Economic Agricultural Conferences

Alamosa
Monte Vista
Rocky Ford
Steamboat Springs
Grand Junction

1928
Pueblo Feb 22/30

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PUBLIC ROADS

Organization of laterals - individual management tiling to prevent loss in transit. Barnham

Fort Lyon Canal has lat. organization.

Brugger - delivers on acre-foot basis. Lat. cared for by some individual.

Bustick. -
White - stresses distributers of water. Use tile to prevent loss.

Brugger - Economics important - what value are we getting from our water.

Peabody - Consolidation of ditches - 310,000 acres irrigated. 15 to 18 acre feet.

Adjourned for lunch.
Afternoon—Discussion on storage and measurement, waste water. Survey of lands—amount of water available—consolidation districts for special crops. Process of elimination—good idea. Crops require different units of water. Acre-foot basis appears to have advantage. Valley as a unit on water distribution good water interest.

Recommend survey of irrigated area of the Arkansas Valley economic use of water and profitable crops for various crops.
Bustick - side streams

Water conservation
Rotation of water
Flood run-off now more rapid
deforestation and pasture

Pumps instead of diversion dams
February 7, 1930

Mr. Ralph Parshall
Irrigation Investigations
Campus

Dear Mr. Parshall:

We know that you are anxious to have the committee of which you will serve as secretary turn out a good piece of work at the Northern Colorado Economic Conference next week.

We are requesting that all secretaries meet at the Camfield Hotel in Greeley at 6:00 o'clock on the evening of February 12. We will all have dinner together, each fellow to bring his own receipt book.

Following the meal, we will discuss plans for the work of the secretaries during the Conference which opens on the following morning. The success of the Conference really depends on the committee secretaries and their complete understanding of the data which has been prepared for use in the committee meeting.

We feel sure that you will help us to make the Conference a success by being with us on Wednesday night.

Hoping to see you at Greeley at the time suggested and with best personal regards,

Very truly yours,

EXTENSION SERVICE C.A.C.

R.H. Felts: MJC

County Agent Leader
Feb. 7, 1930

Mr. R. L. Farshall,
Campus.

Dear Mr. Farshall:

I am enclosing for your information a list of the names of men who have been selected to serve on the Irrigation and Drainage Committee. While information has been received from a number of men that they will attend the conference, we are not just sure how many will be there. In this connection if there are any men on this list whom you would be particularly interested in having attend the conference, you may wish to write a personal note urging them to attend.

If you have in mind any other men in this area, whose names are not on the list and who might be interested in attending the conference, we would appreciate your giving them a personal invitation. Your selection should be confined to men whose major enterprise is represented by your committee. It may be that these men will be invited for some other committee unless you follow this last suggestion.

Thanking you for your cooperation in this matter,

I am

Very truly yours,

Thos. H. Summers
Extension Economist-Farm Management.

THS-G
COMMITTEE ON IRRIGATION AND DRAINAGE
NORTHERN COLORADO ECONOMIC CONFERENCE
Greeley, Colo., Feb. 13-14, 1930

Fritz Wattenberg, Chairman
Brighton, Colo.

R. L. Parshall, Secretary
Fort Collins, Colo.

J. R. McCall, Vice Chairman
Ault, Colo.

L. Bertlett
Littleton

F. S. Leuthi
E. Pearl, Boulder

Arthur Nelson
Longmont, Rt 3

A. D. Holt
Fratt St., Longmont

Tom Puleston
Wellington

R. W. Clark
Edwards St., Fort Collins

A. A. Edwards
Fort Collins

Frank Davis
Greeley, Greeley Bldg.

Ross Oliver
"

A. H. Myers
Eaton

Geo. Ball
Fierce

O. C. Francy
Greeley, Rt 6

Wm R. Kelly
"

Chas. Carlson
Eaton

Lou Birkle
Platteville

R. J. Wright
Sterling

Albert White
"

H. H. White
Padroni

Frank Blair
Sterling

Fred Wattenburg
Brighton
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✓ Eaton
✓ Pierce
✓ Greeley, Rt 6

✓ Eaton
✓ Flatville

R. J. Wright
Albert White
H. H. White
Frank Blair
Fred Wattenburg

Sterling
Padroni
Sterling
Brighton
Nov. 25, 1929

Mr. R. L. Parshall,  
Campus.

Dear Mr. Parshall:

Here is a copy of the questions which we worked out together recently on irrigation and drainage in connection with the economic conference to be held at Greeley in February.

As soon as you have selected the man whom you would like to see act as technical chairman of your committee I shall be glad to have you call me so that we can include his name in the list of those who will be invited to attend the conference.

Thanking you for your cooperation, I am

Very truly yours,

Thos. H. Summers  
Extension Economist-Farm Management.

[Handwritten notes: Geo. Smith will be able]
AREA IRRIGATION AND DRAINAGE INFORMATION

To determine what changes should be made in the status of irrigation and drainage in the irrigated section of Northern Colorado.

Chairman ___________________________ Secretary, R. L. Parshall, Fort Collins, Colo.

I. What has been the trend in the irrigation and drainage situation in Northern Colorado?

1. Number of acres under irrigation?
   Cash crops. Feed crops. Other land.

2. The available water for irrigation?

3. Acres needing drainage?

II. What are the better systems of management?

1. Soil condition.


3. Control of waste water.


5. Time of irrigation and number of times to irrigate.


   Districts. Pumping.

7. Disease and pest control with pump water.


9. Addition area that can be supplied with water saved thru the above methods.

III. Cost of irrigation water.


2. Limits of pumping water.
IV. Should the supply of irrigation water be increased?
Under what conditions?
Irrigation and Drainage

The committee on irrigation recommends:

1. The conservation of flood waters by means of storage reservoirs to insure an adequate water supply for existing appropriators in rounding out the water requirements of present established irrigation systems. It is not the intention to develop new projects. The development of new irrigation projects is discouraged for the present.

2. Because of the apparent increased acreage of seeped and water-logged lands immediate attention be given to corrective measures.

3. A more conservative use of water in irrigation and better control of waste water and surface accumulations.

4. Pumping from wells as a supplemental water supply be encouraged.

5. A thorough investigation be given to the problem of under ground water supplies before actual development is started.

6. For general field crops the economic lift in pumping should not exceed 50 feet.
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IV. Should the supply of irrigation water be increased?


Under what conditions?
Cooperative Extension Work in Agriculture and Home Economics
Colorado Agricultural College and U. S. Department of
Agriculture Cooperating

Western Slope Agricultural Recommendations
1929

Assembled by
Thos. H. Summers
Farm Management Demonstrator

A report of the agricultural recommendations for the Western Slope of Colorado, made and adopted by the commodity committees at the Western Slope Agricultural Conference at Grand Junction, Colorado, December 7th and 8th, 1928.

(9968)
FOREWORD

The recommendations contained in this report were worked out by commodity committees at an agricultural economic conference at Grand Junction, Colorado, December 7th and 8th, 1928. These committees were composed of leading farmers and others selected to represent five counties of the western slope of Colorado (Delta, Garfield, Mesa, Montrose and San Miguel).

The committees were assisted by economic data in the form of charts, graphs and tables furnished by the Colorado Agricultural College, the United States Department of Agriculture, railroads, processing plants, other agencies interested in agriculture and farmers of western slope.

Acknowledgement is here given to all persons and agencies who contributed to this conference, without whose valuable assistance such a conference could not have been possible.

A bulletin is being prepared which not only discusses the recommendations but shows most of the data with which these committees worked in formulating the recommendations.
FOODS AND NUTRITION

The committee on foods and nutrition recommends the following:

1. That the dollars and cents viewpoint of the foods and nutrition program be given publicity and emphasis thru:

   (a) Advertising the fact that the family income is aided by foods, fruits, vegetables and meats raised on the farm. Studies made in 1926 and 1927 show the value of this food to average $327 per year in four counties of the Western Slope.

   (b) Emphasizing the fact that savings in doctor, dentist, and drug bills are the results of adequate food supplies. This has been proven repeatedly.

   (c) Encouraging the consumption of locally produced foods just as large cereal firms and citrus fruit growers advertise their products.

   (d) A study of the costs of home canning fruits, vegetables, and meats as compared with the cost of purchasing these products. Results should be given publicity.

2. That more attention be given the storing of larger quantities of vegetables for winter and spring use and that the canning of greens and meats be encouraged accompanied by more publicity concerning botulism poisoning and its prevention. A survey showed a very gratifying food supply available for this purpose.

3. That the foregoing recommendations be carried out in the following manner thru county and local extension clubs:

   (a) County and leader training meetings devoted to phases of the nutrition program affecting the family pocketbook, such as: correcting overweight, underweight, constipation thru diet, relation of food to good teeth; and wider and better use of locally grown food products.

   (b) That demonstrators be secured in storing larger supplies of vegetables, in canning greens and meats and correcting conditions of overweight, underweight and constipation.

   (c) That local and county clubs serve refreshments and community meals during the coming year featuring locally grown food products as much as possible.

   (d) That each month publicity be given thru the press as to ways of using home grown food products accompanied by recipes showing how to use them.

The foregoing recommendations were made as the result of a survey on food supplies and food habits. Twenty-seven communities were included in the survey which represented 2,066 families on the Western Slope.

Signed: Mrs. A.B. Tower, Grand Junction, Colo.
Chairman.

Miriam J. Williams, Ft. Collins, Colo.
HOME FURNISHINGS, HOME CONDITIONS AND CLOTHING

The committee on home furnishings, home conditions and clothing recommends:

1. That the farm women of the Western Slope cooperate with the Colorado Agricultural College along the following lines of work in the following counties:

   (a) Montrose county, clothing and home furnishings.
   (b) Garfield and San Miguel Counties, home furnishings.
   (c) Delta County, home furnishings and education.
   (d) Mesa County, education, book reports and home furnishings.

   Home furnishings will be understood to include color combinations, convenient kitchens, draperies, furniture, remodeling, refinishing floors and installing water systems.

2. That every effort be made to influence farm women to keep household accounts. This was decided after it was recognized that the solution of most farm home problems depends upon financial conditions and after samples of farm household account books were examined and budgeting discussed.

Signed: Mrs. Adrian L. Matlack, Grand Junction, Colo., Chairman.

Mrs. Blanche E. Hyde, Fort Collins, Colo., Secretary.

RANGE CATTLE

After studying the conditions on the Western Slope with reference to the range cattle industry; the feed situation, the costs of production, the range conditions, the quality of cattle produced, and the methods of marketing cattle; the committee on range cattle makes the following recommendations:

1. That Western Slope cattlemen do not increase their numbers of cattle, but constantly strive to improve their herds thru the use of better bulls, closer culling of the cow herd, and improved management.

2. That at present prices the increased cost of carrying calves until they are yearlings justifies the yearlings' selling at a price per head thirty-five percent higher than calves.

3. That preference on the National Forests always be given to locally owned and produced livestock which remains in the district thru the winter to consume home grown feeds.

4. That more livestock feeding be encouraged, but only so fast as there are produced locally grown feeds to carry on this enterprise.
5. That an effort be made to develop an agency for marketing feeder and stocker cattle on the basis of sale at the home ranch.

6. That all cattlemen be members of the livestock associations and take an active part in the business of such associations.

7. That the Forest Service cooperate with the livestock associations and with the Brand Inspection Board in apprehending cattle thieves, brand inspectors to notify brand owners of all cattle shipped by parties other than the owners of said brands.

8. That an effort be made to develop a district livestock show to be held on the Western Slope.

Signed: J. C. Wilson, Olathe, Colorado.
Chairman.

Secretary.

SHEEP

The committee on sheep makes the following recommendations:

Production

1. Since permanence and stability are essentials to steady production and since fluctuations in operating costs and in demand for range are dangerous and costly to the flockmaster, we endorse the present policy of the Forest Service requiring adequate commensurate ranch property capable of producing winter feed as requisite to the granting of permits.

We recommend that preference be granted to flocks and herds locally raised, bred, and maintained, over those maintained by purchase from outside source.

2. That tick infection be classified as an infectious disease and that the State Veterinarian and the Bureau of Animal Industry be urged to establish control measures accordingly.

3. That in order to make the best use of the native forage, approved range management be adopted and apply equally to the Public Domain and the National Forest ranges, such as,

(a) Proper seasonal and zonal use.
(b) Deferred and rotation grazing.
(c) Systematic bedding-out of sheep.

4. That County Commissioners be asked thru the various associations to clear the highways of burrs, and that sheepmen demand that purchased farm pastures be cleared of burrs in order to protect the reputation of Western Slope wool. Also, that the utmost care be taken in shearing and preparation of fleeces for market.
It has been found that the presence of burrs in wool and that poor preparation of fleeces costs as much as five cents per pound, besides a much greater loss in the reputation of wools from this section of Colorado.

