOMICS
1923-1924

By E. J. IDDINGS
DIRECTOR

COOPERATIVE EXTENSION SERVICE IN AGRICULTURE
AND HOME ECONOMICS OF THE STATE OF IDAHO
UNIVERSITY OF IDAHO, COLLEGE OF AGRICULTURE
AND U. S. DEPARTMENT OF
AGRICULTURE COOPERATING

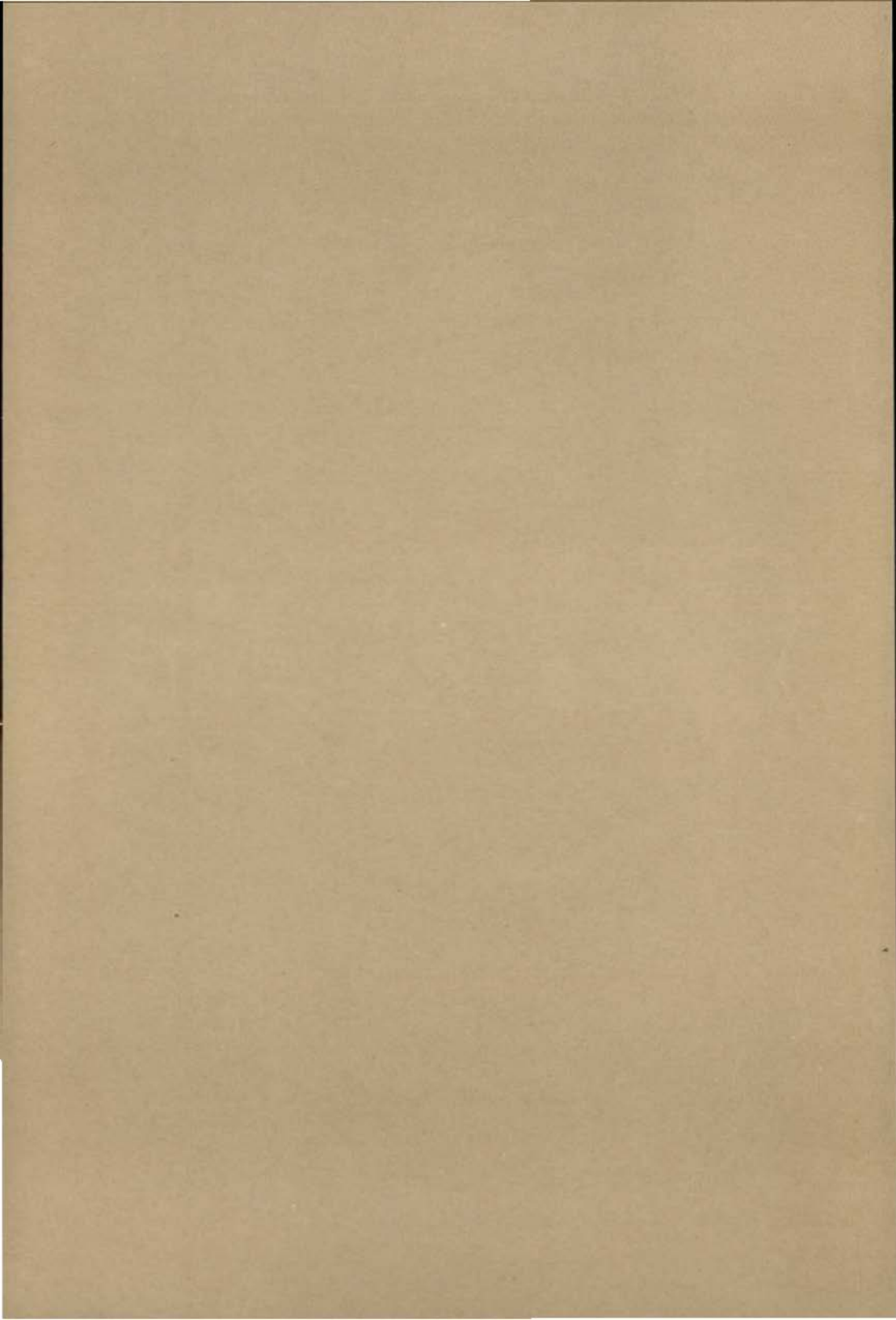
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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 311

LECTURE 10

STATISTICAL MECHANICS

ENTROPY

AND THE SECOND LAW

OF THERMODYNAMICS

LECTURER: JOHN H. COOPER

DATE: 1962

REVISIONS BY: J. H. COOPER

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EXTENSION SERVICE IN AGRICULTURE AND HOME ECONOMICS

To the President:

The Extension Service has as its purpose, in the language of the Smith Lever Act, "to aid in the diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage application of the same." During the biennium the cost of this service in Idaho has been low and the results of great importance in meeting the special problems of the period on the farms and in the homes of Idaho.

