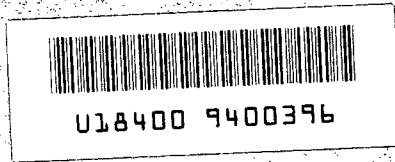


Agricultural Extension In Colorado



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*A Record In Word
And Picture*

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Foreword



THIS booklet tells the story of Extension Service in word and picture. Its chief purpose is to let the people know what provision is made by national, state and county government for the dissemination of information that, when applied, will lead to improvement in agriculture and rural life. The people have authorized this service for agriculture and consequently are interested in purposes and results. These pages show the varied character of the educational efforts put forth. We have here virtually a composite picture of our work. This constitutes a review of our stewardship in making practical the lessons developed through research and experimentation, thus insuring the stability of the most important of all industries; namely, that which provides us with food and raiment.

ROUD McCANN, Director.

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*Extension
Staff*
COLORADO
AGRICULTURAL
COLLEGE



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Personnel and Duties of Extension Workers

ON the preceding pages will be found portraits of the State and County Extension Workers. Following is the personnel of the Colorado organization including all who are on full time in Extension Service. In addition to these workers the Service has also the benefit of active aid from the Office of the State Entomologist, the State Dairy Commissioner, the State Forester and the State Horticulturist in their respective lines. The duties of the Director correspond to those of a general manager. The office at Fort Collins, of which the Assistant to the Director has charge is headquarters for all matters of administration for the entire personnel. Then there are three district agents who exercise field supervision of the work in organized counties and who regularly visit counties in which there are no agents, for the purpose of holding agricultural meetings, conferring with farmers who are doing volunteer demonstration work and organizing community groups and Boys' and Girls' Clubs. Others on the central office staff are specialists in their various lines, their duty being to work with the county agents in carrying out an educational program designed to improve the economic status of the farm family.

Numbers following names on roster identify portraits on preceding pages. No. 8 on page 2 is Dr. Charles A. Lory, President of Colorado Agricultural College.

STATE EXTENSION STAFF

ROUD McCANN (9)	.....	Director
F. A. ANDERSON (6)	.....	Assistant to Director
E. D. SMITH (1)	.....	District Extension Agent
R. H. FELTS (15)	.....	District Extension Agent
R. W. SCHAFER (3)	.....	District Extension Agent
MAUDE SHERIDAN (2)	.....	State Leader Club and Home Demonstration
W. R. FREEMAN (4)	.....	Assistant State Leader of Club Work
MRS. BLANCHÉ E. HYDE (5)	.....	Clothing Specialist
B. W. FAIRBANKS (16)	.....	Specialist in Animal Husbandry
WALDO KIDDER (12)	.....	Specialist in Agronomy
THOS. H. SUMMERS (7)	.....	Farm Management Demonstrator
O. C. KRUM (11)	.....	Specialist in Poultry
ALVIN T. STEINEL (13)	.....	Specialist in Rural Development
F. L. COOPER (14)	.....	Specialist in Agricultural Engineering
EVA FLOY SMITH (10)	.....	Nutrition Specialist

COUNTY EXTENSION AGENTS

Adams	J. T. Robertson (23)	Brighton
Arapahoe	Allyn H. Tedmon (25)	Littleton
Boulder	Geo. R. Smith (20)	Longmont
Conejos	Bert Minor (6)	Romeo
Chaffee	Arthur A. Kroll (1)	Salida
Douglas	Edgar A. Reeves (2)	Castle Rock
Eibert	Paul Michel (21)	Kiowa
El Paso	J. C. Hale (3)	Colorado Springs
Fremont	A. J. Taylor (4)	Canon City
Huerfano	J. L. Shields (31)	Walsenburg
Jefferson	E. H. Huelskemper (32)	Golden
Larimer	D. C. Bascom (11)	Fort Collins
Las Animas	S. W. Morgan (30)	Trinidad
Lincoln	G. P. Newsom (22)	Hugo
Logan	J. E. Morrison (18)	Sterling
Mesa	L. P. McCann (7)	Grand Junction
Moffat	Clyde A. Johnson (26)	Craig
Montrose	Ben H. King (24)	Montrose
Otero	W. F. Droge (16)	Rocky Ford
Prowers	C. A. Pederson (13)	Lamar
Pueblo	W. H. Sawhill (14)	Pueblo
Rio Grande	C. D. Hyatt (10)	Monte Vista
Saguache	L. H. Rochford (27)	Center
San Miguel	A. A. Goodman (5)	Norwood
Teller & Park	P. L. Smithers (28)	Cripple Creek
Weld	H. H. Simpson (8)	Greeley

ASSISTANT EXTENSION AGENTS

(Home Demonstration Work)

Logan	Margaret Cochran (9)	Sterling
El Paso	Ruby L. Coffin (19)	Colorado Springs
At-large	Miss Marie Juel	Fort Collins

(Club Work)

Boulder	Dorothy E. Adamson (12)	Longmont
Larimer	Lydia Warren (15)	Fort Collins
Washington	Robert W. Vance (29)	Akron
Weld	O. O. Waggener (17)	Greeley

Extension Service: What It Is

EXTENSION Service is one of the three main branches of agricultural college work, the other two being instructional and experimental. Scientific facts developed by the State Experiment Station are given to the people through the demonstration method of teaching; much of this is done through selected volunteer leaders in rural communities who agree to put into practice a method recommended by the Extension Service after it has been proved scientifically correct either by long farm practice elsewhere or through experiment station research. The service is headed by a Director with a central office force of specialists, district leaders and representatives in various agricultural counties which are organized for extension work. The county representatives are known as extension agents. The work is carried on intensively only in such counties as make financial provision for its support, a part of which is met out of federal funds under the agricultural extension act known as the Smith-Lever law. However, counties that do not elect to employ an extension agent also receive benefit of the general work done by the state staff of leaders and specialists.

The work in State and counties is on an organized basis, plans or projects being drawn up months in advance for a year at a time. The specialists and leaders travel on schedules worked out in advance by the year, in order to systematize effort, save time and hold travel expense to a minimum.

What It Costs and Whom It Serves

The total expenditure in Colorado during 1923 for extension work from all sources, federal, state and county was \$204,506.44 a little over one-fourth of which came from the organized counties.

Under present arrangements \$1,200 a year is uniformly paid on salaries from Smith-Lever and U. S. Department of Agriculture funds to county extension agents. The balance of salaries and stipulated amounts for expenses, ranging from \$1,200 to \$1,500 a year for each worker, is paid from county funds direct to the county workers monthly, upon presentation to the Board of County Commissioners of itemized bills, after the same have been audited and approved by the Director of Extension Service. Funds for all projects are budgeted for the fiscal year and expenditures are limited to the sums appropriated for each worker. At the time this publication was prepared (1924) twenty-seven county extension agents were employed with five assistants in club work and home demonstration work, there being thirty-one county workers in twenty-eight organized counties.

The rural population of the state is approximately 450,000. The total population both rural and urban of the counties organized for extension service is approximately 484,162. The rural population of these counties is 232,000. The Extension Service works with 350 organized communities and 1231 organized groups in Colorado.

Colorado Code of Agriculture

THE Colorado Code of Agriculture was adopted at the Midsummer Extension Conference July 23 to 26, 1923, to govern Agricultural Extension work during the five year period beginning January, 1924, and to serve as a fundamental plan for farming operations throughout the state, with modifications to meet local conditions and types of farming in the various sections. This code is a summary of ideas, developed by extension work during past years, plus advice and suggestions of farm leaders. It is not to be taken as a plan or purpose devised from above to be urged upon the farming public, but rather as an outgrowth, development or the fruitage of effort put forth in the past. It is based upon the experience of the most successful farmers and the work of the experiment stations, the Department of Agriculture and the Agricultural College.

In an explanation of the Code given to the press, Roud McCann, Director of Extension, said: "It will enable us all to look at agriculture as an industry rather than as a collection of individual farms and ranches. We needed a plan, or diagram to guide us in our work. We mean by that not only those of us who are working for agriculture from the educational standpoint, but those who are farming. We have been looking at single problems and at the problems of the individual farmer. We need to raise our aim and get a line on the whole industry and attack the problems from that side. We know many of the remedies that should be applied to bring the industry to a better economic footing. What we have lacked is a plan for applying methods in a concerted and effective way. We needed to unite farmer thought and effort and this policy gives us a starting point."

Colorado's Code of Agriculture

Farm returns commensurate with ability, risk and investment involved.

- A. *To adapt production to market requirements.*
 1. Survey of local and outside markets.
 - a. Consumption requirements of market centers.
 - b. Production and marketing costs.
 - c. Transportation to consuming centers. Cost. Service.
 2. Market crops through your own livestock.
 - a. Grow crops to be fed. Amount of each.
 3. Grow kind of cash crops markets will handle. Amount of each.
 4. Standardize on variety and quality of cash crops.
 5. Orderly marketing.
 6. Home markets the first to be supplied.
 - a. Farm home supply.
 - b. Local markets.
 7. Farm financing.
 8. Adapt farm business and rotation to meet economic conditions above outlined.
- B. *To make rural home life attractive.*
 1. Balanced diet for the family.
 2. Thrift and attractiveness in dress.
 3. Labor-saving devices and conveniences.
- C. *To interest children in practical farm work and farm home life through club work.*
- D. *To develop progressive communities.*
 1. Where leadership is developed.
 2. Closer relationship between town and country.
 3. Good schools, churches and recreational centers.