Transportation

1. That the present minimum carlot weights for sheep be lowered, since it is found difficult and dangerous to load sheep up to the minimum given by the tariff schedule.

2. That all shippers of sheep keep a "log" or memorandum of each shipment, showing (a) time on the way, (b) equipment at feeding pens, (c) time of arrival and departure at delay points, and other information which might give a basis for remedying conditions. That these reports be filed with the local secretaries of wool growers associations.

3. That an investigation be conducted by the Agricultural College of the feeding stations at Denver and River points. That due regard be given to the quality of feed at these stations and the time required to move the stock from the last feeding station to the central market.

Marketing

1. That wool producers patronize the state cooperative selling association instead of selling to commission firms, since the present method of marketing is a hit-or-miss affair and the state has a selling organization which enables the use of intermediate credit at a reasonable rate of interest. Grading and classification of wools can also be secured which enables them to be sold on their merits.

2. That support be given the "Eat More Lamb" campaign of the National Wool Growers Association. It is found that only five and one half pounds of lamb are consumed per capita compared with sixty-five pounds of beef and over eighty pounds of pork. Furthermore, the United States produces only fifty percent of her wool consumption. Increased consumption of lamb and mutton will tend to remove any danger of overproduction due to any reasonable increase in numbers of sheep.

Organization

1. That all sheepmen pledge their support to the Colorado Wool Growers Association and all local wool growers associations.

2. That a local wool growers association be organized in the Gunnison Valley and at other points where such might benefit the wool growers.

3. That support be given the Farmers Educational Union for its untiring struggle for the benefits of the farmer in all his problems and difficulties and that the wool growers and other sheep organizations work more diligently together with farm and labor associations whenever their interests are similar.
Legislation

1. The passage of laws by the State Legislature and appropriation of such money and the creation of funds by "mill levy" to adequately assist the present forces in taking care of the rodent and predatory animal situation.

2. The passage in the next session of the State Legislature of a "Truth in Fabrics Bill" as a means of protecting both the producer and consumer of wools and woolen goods. Wyoming has such a bill in force at the present time.

3. That all sheep or wool associations be on the alert to prevent any legislation that might be detrimental to the sheep industry in Colorado.

4. The passage of a pure feed bill so that both producer and consumer of commercial feed might be protected against unscrupulous dealers.

5. Such tariff as recommended by the Farmers Educational and Cooperative Union with respect to wool and woolen goods as a protection to the American producer of these commodities.

6. That the sheep growers ask the Legislature to pass a law putting a tax on dogs, $5.00 on males and $10.00 on females.

7. That the system of taxing the farmer and stockman be so modified that his tax will be commensurate with his net returns.

(This last recommendation was offered in the general meeting of the conference and was passed subject to the approval of the sheep committee.)

General

1. The help of the Agricultural College is solicited in carrying out any and all of the recommendations of this committee.

2. This committee wishes to express its appreciation of the help given the sheep industry by the Colorado Agricultural College and recognizes the great benefit to Colorado Agriculture which has been derived from this institution.

Signed: Clair Hotchkiss, Hotchkiss, Colo.
Chairman.

H. A. Ireland, Montrose, Colo.
Secretary.
RANGE

At the initial session of this committee so few stockmen were present that the opinion was expressed to the effect that such a representation could hardly formulate recommendations which would represent a true cross section of the thoughts of all interested parties. Several problems were suggested and each one seemed to fall under the jurisdiction of the sheep or cattle committee. It was decided that this committee dissolve itself and part of those present attach themselves to either the sheep or cattle committee. The members went to these committees with the following problems relative to range conditions:

1. Rodent and poison weed control.
2. Legislation relative to the administration of the Public Domain.
3. Economic units of both cattle and sheep in the National Forests.
4. Reseeding depleted ranges.

Chairman.

B. W. Fairbanks, Fort Collins, Colo.
Secretary.

DAIRYING

The committee on dairying recommends:

1. That there be an increase in dairying on the Western Slope.
2. That more dairy feeds be grown on the Western Slope for feeding.
3. That the dairymen, creamerymen and State Dairy Commission make special effort to raise the quality of dairy products on the Western Slope.
4. That there be no increase in manufacturing plants on the Western Slope.
5. That the County Commissioners of the Western Slope make special effort to improve the County roads, in order that dairy products may be taken to market oftener.
6. That the dairymen of the Western Slope pledge their support to a bill which will tax Colored Shortening Compounds which are now competing with dairy products.
7. That the dairymen of the Western Slope pledge their support to the predatory animal bill to be proposed in the next legislature.

8. That anyone contemplating going into the dairy business be dairy-minded and have sufficient equipment and capital for successful operation.

9. That no cows be kept for dairy purposes which produce less than 250 pounds of butterfat per year.

10. That dairy cows be kept off the open range.

11. That dairy cattle be bred to purebred dairy bulls from high producing dams.

12. That more pastures be supplied for dairy cattle.

13. That the dairymen of the Western Slope continue their support of cow testing associations.

14. That the Western Slope livestock men form a Western Slope Purebred Livestock Association, and that the purebred livestock breeders support a move to establish a Western Slope Livestock Show.

15. That the use of purebred dairy bulls and the proper care of the dairy herd be the main work for 1929, since these will materially increase dairy production on the Western Slope.

Signed: Otis Clymer, Grand Junction, Colo., Chairman.

C. A. Smith, Fort Collins, Colo. Secretary.

SWINE

The committee on swine recommends:

1. That every general farm on the Western Slope raise a few litters of hogs for the following reasons:

   (a) Hogs provide a cash income.
   (b) They provide an economical way to harvest crops by hogging-down.
   (c) They provide a concentrated product for shipment based on the value per hundred weight.
   (d) They afford a market for feed that is otherwise unmarketable.
   (e) Hogs can be combined with dairying to advantage.
   (f) They assist in diversifying the use of the productive capital of the farm.

2. That farmers of the Western Slope produce enough feed without having to ship feed in, and keep only as many hogs as they can feed economically, practicing the method of hogging-down crops whenever possible with alfalfa pasture as a supplement.
3. That the McLean System of hog raising be practiced wherever possible, providing clean comfortable farrowing pens, clean water, room for exercise, and having the sows farrow at a time when the largest number of pigs can be saved.

4. That the prevalent local breeds be raised, using purebred sires with the best sows possible and with continued effort to improve the breeding stock.

5. That balanced rations be used to grow out pigs and to fatten hogs to weights that the market demands. These are now from 175 pounds to 235 pounds. These weights should be made in six to eight months.

6. The organization of pig clubs as a source of supply of purebred boars.

7. The Cooperative Livestock Shipping Association as an agency for marketing hogs, believing that the larger shippers receive greater consideration at the terminal markets.

8. That farmers of the Western Slope cooperate with the Extension Service of the Colorado Agricultural College in carrying out the foregoing recommendations whenever the opportunity presents itself.

Signed: Lynn Guy, Redvale, Colo.
Chairman.

H. D. Finch, Fruita, Colo.
Secretary.

POULTRY

The committee on poultry makes the following recommendations:

1. Due to the profitable return per average farm flock on the Western Slope; that a steady increase in the number of head of poultry to 200 to 250 birds per farm be made in order to develop the volume of poultry products for economical marketing.

2. That an educational program be started on better poultry management, stressing the "Grow Healthy Chick Campaign" as outlined by the Extension Service, Colorado Agricultural College.

3. That the development of Standard Bred Pedigreed Breeding flocks be encouraged on the Western Slope, in order to improve the quality of the flocks in this section.

4. That legislation be passed to create a levy to raise funds to continue the work of the Biological Survey. It has been found that the losses of chickens and turkeys from predatory animals are stupendous.
5. That the Extension Service and the poultry producers cooperate with poultry cooperative organizations of the state and the Colorado Turkey Club in drafting a bill legalizing and protecting the handling of chickens and turkeys of the state, the same to be financed by a small registration fee.

Signed: J. A. Daly, Montrose, Colo. Chairman.

Hoyt W. Wells, Ft. Collins, Colo., Secretary.

TURKEYS

After checking up on the rapid growth of the turkey industry on the Western Slope and realizing the importance of the industry in this section of the state, the committee on turkeys recommends:

1. The continued and increased efforts of the Extension Service, the press and the leading producers in supplying information on scientific methods of eradicating magpies and other predatory birds that prey on turkeys and chickens.

2. That all interested in the turkey industry study the various marketing methods to determine the best methods and practices to employ in marketing turkeys.

3. That the following production problems receive the attention and the investigation of the Extension Service, the press and the producers:

   (a) Winter feeding of breeding stock without the development of fat.
   (b) The confining of poultry in houses the year round and the management of droppings so that turkeys can not come in contact with them.
   (c) The feeding of minerals and proper selection of breeding stock to prevent the development of crooked breast.
   (d) The mixing of turkey eggs and chicken eggs in the same mammoth incubator.
   (e) Vaccination.

4. That the Extension Service, the producers and the press continue to cooperate with the Colorado Turkey Club in the strict adherence to the use of the best obtainable purebred strains of turkeys, selected according to the Standard of Perfection.

5. That the support of all turkey producers be given the petition now pending in Congress for a tariff increase on the importation of foreign turkeys, since the present tariff is believed to be inadequate.
6. That legislation be passed to create a levy to raise funds to continue the work of the Biological Survey. It has been found that the losses of turkeys and chickens from predatory animals are stupendous.

7. That the Extension Service and the poultry producers cooperate with the Colorado Turkey Club and the poultry cooperative organizations of the state in drafting a bill legalizing and protecting the handling of turkeys and chickens of the state, the same to be financed by a small registration fee.

Signed: Mrs. W.S. Howey, Montrose, Colo. Chairman.

T. E. Leiper, Grand Junction, Colo. Secretary.

**BEES AND HONEY**

The committee on bees and honey recommends:

1. That cover crops in orchard areas be harvested previous to the application of poisonous sprays.

2. That grades as applied to honey be more closely recognized by the producer.

3. That the production of honey be maintained as is so that marketing problems may automatically adjust themselves.

4. That existing inspection laws be rigidly enforced.

5. That no radical legislation be enacted that would tend to handicap the industry.

6. That better methods be practiced by beekeepers, so that winter losses may be reduced.

Signed: J. Roscoe Miller, Montrose, Colo. Chairman.

E. D. Smith, Fort Collins, Colo. Secretary.

**FRUITS**

The committee on fruits recommends:

1. An increase in production of standard commercial varieties in districts that are favorably situated for such.

2. The standardization of packs and grades.

3. That no cull fruit be shipped out except for use in making by-products.
4. More concerted action in insect control work by the fruit growers.

5. The pulling and destroying of all fruit trees if not profitable regardless of variety.

6. The use of all methods possible to increase unit production and quality thru fertilization, cultivation, pruning and thinning.

7. That regulations be exercised against the shipping of diseased fruit into the state.

8. That support and aid be given the office of State Entomologist in all its regulatory work.

9. The endorsement of any efforts made by Fruit Growers Associations in the reduction of freight rates on fruit shipments.

Signed: H. G. Crissey, Palisade, Colo.  
Chairman.

W. H. Lauck, Grand Junction, Colo.  
Secretary.

POTATOES AND TRUCK CROPS

The committee on potatoes and truck crops recommends:

Potatoes

1. That the potato acreage on the Western Slope be reduced to the normal area of about 15,000 acres. It is found that the acreage of potatoes in this section of the state has increased since 1925 while the average yield per acre, the total production and the carlot shipments of potatoes have decreased during this same period. There is also a tremendous surplus of potatoes in the United States at the present time with considerable competition on the markets from other states.

2. That efforts be made to lower the cost of production thru higher yields.

3. That the Potato King contest be continued in Garfield County and enlarged in order to emphasize the importance of higher yields, and that a similar contest be started this coming year in Montrose County, and the importance of better seed potatoes and better cultural practices be demonstrated in other districts.

4. That no increase be made in the acreage of seed potatoes for certification except in Garfield County.
5. That the importance of quality be emphasized thru the use of better seed, better cultural practices and better methods of grading.


Carl Metzger, Ft. Collins, Colo. Secretary.

Onions

1. That no increase be made in the acreage of onions on the Western Slope. It was found that in spite of an increased acreage this year, the present price of onions is due to low yields in important onion states and a crop failure in the Connecticut Valley. Since the present method of contracting the growing of onions to Mexican and Russian workers results in a profitable return to the land owner even in years of low prices, a large acreage is likely to be planted next year.