The administrative officer responsible for this report has been in active charge of the Extension Service since September 1, 1923, the date of the retirement of the former director.

The present director retains his offices as Dean of the College and Director of the Experiment Station. The general administrative office for extension is on the campus at Moscow but in addition offices are maintained in the State House at Boise and the director spends a considerable portion of his time at the Boise office and at other places in the southern part of the state where extension workers are located.

The state leaders, field specialists and the home demonstration agent for southwestern Idaho work out of Boise. The offices at Boise are maintained for convenience and economy. A plan for taking care of off-campus work was inaugurated twelve years ago with the establishment by the college of an office in Boise for the direction of farmers' institutes and for maintaining extension service in dairying, farm crops and irrigation. It has been the policy to make the extension division a service organization. Headquarters for staff members, therefore, are designated at certain points in the interest of efficient and effective service.

The extension publications for the biennium, 1923-1924, are as follows:

No.	Title	Copies
Bul. 42	"Housing Farm Poultry".....	10,000
" 44	"Second Clothing Bulletin".....	2,000
" 51	"Making Your Own Hat".....	5,000
" 54	"First Clothing Bulletin".....	3,000
" 55	"Second Clothing Bulletin".....	2,000
" 56	"Third Clothing Bulletin".....	1,000
" 57	"Designing Your Own Costume".....	2,000
Cir. 25	"Equipping an Orchard Spray Machine for Use in Alfalfa Fields".....	1,000
	Total	26,000

The extension program of the biennium has been characterized by:

1. Administrative changes to reduce overhead costs and more closely coordinate extension work with the teaching of agriculture and with agricultural investigation.
2. Development of home demonstration and boys' and girls' club work on a district basis to permit these activities to be shared by all portions of the state.
3. Unification of work for men, women and boys and girls to make the extension program of value to the entire farm family.
4. Modification of the projects and redirection of the service of field specialists and district and county agents to meet the special problems of this period and to bring about a readjustment to meet the post-war situation.

The appropriation for extension work for this biennium was approximately \$42,000 under that made for the last biennium. The economies necessary to meet this financial situation, outside of some reduction in the number of agents in the various counties where less county support has been provided, were almost entirely in administration and have not affected the number of specialists maintained except in entomology. Under the present plan for providing entomological extension service the extension entomologist works on a part-time extension and part-time teaching rather than full-time extension basis. As indicated earlier in this report the director also serves as dean and station director. The secretary to the director is also secretary for the two other divisions named. The club leader devotes part time to county agent work, acting as assistant county agent leader. This reorganization has placed a heavier burden upon the extension personnel but has permitted with the limited funds available the carrying on of a rather comprehensive and very effective program of field work.

The very great reduction, immediately following the war, in the number of county home demonstration and club agents made it necessary to adopt a new plan for administering this phase of extension. It was felt that the influence of the service insofar as possible should be carried to every part of the state. The district agent plan for both home demonstration and club work was inaugurated at the beginning of the biennium with the state districted into four divisions. These district agents are centrally located with reference to their particular territory and hence are able to maintain close contact with the people. Wherever county agents are employed the district agents coordinate their programs with the county agent projects. The district worker, therefore, has closer contact than is possible for a state-wide worker to have and at the same time act to a considerable degree as the subject matter specialist. The district home demonstration agent, in the absence of the state-wide specialist, deals in a

responsible manner with subject matter in home economics. The district club agents are concerned with plans for conducting successful club work and therefore qualify as methods specialists. Some special problems have been met in operating the district plan, such as too large territory to cover and inadequacy of transportation, but in general the district agents have rendered a fine service and have made it possible for the extension program in home economics and boys' and girls' clubs to cover the state more thoroughly than ever before.