Teaching By Demonstration

THE number of adult demonstrations carried during a representative year (1923) was 5,122; junior demonstrations 3,402, an approximate total of 8,500 demonstrations of practices and methods for the farm and the home. That is the number of lessons conveyed through the doing of the thing rather than just talking about it. This is not the whole of extension activities for it does not take into account meetings held, talks given and articles written by extension workers in spreading the influence of these 8,500 demonstrations.

To indicate further the extent of the work it may be of interest to know that during the year 1923 at the central office at Ft. Collins 21,556 letters were received, 17,328 letters written, 5,054 circular letters forwarded, 3,018 post card replies forwarded, 27,833 bulletins mailed and 290,000 circulars of information distributed to the farm people of the state, the latter being sent out at monthly intervals.

The public is kept informed concerning the work through various publications including News Notes, a weekly clip sheet for the use of editors, The Extension Record, a monthly publication and through special articles sent out from the central office or prepared by the various county and state representatives for the local press.

Demonstrations Defined

Question. What is a demonstration as the term is used in cooperative extension work?

Answer. A demonstration is an example designed to show the practical application of some established fact. There are two kinds of demonstrations used in cooperative extension work: (1) Method demonstrations, in which an extension worker or trained local person shows a group of people how to carry out some practice, such as canning, mixing spray materials or culling poultry; and (2) result demonstrations in which a farmer, a farm woman, boy, or girl carries on under the direction of extension workers, both for his own information and that of his neighbors, a practice involving a substantial period of time, the keeping of records, and comparison between results obtained by the new method and by former practices. Examples of result demonstrations are child feeding, corn culture, and orchard management.—U. S. D. A. Official Record.

Both types of demonstrations need the cooperation of farm people for results. The Extension teacher initiates and explains the method or practice, but the farmer is the real demonstrator. Success of extension work depends on the help received from the cooperating demonstrator who thus becomes a volunteer teacher in his own community.



A WELL EQUIPPED EXTENSION OFFICE

Weld county makes liberal provision for Extension Service. The illustration shows the office of Extension Agent H. H. Simpson and Assistant O. O. Waggener. The county agent's desk is in the rear. Adjacent space provides room for conferences with office callers. Note bulletin rack at left and counter at right. Entrance is from exhibit room, which may also be used as a meeting place for farmer groups.

Ten Years of Co-operative Extension Work

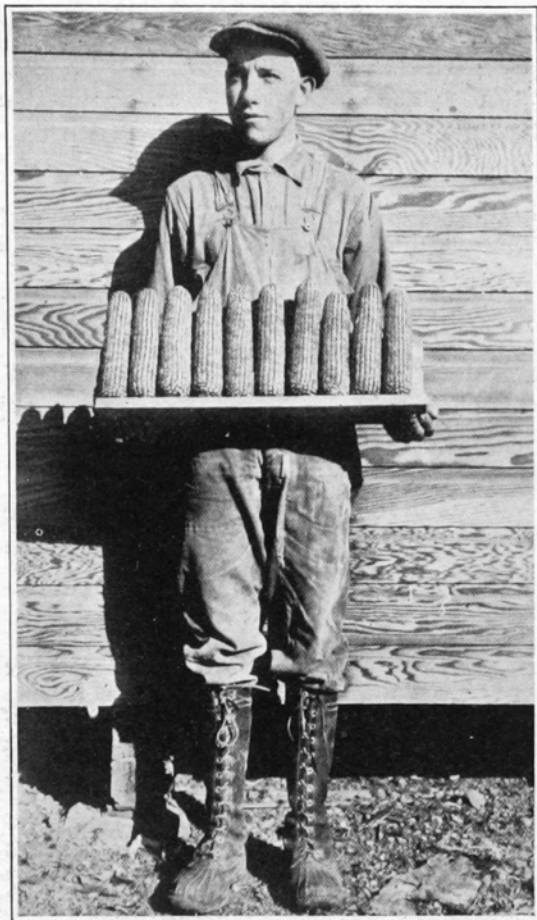
ON May 8, 1914, legislative action to establish a national system of extension work in agriculture and home economics was completed by the signing of the Smith-Lever Act by President Wilson.

At the time of the passage of the Smith-Lever Act there were more than 500 men agents and 200 women agents engaged in demonstration work in the South. More than 200 county agricultural agents also were at work in several of the Northern States. In the 10 years that have passed, the number of men agents in the United States has increased to 2,239. There are now 921 women agents, and 126 Boys' and Girls' Club agents. As the work progressed the needs of the county extension workers for expert assistance in various lines, such as dairying, crop production, animal husbandry, nutrition, and home management, became apparent. There has now grown up a staff of about 800 extension specialists in the states, who aid the county workers in formulating their programs of work, give special assistance in the problems in their particular fields, and otherwise supplement the extension system. The county workers, specialists, and the administrative and supervisory forces make altogether nearly 4,500 people who are now en-

gaged in carrying the gospel of better and more profitable farming, and healthier and happier homes to the people of the United States.

The original appropriation under the Smith-Lever Act was \$480,000, with provision for annual increases for eight years until the total reached the sum of \$4,580,000. In addition to this amount, \$1,300,000 is now appropriated by the Congress on the same basis as the Smith-Lever funds, and a further appropriation of about \$1,300,000 is made for Farmers' Cooperative Demonstration Work. This makes the total Federal appropriation \$7,180,000, to which the states and local agencies have added approximately \$11,000,000, so that now between \$18,000,000 and \$19,000,000 are annually devoted to extension activities.

The act is unique in Federal legislation. It was the first of a series of Federal acts which provides definitely for cooperation between the Federal and State governments in carrying on a common enterprise and permitting participation by counties, local governments, associations, and individuals.—From Review of Ten Years of Cooperative Extension Work by C. W. Warburton, Director of Extension, U. S. Dept. of Agriculture.



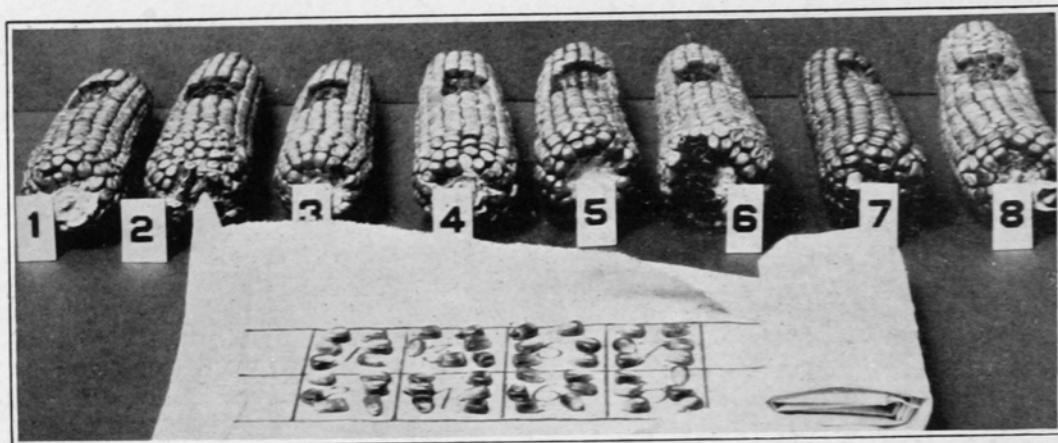
Arthur Rossiter of Boulder County, a Corn Club Member Whose Contribution to Better Seed Has Added Materially to the Agricultural Wealth of His Community.

Corn Improvement

BOULDER county took the lead in this work and the Boys' and Girls' were pioneers in improving the corn crop. Standardization of type and variety started in 1916 resulted in the general adoption of Minnesota No. 13 corn as the variety best suited to conditions prevailing at an altitude of 4,500 to 6,000 feet. Registered seed corn work started in Boulder county with this improvement of type and from there it has spread until every corn growing county in Colorado and many sections in other mountain states have come to recognize the value of a hardy dent corn of medium size and type, able to withstand considerable frost and drouth, and yielding well both for grain and silage on irrigated or non-irrigated land. Development of Minn. No. 13 from seed procured at the Minnesota State Experiment Station has added thousands of dollars to Colorado's agricultural wealth in the past four years. This successful demonstration was made by boy corn club members and adult farmers under the supervision of Extension workers.

Not More Acres of Corn,
But More Corn per Acre

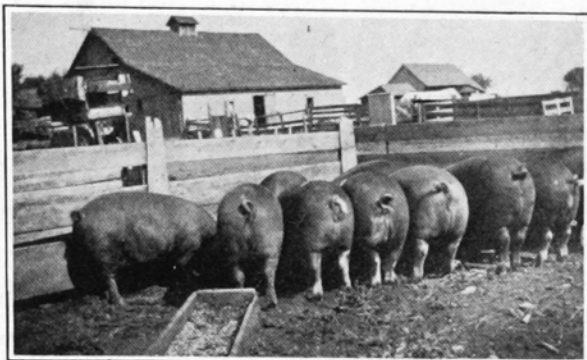
“NOT more acres of corn,
but more corn per acre”
is the slogan that applies in
the testing of seed corn. The
Extension Agronomist urges
the testing of every ear for
germination. The ragdoll
method is the most popular.
This is shown by one of the
illustrations on this page.
The other picture shows
Raymond Condon, State
Corn Club champion and
Forrest Roberts in their five
acre field of Minnesota No.
13 near Fort Lupton, giving
a corn selection demonstra-
tion before a gathering of ex-
tension workers from eleven
western states.