2. That every effort be concentrated upon cutting the cost of production thru, larger yields, better seed, better cultural practices and control of onion diseases and insect pests.

Signed: Harry Antlez, Grand Junction, Colo., Chairman.

Carl Metzger, Ft. Collins, Colo. Secretary.

GRAINS

The committee on grains recommends:

Wheat

1. A gradual increase in the amount of wheat produced up to ten to twenty percent, particularly on the lower part of the slope. Much of this increase to be realized by (a) the use of better seed, emphasizing Marquis and Kanred or Turkey Red, (b) smut control, through proper seed treatment with copper carbonate, (c) through proper crop rotation for control of weeds, and also by increasing quality of wheat and thereby improving the market price.

Barley

1. An increase in acreage and production of barley to meet Western Slope feeding requirements. In this we urge,

(a) the use of pure seed of best variety which for most of the Slope is Trebi,
(b) smut control through proper seed treatment,
(c) proper irrigation to secure highest possible yields.
Oats

1. No increase in oats acreage.

Corn

1. An increased production of corn in the lower valleys to meet local and slope feed requirements. In this we urge, (a) best variety be used which at this time seems to be Minnesota No. 13 and continuation of variety tests and pure seed work, (b) crop rotation and soil improvement to increase yields.

Signed: W. W. Campbell, Grand Junction, Colo., Chairman.

W. Kidder, Fort Collins, Colo. Secretary.

SUGAR BEETS

The committee on sugar beets recommends:

1. That this conference go on record as favoring a higher tariff on sugar and a limitation or restriction on sugar imports from the Philippine Islands.

2. That the acreage of sugar beets be increased in the general farming sections of the Western Slope for the following reasons:
   (a) Beets provide a good cash crop without any market speculation.
   (b) They provide feed for livestock production and feeding.
   (c) An increase in the beet acreage takes that much land out of the production of other crops thereby helping to cut down surplus production of these crops.
   (d) More sugar beets prolong the factory campaign which reduces overhead costs.
   (e) More employment is provided.
   (f) Thru the use of sugar beet by-products a better market is created for other feed crops.

3. That sugar beet growers affiliate with the Beet Growers Association to work out equitable contracts with the Sugar Company, to promote interest of growers in larger yields per acre and to further the interests of the sugar beet industry in every way.

4. That better farming practices be adopted thru:
   (a) Better crop rotations.
   (b) Maintenance of soil fertility.
   (c) Longer term leases between landlord and tenant.
   (d) Closer cooperation between landlord and tenant.
5. The following rotation for general farming on the Western Slope:

Alfalfa or pasture--------3 years, plowed under the last year for green manure.
Corn or spuds------------1 year
Sugar beets (with manure) 2 years
Corn or beans-----------1 year
Small grain seeded to alfalfa--1 year.

This is an eight year rotation and if carried on an 80 acre farm the land would be planted as follows each year; (some of this acreage would be in farmstead, roads and waste.)

<table>
<thead>
<tr>
<th>Crop</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa or pasture</td>
<td>30</td>
</tr>
<tr>
<td>Corn or spuds</td>
<td>10</td>
</tr>
<tr>
<td>Sugar beets</td>
<td>20</td>
</tr>
<tr>
<td>Corn or beans</td>
<td>10</td>
</tr>
<tr>
<td>Small grain seeded to alfalfa</td>
<td>10</td>
</tr>
</tbody>
</table>

Signed: L. M. Sweitzer, Delta, Colo.
Chairman.

R. H. Tucker, Delta, Colo.
Secretary.

SEED CROPS

The committee on seed crops recommends:

1. The purchase of home grown seed whenever possible in preference to out-of-state seed, since we firmly believe that Colorado seed is as good seed as that from other states.

2. That certified potato growers reduce the number of varieties grown.

3. In sections where seed can be produced successfully, that the acreage of alfalfa, sweet clover and red clover be enlarged to the point where it will fit into the crop rotation.

4. That the acreage of garden vegetable and flower seeds be increased.

5. That appropriations for the maintenance of the state seed laboratory be put in a class that will insure payment each year.

Signed: J. M. Newlan, Grand Junction, Colo., Chairman.

A. V. Lough, Glenwood Springs, Colo., Secretary.
IRRIGATION AND DRAINAGE

The committee on irrigation and drainage recommends:

1. A more conservative use of water. Excessive use aggravates seeped conditions of land and prevents maximum yields of crops.

2. Less irrigation and more cultivation.

3. The systematic maintenance of canals and ditches to prevent loss of water and waste water escaping from faulty structures and pouring out upon the lands for no useful purpose.

4. That the water user measure the amount of application to the crop as a means of preventing over irrigation.

5. That water officials be empowered by law to regulate the amount of diversion as a means of preventing excess use of water and damage to lands.

6. That farmers provide storage for domestic water supply to eliminate the running of water in ditches during the winter. Excess water floods lands, which adds to the seepage menace and retards spring work in fields.

7. That in some localities where shortage of water occurs consideration be given to the construction of storage reservoirs.

8. Since the drainage of lands in many places on the Western Slope is becoming a serious problem, that immediate steps be taken to reclaim these areas by individual effort or by means of organized drainage districts. Reclamation by drainage is more economically done at a time before the lands become totally unproductive.

Signed: H. C. Getty, Montrose, Colo.
Chairman.


RODENTS AND PREDATORY ANIMALS

Since Chairman Osborn was called away on business and Secretary Laythe of Denver was unable to be present, due to sickness, the committee found it difficult to operate. Mr. George Trickett of Montrose acted as chairman and Irving Schaefer of Montrose as secretary.

On account of the lack of an adequate check on the damage done by rodents and predatory animals it was impossible for the committee to put a definite value on this damage done to crops and livestock. Suffice to say however, that rodents are increasing in some areas on the Grand Valley Reclamation Project around Grand Junction, and in the west end of Montrose County.
While the hunters employed by the Biological Survey are keeping predatory animals in control in certain areas, lack of funds make it impossible to cover the entire range area, resulting in considerable loss of livestock due to the limited number of hunters.

The committee on rodents and predatory animals, therefore, recommends:

1. That House Bill 161 of the 26th Colorado General Assembly be transferred from class three to first class appropriation so that state funds may be made available for rodent control work and the law become operative.

2. That an act for the control of predatory animals, prescribing the manner of procedure in cooperation with the United States Department of Agriculture, Bureau of Biological Survey, be enacted by the General Assembly of the State of Colorado when it convenes in 1929.

Signed: Geo. Trickle, Montrose, Colo. Chairman.

Irving Schaefer, Montrose, Colo. Secretary.

**FORESTRY**

Although there was no committee on forestry, at the request of a number of conference representatives from various counties, the range committee, composed largely of Forest Service officials, submitted the following recommendations for the consideration of the conference.

Whereas, the economic situation of the Western Slope counties demand an outlet and market for their diversified farm products: fruit, beef, sheep, dairy, poultry and others, and whereas timber is an agricultural crop,

Whereas, in order properly to carry on the operations of these various ranches requires the consumption of large amounts of timber products, for building purposes, fences, shipping boxes, and for many other purposes and

Whereas, within these counties is now standing a wealth of natural timber excellently suited for all local needs and for the manufacture of many other products including all grades of paper and cardboard pulp, and which on the basis of a sustained yield cut would provide direct and permanent employment to several thousand wood workers, and indirectly to several thousand more people and thus bring about increased consumption of other agricultural products and

Whereas, twenty-five percent of the total receipts from the sale of timber from National Forests is converted into the county treasuries,
This committee recommends:

1. That land owners be encouraged to plant shelter belts and wood lots.

2. That it be the duty of each resident of these counties to use only native timber suitable for his requirements, and to use all the influence at his command to induce others to do the same, and to endeavor to bring about the use of local and outside capital in the manufacture of these native timber products.

B. W. Fairbanks, Ft. Collins, Colo., Secretary.

FINANCE

It is generally known and admitted that profits in practically all lines of agriculture for the past few years have been very unsatisfactory. This condition has caused the strong demand from the national government for what is termed "Farm Relief."

Inasmuch as there now seems to be no prospect of any immediate assistance from that source, it appears that it is up to the farmers to help themselves, and to secure such local cooperation and aid as they can obtain.

With this idea in mind the committee on finance offers the following suggestions and recommendations:

1. An active and intelligent study of the new financial and living conditions. The present unfortunate conditions are a result, very largely, in the opinion of the committee, of the recent economic and industrial changes in the lives of people. The various manufacturing industries have adjusted their business to these changes, while the rural people have failed to do so, and are still trying to conduct their affairs and live as their grand fathers did.

2. That every farmer so arrange his production either of crops or livestock, so that he will have financial returns from some source monthly or at least three or four times during the year.

3. That he plant a variety of crops and raise such livestock as he can feed and care for adequately. A one crop system with no livestock usually means failure.

4. That he keep records of his income and expenses, and study his soil to know how and when to irrigate each crop, so that he can produce more per acre than his neighbor.
5. That he guard against too much debt. Never in the history of civilization has so much business been done on credit. He should beware of high pressure salesmen and installment buying except for productive purposes.

Signed: P. T. Stone, Grand Junction, Colo., Chairman.

L. A. Moorhouse, Ft. Collins, Colo., Secretary.
<table>
<thead>
<tr>
<th>1.35</th>
<th>2.70</th>
</tr>
</thead>
<tbody>
<tr>
<td>34</td>
<td>54</td>
</tr>
<tr>
<td>810</td>
<td></td>
</tr>
<tr>
<td>405</td>
<td>276</td>
</tr>
<tr>
<td>56.00</td>
<td>32.00</td>
</tr>
<tr>
<td>40.00</td>
<td></td>
</tr>
</tbody>
</table>

Clothing 375

Conservation by reservoirs
Control of waste water
Farm drainage under bond
Supplemental farm ditches
Association of ditches
Economic pumping 45 ft.
Thorough investigation of wells
Make more with what we have
Attention to farm drainage
More careful use of water
Seepage is becoming a serious pub.
Districts to be considered if economic
use of pumps for drainage
To make development, such as project
Supply water to council and system

Irrigation +
- 7 - Consideration be given to the possibilities of relieving seeped conditions by means of pumping.

- 8 - Individual farm drainage done under bond contract and guaranteed.

- 9 - The organization of irrigation interests.

- 10 - Where relatively large areas of farm lands require drainage that organized districts be formed in perfecting reclamation.

- 11 - More attention to the distribution of water to the user through the in the proper and uniform measurement of his rightful supply.

- 12 - A course of instruction in canal management.

To improve the management and distribution of water, it is recommended that there be held annually at some convenient place a school for superintendents and ditch riders.
Conservation
Drainage
Pumping
Distribution

Moved - revised - carried on
revision.
Outline to be submitted to com. appointed~ previous notice to enlighten community.

Soil conditions affect use - Platte Valley beats 6 to 8 - deep soil 2 to 3 times

Reservoir conservation needed on Platte, not so great in Pueblo.

Make more with what we have.

Reservoirs recommended for a particular district. Platte especially -

Drainage - Attention to be given relief of
farm drainage.
Can the farmer wanting drainage cross contaminate land.
Data on drainage for farms - but.
Recommend more careful use of water to avoid seepage.

Seepage is becoming a serious problem districts to be considered if magnitude warrants.

Use of pumping for drainage.
Surface drainage of water to avoid seepage.
Management

Soil - study requirements.
Measurement - some comment
Control of waste water - At the time by ditch around to waste
Prevention of loss - no discussion
Time of irrigation - cultivation more important, all crops
Drainage - all farm drainage under land
Drain pipe -

Disease and pests

Recommend supplemental pumping
valuable, proper investigation of
possible supply.

Discussion of transfer of water
Association of ditches a valuable organization
This idea sufficient to recommend

Cost

Economic pumping not to exceed 50 ft
Hitch and pump about same
Well irrigation to be thoroughly investigated
Contracts and bonds.
Increase of irrigation water
No new development
Supplemental supply - yes.
Supply increased to meet need of systems already in existence
Drainage to be encouraged
Not in position to recommend any particular construction
Supplemental for area north of Greeley
Avoid opening of new projects

Estimated that 35% of lands north of Greeley are seeped
Cut down waste water
Cooperative Extension Work in Agriculture and Home Economics
Colorado Agricultural College and U. S. Department of Agriculture Cooperating.

Arkansas Valley Agricultural Recommendations
1928

Assembled by

Thos. H. Summers
Farm Management Demonstrator

A report of the agricultural recommendations for the Arkansas Valley made and adopted by the commodity committees at the second Arkansas Valley agricultural Conference at Rocky Ford, Colorado, Feb. 17 and 18, 1928.
Introduction.