The extension staff at present, aside from clerical force, consists of forty-three workers who spend all or a major portion of their time in extension activities. This includes five employed in administrative duties, only two of whom devote full time to extension administration, twelve field specialists, and twenty-seven district and county agents. Twenty others, employed in various capacities by the University, gave some time during the biennium to extension work in agriculture or home economics.

In accord with the plan in operation in the Office of Extension, United States Department of Agriculture, the extension program in Idaho has been reorganized on the family unit basis. The county agent, therefore, if he is the only extension employe in the county, is expected to serve the farm family and to have in operation agricultural projects, home demonstration agent projects and club projects. All the work in extension is directed with the purpose of meeting the problems of the farm home and of helping the farm boys and girls.

The subject matter specialists, the leaders of agricultural agents, home demonstration agent work and club work, and the county and district workers have been alert to meet the special economic problems of this two-year period. The farming practices adopted to meet World War emergencies were found ill-adapted to conditions that developed subsequent to the war. The extension program was organized to assist in re-establishing cropping rotation systems, to aid in readjusting crop and animal production to meet new economic conditions and to establish new farm enterprises that promised to be profitable. In a like manner home-makers were aided in making savings in clothing, food and other home necessities, and in attaining home comforts and conveniences under the special conditions that were faced by farmers during the biennium. A few examples of this special service follow:

Farmers were assisted in getting properly started in dairying.

Work was done with range and farm livestock in the direction of lower cost of operation and increased total net returns.

The organized rodent control work greatly reduced the damage from rodents harbored on both public and private lands.

The poultry program laid the foundation for a new industry in the state that already has assumed a leading place among agricultural enterprises.

Agronomic extension has pointed the way to large acre yields of high quality crops that find a ready market.

Aid to potato growing and service in helping successfully to grow new vegetable crops have characterized horticultural extension.

The entomologist has had as his goal the protection of crops, orchards and gardens from destructive insect pests.

Nutrition lessons and other activities aimed at assisting in disseminating information regarding proper feeding of the farm family have been much in demand.

Aid in selecting and making comfortable and attractive clothing seems much appreciated by the women of the state.

During the past summer the water shortage emergency was met by advice with reference to proper use of limited water supplies and selection of crops best suited for a season of limited water supply, and assistance was given in distributing livestock from regions of limited feed to regions of plenty and still maintaining the nucleus of herds in districts most seriously affected by the shortage.

There has been much demand for help with marketing problems. Extension agents have assisted in cooperative marketing enterprises by supplying information with reference to contracts and plans of organization and methods of assembling products and of distribution and by acting constantly in an advisory capacity. The aid of the extension agents begins with the survey of the commodity with reference to its marketing. This ordinarily is preliminary to efforts toward organization for cooperative marketing and much assistance can be given by the extension agents both during the organization campaign and after the commodity marketing association is operating. Educational work in grading, packaging, processing, assembling, and storing products as a rule is a necessary preliminary to successful efforts to market commodities cooperatively. Aid to farmers in their marketing problems is rendered by extension specialists and by district and county agents.

The extension accomplishments of the past two years have been attained by emphasizing the demonstration method. Successful farmers who were employing new ideas successfully in farm operation or were willing to undertake new enterprises and operate under new methods cooperated in a fine way as demonstrators and frequently gave freely of their time to introduce and encourage other farmers to practice improved farming processes.

Subject matter specialists, county agents and state leaders worked closely in harmony in putting into effect the program as briefly outlined above. Members of the College teaching staff and those employed in agricultural research made frequent field trips to assist in meeting special problems on the farms.

In addition to this report of extension performance from an administrative point of view, summarized statements are submitted in the following pages of the work of county agricultural agents, district and county home demonstration agents, district and county leaders of boys' and girls' clubs and field work in animal husbandry, agronomy, clothing, dairying, entomology, horticulture, poultry raising, rodent control, and nutrition. These lines of work are conducted under the leadership of competent and aggressive men and women who during the past two years have had the confidence and active cooperation of the farmers and farm women of the state.

County Agricultural Agent Work

County agricultural agent work has been conducted during the biennium in a total of twenty-nine counties for periods of various lengths. The average number of agents during the two years has been approximately twenty-one. At present seventeen counties employ agricultural agents.

The county agents of Idaho are well trained and experienced and are aggressive in assuming leadership in agricultural matters. They have been alert to sense the most important problems of their counties and with the cooperation of subject matter specialists have contributed much to the success of farming and to the happiness of farm families.