Testing Seed Corn By the Rag Doll Method



Seed Corn Selection Demonstration By Club Members.



Geo. Cross' Ton Litter

Above is a Larimer County ton litter. These pigs weighed 2,212 pounds at 180 days and brought their owner, George Cross, of Fort Collins, a ton litter prize in addition to their value as pork.

A Ton of Pork to the Litter in Six Months

TON litter contests are in progress in several Colorado counties.

This illustration shows a conference in the County Extension office at Greeley, participated in by the Livestock Extension Specialist, Extension Agent H. H. Simpson, Secretary Williams of the Greeley Commercial Club and others, working out details. These contests have for their purpose economical pork production—more pork per litter, which implies better breeding stock, better care of the sow and pigs at farrowing and better feeding and care of the growing pigs.



Ton Litter Conference

Co-operation Is the Keynote

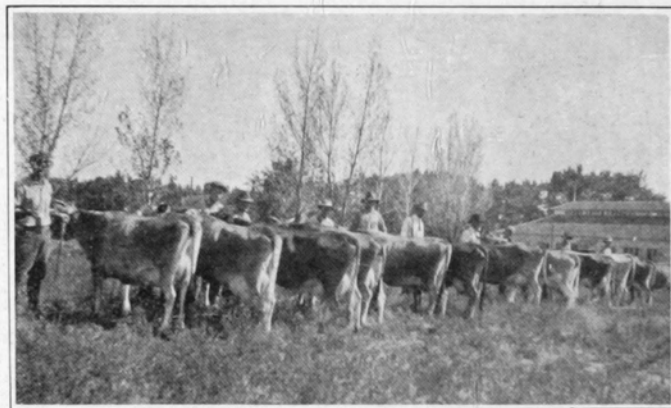
ONE illustration on the next page, showing steers in a northern Colorado feedlot, directs attention to the tests with various fattening rations made by the Animal Husbandry Department of the Colorado Agricultural College. Early in June each year a Feeders' Day is held at Fort Collins. Farmers interested in beef production come from all parts of the state to inspect the various lots of steers that have been finished during the season on farm grown feeds and sugar factory by-products. Results of this Experimental work are carried out to the people by the Extension Service, B. W. Fairbanks, Livestock Specialist, using the facts in his lectures and demonstrations for more economical beef production and the various extension publications aiding in interesting farmers in the Feeders' Day program.

Another illustration shows a class of Holstein cattle being judged at the Lamar Dairy Show. Neighborhood stock shows are used as an educational medium by the Extension Service to impress lessons in better livestock. Farmers learn to judge cows by watching the judging in the show ring. The same applies to the illustration showing Jerseys at a Mesa county fair. No breed preferences or prejudices have a place in Extension Service, the object being to improve quality and cut production costs, no matter what breed of cattle the farmer owns. The point emphasized in dairy extension is economy of production with the breed that suits the conditions under which the cows are expected to produce.

The other picture is a snapshot taken on the Loesch Brothers Holstein farm at Montrose, Colorado, showing a group of Boys' and Girls' Club members looking over the livestock. Thus do the breeders of registered cattle cooperate with the Extension Service in educational work. Calf club members learn cattle judging in the herds and not from books or in the class room.



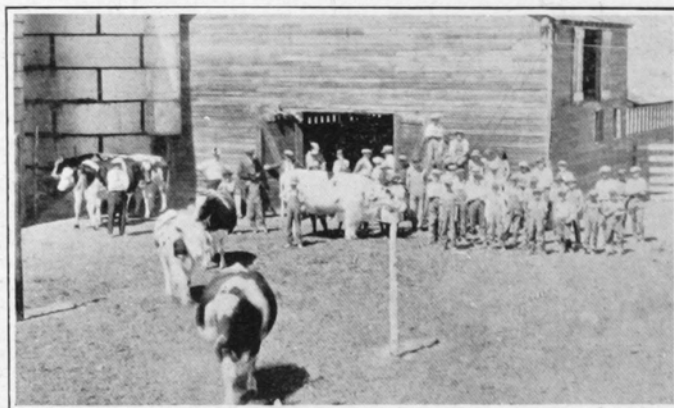
A Northern Colorado Feedlot Where Beef Is Finished on Farm Grown Feeds and Sugar Factory By-Products



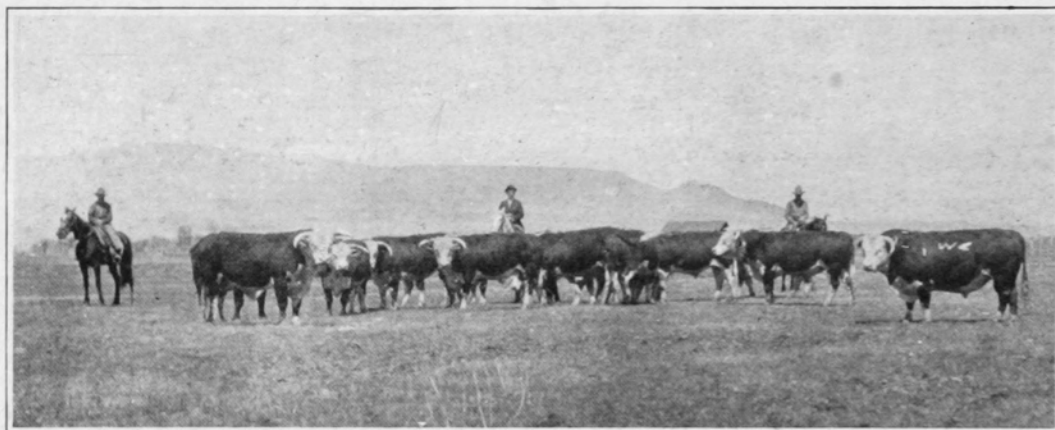
Jersey Cow Class Being Judged at Grand Junction Livestock Show



Holstein Class Being Judged at Lamar Dairy Show

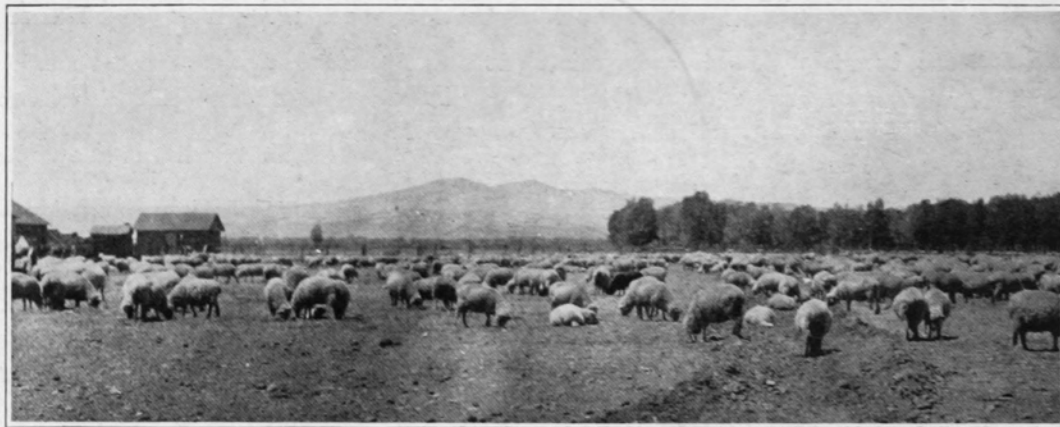


Boys and Girls Livestock Judging Team at Loesch Bros. Holstein Farm, Montrose, Colo.



Range Cattle

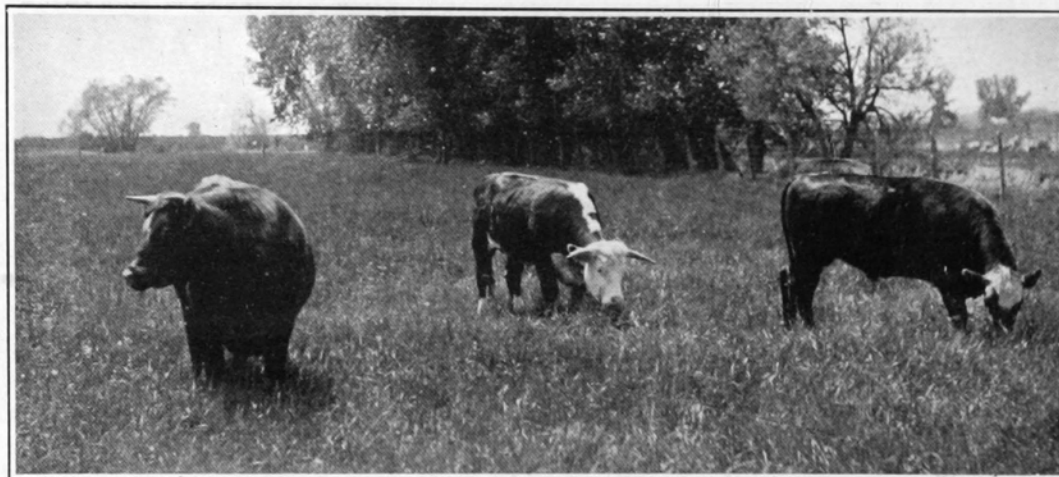
Ewes well fed and cared for before they are turned out on the range for the lambing season more than pay back to the owner in an increased lamb crop the trouble and expense incident to their care. Illustration shows 4,000 sheep on the ranch of the Warshauer-McClure Sheep Company, Antonito, where scientific methods of handling prevail.