In October, 1925, an agricultural conference was held at Rocky Ford, Colorado, for the purpose of discussing the economic problems of the farmers in the Arkansas Valley. In order to cover the situation adequately commodity committees, consisting of men who were directly interested in the production and marketing of particular crops or classes of livestock, were appointed. These men, after making a detailed study of their problems, prepared and submitted definite suggestions and recommendations. These suggestions and recommendations were published in a bulletin entitled "An Agricultural Program for the Arkansas Valley of Colorado."

While the program which was finally adopted in 1925 was developed from the long-time point of view, nevertheless unforeseen changes are bound to occur from time to time and it becomes necessary to check up at frequent intervals in order to determine whether certain modifications should be made and adopted in place of the original recommendations. An individual operator must follow some such plan if he expects to obtain maximum profits from his business; likewise, an agricultural region must take stock of its resources at successive periods if it proposes to develop along lines that are fundamentally sound.

Accordingly, a follow-up conference was held at Rocky Ford on February 17th and 18th when the former committees and some in addition came together and did three things. First, agricultural changes occurring since the former conference were considered; second, progress of work on the 1925 recommendations was taken up; and third, the national outlook for 1923 was discussed in terms of its effect upon the agriculture of the Arkansas Valley. Finally, a set of agricultural recommendations were made and approved, incorporating most of the recommendations of 1925 with certain additions and modifications.
Changes in crop acres and numbers of livestock in Pueblo, Otero, Crowley, Bent and Prowers counties since 1924.

<table>
<thead>
<tr>
<th>Numbers of livestock on farms</th>
<th>1924</th>
<th>1927</th>
<th>Increase of decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef cattle</td>
<td>76,000</td>
<td>59,000</td>
<td>decrease</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>12,000</td>
<td>13,000</td>
<td>increase</td>
</tr>
<tr>
<td>Sheep</td>
<td>48,000</td>
<td>54,000</td>
<td>&quot;</td>
</tr>
<tr>
<td>Swine</td>
<td>25,000</td>
<td>12,000</td>
<td>decrease</td>
</tr>
<tr>
<td>Poultry</td>
<td>320,000</td>
<td>276,000</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acres in crops</th>
<th>1924</th>
<th>1927</th>
<th>Increase of decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa</td>
<td>127,000</td>
<td>139,800</td>
<td>increase</td>
</tr>
<tr>
<td>Grain sorghums</td>
<td>76,000</td>
<td>57,000</td>
<td>decrease</td>
</tr>
<tr>
<td>Barley</td>
<td>13,700</td>
<td>22,200</td>
<td>increase</td>
</tr>
<tr>
<td>Wheat</td>
<td>58,100</td>
<td>39,600</td>
<td>decrease</td>
</tr>
<tr>
<td>Oats</td>
<td>12,600</td>
<td>12,700</td>
<td>increase</td>
</tr>
<tr>
<td>Corn</td>
<td>12,900</td>
<td>9,399</td>
<td>decrease</td>
</tr>
<tr>
<td>Beets</td>
<td>42,200</td>
<td>25,300</td>
<td>&quot;</td>
</tr>
<tr>
<td>Cantaloupes</td>
<td>8,700</td>
<td>14,500</td>
<td>increase</td>
</tr>
<tr>
<td>Cucumbers</td>
<td>4,800</td>
<td>6,500</td>
<td>&quot;</td>
</tr>
<tr>
<td>Canning tomatoes</td>
<td>276</td>
<td>1,300</td>
<td>&quot;</td>
</tr>
<tr>
<td>Onions</td>
<td>24</td>
<td>350</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

\[1/\] Figures for 1926

Several noticeable changes have taken place in the numbers of livestock and crop acres. Beef cattle and swine have decreased, due largely to unfavorable prices compared with prices of other agricultural commodities. On the other hand, sheep and dairy cows show some increase on account of relatively favorable prices for wool, lambs and dairy products during this period.

Wheat, beets, corn, sorghums and alfalfa have decreased in acreage while barley, cantaloupes, cucumbers and truck crops have shown an increase.

In the case of cantaloupes, it appears that the expansion has been so great as to approach a dangerous situation especially with such a highly speculative crop.

Further development of the canning industry in the valley has lent encouragement to the expansion of the truck crop acreage since 1924.
Selenium, string beans and cauliflower have each occupied a relatively small acreage in the valley. The tendency has been, however, to increase the production of these crops.

While figures for Fremont, Las Animas and Huerfano counties are not included in this list, each county sent representatives to the conference and assisted in making the various recommendations. It was felt that conditions in these counties were fairly comparable with those in the other five counties for most commodities produced.

At the general meeting held Saturday afternoon, February 18th, of which Mr. Horace Dye of Manzanola was chairman, Mr. J. B. Ryan of Rocky Ford gave a talk on the work of the State Agricultural College in cooperating with the Arkansas Valley farmers in their efforts to work out their agricultural problems.

It was voted by the conference to hold a similar meeting every year, the place for the meeting in 1929 to be decided upon by a special committee appointed by the chairman.
AGRICULTURAL RECOMMENDATIONS

BEEF CATTLE

The committee on beef cattle finds that the number of beef cattle in the Arkansas Valley has decreased about 2,000 head during the last two years; that the carrying capacity of the range has increased slightly; that livestock feeding tends to increase soil fertility, provides winter employment and furnishes a market for surplus feed; that it appears to be desirable to carry one or two minor enterprises on farms where the cattle business is small in order to provide a regular income and that there are many inferior bulls offered for sale just because they are purebred.

The committee therefore recommends:

1. That the number of beef cattle be increased in the Arkansas Valley on a conservative basis.

2. That a cooperative feeding system be developed between the range cattlemen and the cattle feeders in the valley.

3. That on farms where the cattle business is small one or two minor enterprises be carried to supplement the farm income.

4. That breeders of beef cattle offer for sale only the best type of beef bulls.

L. A. Moorhouse, Chairman
Fort Collins, Colo.

J. L. Shields, Secretary
Walsenburg, Colo.

W. S. Marriott, Pueblo

D. A. Bole, La Junta

R. A. Dilley, Canon City

H. E. Dye, Manzanola

DAIRYING

That the recommendations of the dairy committee at the last economic conference be continued with the exception that Nos. 1 and 2 be amended so as to read:

1. That a gradual increase be made in the dairy industry; that this increase shall come by increasing the efficiency of each individual cow, by weeding out poor producers thru the systematic testing of herds for butterfat, by using only purebred sires from high-producing dams, by better management of herds, and thru a
gradual increase in the number of dairy cows, this increase to come thru calf club work, raising of more heifer calves and the importing of a limited number of cows.

2. That dairying be made a permanent enterprise on the farm; that where dairying is practiced or contemplated the following conditions exist:

   (1) That the man be dairy minded.

   (2) That he have definite plans for obtaining sufficient feed for the herd thruout the year.

   (3) That the indiscriminate crossing of breeds be discouraged.

3. That the advantage of dried beet pulp to the farmers who are beet growers be made evident to the sugar companies, so that enough dried pulp can be supplied to supplement dairy feeds on these farms.

The following additional recommendations are made:

4. That an attempt be made thru state representatives to have more funds available for T. B. eradication work and this work be encouraged in the Arkansas Valley.

5. That the practice of producing inferior dairy products, thru careless handling of cows and dairy products be discouraged and an attempt be made by local manufacturers, city health officers, and state dairy commission to raise the quality of dairy products in the Arkansas Valley.

6. That the practice by some merchants of advertising and recommending dairy products substitutes be deemed a menace to the dairy industry and such practice be discouraged.

   C. Stocker, Chairman, Lamar
   C. A. Smith, Secretary, Fort Collins
   A. R. Looker, Lamar
   J. F. Karst, Lascar
   E. D. Wight, Trinidad
   O. D. Good, Fort Collins
   J. B. Harman, Pueblo, M. R. A.
   K. J. Sinding, Rocky Ford
   J. H. Holm, Rocky Ford
   J. E. Schock, Swink

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SHEEP

The gradual increase in the number of sheep during the past few years, the limited demand for mutton and lamb and local factors affecting the sheep industry, show that the industry should not be expanded at the present time but should be stabilized on the basis of more efficient production.
The following recommendations are made:

1. That range sheep production be not increased in the Arkansas Valley.
2. That farm flocks be started with purebred sheep.
3. That the buying of old ewes be not expanded.
4. That more pastures and better sheep equipment be established on every farm.
5. That boys and girls sheep clubs be encouraged.
6. That the number of sheep feeders be increased without increasing the number of sheep fed.
7. That feeding practices be improved.

P. G. Scott, Chairman
Las Animas, Colo.
F. R. Lamb, Secretary
Lamar, Colo.
Lewis Swink, Rocky Ford
Stanley Lee, Las Animas
A. S. Tolton, Las Animas
W. H. Harkrader, Las Animas

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SWINE

Inasmuch as there is a deficiency in pork production in the Arkansas Valley of Colorado and the eleven western states; and since corn, alfalfa and other feed crops can be produced as cheaply in this region as in any other part of the United States; and since the market demands a hog weighing 180 to 225 pounds, and the grade of hogs kept needs improvement, together with better methods of management as to housing, sanitation, pasturage and feeding, we recommend:

1. That the number of hogs kept at present be maintained in the valley.
2. That purebred hogs be kept.
3. That all herds be kept immune from hog cholera.
4. That enough hogs be kept on every farm to consume available by-products or roughage from the farm dairy, feedlot and farm crops.
5. That adequate housing facilities be provided.

6. That alfalfa pasture with shade and good drinking water be provided.

7. That hogs be marketed at from 180 to 225 pounds in the shortest possible time.

8. That pig clubs be fostered.

Alvin H. Said, Chairman  
Model, Colo., Box 122
P. L. Smithers, Secretary  
Canon City, Colo.
Frank Stienmier, Canon City
R. H. Cook, Olney Springs
T. F. Simpson, Manzanola
Lixon Birkett, Pueblo

POULTRY

The poultry committee endorses the recommendations made for the poultry raisers of the Arkansas Valley at the meeting in 1925 and recommends their continuation.

1. An increase in the production of baby chicks to supply the state demand now being met by other states.

2. An increase in winter egg production.

3. That not less than 100 laying hens be kept in the farm flock and 1500 laying hens in the commercial flock.

4. A production of not less than 8 dozen eggs per hen in the farm flock and not less than 12 to 14 dozen eggs per hen in the commercial flock.

5. A gradual increase in poultry production to meet the increasing demand in Colorado and outside markets.

6. An increase in the production of turkeys, where abundant range is available, to meet the increasing demand from outside markets.

The committee further recommends:

7. That something definite be done to unify the present confusion relative to the terms accredited and certified that exists among the poultry raisers of the different states.

8. That more exhibits and shows of standard bred poultry be encouraged.

9. That the poultry raisers of the valley produce better stock, and that improvement be brought about through the use of better quality breeding males.
10. That the formation of local poultry associations be encouraged.

11. That a State Poultry Board be formed to work in cooperation with the State Agricultural College.

12. That the present movement for cooperative marketing of poultry products that is being promoted by the Colorado Bureau of Markets be endorsed and encouraged in the valley.

13. That a valley wide educational campaign for better poultry raising be conducted.

Jas. A. Clovenger, Chairman
Rocky Ford, Colo.
C. C. Ufford, Secretary
Fort Collins, Colo.
Oscar Huston, La Junta
Carl Sharp, Rocky Ford
A. McDonald, Hoehne
J. M. Conrad, Pueblo, West City Park
Herman Lipe, Pueblo, R. I, Box 185

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BEES AND HONEY

The committee on bees and honey wish to recommend:

1. That the beekeepers of the Arkansas Valley investigate with a view to cooperative marketing the Colorado Honey Producers Association.

2. That the beekeepers of the Arkansas Valley consider carefully winter protection for bees.

3. That the beekeepers of the Arkansas Valley oppose the passage of the Corn Sugar bill at present pending in the United States Congress.