In formulating the program of work our county agents study sources of farm income and inquire into the factors that limit or determine profit. The advice of experienced and forward-looking farmers is sought in determining the major agricultural problems and in deciding upon the measures to be taken for improvement. The county agent projects constitute a constructive program for making farming more successful and for adding to the total wealth and prosperity of the county.

Elaborate organization procedure has been eliminated. The system now used in organizing and maintaining work in counties is to engage in personal and group conferences with forward-looking men and to work in close contact with agricultural organizations within the county. Practical field demonstrations are regarded as the most effective means of securing widespread adoption of practices advocated by the extension service. At various times during the year the agents are called together by the administrative officer in charge of county agricultural agent work for regional conferences for exchange of ideas and for unification of programs.

Final statistical reports for 1924 as yet are not available. The following summarized statement for 1923 is significant in indicating the extent of the work. The staff during that year conducted 3,189 demonstrations on 24,231 acres with 26,231 head of livestock, including home demonstrations involving the making of 1,115 articles of clothing. Two thousand five hundred fifty-three meetings were

held with an attendance of 74,594. County agents assisted in the organization of twelve cooperative marketing enterprises, having a membership of 5,114, and helped in the location and construction of eight cheese factories. These records indicate that 18,997 changes in farm practices were undertaken as a result of extension demonstrations and this influence involved 1,074,949 acres of land.

The county agent is the county representative of the College and through him large numbers take advantage of college service.

Home Economics

The purpose in conducting extension work in home economics is to carry to the farm homes of the state useful facts and desirable methods and practices. A state leader, who also serves as nutrition specialist, a clothing specialist, four district agents and two county agents have been employed during the biennium. Thirty-five of the forty-four counties of the state were given some phase of women's work. County agents cooperated in getting work for women introduced into widely separated communities in their counties.

The extension program for women has included the following major projects—clothing, millinery, nutrition, and household management.

The clothing work has met with great popularity since the extension agent in clothing was able to assist the women to dress well at relatively low cost. Further reference to clothing is found later in this report.

The work in nutrition has been given special attention during 1924. Nutrition clubs have been organized in various parts of the state and at times it has been difficult for the specialist in nutrition to meet all the calls for meetings to discuss food problems. A series of lessons entitled "Food Facts" were prepared in mimeograph form by the specialist and have been used as outlines in the studies carried on by nutrition clubs. The nutrition programs deal with the proper use of foods for all members of the farm family, emphasizing largely those articles of diet that can be produced upon the average Idaho farm.

Other home economics projects given attention during the two-year period are household management, upholstering and refinishing and home decoration.

In 1923, 1,200 meetings and demonstrations were conducted by home economics workers with a total attendance of 20,888. The statistical data for 1924 are not yet available.

The home demonstration agents had an active part in conducting girls' club work. Insofar as possible the projects for the young people have been used as demonstrations of methods applicable to the farm home. The home demonstration agents prepared bulletins and mimeographed material for use in instructing girls' clubs, conducted

demonstrations with these clubs and assisted in holding contests and in the making of final reports of the year's achievement.

Boys' and Girls' Clubs

The aims of boys' and girls' club work are as follows:

1. To train the boys and girls for good citizenship through group studies and other activities.
2. To make available to the young people the educational values contained in modern industry.
3. Supplement the home, school and state educational processes with constructive vocational projects that encourage initiative and require work with the hands.
4. To develop in young people an understanding of the opportunity, the dignity and the honor of productive work.
5. To create in the boys and girls an appreciation of the calling of their parents and a wholesome respect for the business of agriculture and home management in their own communities.
6. To enable children to earn money and own property at home and thus form habits of economy and thrift through the realization of money values and the satisfaction which comes from the self-earned dollar.

The club program is closely coordinated with the projects in agriculture and work for farm women. In formulating the club program the following are kept in mind:

1. Is the project a good business proposition for a boy or girl to undertake?
2. Is the quality of the work good enough to demonstrate a general agricultural practice suited for the community or the county?
3. Is the project capable of sufficient volume of returns to justify the time, effort, and expense?

The club program in Idaho has been conducted during the past two years in conformity with the general purposes as set forth above and coordinated with the extension work for farmers and for farm women.

Club work has been conducted in thirty-five of the forty-four counties. Club members in 1923 produced products of a market value of \$127,198.