Ewes on Range

Range management and livestock improvement is one of the projects adopted by the eleven Western States on a long time basis. This is being done through purebred sires, culling, supplemental feeding and improvement of selling methods. The illustration shows the type of registered Hereford sires used on the Braiden ranches in the San Luis valley.

Grass is Colorado's most valuable natural resource and it has been dissipated through misuse and over use. The need for replenishing the range, as well as the development of pastures on cultivated lands is being provided for by the pasture service of the Extension Service. This work includes the development of irrigated pastures on the highly developed farms, the introduction of grasses or of grain crops that can be pastured on non-irrigated lands and scientific management of the mountain



Colorado Agricultural College Farm Pasture



Dry Land Pasture on the Highland Farm at Akron, Colo.

grazing areas. The larger illustration shows cattle on an irrigated pasture at Fort Collins, where two hundred dollar land is earning a suitable return from grass. This pasture was sown to what is known as Morton's pasture mixture, a development of the Colorado Experiment Station, tested for a period of years on the Agricultural College farm and in the last few years spread broadcast through the state by demonstrations on hundreds of farms.

Efforts also are being made to establish pastures on the dry lands, various crops being recommended, including sweet clover, rye, Sudan grass and soy beans. There are also a number of demonstrations in alfalfa on dry land areas where the moisture conditions are particularly favorable. The lower illustration shows cattle on dry land pasture which has been improved with sweet clover.



Listing Light Soil to Prevent Blowing



A Dry Land Planting for Windbreak

Tree Planting Campaign

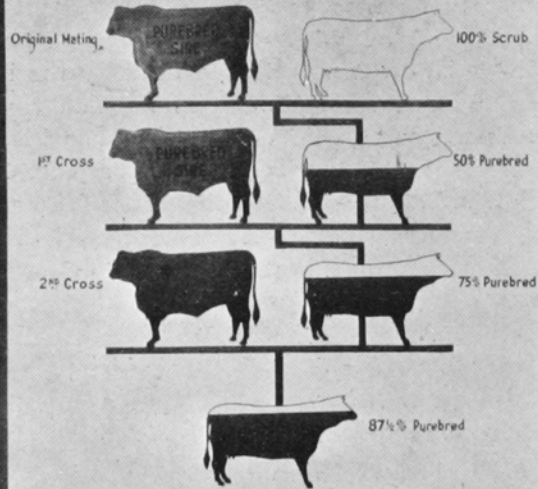
TREE planting on the plains is an important activity in which the Extension Service aids State Forester W. J. Morrill. Windbreaks are necessary on the open prairie to prevent soil blowing and to hold snow. Trees and shrubbery around the dwelling serve to beautify the home surroundings. Woodlots will in time provide fence posts and fuel in a region where coal is high in price. The State sells shade trees at cost every spring and each year many thousands of trees are set out, thus adding aesthetic and utilitarian value to the farms thus beautified. One illustration shows a typical dry land windbreak on a Weld county farm. The other shows method of listing light soils crosswise to the prevailing winds to prevent soil blowing.

In the spring of 1924 the State Forester distributed to Colorado farmers 98,000 trees.

HERD IMPROVEMENT

By Use of Purebred Sires

Note how Rapidly Percentage of Purebred Blood increases by use of Purebred Sires



BLOOD WILL TELL

(U.S. Dept. Agr.)



Better Sires Campaign

THE movement for better sires is of national scope. It is fostered by the United States Department of Agriculture as well as by the various states and is a continuing project that has brought excellent results in livestock improvement. The illustrations on this page show how the Colorado Extension Service cooperates with other forces in putting the Better Sires idea across effectively. At the left is a panel which was one of several of similar nature carrying a lesson in herd improvement through the use of purebred sires. These panels were shown on board the Better Sires Special, which was operated over the lines of the Colorado & Southern and Burlington railways in the fall of 1923. The other picture shows a crowd at Otis, Colorado, watching the exchange of scrubs for purebreds. Twenty-five thousand people went through the train on its fifteen day tour.



Rural Women Act As Volunteer Leaders In Extension Work

ILLUSTRATION shows a meeting of the Co-workers of Larimer county. This is a group of women who are leaders in their respective communities in rural home improvement. They give freely of their time and effort to aid the home demonstration agent in her work. In this particular county the work is in charge of Miss Lydia Warren, Assistant Extension Agent. It is typical of other counties in which home improvement is carried on. The Co-workers gather once a month for a general meeting at which they exchange ideas and discuss methods. Sometimes a specialist from headquarters is present to give a demonstration on clothing, millinery, nutrition, household devices, canning or some other line. More often the women furnish their own demonstrations in accordance with instructions which they, as volunteer leaders, have received from the specialists. At this meeting, which was held in February, plans for parties were discussed. The social affairs of the coming weeks, including St. Valentine's, Washington's Birthday, St. Patrick's Day and after Easter events were subjects of interest. The women carried back to their own groups new ideas about games, favors and other features of entertainment. At the next meeting, they might take up bread baking, again it would be food preservation or canning. The pennants, thirteen of them, indicate the number of communities represented. Every community is entitled to one delegate. In addition there are invited guests at these monthly meetings which usually include a noon luncheon, the hours being 11 a. m. to 4 p. m. In Larimer county the average distance travelled by the delegates to these meetings is about twenty miles, some coming as far as forty and fifty miles from isolated mountain communities to get ideas and inspiration to carry back to their own groups.



Extension Service Hosts to Banker-Farmer Conference

THE Colorado Banker-Farmer Conference was held February 14, 1924, at the Agricultural College. It resulted in the adoption of a program including the following four lines: Boys' and Girls' Club work; Livestock Improvement; Better Methods of Feeding Livestock; Seed Improvement.

Under the livestock project will be included, better sires, dairy development through cow testing, etc., baby-beef production and pork production through ton litter clubs.

The feeding project will include range improvement, balancing of rations and maintenance of soil fertility.

Better seed will include promotion of certified seed growing, seed testing and production of better seed on the farm.

The Extension Service cooperates with the American Bankers and the Colorado Bankers Associations in various lines of educational work. Banker-Farmer conferences have been held in many states as a part of a nation wide movement of bankers for a better understanding of agricultural problems and practical support of the farming industry in a solution of these problems. The illustration shows delegates to the Fort Collins conference inspecting steer feeding tests.

American Girls Demonstrating Canning to French Housewives at Concy in the Devastated Area. Colorado Team at Left of Picture



In the Center, Miss Maude Sheridan, State Cub Leader; at Her Left, Elaine Hendricks and on the Right, Bertha Boger. This Colorado Canning Team Toured France in 1923, Having Been Selected in a National Contest, As One of Two Teams Upon Whom This Honor Was Conferred for Excellence in Food Canning and Preservation.





Albert Heskett, National Health
Champion

Boys' and Girls' Club Work

BOYS' and Girls' Club Work gives rural boys and girls an opportunity to develop themselves educationally, economically and socially.

It is a movement which demonstrates the better practices in agriculture and home economics.

It promotes industry and thrift.

It applies business methods to farming.

It develops self-reliance, ambition and aggressiveness.

It fosters individual ownership; it makes farm life attractive.

Through contests it brings out the best effort and thought.

It stands for the four-fold development of the Head, Heart, Hands and Health.

Its slogan is "Make the Best Better."

Colorado has outstanding achievements in club work to report. The illustrations on these pages show the international champion canning team that went to France in 1923 and the national health champion, the latter being Albert Heskett of Mesa county, who won the health distinction at the International Show in Chicago in December, 1923.

The canning team was composed of Miss Maude Sheridan, State Leader, and the Misses Bertha Boger and Elaine Hendricks of Burlington, Colorado.

Two teams from the United States made the trip to France, Colorado sharing the honor with a team from Iowa. The purpose of the tour was educational, the American girls learning from the French their ways of household thrift and economy, teaching them in turn modern American methods of food preservation.

Colorado's club work with the boys and girls of the rural districts includes the following lines: clothing, food (meal preparation, canning, bread, hot lunch) corn, oats, barley, potato, garden, lettuce, forestry, pig, dairy calf, beef calf, beef cattle fattening, sheep, poultry and farm management.