4. That a similar conference be held in the Arkansas Valley next year and annually thereafter.

C. S. Miller, Chairman
Manzanola, Colo.
R. G. Richmond, Secretary
Fort Collins, Colo.
D. B. Hersperger, Ordway
Mrs. D. B. Hersperger, Ordway
Mrs. Neillie Warren, Ordway
Harvey Said, Pueblo, 1715 Palmer Ave.
T. E. Gray, Ordway, Box 152
Charles M. Cheek, Las Animas
SUGAR BEETS

Whereas, the United States produces only 22 percent of the sugar that she consumes, 60 percent of the balance coming from Cuba and the rest from our insular possessions and Europe, and

Whereas, Sugar Beets are essential to the welfare of this valley, in establishing a workable cropping system; in stabilizing farm operations; in providing better rations for livestock; in providing a crop of known cash value, a crop which is highly hail resistant; and a crop which makes balanced production possible; we therefore recommend:

1. The adoption of the following crop rotations which provide for the general upbuilding of every farm where such a rotation is adopted and put into practice, and wish to go on record as strongly urging all other commercial interests connected with agriculture, on insisting that their contracted acreage be solicited on a crop rotation basis. The rotations recommended and endorsed are as follows:

An 8 or 9 year rotation

1st year  Spring grain and alfalfa
2nd "    "  Alfalfa for hay
3rd "    "                    "  "                    "  "                    "  "
4th "    Alfalfa for hay (If seeding fall wheat, plow under the third cutting. Otherwise take off all cuttings, and if the succeeding crop is to be corn or vines, either fall or spring plow."
5th "    Either vines or corn or miscellaneous crops. (Fall plow whenever practical)
6th "    Beets (Manure should be applied)
7th "    Miscellaneous crops as vines, onions, etc.
8th "    Either beets (if preference is given to an 8 year rotation); or other miscellaneous crops (which should be manured). Or if grain is planted to be followed by beets next year, use Hubam clover as a green manure.
9th "    Beets (if a 9 year rotation), otherwise start the rotation over again.

A 5 year rotation

1st year  Spring grain (barley preferred) with red clover.
2nd "    "  Red clover for seed.
3rd "    "  Red clover for seed (sod fall plowed)
4th "    "  Miscellaneous crops
5th "    "  Beets manured

A discussion on the merits of commercial fertilizers resulted, and returns were analyzed, all of which showed that owing to the fact that legumes were heavy phosphate feeders, and that generally only a small percent of the acreage was manured, either with barnyard or green manures, that the use of suitable commercial fertilizers was to be recommended wherever the results justified their use.
2. I wish to go on record as favoring the extension of the Boys' and Girls' Beet Club Project work, so that similar records to those of Otero County might be had for all other counties in and tributary to the Arkansas Valley.

3. We sincerely urge each individual member of this conference that he take the sense of these recommendations to his own community so that constructive definite action in actual farm practice will result this year.

W. I. Sanford, Chairman
    Pueblo, Colo.
A. K. Skuderna, Secretary
    Rocky Ford, Colo.
G. Bishop, Pueblo
R. Hartman, Pueblo
J. E. Vestal, Pueblo
J. Peabody, Pueblo
F. Smith, Ordway
G. Shank, La Junta
B. A. Shelton, Cheraw
C. A. Marshall, Cheraw
P. Madden, Cheraw
W. W. Spencer, Manzanola
A. P. Griffitts, Rocky Ford
G. M. Pratt, Rocky Ford
H. E. Knapp, Rocky Ford
E. H. Gerecke, Rocky Ford

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SMALL GRAINS

Whereas an average of 623 cars of feed crops (a large quantity of which is corn) is shipped into the region annually, and in addition a considerable amount of such crops is trucked into the territory; and since corn and barley supplement each other in the crop rotation scheme and provide the requirements for live-

stock feeding operations; and since wheat only provides a cash crop and does not fit into feeding plans, we recommend:

1. An increase in corn to more nearly meet consumptive demands of the valley.

2. An increase in the barley acreage to supplement corn in feeding operations and also to fill in as a nurse crop in crop rotations.

3. A decrease in the wheat acreage to the place where it becomes a part of the crop rotation and provides a cash crop in areas where wheat can be grown profitably.

Herman Heatwole, Chairman
    La Junta, Colorado.
Chas. W. Stocker, Secretary
    Trinidad, Colo.
A. Cleave, Rocky Ford
C. J. Cover, Jr., Rocky Ford
FORAGE CROPS

Alfalfa

Since the yield of alfalfa is not as high as it should be, we recommend:

1. That a rotation with alfalfa hay and seed be adopted that will provide for one-third of the alfalfa acreage to be devoted to seed production every third year.

2. That the quality of the product be improved and all lower grade hay be utilized as feed on the farm in the form of meal or otherwise most economical and advantageous under local conditions.

3. That a previous recommendation of this committee to the effect that 35 percent of the irrigated area be devoted to alfalfa production be increased to 40 percent.

4. That a sufficient number of livestock be maintained upon each irrigated farm to utilize and consume all forage and any low grade crops not possible to market otherwise advantageously.

Pastures (irrigated)

Since there is a scarcity of irrigated pastures, we recommend:

1. That one acre of irrigated pasture be maintained for every three animal units on the farm.

2. That land not adapted to the successful production of grains and alfalfa be seeded to pastures with permanent pasture grass mixtures, and white and yellow blossom sweet clovers.

3. That the practice of pasturing alfalfa fields continuously be discouraged because destructive to the crop, and dangerous to the livestock pastured.

Pastures (dryland)

Since a repetition of the splendid native pastures enjoyed during the past year may not occur frequently, we recommend:

1. That care be exercised that native pastures be not over-grazed.

2. That sudan and sorghum crops be planted to supplement other pastures.

C. R. Strain, Chairman
Lamar, Colo.

E. D. Smith, Secretary
Fort Collins, Colo.
VINE CROPS

Cantaloupes (commercial)

As the acreage of commercial cantaloupes is being constantly increased in other shipping states and there is also a large increase in acreage near the eastern markets on truck farms, the Colorado melons often meeting with too much competition at these markets which often results in serious loss to the valley growers, we therefore recommend:

1. That a conservative acreage of from seven to ten thousand acres be planted to commercial cantaloupes, the amount to be determined by the acreage in other localities.

2. That early and late varieties be planted in order to have a better distribution of shipments throughout the season.

3. That rigid inspection be strictly adhered to and that the U. S. grade No. 1 be the first consideration.

4. That new varieties be thoroughly tested out and proved before they are grown commercially, and only standard proven varieties be grown in quantities for the market.

5. That only select seed of standard varieties be planted and that growers use more care in selecting the kind and quality of seed planted.

Cantaloupes for Seed

In as much as 85 percent of all cantaloupe seed used in the United States is grown in the Arkansas Valley of Colorado, we recommend:

1. That a sufficient acreage of improved quality seed be produced to retain and increase the demand for this seed.

2. As it is a violation of the Colorado state seed law as well as a detrimental practice to sell seed cut from cull melons, we recommend that such practice be discontinued.

Pickles

Whereas the outlook for the production of pickles is for a decrease in acreage due to a shortage of labor and the high cost of labor together with the high value of most of our lands we feel that an increased price for pickles is necessary to maintain the industry.
Cucumbers and Squash for seed

Inasmuch as the equipment to properly produce and handle cucumber seed is expensive and that securing of seed contracts is uncertain from year to year, we recommend:

1. That new growers refrain from entering into this venture unless they are assured of sufficient acreage and yearly contracts at remunerative prices.

2. That quality of seed be the first consideration.

General Recommendation

That a conference of this kind be held annually.

Wm. Morrison, Rocky Ford, Colo.
W. F. Droge, Secretary, Rocky Ford, Colorado.
D. H. Ernest, Trinidad
J. A. Sprengle, Pueblo
Wm. McKee, Penrose
Tony De Carlos, Pueblo
N. D. Bristol, Rocky Ford
K. D. Van Wagenen, Pueblo

TRUCK CROPS

Onions

Inasmuch as there is a tendency for an increase of the Valencia onions, we recommend:

1. That growers provide proper storage.

2. That growers ship out only first quality and as much as possible only in fancy or standard packs.

3. That new onion growers first study thoroly production costs before engaging in onion production.

4. That only the best quality of seed be planted.

5. That onion seed be produced in the Arkansas Valley.
**Celery**

1. That the celery package be standardized.

2. That a cooperative marketing system be developed to attain more systematized marketing.

3. That when a marketing system is developed there be an increase in acreage so far as permitted by suitable land with abundant water; but that this increase be no faster than the marketing facilities can handle the crop with profit to the grower.

4. Inasmuch as summer celery is very profitable, that growers be encouraged to grow more of it, in order to make up shipments of mixed cars of vegetables during the summer months.

**Cauliflower**

Inasmuch as there is a tendency for increased acreage in cauliflower in certain parts of the valley, we recommend:

1. That growers investigate early cauliflower which is marketed about the first of August, in order to supply a market which has little competition.

2. That late cauliflower be increased only as an increased demand justifies.

**Other Truck Crops**

1. We recommend the encouragement of cooperative marketing associations for the handling of green vegetables.

2. No further increase in acreage at present, unless local demands justify.

3. That care be exercised to rotate and fertilize in order to maintain soil fertility and control diseases.

The committee also recommends that a conference of this kind be held every year.

Wm. Morrison, Chairman
Rocky Ford, Colo.
K. D. Van Wagenen, Secretary
Pueblo, Colo.
D. H. Ernest, Trinidad
J. A. Sprengle, Pueblo
Wm. McKee, Penrose
Tony Te Carlos, Pueblo
N. D. Bristol, Rocky Ford
W. F. Dorge, Rocky Ford
PARK SEED

The committee on pure seed recommends for all classes of seed the use of seed of the best quality, purity and germination obtainable, certified or approved if possible.

Seed Crops

Cantaloupe Seed

1. Due to over supply of cantaloupe seed we recommend the curtailment of cantaloupe seed production with a continuance of selection for quality.

Cucumber Seed

1. Due to over supply of cucumber seed we recommend the curtailment of cucumber seed production with a continuance of selection for quality.

Red Clover

1. In view of the large importations of clover seed into the United States and the benefits of the crop on our soils, we recommend that the acreage of red clover for seed production be gradually increased as economic conditions justify.

2. We urge the production of approved clover seed.

Small Grains (corn wheat, oats, barley)

1. We urge that every grower of small grains for seed have it registered or certified by the proper agency.

2. That registered or approved seed be used on every farm thereby securing better quality crops and increased yields.

J. G. Erion, Chairman
Pueblo, Colo.
Homer A. Knapp, Secretary
Rocky Ford, Colo.
Frank Strain, Lamar
Justus Ward, Rocky Ford
Herman Fauber, Rocky Ford
Lester Hallows, Rocky Ford
H. D. Ressler, Pueblo
L. G. Kurtz, Las Animas
IRRIGATION

Whereas the appropriation of water for irrigation from the streams of the Arkansas Valley is far in excess of these streams and the amount of water required for a single irrigation depends on the character of the soil, the depth from which it is returned to the crop and the amount of water the soil will hold, we recommend:

1. An increase in reservoir storage capacity as a flood prevention in favorable location by individual ditches or units.

2. That pumping plants be installed where low cost of operation or high price of crop products prevail.

3. That the following rules be adopted for the use of irrigation water and a concerted effort be made by each individual water user to correlate his operations with these rules:

A. Store the rainfall in your soil. Deep thorough plowing enables the soil to absorb and retain rain and snow water. The more natural precipitation stored in the soil, the less irrigation water will be needed.

B. Cultivate frequently and thoroughly. It is cheaper to cultivate than to irrigate and stirring the top soil reduces evaporation. Systematic cultivation will reduce the water needed in irrigation.

C. Fertilize your soil. The more fertile your soil the less irrigation required for producing a pound or a ton of the crop.

D. Plant in moist soil. Well moistened soil at planting time permits better root development and delays the time of first irrigation thus saving water during the summer. This may necessitate fall or early spring irrigation in moderation.

E. Do not irrigate too early after planting. A better root development is secured and less irrigation water is needed to produce a crop.

F. Irrigate by the correct method. Where water is plentiful flooding may be used, if scarce, the furrow method should be employed exclusively. Lead your waste water to other fields.

G. Irrigate at the proper time. Withhold water until the crop is in real need. By this is meant when corn is shooting or filling, or like cycles in other crops.

H. Use water in moderation. Acre yields are increased by irrigation up to a certain limit, beyond which, more water causes a decrease in yield. Irrigation is expensive and more water than the soil will hold available to the crop is a waste of time, money and water.
I. Kill the weeds. Weeds use as much water as many profitable crops. It takes about 2000 pounds of water to grow one pound of weeds.

J. Repair leaky ditches. Nearly 50 percent of the available water is lost thru leaky ditches and seepage.

K. Measure the water. Land is carefully measured. Water supplies the value to land, therefore water should be used efficiently in order to supply a maximum area.

L. Rotate your crops so that all the crops grown do not require water at the same time. Some crops require more water than others, thus a balanced relation is maintained between area and water right.