There has been employed for the greater part of the biennium a state leader who devotes one-half time to club work, three district leaders, and two county club agents. In addition, the field specialists have devoted a great deal of time and effort to the work with the young people. The home demonstration agents have assisted with the girls' program and the county agricultural agents in most counties of the state have taken an active interest in developing and making club work effective.

Club fairs were held at Blackfoot, Nampa, Filer, Lewiston, Nezperce and other points to conduct contests and make achievement awards.

The first club short course was held on the University campus in June, 1923, with an attendance of 108. Those in attendance for the first year represented only the ten northern counties. The short course of 1924 with a total registration of 150 had a good representation from southern Idaho as well. The instruction at the club short courses included animal husbandry, farm crops, dairying, poultry raising, home economics, and in addition ample time was given for supervised recreation.

The Union Pacific scholarships have been a popular prize for county club winners and were awarded in seventeen counties in 1923. Miss Geneva Handy of Hagerman won the state championship in girls' club work in 1923 and was awarded the Montgomery Ward & Co. prize of a free trip to the International Livestock Show at Chicago. The Armour & Co. state prize for best record in pig club work, consisting of a free trip to the International Livestock Show at Chicago, was won in 1923 by Chester Mink of Gooding. The winners have not been selected for 1924.

Agronomy

The extension agronomic program has to do with grain standardization, small seed production and certification, cereal disease control, weed identification and eradication, introduction of new crops, purity of seed grown and sold for planting in the state, management of the state pure seed show and preparation and handling of the exhibit of the state's general crop and seed industry at the International Hay and Grain Show at Chicago.

In field trials conducted in cooperation with the Aberdeen Substation, Federation wheat was demonstrated to be a superior variety for the irrigated sections, outyielding Dicklow, heretofore regarded as a standard variety for the irrigated farms, by approximately ten bushels per acre. Federation matures earlier than Dicklow, has stiffer straw and is more resistant to rust.

The certification of the more desirable varieties of grain has enabled growers to obtain a premium for superior strains and has made available to farmers sources of pure seed. In 1923, 2,821 acres of grain were inspected on 172 farms.

The extension agents in agronomy have assisted growers of Grimm alfalfa by inspecting and certifying their fields and the threshed seed and by tracing the sources of seed. A total of 115 growers having 3,686½ acres were given field inspection certificates in 1923. The area inspected in 1924 will show a substantial increase. Fields are inspected during the blooming season. The most desirable Grimm has what is called a short pedigree tracing directly to the fields of Wendelin Grimm in Minnesota. Buyers from other states are demanding of growers the certificate of inspection issued by the Extension Division.

One of the special helps given with newer crops consisted of educational work dealing with corn production. Information with reference to seed, cultural methods, irrigation and other facts of interest to growers was distributed in pamphlet form. The corn acreage in Idaho increased to 73,000 acres in 1923 as compared with 52,000 acres in 1922. It is recommended that Idaho produce enough corn to supply the home demand. Ears to row tests were conducted in two counties with the purpose of developing superior strains.

The field agronomist is secretary-treasurer of the Idaho State Seed Show. He has accepted leadership in staging two seed shows during the biennium, the show of 1923 at Burley, and in 1924 at Jerome.

The Idaho entries for the International Grain and Hay Show were prepared by the extension agents in agronomy. Out of fifty-nine entries from Idaho in 1923, twenty-nine premiums were won. The major agricultural industries of the state were featured in this educational exhibit. Pictures of the various industries were used in the background and the products themselves were exhibited.

Animal Husbandry

At the beginning of 1923, the number of livestock in the state, exclusive of dairy cattle and poultry, was 3,682,000, having a value of \$55,511,000. This livestock industry is spread over an area of almost 84,000 square miles extending 483 miles north and south, and 309 miles east and west. Extension work consisted of demonstrations of value to those reached directly and also benefiting others who learned of the work through friends or by means of publications.

The beef cattle work was with the three phases of range, pure-bred and feeders, with demonstration records kept (in 1923) on 9,406 breeding cows and 2,800 head of steers fattened for market. Two hundred sixty visits at beef cattle farms and ranches were made in response to requests and for securing demonstration records. Five hundred forty-eight individual conferences were held on some phase of the beef cattle industry.