Solving Nutrition Problems

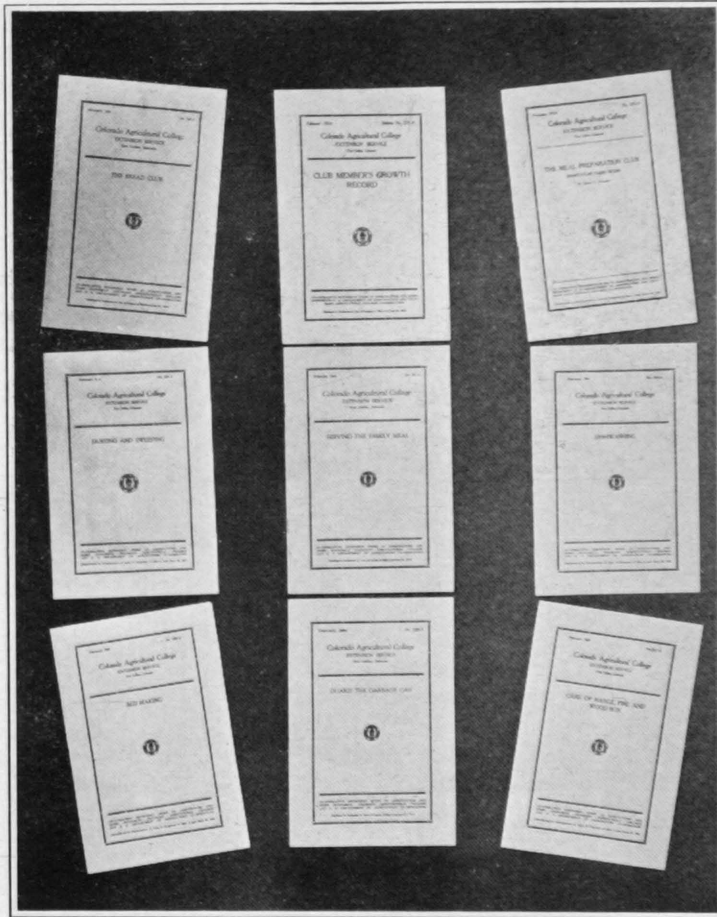
POOR physical condition of the rural population as evidenced by a high percentage of deviation from the accepted range of weight for height and age in children of pre-school and school age and by a high incidence of physical defects and bodily mal-adjustment directly traceable to poor nutrition in adults as well as children.

A food supply inadequate for health in certain sections of many states, coupled with poor distribution of available food products.

These are the problems in nutrition recognized by the Extension Service, as applied to the Western states. The remedies suggested are: to bring about a realization of the physical condition existing and of its significance; to teach fundamental food habits that will correct this condition; to develop an adequate food supply and make each locality self sustaining, insofar as it is economically feasible.

Eva Floy Smith is the Nutrition Specialist on the Colorado Extension staff.

Bulletins bearing on the subject of nutrition are issued and distributed by the Colorado Extension Service. Those shown in the accompanying illustration were compiled by Miss Mary Collopy.



Nutrition Bulletins



Registered Seed Exhibit, Boulder County Fair



Certified Seed Potatoes on Sweet Seed Farms, Carbondale, Colo.

Registered and Certified Seed

REGISTERED and certified seed is a project of the Extension Agronomist, carried on in practically every county. The illustration shows how George R. Smith, Boulder county extension agent, impressed the lesson through an exhibit at the Longmont fair, showing registered seed of Colorado Yellow Dent and Minnesota No. 13 corn, Rosen rye, California feed barley, Kanred, Kitchener, and Marquis wheat, Russian Side oats, Colorado No. 37 oats, Wisconsin Pedigreed barley and Colsess barley. County displays are a forerunner of the exhibits made at the State Seed Show, held annually at Colorado Springs. The purpose of this show is to give opportunity for competitive display of pedigreed seed and for buyers to get in direct touch with the growers of pure seed.



T. H. Summers, Farm Management Demonstrator Taking a Farm Record

Farm Management

Farm management as an extension activity includes the teaching of accounting, organization of the business side of farming, the production of crops that find a ready market, and the fundamentals regarding the marketing of them; such as grading, standardization, packing and transportation; the relationship between landlord and tenant and the working out of equitable, long time leases, crop rotation in its relation to fertility, feeding and marketing and all other strictly economic factors.



Fall Plowing, Fred Holderness, Hayden, Colo.

A Good Farm Practice

Fall plowing is a practice followed by farmers, on certain soil types the results of which are passed along to others by the Extension worker who is on the job, watching for ideas that prove practical and useful.

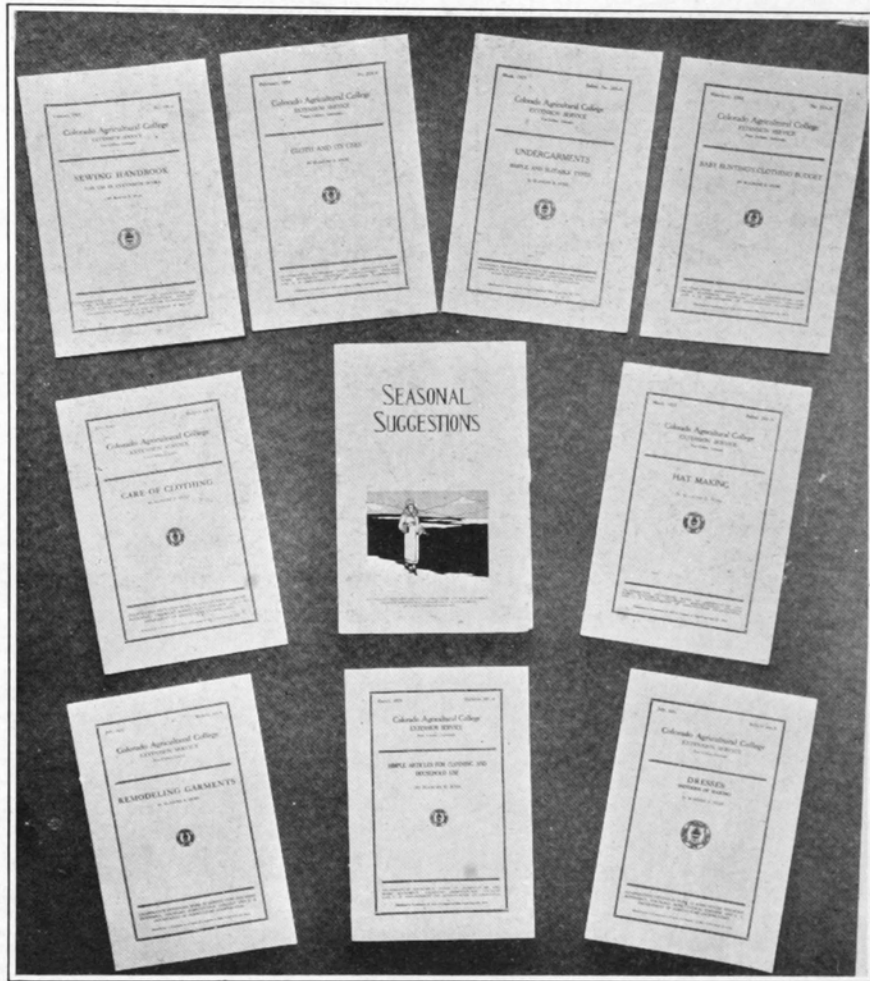
Good farm management is shown in the illustration by the type of implement and the draft horses used, as well as by the operation of good fall plowing, that turns under the stubble, putting the ground in good condition for the next crop.



Taking Samples of Soil in Nitrate Problem Investigation

The Nitrate Problem

Excessive nitrates in soils of the Arkansas Valley developed a serious problem which the State Experiment Station is attempting to solve through definite experiments. Various methods of control are being tried. The information developed is carried to the farms by the Extension Agent who is in constant touch with the Experiment Station staff. The illustration shows method of taking soil samples for analysis of nitrate content.



Clothing Bulletins

The Four C's of Clothing Work

EXTENSION work in Clothing is really four C's, Color, Cloth, Choosing, Constructing.

The specialist, Blanche E. Hyde, through her meetings with groups of leaders gives instruction which will help in these C's.

Experience has proved that most women are able to get a garment together quite satisfactorily. They would like to learn, however, the construction of new and attractive finishing effects.

The same good teacher—experience—has proved, too, that for some people it is economy to purchase ready-made clothing, hence considerable attention is devoted to teaching what and how to buy.

Cloth being a necessity for all clothing, whether constructed at home or purchased ready made, is made a subject of study by both womens' and girls' clubs.

Patterns are a puzzle to many women but with the help of instruction by the Clothing Specialist difficult patterns are easily understood. Moreover the Sewing Handbook gives detailed directions for the making of simple patterns.

Remodeling garments is frequently a necessity and certain kinds of remodeling is an economy. If, however, we pay closer attention to the selection of our garments, the material of which they are made, and their "cut," that is, the general style and lines, we will wear them longer and there will be less need for this everlasting "making over."

Is your new hat a "crowning glory?" What makes a hat becoming? Hat making demonstrations are held and a bulletin is furnished to answer these questions.

Color is one of the most important things in life and knowledge of the proper use of colors is something eagerly sought after by all women. A study of becoming colors in clothing as well as becoming lines in the cut of the dress is stressed in all clothing work.



Projects of the Poultry Extension Specialist

THE work of O. C. Krum, Extension Poultry Specialist, includes the following:

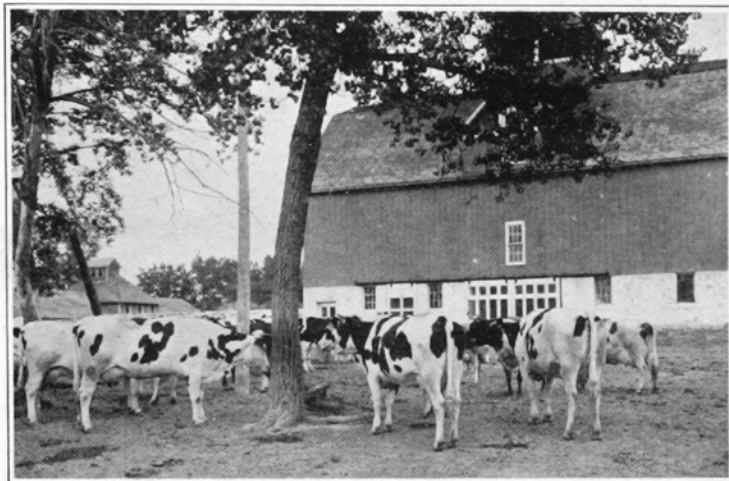
Supervision of the Colorado Egg-laying contest at Canon City: Forty-three entries were made for 1924. The objects of the contest are to encourage breeding for egg production and to acquaint owners of flocks with the nature and sources of reliable stock. This contest is to continue through 1925.