M. Fall irrigation is beneficial and should be practiced where conditions so warrant.

N. Do not attempt long runs on lands in furrow irrigation; 500 feet is the maximum distance recommended.

O. Limit the quantity of water applied to the land at each irrigation to that extent where the capillary capacity of the soil will supply the crop and avoid the waste of water by deep percolation.

4. That all ditches be equipped with the most accurate measuring devices known.

5. The restriction of denuding the forest cover in the mountain areas.

6. To improve the management and distribution of water it is recommended that there be held annually at some convenient place in the valley a school for superintendents, headgate men, ditch riders and others interested.

W. H. Sawhill, Chairman, Manzanola, Colo.
R. L. Parshall, Secretary Fort Collins, Colo.

Chas. Beach, Pueblo
Chas. E. White, Penrose
J. L. Bunger, Rocky Ford
S. W. Cressy, Rocky Ford
Cooperative Extension Work in Agriculture and Home Economics
Colorado Agricultural College and U. S. Department of Agriculture Cooperating

San Luis Valley Agricultural Recommendations

1929

Assembled by
Thos. H. Summers
Farm Management Demonstrator

A report of the agricultural recommendations for the San Luis Valley made and adopted by the commodity committees at the third San Luis Valley Agricultural Conference, La Jara, Colorado, February 23, 1929.
Introduction

An agricultural economic conference was held at Alamosa in February, 1927, for the purpose of discussing the economic problems of the farmers of the San Luis Valley. In addition to these discussions by various commodity committees a number of suggestions or recommendations were made looking toward the solution of these problems. These suggestions were published in a bulletin entitled "An Agricultural Program for the San Luis Valley of Colorado."

The recommendations were formulated with the long-time viewpoint and were to serve as a basis for work that could be built upon from time to time as the need indicated. Agriculture is constantly changing and with these changes new problems appear and old problems take on new aspects.

Accordingly, it was decided to hold a similar conference each year in the valley to review the recommendations, to check up on the progress of the work and to make such adjustments as seemed advisable. The second conference was held in Monte Vista in February, 1928. A report of this conference was prepared and distributed.

The third annual conference was held at La Jara this year on February 23. In addition to discussing local problems the national outlook for agriculture was considered in terms of how it affects the agriculture of the San Luis Valley.

This report deals with what was done at the third annual conference.
Report of the General Meetings of the Conference

The general meeting was called to order by the chairman, Ed Fair of Romeo, with Roy Shahan of Alamosa acting as secretary.

Short talks were given by the chairman, by E. D. Smith and Thos. H. Summers of the Extension Service. The meeting then adjourned and the various committees met and organized for work.

At noon a splendid luncheon was served by the Civic Club of La Jara, after which the committees met in session until 3:30 P. M.

A general meeting was then called to hear the reports of the various committees. Mr. W. W. Platt of Alamosa gave a very interesting report of the recent tri-state conference at Santa Fe in connection with irrigation legislation.

Reports of the committees were then read by the chairman of each committee.

One hundred seventy-five people were in attendance at the first general meeting, one hundred sixty were at the noon luncheon while one hundred fifty registered on committees.
A REPORT OF THE PROGRESS SINCE THE LAST CONFERENCE

It is difficult to measure the effect of economic conferences upon the farm practices of a region. While many results are directly due to such meetings, others are indirectly caused thru the influence of meetings of this kind. It can be said, however, that economic conferences such as was held in the San Luis Valley last year and this year assist in bringing about a better balance of production and tend to emphasize those problems that need attention in order to bring about this objective.

The Extension Service has outlined its projects along the line of the recommendations made by the various commodity committees. A short review is given of some of the activities carried last year together with a few of those results that can be definitely measured.

**Beef Cattle**

Four lines of work have received attention during the year - winter fattenning of cattle, summer fattenning of cattle, baby beef clubs and livestock shipping associations.

One demonstration on winter feeding is underway and two demonstrations on summer feeding of sweet clover pasture were completed. Reports of these can be obtained from the county extension agents.

In the valley 45 club calves were fed by 38 club members. These made an excellent showing and brought a good price when sold. They were exhibited at the H.O.G. show, many of them being taken to the National Western Livestock Show at Denver.

Substantial progress was made during the year in connection with livestock shipping associations.

**Sheep**

Projects on sheep were carried along the following lines: fattenning, culling to increase average fleece weights, boys and girls sheep clubs and cooperative marketing of wool.

Fattenning sheep: Two demonstrations carried showing a profit.

Sheep fattenning clubs: 140 head fed by boys and girls club members and exhibited at the H.O.G. show. Very successful. Thirty-five head were fed by a club of five Mexican boys.

Sheep culling: Carried in three counties - Alamosa, Conejos and Rio Grande. Five flocks were culled, totaling around 6,000 ewes, yearlings and bucks.

Cooperative marketing of wool: This year some of the wool of Conejos county will be sold thru the National Wool Exchange. Pooling orders for brand- ing paint and sacks have resulted in a saving of 12 to 15 cents per sack and about 65 cents per gallon of paint. Progress is being made all over the valley.
in the organization of sheepmen to pool their wool.

Dairying

In cooperation with the fieldman of the San Luis Valley Dairy Association three lines of work were emphasized in 1928: Dairy sires campaign, herd improvement associations and dairy calf clubs.

The first project was completed with a special dairymen’s picnic. A meeting of the State Holstein Friesian Association was held in connection with this picnic. Eleven demonstrations have been carried in the valley.

A herd improvement association was organized with 23 members.

Three dairy calf clubs were organized last year. In all 23 members completed the work.

A number of demonstrations were carried in the production of winter succulent feed. Sunflowers for silage were grown; eight in Alamosa and twelve in Conejos County. Also a number in Rio Grande County.

The feeding of beet pulp to dairy cows was encouraged.

In Rio Grande County eleven demonstrations were carried on Morton's pasture grass mixture.

Swine

A valley-wide shipping association for hogs, cattle and sheep is in the process of development. A proposed contract is now in the hands of Lindsay and Larwill, counsel for the Colorado Potato Exchange, for approval and to determine its legality.

Poultry

The following lines of work were carried in the valley: culling, caponizing, demonstration poultry flocks, housing, poultry clubs, turkey marketing and turkey schools.

In all three counties - Alamosa, Conejos and Rio Grande - these projects were carried. About 15 culling demonstrations were carried; about 10 demonstration flocks; three caponizing demonstrations; three up-to-date poultry houses were built; 3200 turkeys were marketed in a turkey pool. A number of poultry clubs were organized. Also a number of turkey schools were held in cooperation with the Smith-Hughes teachers.

Sugar beets

Ten carloads of pulp were shipped to dairy sections of Conejos County.

Prospects are for an increase in the sugar beet acreage in the valley this year.
Efforts are being continued to get a beet sugar factory in the valley in the near future.

A number of growers kept records of the cost of producing sugar beets.

Potatoes

Cost of production records are being kept in Alamosa, Conejos and Rio Grande counties. The purpose of these records is to emphasize those production practices that increase yields per acre and cut the cost of production per hundredweight.

Emphasis is also being placed upon the value of a good rotation and of using good seed.

A campaign to develop better Brown Beauty seed was carried. Three boys entered the contest from Conejos County, eleven from Rio Grande County.

The potato growing contest completed its second year in Rio Grande County with the crowning of the Potato King at the Valley Seed Show.

A campaign for the consumption of more potatoes was carried. Receipts for preparing potatoes were distributed.

A considerable increase was noticed in the production of certified potato seed.

Truck crops

Conejos County Vegetable Growers last year did a $120,000 business.

Other organizations in the valley increased their volume of business.

Quality production was emphasized in the valley.

Seed crops

Variety tests were carried in all parts of the valley and included wheat, oats, barley, field peas and garden peas. A large acreage of sweet clover seed was approved this last year.

The use of better seed was encouraged.

Some tests were made with Hubam clover as a green manure crop with good results.

Plans are under way to establish a central seed cleaning and grading plant at Monte Vista.

Standardization work was also done on Peach Blow and Brown Beauty potatoes.
Crop rotations

In connection with recommendations on crop rotations, a great deal of work is being done. Demonstrations to show the effect of certain rotations on yields of crops, especially potatoes, are being carried in various parts of the valley.

Pastures

Demonstrations are being carried to increase the supply of winter succulent feed. These include irrigated pastures, clovers (alsike, ladino and sweet), rye and sunflowers.

Rodent control

Following is the report prepared by D. D. Green of the Bureau of Biological Survey of the United States Department of Agriculture.
Summary of Areas Treated for Prairie Dogs
in San Luis Valley

<table>
<thead>
<tr>
<th>County</th>
<th>1927</th>
<th>1928</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Grande</td>
<td>38,355</td>
<td>45,615</td>
<td>83,970</td>
</tr>
<tr>
<td>Mineral</td>
<td>37,095</td>
<td>36,090</td>
<td>73,185</td>
</tr>
<tr>
<td>Saguache</td>
<td>52,090</td>
<td>87,940</td>
<td>140,030</td>
</tr>
<tr>
<td>Conejos</td>
<td>25,945</td>
<td>31,935</td>
<td>57,880</td>
</tr>
<tr>
<td>Hinsdale</td>
<td>----</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>153,485</td>
<td>209,580</td>
<td>359,065</td>
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</table>

<table>
<thead>
<tr>
<th>County</th>
<th>Public Lands</th>
<th>State Lands</th>
<th>Private Lands</th>
</tr>
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<tbody>
<tr>
<td>Rio Grande</td>
<td>50,930</td>
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<td>33,040</td>
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<tr>
<td>Mineral</td>
<td>63,755</td>
<td>---</td>
<td>9,430</td>
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<tr>
<td>Saguache</td>
<td>133,040</td>
<td>---</td>
<td>6,990</td>
</tr>
<tr>
<td>Conejos</td>
<td>39,745</td>
<td>12,685</td>
<td>5,450</td>
</tr>
<tr>
<td>Hinsdale</td>
<td>4,000</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>291,470</td>
<td>12,685</td>
<td>54,910</td>
</tr>
</tbody>
</table>

Summary of Expense Poisoning Prairie Dogs

<table>
<thead>
<tr>
<th>County</th>
<th>1927</th>
<th>1928</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio Grande County</td>
<td>$1,598.15</td>
<td>$1,138.96</td>
</tr>
<tr>
<td>Rio Grande National Forest</td>
<td>2,378.28</td>
<td>2,221.10</td>
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<tr>
<td>Mineral County</td>
<td>300.00</td>
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</tr>
<tr>
<td>Saguache County</td>
<td>1,100.00</td>
<td>1,300.00</td>
</tr>
<tr>
<td>State Land Board</td>
<td>---</td>
<td>604.50</td>
</tr>
<tr>
<td>Conejos Co. Farm Bureau</td>
<td>---</td>
<td>95.50</td>
</tr>
<tr>
<td>Randall Everett, Villa Grove</td>
<td>---</td>
<td>24.00</td>
</tr>
<tr>
<td>Tom Ashley, Saguache</td>
<td>---</td>
<td>100.00</td>
</tr>
<tr>
<td>U. S. Biological Survey</td>
<td>3,867.48</td>
<td>4,021.87</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$9,243.91</td>
<td>$9,699.93</td>
</tr>
</tbody>
</table>
Changes in numbers of livestock and acres in crops
in the San Luis Valley

Numbers of livestock on farms

<table>
<thead>
<tr>
<th></th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>Increase or decrease 1928 vs. 1927</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef cattle</td>
<td>59,000</td>
<td>52,800</td>
<td>53,200</td>
<td>increase</td>
</tr>
<tr>
<td>Dairy cows</td>
<td>4,700</td>
<td>6,100</td>
<td>5,300</td>
<td>decrease</td>
</tr>
<tr>
<td>Sheep</td>
<td>204,100</td>
<td>214,100</td>
<td>217,900</td>
<td>increase</td>
</tr>
<tr>
<td>Swine</td>
<td>7,700</td>
<td>8,700</td>
<td>10,400</td>
<td>increase</td>
</tr>
<tr>
<td>Poultry</td>
<td>47,700</td>
<td>45,000</td>
<td>48,400</td>
<td>increase</td>
</tr>
</tbody>
</table>

Acres in crops

<table>
<thead>
<tr>
<th></th>
<th>1926</th>
<th>1927</th>
<th>1928</th>
<th>Increase or decrease 1928 vs. 1927</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild hay</td>
<td>108,400</td>
<td>117,300</td>
<td>89,700</td>
<td>decrease</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>70,500</td>
<td>63,800</td>
<td>65,600</td>
<td>increase</td>
</tr>
<tr>
<td>Oats</td>
<td>23,300</td>
<td>17,600</td>
<td>19,600</td>
<td>increase</td>
</tr>
<tr>
<td>Barley</td>
<td>17,500</td>
<td>20,800</td>
<td>27,400</td>
<td>increase</td>
</tr>
<tr>
<td>Field peas</td>
<td>67,100</td>
<td>69,000</td>
<td>84,200</td>
<td>increase</td>
</tr>
<tr>
<td>Clover</td>
<td>9,000</td>
<td>9,600</td>
<td>13,800</td>
<td>increase</td>
</tr>
<tr>
<td>Wheat</td>
<td>20,200</td>
<td>23,900</td>
<td>18,900</td>
<td>decrease</td>
</tr>
<tr>
<td>Lettuce</td>
<td>4,300</td>
<td>4,300</td>
<td>4,400</td>
<td>increase</td>
</tr>
<tr>
<td>Cauliflower</td>
<td>470</td>
<td>300</td>
<td>700</td>
<td>increase</td>
</tr>
<tr>
<td>Garden peas</td>
<td>640</td>
<td>2,400</td>
<td>3,600</td>
<td>increase</td>
</tr>
<tr>
<td>Potatoes</td>
<td>31,000</td>
<td>33,000</td>
<td>40,000</td>
<td>increase</td>
</tr>
</tbody>
</table>

An increase in all classes of livestock except dairy cows is shown for 1928.