Work with the sheep industry consisted mostly of range projects with particular emphasis on lamb production. Feeding demonstrations were made in pasturing lambs to show the value of various kinds of pasture. These demonstrations will be continued. Two hundred twenty-nine visits were made to sheep farms and ranches and 417 individual conferences were held in 1923 on some phase of the sheep industry.

Work with swine was mostly in connection with pig clubs and on the farms where demonstration records are kept.

During 1923, 9,453 people were reached with the field program in animal husbandry and 2,049 of these contacts were personal. The same year 728 farms were visited and 571 excursions were held.

Clothing

The aim of the clothing work is to give each woman the feeling of satisfaction which comes from the knowledge that she is well dressed. To accomplish this end, instruction includes aesthetic, hygienic, economic, and construction principles. The following phases of the clothing project were stressed: millinery, paper dress forms, guide pattern, and cotton dress.

Methods used were somewhat the same as in former years. District and county agents met in training classes in order that the clothing demonstrations might be carried out uniformly in all sections of the state. These agents later conducted classes and trained class members and local leaders. Local volunteer leaders were encouraged to act as demonstrators in more widely disseminating the influence of demonstrations.

Summary of the accomplishments of a single year will serve to illustrate the scope of the off-campus clothing instruction. One hundred six millinery classes were conducted in 303 days, reaching 2,348 people in twenty-five counties; sixteen dress form demonstrations were held by home demonstration agents with an enrollment of 177 women in fifteen counties, with a total output of 509 dress forms; fifty-five pattern classes were held, attended by 1,236 people in nineteen different counties; thirty-six classes were held for instruction in making the cotton dress kimono house dress with an attendance of 313 people. The value of garments made and savings to farm women from practices initiated by the clothing specialist were estimated at approximately \$18,000 for a single year.

Dairy Husbandry

The dairy industry in Idaho has rapidly expanded during the past two years. Cows in considerable numbers have been brought into the state, better bulls have been purchased by the average dairyman and there has been a general tendency on the part of both farmers and city dwellers to appreciate fully the importance of dairying in building a permanent and prosperous agriculture. The establishment of new cheese factories, extension of creamery facilities and cream pooling have increased materially the facilities for marketing.

The breeding work consisted in organizing cooperative bull associations and encouraging the use of purebred sires on the part of individuals. Thirty-two cooperative bull associations were organized with 163 bulls, 5,552 cows and 905 members. In addition a great number of individual purebred bulls were placed throughout the state. Each bull in a bull association replaced two or three scrub bulls. More than 300 scrubs were replaced by association bulls. The eight cow testing associations containing 262 herds and 2,828 cows, report 100 per cent. purebred sires, and all but one report 100 per cent. of the herds tested for tuberculosis.

The feeding work was conducted through cow testing associations, by securing cooperation of county agents, personal interviews, public addresses, and news articles. Eight cow testing associations are in operation with approximately 200 members with 2,500 cows. The weeding or culling of herds was conducted for the most part through cow testing associations.

A state-wide campaign was carried on to improve the quality of dairy products. This had the cooperation of creameries and cheese factory managers throughout the state. Personal instructions were given butter and cheese makers for the purpose of improving quality. Cooperative creameries, cheese factories and cream pools were encouraged.

Entomology

Entomology extension service has been carried on by three men for portions of the biennium. Don B. Whelan was employed for the first eight months of 1923; F. E. Whitehead for the summer months of 1924, and Claude Wakeland, experiment station entomologist, has devoted approximately one-fourth of his time during this biennium to extension activities. Under the present plan Extension Entomologist Whitehead devotes the fall and winter months to teaching duties and the spring and summer to extension.

Major insect problems during the past two years were alfalfa weevil, grasshoppers, (Mormon) crickets, fruit tree leaf roller, and snowy tree cricket.

Extension work on the control of alfalfa weevil has been of a somewhat different type than during preceding years. Heretofore the extension entomologist disseminated information by means of spray demonstrations. Under the present plan the entomologists make trips to a few localities and by personal examination enables one farmer in each locality to determine correctly his spray dates. This farmer is given information concerning details of successful control and becomes a definite cooperator and a demonstrator. By thus working with a number of cooperators the entomologist can do more work of a permanent nature at less expense than where he acts as a demonstrator.