Organization of the Colorado Poultry Demonstration Farms: Thirty-four flocks of good stock well cared for were selected in various communities of the state, upon which close records of performance and profit are kept, which are being as closely supervised as possible, and which are acting as a nucleus for better stock and better methods in their respective communities and counties.

Organization of state Federation of Poultry Associations: An effort is being made to develop more local poultry clubs and to combine the existing fifteen locals into a state federation. The object of this movement is to develop a concerted effort on the part of the producers of the state to improve stock, to check inroads of contagious disease, to discover and broadcast information on methods and to strengthen the work of the Extension Service in such communities.

Conducting one-day extension schools, where poultry subjects are taught and individual problems are discussed: Miscellaneous lectures are also given, usually in connection with community clubs where timely topics are presented.

Conducting a year around campaign for stock improvement, particularly through the teaching of methods of culling and the selection of breeders. Judging at shows and fairs is done in furtherance of this program.



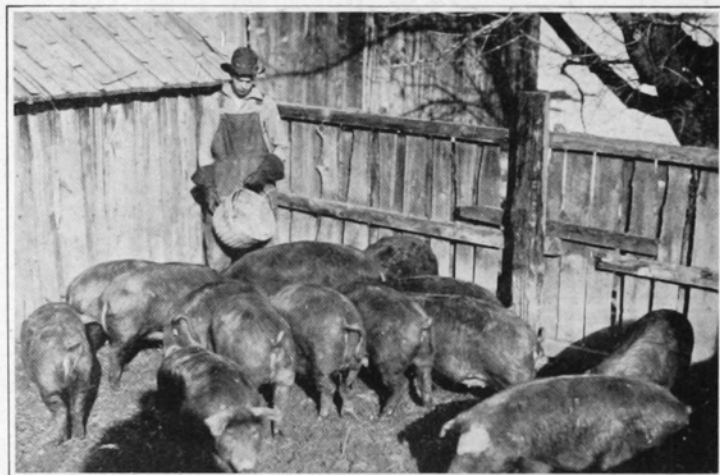
Part of Colorado Agricultural College Holstein Herd

Not More, But Better Cows

"Not more, but better cows," is a slogan used in the work of dairy improvement, which is carried on by the Extension Service in cooperation with Prof. Geo. E. Morton, State Dairy Commissioner. Cow testing for economical production, better sires, pasture improvement, better care and feeding of the dairy calf and the herd, testing for tuberculosis under the new state law in cooperation with the Federal Accredited herd plan are some of the activities included in this project.

Dairy improvement is a part of the Western States program adopted at a conference held at Ft. Collins in November, 1923. Eleven western states are participating in this work along the following lines:

1. Improvement in the quality of animals
 - (a) Cow testing associations through
 - (b) Purebred sires
 - (c) Bul associations
2. Improvement in the feeding of animals, by
 - (a) Better rations
 - (b) Dairy clubs
3. Improvement in the health of animals, by
 - (a) Control of tuberculosis
4. Improvement in the marketing of milk, through
 - (a) Campaigns for the improvement in quality of dairy products



A Young Larimer County Pork Producer

Economy of Production

Livestock improvement as carried on by the Extension Service among hog raisers, includes better breeding stock, not for the purpose of establishing more herds of registered swine, but with the object of more economical pork production. Breeding the kind that puts on flesh the quickest and feeding so that the animal utilizes the feed to the best advantage. The illustration shows a young hog raiser watching pork grow into money.



The Radio Corner in the Agricultural College Exhibit Car on Purebred Sires Train

Fundamentals In Marketing

THE Bureau of Agricultural Economics (U. S. Department of Agriculture,) maintains stations in Colorado for the dissemination of market news, by radio, telegraph and mail. The Extension Service cooperates in the maintenance of this service. Livestock markets are disseminated from an office at the Denver Union Stock Yards; markets on fruits and vegetables go out from the State Capitol office of the Bureau and, during the shipping season, also from Grand Junction.

Every farmer is entitled to the service and may have the market news mailed to him daily. If he possesses a radio receiving set, he can take it "out of the air" at will. Special arrangements may be made also for telegraphic service in season.

The accompanying illustration shows the radio corner on the Agricultural College exhibit car, which was a part of the Purebred Sires demonstration train. Radio receiving apparatus was carried on this car and farmers visiting the train were given an opportunity to hear radiophone market news sent out from Denver at stated intervals. It was the first use of such service on board a demonstration train. Tests made en route indicated good radio reception even while the train was in motion.

Extension activities along marketing lines are not confined to cooperation with the government in handling the news service. Every effort is made to aid farmers in the solution of their marketing problems by bringing to them the results of experience and research along this line. There is close cooperation between the Extension Service and the Department of Economics of the Agricultural College. The fundamentals regarding distribution, transportation, standardization of product, grading, packing and other factors that enter into the problems of marketing, are worked out in the Economics department, and taken to the people through the Farm Management Demonstrator, Mr. T. H. Summers.

Organized Agriculture

THE Extension Service cooperates with all organizations of rural people and others interested in development of the agricultural industry or the rural home and community. Any educational efforts in which such organizations are engaged may receive the support of the Extension Service. Among these are the Colorado State Grange, the Farmers' Educational and Cooperative Union, the State Farm Bureau, the Cattle Growers' Associations, the Rural Parent-Teacher Associations, the State Forestry Association, the Rural Department of the State Federation of Women's Clubs. All these and others similarly constituted are entitled to representation in the Colorado Farmers' Congress, which is the open forum for discussion of rural questions and the focusing of farmer

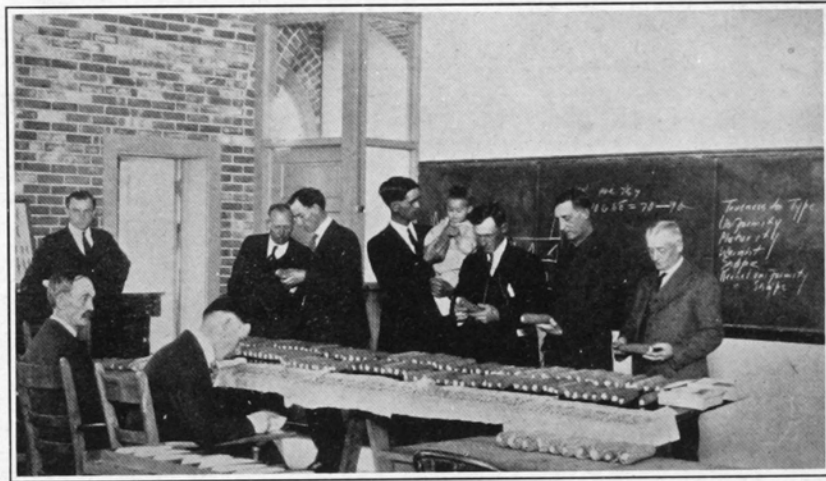


Foul Brood Control

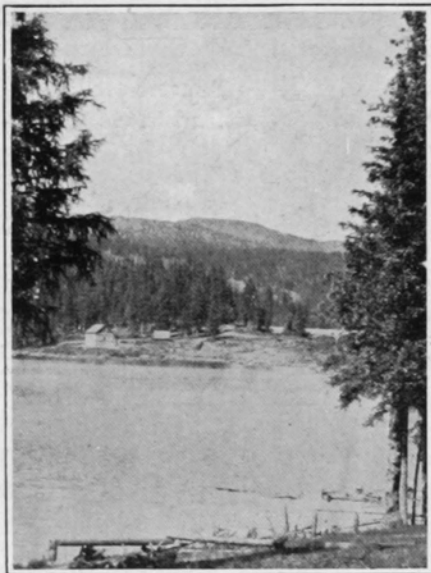
opinion. Sessions of the Colorado Farmers' Congress are held annually at the Agricultural College, in connection with schools of instruction for farmers and farm women. The relationship of the Extension Service to the various farm organizations is equal and unbiased, and cooperation is given each and all, if desired, for any purely educational effort.

Control of Bee Diseases

Foul brood plays havoc with bees in many sections. Colorado is on the watch for the disease. The Extension agents furnish information and put into effect methods of control, cooperating with the State Entomologist and the bee inspectors in this work. The illustration below shows a group of Fremont county bee keepers, called together by Extension Agent A. J. Taylor for instruction by a bee specialist in control of foul brood.



A Lesson in Corn Judging in Agricultural Classes During Farmers Week



Extension Conferences

Extension workers hold occasional conferences at which they receive instruction in methods of teaching and obtain new information from the United States Department of Agriculture and the State Experiment Stations on agricultural problems. These conferences have twice been held on the Western Slope, the last one on the Grand Mesa at Alexander Lakes. The illustration is a view from the Conference ground showing one of the 120 lakes that dot this wonderful volcanic plateau at an altitude of 10,000 feet above sea level.