All crops increased in acreage except wild hay and wheat.
AGRICULTURAL RECOMMENDATIONS

BEEF CATTLE

The beef cattle committee approves the recommendations as made at the conference held at Monte Vista last year.

1. That the beef cattle industry continue to hold an important place in the development of agriculture in the San Luis Valley.

2. That there be but slight increase in the total number of beef cattle in the San Luis Valley, but that more pounds of beef be produced.

3. That more purebred herds be established in the valley to furnish foundation stock for our beef industry.

4. That these breeders strive to produce a desirable type of bull that will improve the quality of our beef cattle. Purebred herds are not recommended to men who are not qualified livestock breeders.

5. That the feeding of beef cattle be developed to some extent in the valley.

6. This recommendation was modified to read: That baby beef clubs be continued and enlarged. The following suggestions are given for these clubs:

   (a) That producers be urged to furnish suitable calves for baby beef.

   (b) That an effort be made to secure calves of high quality and uniform type.

   (c) That boys and girls be discouraged from starting in baby beef clubs with inferior calves.

   (d) That only the best finished and high quality steers be shown at the National Western Stock Show.

   (e) That an effort be made to establish the following classification at the National Western Stock Show:

       Junior calf :
       Senior calf : for all breeds
       Junior yearling :

   (f) That a club steer auction be established at the National Western Stock Show and that club auction days be established on the Denver market.

7. Whereas during the spring months there is a period of from four to six weeks between the time that cattle take readily to dry feed and the date that they should go onto the higher ranges at which time there is often a loss in weight, the committee recommends that more feed be provided during this period; that where feasible seeded pastures should be used.
8. That the farm herd be limited to the number of livestock that the farm will care for during the entire year.

9. That the farm herd be kept on the farm thruout the year and that sufficient summer pasture be supplied at home.

10. That public grazing lands be regulated thru state or federal authorities together with local aid.

Fred T. Christensen, Chairman, Sanford, Colo.
L. H. Rochford, Secretary Fort Collins, Colo.
Charlie Stamps, La Jara
Floyd Kline, Alamosa
J. Gilbert Reed, Alamosa, Rt. B.

SHEEP

The sheep committee endorses the recommendations made last year with the following changes and additions: Nos. 1, 2, 3-a-b-c-d, 4, 6, 7, 8, 9, 10, 11 and 12 same as last year; changes have been made in Nos. 3-e and 5 and No. 13 has been added to the list.

1. That there be no increase in the total number of range sheep in the San Luis Valley.

2. That an operator have 1800 to 2200 head before engaging in the range sheep business.

3. We recommend the following husbandry practices which will increase production without increasing overhead expense and thereby increase net returns, all of which will be adhering to the economic principle of mass production:

(a) We wish to emphasize as follows: Whereas many farm flock masters are raising bucks from grade ewes by crossing with purebred rams, we wish to discourage the tendency to raise rams from such breeding as a detriment to the sheep industry as a whole and we further recommend that any one wishing to engage in the raising of rams start with only purebred ewes and registered rams and only where the conditions and inclination exists, establishing such as a permanent business.

(b) That this recommendation be emphasized during 1929, believing that at least three sheepmen in each county of the San Luis Valley, for his own and general information, should weigh each fleece at shearing time and mark all light shearing ewes so that they can be disposed of if found unprofitable. A report should be made of this weight.
(c) That breeding be done in smaller bunches and that greater discrimination be used in selecting rams both for farm and range flocks, and that no rams be used except purebred or registered.

(d) That we endorse the forest policy of bedding out and open herding systems as a means of range conservation and increased production.

(e) That better business practices be followed in preparation of wool for market, that machine shearing be encouraged, that all fleeces be tied with paper twine, tags and "blacks" sacked separately and all wool kept clear and clean from corral sweepings. We suggest that the practice of allowing the ewes to run to hay stacks be discouraged.

4. That flockmasters realize that diseases cause about four percent loss and that this could be reduced fifty percent by the practicing of inexpensive preventive measures.

5. That we endorse any legislation that will assist in the control of predatory animals, dogs and rodents and suggest that all flock masters both on farm and range give active support to the industry by becoming members of local associations in the county in which they are located. It is further recommended that a copy of these resolutions be forwarded to all state senators and representatives. (The last sentence was added this year.)

6. That we request the county commissioners to cooperate financially to the fullest extent possible in the control of predatory animals and rodents.

7. That the size of the farm flock be limited to the feed resources of the individual ranch.

8. That these flocks be handled so as to be independent of public ranges at all times.

9. That suitable equipment such as coyote-proof fences, etc., be provided.

10. That the business be conducted largely on an old-ewe basis with an annual turnover of both ewes and lambs.

11. That any excess of feed and forage crops be marketed in the valley by:

   (a) Fattening lambs and cattle
   (b) Farm flocks
   (c) Swine production

12. That boys and girls lamb feeding clubs be encouraged, ten lambs to be the proper size unit to be fed.

13. We recommend that the Agricultural College of Colorado give some attention to a study of sheep losses in the valley by pingue or rubber weed.
The underlined recommendations are considered the most important at this time.

E. C. Hutchison, Chairman,
La Jara, Colo.
T. G. Stewart, Secretary,
Monte Vista, Colo.
Delfino Salazar, San Luis
W. A. Crowther, Sanford
O. O. Kenton, La Jara
Felix Valdez, La Jara
Swen Peterson, Sanford
Ben Johnson, Sanford
Chester Smith, Alamosa
D. D. Green, Denver
John W. Crook, Monte Vista
John Fultz, Hooper
Clem Smith, Alamosa
Alex Gillespie, Alamosa
V. J. Anderson, Sanford
Orin Beck, Sanford
Walter Crowther, Sanford
Fred Christensen, Alamosa

DAIRYING

The committee on dairying approves the recommendations made last year with the following changes and additions:

1. Changed to read: A 50 percent increase in the total production of dairy products in the valley; 10 percent of this from an increase in the total number of dairy cows; 30 percent thru the improvement of feeding, pasture and housing conditions; and 10 percent thru the use of purebred sires and higher producing cows.

2. Changed to read: On every farm where dairy cattle are kept at least one-half acre of permanent irrigated pasture or sweet clover pasture be maintained per dairy cow, and sunflower silage or roots be provided on each farm where eight or more cows are kept. In the case of small farm herds that most of the feed for dairy cattle be produced on the farm.

3. Same as last year: Where milk is a minor source of income, at least five cows be kept for economical production. Where milk is the main source of income, from 10 to 20 cows constitute a herd, and where milking machines are used there be more than 15 cows. That one cow be kept on every farm in the valley and two cows where there are children in order to supply the family with milk and dairy products.

4. Same as last year: That no cow producing less than 200 pounds of butterfat per year be kept in a small farm herd and none producing less than 250 pounds per year be retained in any commercial herd.
5. Changed to road: That young dairy animals be vaccinated for blackleg in areas having shown previous blackleg infection. That tuberculin tests be required of producers for city milk supplies. That all dairy cows be tested for T. B. under accredited herd plan.

6. Same as last year: That open sheds, tree and lumber windbreaks be provided, and the construction of adequate barns for housing stock on extremely cold nights and during storms, where the finances for this construction are available.

7. Same as last year: That no change be made in the dairy manufacturing and shipping facilities but that a considerable increase be made in dairy products storage facilities.

8. Same as last year: That as many dairy cows as possible be bred to freshen during the months of October, November and December.

9. Same as last year: The use of sires from high-producing purebred registered herds of the same breed as the cows on which they are used.

The following was added to No. 9: That cross breeding of any of the dairy breeds reduces production and profits and should not be done under any circumstances.

10. Same as last year: That no dairy cattle of any age be put on open national forest-reserve ranges.

11. Same as last year: That bull calves from grade dairy cows be vealed at ages under six months.

12. Same as last year: That producers of dairy products market these products thru their home manufacturing plants.

13. Same as last year with the addition of "or sweet clover" and "or root crops" in (b).

On farms where the increase or introduction of dairying is contemplated -

(a) That the farmer be dairy minded.

(b) That sufficient feed be produced to supply the contemplated production as follows: One acre of barley, one-half acre of oats, three acres of alfalfa, one-half acre of permanent irrigated pasture or sweet clover and one-fifth acre of tame sunflowers for silage or root crops for each dairy cow.

(c) That adequate sheds, windbreaks, shelters and equipment be provided.

14. Same as last year: That dairy calf club work in the San Luis Valley be encouraged and increased.
15. The following recommendation has been substituted for No. 15 in last year's list: That the present Herd Improvement Association be encouraged and expanded and that as soon as possible one association be organized for each county in the San Luis Valley.

16. Same as last year: That individual bull pens be constructed for all herd sires. That proven sires be exchanged between owners rather than slaughtered. That herd sires be given proper care.

17. Same as last year: That manufacturers of dairy products cooperate with the farmer in an effort to raise the quality of dairy products in the valley by advising him as to the quality of product delivered.

The following sentence which was a part of the recommendation last year has been dropped: And that the dairy association fieldman spend some time in an effort to raise the quality of San Luis Valley dairy products.

18. Changed to read: That an annual dairy day be held in the San Luis Valley each summer, the time and place to be set by a committee composed of the valley extension agents and the state dairy commission fieldman.

19. New recommendation: That county agents and other interested parties conduct tests on ladino clover for pasture for dairy cattle.

Special effort during 1929 should be directed upon recommendations 2, 6, 9 and 13.

Howell A. Smith, Chairman,

Max C. Grandy, Secretary
  Alamosa, Colorado.
Jay Cunningham, manassa
Alonzo Bartin, Manassa
A. K. Wilkinson, Antonito
C. T. Myers, Alamosa
Bert Mayer, Costilla, New Mexico
Luther E. Bean, Alamosa
Fred Sierra, South Fork
James P. Jensen, Sanford
Leonardo J. Espinosa, Antonito
John A. Smith, Manassa
Decker Smith, Sanford
Dale Packard, Manassa
E. L. Wilker, Alamosa
Henry Eschenmeyer, Blanca
J. A. Shawcroft, La Jara
F. E. Grimwood, Blanca
J. J. Fettes, Antonito
W. D. Carrol, Antonito
Eraustus Beck, Sanford
Theo Morsch, Sanford
Ross Johnson, La Jara
SWINE

The committee on swine endorses the recommendations made the last two years with the following changes and additions:

1. Same as last year: With surplus feeds and with increased yields of peas on the present acreage, the valley could produce more hogs, even in the face of a lower market. It should at least produce its own stock hogs of which ordinarily about one-fourth to one-third of the present supply is shipped in.

2. Same as last year: That cost of production be lowered by saving more pigs per litter, by feeding local grain and mill products to hogs and by fattening sows upon pasture; also thru the introduction of more new blood and provision for shelter with individual farrowing houses.

3. Eliminated: (On account of large farm units and the adaptability of the pea crop to the valley with its suitability for hogging off, making valley conditions favorable for hog raising, that hog raising be a staple practice on most farms.)

4. Eliminated: (Altho the valley is in a favorable position for marketing due to its location relative to California markets, there is need for a more direct outlet to the thru lines. Therefore, those interested in raising and marketing hogs should unite their efforts with other stockmen and organizations towards securing this result.)