Grasshopper control in the various counties was conducted under the leadership and supervision of county agricultural agents cooperating with the entomologist. Extensive campaigns were conducted in Bingham, Power, Cassia, Twin Falls and Camas counties. Owing to the late, wet spring of 1923, pastures and the range remained green much later in the season than usual. This resulted in an abundance of food and grasshopper migration was not so great as during former years. In contrast with former years, grasshopper injury was comparatively light in non-irrigated sections. On the other hand, injury to crops in irrigated sections was much greater, owing to eggs hatching generally throughout those areas. Under the peculiar conditions of 1924 the grasshopper problem was not as serious as in other years.

Western crickets seem to become more abundant and destructive. Considerable time was devoted to extensive work on these insects with results that were not entirely satisfactory. Experimental work in control has been insufficient and more dependable information is needed.

The snowy tree cricket caused heavy damage to farms in 1924. Control methods, recently developed by the station entomologist were demonstrated in orchards late in the summer and found effective.

Horticulture

The work of the extension horticulturist has dealt with problems of the potato industry, plant disease control, orchard management, growing of vegetable crops, home gardens, and home improvement.

Assistance was given to potato growers, by means of lectures, personal conferences, distribution of bulletins and circulars and field demonstrations, on such problems as seed selection and certification, size of seed, time of planting, method and amount of irrigation, storage cellars, cultural methods and relation of production to marketing.

The seed certification service has been utilized by a large number of growers. The specialist has encouraged certain sections, thought to be adapted for seed production, to make a specialty of growing high quality seed for sale to other sections of the state. Seed plot demonstrations are carried on by most of the better seed growers to enable them to keep their stock as free as possible from disease and to perpetuate any desirable variations in potato types.

Help has been given individuals who were contemplating the building of cellars and several have been built in accordance with the principles and specifications recommended in previous years.

Attention to plant disease and insects was confined to the control of the so-called virus diseases such as mosaic, leaf roll, etc. This is done by avoiding degenerate or infected stock and by destroying plants that show symptoms of the disease. In this manner diseased plants are kept to a low percentage.

Orchard management has been limited to a few demonstrations in pruning and advice on cover crops and fertilizers for orchards.

Systematic demonstration work with celery and cauliflower has been carried on during the growing season. Several acres of celery on one place and two fields of cauliflower were grown under the direction of the horticulturist. This work was followed from seeding until harvest. It was demonstrated that these crops, when properly handled, can be grown with profit in Idaho.

The home gardening project was limited entirely to stories on better gardening for the press and advice by correspondence.

The home improvement work has been carried on by an illustrated lecture on home planning and planting demonstrations of plantings, correspondence, plan making, and press articles. The object has been to inculcate pride in the home and encourage better living by

improving the appearance of the place. Systematic arrangement of drives and location of buildings and the orderly planting of trees and shrubs are advocated.

Poultry Husbandry

It is difficult to determine the exact value of the poultry industry in the state. The marketing association at Caldwell handled last year 26,000 cases of eggs valued at approximately \$200,000. This is estimated by conservative men to be something like 20 per cent. of the eggs shipped out of the Boise Valley this year. A conservative estimate of the value of the poultry industry in the Boise Valley is \$2,500,000. This valley was a buyer of eggs as late as 1920. The increase in poultry production has been very great since 1919 and, with the exceptions of small sections, has been fairly uniform throughout the state.

The development of poultry raising has been so marked during the biennium as to constitute what may be designated as a new industry. The poultry husbandman has had a large share in the building of this business. His initial work was with culling, followed by lessons dealing with feeding, housing and breeding. By means of lectures, special articles and demonstrations the possibilities of poultry production were called to the attention of people in many sections of the state where poultry has never before been given consideration. The present poultry industry of Idaho is carried on under conditions and with facilities in a large measure recommended by the College through the Extension Service. In many sections the flocks are of proper size for successful production, they are sheltered in modern houses, are fed according to results achieved in College investigation and in some districts the products are marketed through a cooperative organization developed with the active assistance of the extension specialist.

A large number of poultry houses have been constructed during the past two years according to the plans prepared by the poultry specialist. Because of the general nature of the building program it has been impossible to tabulate the total number of houses of various types constructed to take care of the flocks.

Special success has been attained with the poultry demonstration farms. Thirty-two of these farms carrying their records in cooperation with the specialist completed and reported the year's work in 1923.

Field trips were conducted for the purpose of carrying interested parties to successful poultry farms and there demonstrating proper methods of selecting fowls, feeding and housing them. Ten such excursions were conducted in 1923 with an attendance of 2,879.