Tom, Dick and Harry

A miscellaneous assortment of Extension workers. Thomas H. Summers, Farm Management Demonstrator, Dick Jay, former Livestock Extension Specialist and Harry A. Ireland, Agriculturist on the Uncompahgre Reclamation Project in Montrose and Delta counties. Mr. Ireland is an employe of the Bureau of Plant Industry at Washington and while he does not report to the Extension Service, he cooperates with the county and state offices in their undertakings for agricultural improvement on the Reclamation project.



Developing Initiative

Boys' and Girls' Club work develops leadership and initiative. This is a picture of Alma Tunis, a Conejos County Pig Club girl who earned the money to buy a purebred pig by doing a job of plowing.

Growth of club work is shown by Department of Agriculture figures for 1923. There were 28,200 clubs made up of 600,957 Boys' and Girls' engaged in demonstration work in agriculture and home economics. This was an increase of 12 percent over the previous year. Of this great number of club members 59 percent, or 358,090, completed the year's work.

Colorado's Newest Money Crop



HHEAD lettuce is Colorado's newest money crop. This is grown only at high altitudes around 8,000 feet above sea level, where climatic conditions are favorable. The Extension Service is disseminating better methods of production and marketing head lettuce through the Boys' and Girls' clubs. The illustrations show a field of lettuce at the height of the growing season, a Boys' and Girls' lettuce club getting a field lesson in lettuce culture, and the State Champion Lettuce Team, Walter Bureson and Vernon Tomkins, with County Agent A. A. Kroll of Chaffee county in center.

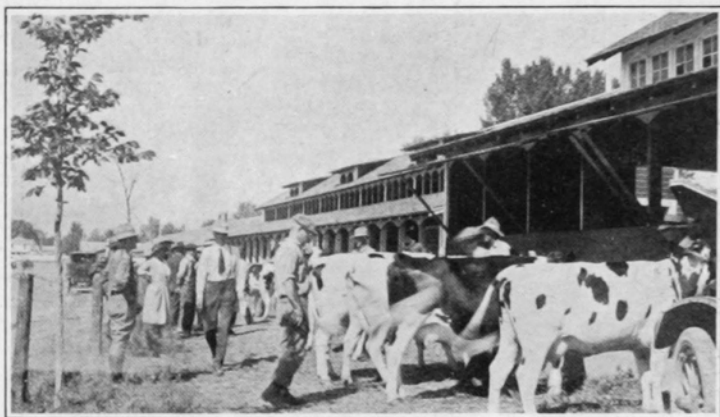


The head lettuce business had its start in the higher altitudes in 1919. That year G. D. Isbell grew ten acres at Buena Vista and about the same time James Brown put in a similar acreage in the Hardscrabble district south of Florence. Up to that time according to W. H. Olin, Agricultural Supervisor for the D. & R. G. W., head lettuce had been grown largely as a market garden crop in the Denver district.

Until the two growers named above planted their 1919 acreage, it had not been tried out commercially in the higher altitudes. The result of this planting was 7 cars, all being sold within the state. The first car load of mountain head lettuce sent to outside markets was shipped by Elmer Hartner from Buena Vista, August 17, 1920. This was really the beginning of the mountain head lettuce industry. This car was shipped to the south and as a result Buena Vista growers have each year been receiving large orders for car load shipments from that region.

The efforts of the Extension Service have been devoted largely to aiding growers in standardization, packing and shipping methods.

Above—Head Lettuce Field, Geo. H. Berry, Conejos Co., 8200 ft.
Below—State Fair, 1923, Lettuce Packing Demonstration Team.
From Left to Right—Walter Bureson, A. A. Kroll,
Vernon Tomkins



Judging the Dairy Classes at Boulder County Fair, Longmont, Colo.

Cooperation of the Press

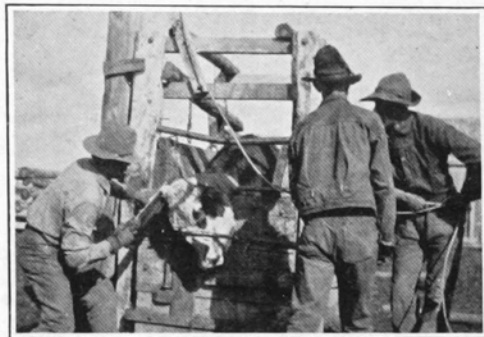
Fairs for Farmers, Not Fakirs.

"Fairs for Farmers Not Fakirs," is the title of an editorial that appeared in *Western Farm Life*, (Denver) commending the Extension Service for efforts to raise the standards of county and community fairs. This project is in line with a national movement to drive grafters and crooks out of the fair "amusement" game. The editorial is just one of many articles demonstrating the practical way in which the farm journals and newspapers give freely of their space in cooperating with the Extension Service for the economic and social advancement of the people.

The Extension Service of Colorado Agricultural College is doing a most excellent piece of work in connection with raising the standards of the local fairs and community expositions. During all last fall's fairs to which judges were sent by the Agricultural College careful notes were taken on matters which needed improvement. On the basis of the information gathered in this manner valuable suggestions have been sent to fair secretaries over the state. Fair managements are co-operating with the Extension Service in making such changes as will standardize judging and facilitate the equitable placing of awards. Checking carefully on the amusement features is of even greater importance, for the moral welfare of the communities is at stake. We would urge fair directors to adopt the slogan, "Fairs for farmers, not fakirs," in passing out the concessions, and not permit those to operate that would have a degrading influence on the people of the community. The excuse sometimes given that fair visitors will not patronize clean amusements is not based on fact, as has been demonstrated in the management of many of our best fairs.

WESTERN FARM LIFE

COUNTY and Community fairs as well as the Colorado State fair, rely on the Extension Service and on the Agricultural College staff for judges. The educational value of these fairs is being stressed and each season finds more emphasis on that feature and less on the purely entertainment side. Objectionable attractions are being discarded, clean entertainment encouraged but above all, the fairs are keeping in mind the ideal of education and agricultural improvement through healthy competition. The Extension Service took the lead in the movement for better fairs in Colorado and willing cooperation has been given everywhere by fair managers and the directors, both farmers and townspeople. Great changes have been made in classification lists so that the premiums would be awarded on merit according to the standards of scientific agriculture. During six weeks each fall practically the entire time of Extension workers is occupied with fair work.



Dehorning Calves, San Miguel Co.

Aiding the Range Man

Steers fatten faster and sell better if dehorned. This illustration shows dehorning of calves on a San Miguel County mountain ranch, from which the steers are sent to the feedlots in the valleys, where they are finished for market. The Extension Service encourages improvement of the range cattle industry through better grazing practices, prevention of losses through disease control, extermination of poisonous plants and predatory animals, winter feeding and other methods that make for greater economy of production and surer profits. A further step along this line is the appointment recently by the U. S. Department of Agriculture of a cattle grader who will assist the Extension Service on the marketing side of range beef production.



Soy Beans, Weld County Dry Land

Wanted, Dryland Legume

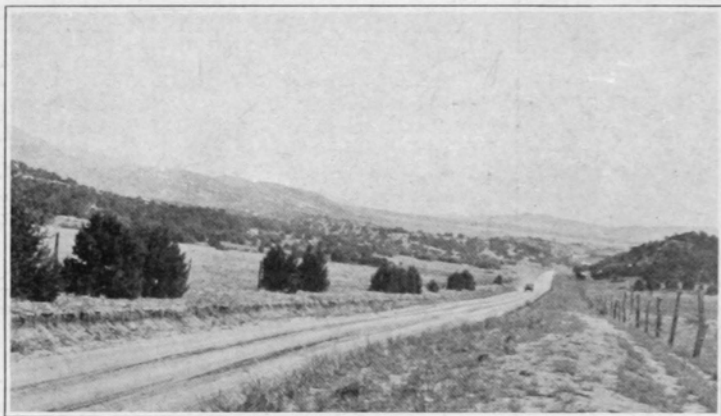
This is a field of soybeans in Weld county, grown without irrigation. Tests made by farmers cooperating with the Extension Service in various counties show this legume to be a very acceptable addition to the crop list on both irrigated and non-irrigated land. In Weld county sheep feeders are interested because of its use in combination with corn for lambing down. Losses are apt to occur among lambs turned in on the corn fields. Soybeans grown with the corn serve to balance the ration thus preventing losses. On the non-irrigated lands no legume has yet found permanence, except alfalfa in favored spots, consequently the demonstrations with soybeans are of interest to the farmers over a large area.



Oats and Field Peas in North Park

High Altitude Pastures

Colorado's average elevation is the highest of all the states in the Union. Agriculture is carried on at elevations varying from 3,500 feet at the eastern state line to over 9,000 feet in favorably located mountain vales. These conditions require specially adapted crops. Cattle raising is an important industry in the high regions. Lush meadows of native grasses provide good forage. These meadows are being improved by the addition of legumes, to furnish better forage for the growth of calves. The illustration shows field peas and oats grown for forage on the ranch of Charles Bohn, near Walden, Jackson county, altitude 8,000 feet. Results are awaited with interest by neighboring ranchmen.