In cooperation with the Union Pacific System and others who were willing to help, a special poultry train was run in the month of June, 1924, for the purpose of carrying the latest information regarding the proper methods of housing, feeding, breeding, and marketing

poultry and poultry products to large numbers of people. The train was operated for a total of ten days, made stops at forty towns, and was visited by a total of approximately 17,000 people.

Rodent Control

Rodent control campaigns were conducted by the U. S. Biological Survey and the extension service in cooperation with county agricultural agents, county commissioners, landowners and various organizations and other agencies. In addition to the district leader, two assistants for about five and one-half months, one for three months, and one for the entire year were employed in the field during 1923. Approximately the same force was employed in 1924. Several temporary laborers were used at different times to assist in treating federal and state lands. In the various campaigns twenty-three county agents rendered material assistance.

Aid was given by county commissioners in practically all of the counties in which campaigns were carried on in the way of advancing funds to buy poison supplies and by enforcing the compulsory rodent control law. A total of 10,487 landowners, farmers and livestock men actively cooperated in destroying rodent pests during 1923.

In order to encourage the poisoning of injurious rodents and to make funds available for the purchasing of poison supplies go as far as possible, arrangements were continued through the biennium whereby strychnine and saccharine are bought directly from the manufacturers and distributed at cost to the cooperators. Direct savings to farmers in Idaho from the special Biological Survey price as compared to the retail prices are estimated at approximately \$35,000. The savings of crops from distributing poison on more than 3,000,000 acres of lands is more than \$1,000,000.

The various phases of the rodent control program were as follows:

1. Ground squirrel campaign conducted in thirty-five counties.
2. Pocket gopher eradication carried on in four counties.
3. Campaign for control of field mice carried on in two counties.
4. Jack rabbit control conducted in four counties.

Excellent cooperation was received from individuals and organizations in all parts of the state.

Extension Schools

Farmers' institutes and movable schools were held during the winters of 1923 and 1924. These meetings dealt largely with subject matter but in addition inspirational talks were given on general phases of farming and country life. In general the attendance was good and much interest was manifested. Extension specialists and members of the teaching and station staff, together with a small group of other speakers, constituted the corps of lecturers. The director of extension made a special effort during this year to keep in touch with farmers in every section of the state. He personally

addressed eighty-eight meetings attended by approximately 13,000 people.

Needs

The extension budget proposed for the next biennium was submitted some weeks ago. It provides for a larger proportion of federal and state funds for support of county agent work. During this biennium \$1,200 per annum have been assigned for support of extension work in each county maintaining county agents. The larger share of the county agent funds, therefore, is provided by county appropriations. It is felt that the best interests of county agent work would be served by increasing the allowance of state and federal funds from \$1,200 per annum to \$1,500 or \$1,800 per annum.

Attention has been called in other reports and communications to the heavy duties involved in the field work in animal husbandry. The field animal husbandman works alone with problems with beef cattle, sheep, swine, horses, and range management. The poultry specialist likewise has more calls than he can meet. A provision is contained in the proposed extension budget for the next biennium for an assistant animal husbandman. This assistant could be used to advantage with the general livestock problems and give some help in addition in poultry husbandry.

Our allowance this year for extension schools was inadequate and very little money was available for taking care of the expenses of the instructional staff and of research men for field travel to assist with farm problems. It is highly desirable that these men do some extension work and have contacts with the farms of the state. The travel allowance for extension specialists and state leaders was not sufficient for handling the work this year. Some of the men find it impossible to continue to meet field engagements, three months in advance of the close of the biennium, because of the exhaustion of travel allowances.

Income is being derived from charges made for certification and inspection of grain crops and potatoes. It is recommended that these income funds be budgeted to help support the work in agronomy and horticulture and especially for use in meeting travel expenses and in buying labels, seals and other supplies.

Additional money will be needed for publications. The initiation of the nutrition program and the development of other special phases of our work to meet the changed economic conditions in the state demand new publications. Some of the bulletins published two to four years ago must be reprinted. An additional charge for publications is necessitated by the publication of a club news, circulated among our boys' and girls' club members for the purpose of transmitting official announcements to them and for maintaining close contact with them throughout the year.

Respectfully submitted,

E. J. IDDINGS,
Director.