Good Roads—Colorado Springs, Canon City, Ocean to Ocean Highway

Road Improvement

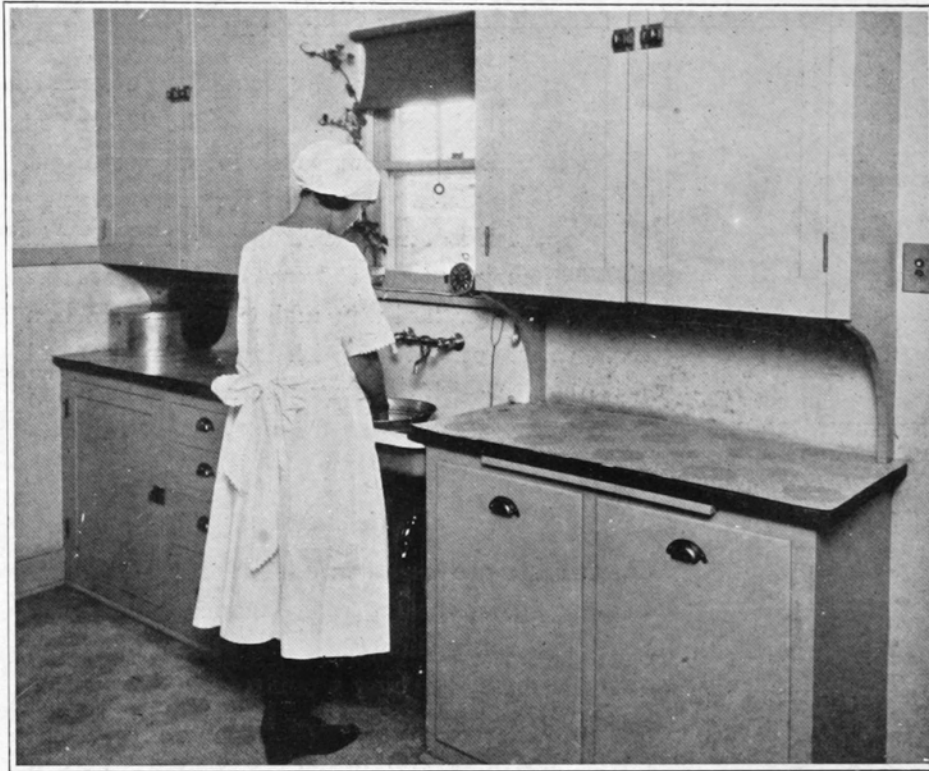
GOOD roads are one of the essentials in economic marketing of farm products. The Extension Service considers road improvement an important project. In several counties the Extension Agents have adopted it as one of their leading activities in the line of cooperation. Groups of farmers assume responsibility for highway maintenance in certain communities, cooperating with each other in actual road work and with the county officials in securing a fair apportionment of road improvement funds.

Farm Tours

Farm tours are useful in disseminating information along agricultural and farm home improvement lines. The illustration shows a group of Mesa County farmers watching a poultry culling demonstration. These tours always have a definite objective. Often several farms are visited where a particular line of demonstration work such as livestock improvement, better feeding, new crops, or some approved method of maintaining soil fertility may be observed.



Poultry Culling Tour in Mesa County



A Kitchen in Which Working Surfaces Are at Correct Height

Home Account Books have been supplied to demonstrators who are now studying the income, expenditures and money, food and clothing budgets.

Home Management is in its infancy as a science but the women who have been studying it feel that it is a science which will become not only popular but very useful in giving the housewife the freedom which is her logical right.—E. F. S.

Home Management Aims

LACK of time of rural women to perform their many household duties satisfactorily and still meet the obligations of a mother to the welfare of home, community, and state suggests a big problem in home management. Home management is the study of these problems to correlate work, apportion duties, supervise the finances, that the moral, physical, mental and spiritual desires of the family may be realized.

Better kitchens have been emphasized, since it is the kitchen and its products which affect so greatly, not only the well being of the housewife but the welfare of the entire family. The Better Kitchen contests have resulted in a very active interest among the housewives. Convenient arrangements, attractive surroundings, adequate facilities, strength and time saving equipment, correct height for working surfaces, ample storage space, systematized planning of time, labor and money and the addition of small improvements as well as water, lighting and heating systems have been advised.

Some of the women have worn pedometers and kept time schedules to define the individual problems and have a basis for improvement. Home plans, especially kitchen plans suitable for the rural homes, have been supplied.

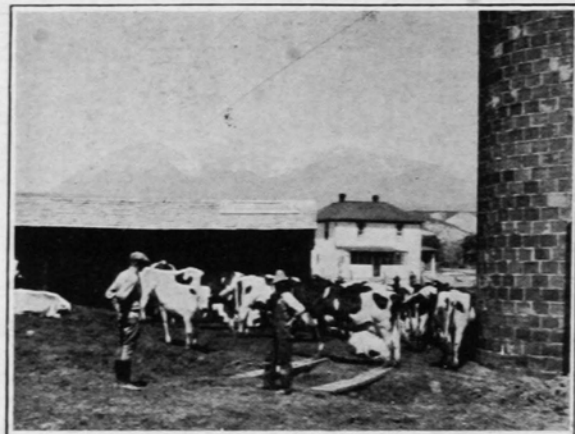
Efficient methods of cleaning and laundering are suggested by bulletins, articles and demonstrations.

Better Seed Exhibits

SEED improvement is one of the most important projects carried practically by all of the county extension agents. In several counties annual seed shows are held at which growers exhibit registered as well as unregistered seeds which are pure as to variety and tested as to germination. There is also a State Seed Show held at Colorado Springs in the early winter at which growers from all parts of Colorado make exhibits. At this show



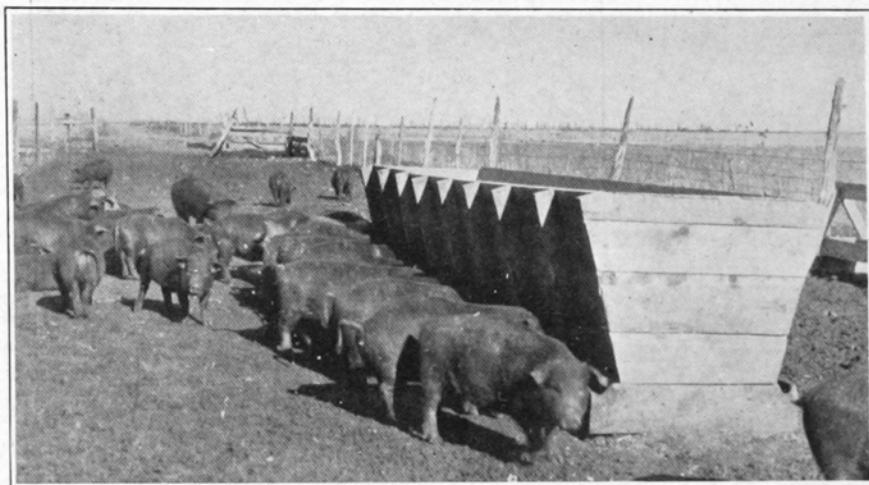
Exhibit Room, Weld County Extension Office



A Mountain Dairy Farm, J. G. Glenn, Salida

farmers as well as seed dealers are enabled to make contracts for a supply of pure and viable seed for planting.

Seed selection and testing are constantly being urged both through club work and at meetings of adult farmers as well as through the various publications issued by the Extension service. The state maintains at Ft. Collins a seed laboratory to which farmers are privileged to send samples for free testing of all classes of field seeds. The laboratory maintains an inspection service and a labelling law is enforced for the purpose of protecting the farmers against fraud in seeds.



Hogs With Self Feeder on Farm of George Berry, La Jara

Agricultural Engineering

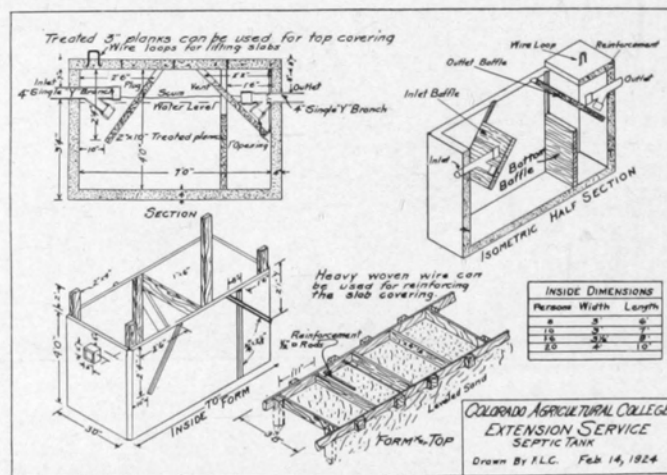
THE principal work in agricultural engineering carried on by F. L. Cooper, is summed up in three projects: water and sewage for the farm home; farm building plans; irrigation.

Information and assistance is given in selection of the proper type of water system to suit conditions and the purse of the farmer, with especial reference to simple systems that can be installed by the farmer himself at reasonable cost. Information is furnished on the installation of septic tanks for the disposal of farm sewage. Plans are furnished and assistance given in regard to location and construction of tanks.

Wherever possible, plans are furnished and advice is given for farm structures, (except dwellings,) where designs are used that have been approved as desirable in type.

Two types of work are carried on under the irrigation project: irrigation by the use of centrifugal pumps and farm reservoirs, either for storage of runoff, or for storage of the supply pumped by windmill.

The Extension Engineer makes a study of conditions affecting irrigation development as above outlined and advises as to the practicability of projects, size of equipment for a given acreage, etc.



Plans for Septic Tank



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CO-OPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS—U. S. DEPARTMENT OF AGRICULTURE AND COLORADO AGRICULTURAL COLLEGE CO-OPERATING.

Distributed in Furtherance of Acts of Congress of May 8 and June 30, 1914.