5. Eliminated: (That the Agricultural College put on a hog feeding demonstration in the valley for the purpose of ascertaining the best methods of feeding.)

6. Same as last year: That all pigs be vaccinated within two weeks of weaning time as a method of reducing disease among swine to a minimum.

A report of losses in swine herds shows that early vaccination reduces the death loss from disease. Of twelve herds early vaccination was practiced in five with a loss ranging from 4 to 25 percent. In the seven late vaccinated herds the loss was 60 to 85 percent.

7. Changed to include fattening of hogs: That boys and girls pig clubs be encouraged not only as an incentive for producing better breeding stock, but also in the fattening of hogs.

8. Changed to read: That the county extension agents, stockmen and farm bureaus of the valley be encouraged to cooperate in a valley-wide arrangement that might assist the livestock growers of the valley to secure more remunerative prices for their livestock.

New recommendations

9. It is recommended that growers of hogs be cautioned against permitting the promiscuous running at large of male hogs through their herds intended for
fattening purposes. By so doing it will dispense with the serious losses from
dockage and the lowering of the grade of market hogs.

10. That potatoes be fed only to growing pigs. Slaughtered hogs that have
been fed on potatoes show a marked decrease of dress-out percentage, and produce
a product of less value than the strictly grain fed animal.

11. That a number of feeding demonstrations be conducted in the San Luis
Valley to determine the best local feeds for finishing hogs for market.

12. That as far as possible the breeding period be arranged that would
enable the grower to put his fattened hogs on the market about March 1st and
September 1st, as statistics of the past twenty-five years have indicated that
these are the two periods when the peak of the market price is received.

C. S. Birkens, Chairman
Romeo, Colo.
R. E. Kiely, Secretary,
Romeo, Colo.
P. E. Harney, Monte Vista
D. A. Feitz, Antonito
Chas. Feitz, La Jara
J. Nathan Shawcroft, La Jara
Sherman Valentine, Sanford
M. V. Mathes, Alamosa
W. W. Platt, Alamosa
G. C. Huffman, Blanca

POULTRY

Due to the small attendance of the poultry committee which was not
representative of the valley, those present recommended that no changes be made
in the poultry recommendations of last year.

1. That there be a slow but gradual increase in numbers of birds raised
but that any increase in numbers of eggs produced should be brought about thru
improvement in quality of stock raised and improved methods of management rather
than thru an increase in the number of birds raised.

2. That more attention be given to the securing of higher quality stock
for the valley.

3. That the establishment of baby-chick hatcheries be encouraged to take
care of the valley's needs.

4. That the average farmer purchase baby chicks to maintain his flock
under present conditions rather than to attempt to do his own hatching.

5. That the production of early chicks be encouraged.

6. That poultry breeding farms be encouraged.
7. That a desirable farm flock unit be 100 to 150 hens, and 500 or more hens for commercial production.

8. That a production of not less than 100 eggs per hen be secured in farm flocks and 150 eggs in commercial flocks.

9. That there is sufficient feed produced and available for the needs of poultry in the valley.

10. That milk be fed to supply animal protein for egg production when it is available.

11. That more attention be given to sanitation.

12. That turkey raising be encouraged.

13. That a cash market be developed in the valley for poultry and eggs.

14. That the shed type of poultry house be adopted for the valley and that adobe be used wherever possible.

15. Due to the high quality of grains produced in the valley, that the poultry raisers mix and feed a standard ration of home-grown feeds.

The committee further recommends that the poultry producers of the San Luis Valley cooperate with the county agents and the poultry specialist of the Colorado Agricultural College in carrying out the following:

(a) Testing out artificial incubation with an idea of establishing a hatchery in the valley.

(b) Requesting the Colorado Agricultural College to furnish a list of reliable sources of baby chicks within the state.

(c) Demonstrating the use of valley feeds for raising chickens and for egg production.

(d) Demonstrating the proper type of poultry houses for valley conditions and securing the cooperation of the Smith-Hughes teachers, pupils and lumber dealers.

(e) Demonstrating the culling of chickens, and spreading this practice.

(f) Stimulating the formation of a turkey marketing pool.

(g) Securing instruction from the Colorado Agricultural College in the preparation of turkeys for market.

(h) Studying the present methods of marketing poultry and eggs with the idea of developing a cash market.
(1) Organizing the poultrymen of the valley into local poultry associations looking towards the federation of these locals.

Edwin T. Boice, Chairman,
Manassa, Colo.
O. C. Ufford, Secretary,
Fort Collins, Colo.

BEES AND HONEY

The committee on bees and honey carefully examined the recommendations of the former conferences and endorse them with the following changes and additions:

1. Same as last year: The cooperation of the county commissioners in checking the spread of bee diseases from Rio Grande and Saguache counties.

2. Eliminated, since a valley apiculturist has been appointed.

3. Same as last year: Winter protection as a better method of wintering bees.

4. Same as last year: An inquiry into the possible reduction of freight rates on honey from the San Luis Valley.

5. (a) Same as last year: That a race or strain of bees be chosen, thru selection and breeding, whose queens cease egg laying early in the autumn and commence brood rearing later the following spring, but which comes thru the winter with a good supply of bees and honey, due to inactivity during the unproductive season.

5. (b) Same as last year: That the Colorado Experiment Station or State Entomologist be requested to conduct an experiment during the winter of 1929-30 on winter protection of bees in the San Luis Valley, provided funds are available for packing cases and packing materials, the bees and other equipment to be furnished by the beekeepers of the valley. To assist in an advisory capacity and to make reports and information available to all interested, that the following beekeepers be appointed:

Frank Belt, La Jara
Edward Haefeli, Monte Vista
Arthur McClintock, Mosca

F. G. Rauchfuss, La Jara
Fred Christensen, Manassa

6. Same as last year: That all beekeepers or persons having bees place bran, chop, sweepings or flour in apiaries or near the hives to prevent the bees from frequenting the stock feeding troughs in spring months.

7. Eliminated, since a valley apiculturist has been appointed.

8. Same as last year: That beekeepers investigate cooperative sales agencies now operating with a view to better marketing of their product.
9. Eliminated. This recommendation opposed the Corn Sugar bill, Senate Bill 2806 and H. R. 10022. The purpose of the recommendation has been accomplished.

10. Same as last year: That an economic conference be held annually in the valley.

New recommendations

11. That valley apiculturists appoint a deputy bee inspector for counties of Rio Grande, Alamosa, Conejos and Saguache to act without compensation during the absence of said valley inspector.

12. That further investigation be conducted relative to freight rates of bee products and bee supplies to and from the San Luis Valley.

13. That an association of bee keepers of the San Luis Valley be organized.

F. G. Rauchfuss, Chairman
La Jara, Colo.
R. G. Richmond, Secretary
Fort Collins, Colo.
F. C. Belt, La Jara
L. W. Howsam, La Jara
G. H. Hollyman, Alamosa
M. B. Mickelson, La Jara.

POTATOES

The committee on potatoes approves the recommendations made last year with the following additions: (Nos. 1, 2, 3, 4, 5 and 7 same as last year).

1. A rotation as follows:

   1st year - potatoes
   2nd " - small grain
   3rd " - peas and sweet clover seeded together
   4th " - sweet clover for pasture, hay, seed or soiling crop

Where alfalfa is used in the farm rotation, the following plan is recommended:

   Alfalfa - 5 to 6 years
   Potatoes - 2 years
   Grain - 1 year
   Peas - seeded in stubble, 1 year
   Peas - land plowed before seeding, 1 year
   Potatoes - 1 year
   Alfalfa - reseeded to remain 5 to 6 years.

2. Along with the first rotation, we recommend a liberal use of barnyard manure, where convenient, for the rotation, together with a more liberal amount of water.
3. That all potato producers practice seed treatment and field roguing of
diseased hills.

4. That all potato producers be interested in maintaining a seed plot.

5. That a few qualified potato growers in each locality be encouraged to
make a business of certified seed production.

6. Eliminated: (That there be an increase in the potato acreage in the
San Luis Valley only in proportion to the increase of the population in its
trade territory.)

7. That complete standardization of potatoes and marking of containers as
to grades be given attention.

New recommendations:

8. That a change be made in the system of reporting the acreage of potatoes
in the valley. A committee of three potato growers from each county to be
appointed to make crop reports to Mr. Beier. The committee follows:

Alamosa County -
Roy Shahan, Alamosa
Jesse Schecter, Alamosa
John Fultz, Hooper

Rio Grande County -
Omer Underwood, Del Norte
Chas. Mahl, Monte Vista
R. E. Holland, Monte Vista

Saguache County -
L. T. Sharp, Center
M. M. Sutley, Center
W. O. Sauder, Center

Conesos County -
C. L. Ullstrom, La Jara
J. F. Meinzer, La Jara
Orville S. Peterson, Sanford

9. That when No. 1 potatoes sell for $1.00 or less in the San Luis Valley
that no culls of any kind be shipped, but kept on the farm and fed to livestock.

10. That no crop estimate be made on late potatoes until October 1.

H. C. Henry, Chairman, Monte Vista, Colo.
W. O. Sauder, Secretary, Center, Colo.
C. L. Ullstrom, La Jara
G. C. Morris, La Jara
J. F. Meinzer, La Jara
G. W. Rogers, Manassa
Chas. Feitz, La Jara
Ross Johnson, La Jara
W. D. Carroll, Antonito.
FORAGE CROPS

The committee on forage crops approves the recommendations made last year with the following changes and additions: Nos. 1 to 7 inclusive same as last year.

Alfalfa and Other Hay

1. Anticipating the addition of new crop areas from reclamation and irrigation projects, the committee suggests that the seeding of alfalfa be confined to the needs of those new farms and that sweet clover be used for soil building purposes on the remaining part of such areas brought under cultivation.

2. Although there was some increase in the acreage of alfalfa during the year, the number of head of livestock also increased in the valley. A shortage of alfalfa hay this year was apparent and was reflected in the high price of alfalfa. The committee recommends that sufficient alfalfa acreage be maintained to meet the livestock requirements.

3. That the additional fertility requirements be met by the use of sweet clover.

4. That the additional feed requirements resulting from the increased development of the livestock industry be supplied thru increased yields upon the present acreage by means of better cultural methods.

5. That the pasturing and fattening of livestock in localities where alfalfa production is the major enterprise be encouraged as a solution of the surplus feed problem.

6. That demonstrations in alfalfa improvement be established in each community.

7. That alfalfa variety tests be established in each county to determine the best strains adapted to this region.

New recommendation

8. That none but the best northern grown alfalfa seed to used.

IRRIGATED PASTURE CROPS

Permanent Irrigated Pastures (Same as last year)

1. That each farm plant a sufficient acreage of permanent pasture grass to meet the demands of the dairy stock and sheep kept thereon.

2. That pasture demonstrations be established in each community.
3. That pasture variety tests be established in each county.

**Sweet Clover (Same as last year)**

1. That sweet clover be included in the crop rotation until at least twenty percent of the cultivated land is thus occupied, permanent pasture and alfalfa land being excluded from the rotation.

2. That this crop be used as pasture, green manure, hay or seed as the needs of the individual farmer may require.

**Field Peas (1, 2, 3, 4, same as last year)**

1. That unless the number of hogs and sheep to be carried on field peas be increased, the acreage of field peas be decreased.

2. That any larger amounts of peas needed for seed be secured from increased yields per acre obtained thru better seed and better cultural practices.

3. That variety tests be established in each county.

4. That demonstrations be established in each community.

**New recommendation**

5. That increased acreage of field peas be confined to highest yielding varieties determined by tests.

The committee designates No. 7 under Alfalfa and Other Hay as the most important at this time.

Chas. Muhl, Chairman
Monte Vista, Colo.
E. D. Smith, Secretary
Fort Collins, Colo.
E. R. Knapp, Monte Vista
G. F. Platt, Sanford
Alex Gillespie, Alamosa
James A. Reed, Alamosa
Clem Smith, Alamosa
Chester Smith, Alamosa
SUGAR BEETS

The sugar beet committee endorses recommendations 3, 4, and 5, and suggestions A to G, made in 1928 at Monte Vista. In addition two new recommendations were submitted at the conference this year. Recommendations 1 and 2 of last year were dropped.

1. Eliminated: (That the beet acreage be increased as fast as the farmers realize the need of this crop in their crop rotations, and the benefits of its by-products in the feeding of livestock.)

2. Eliminated: (That the acreage be increased as more land is leveled and put in condition to grow sugar beets successfully.)

3. That demonstrations be conducted in the feeding of sugar beet by-products to livestock in order to show the value of the sugar beet as a means of promoting the fattening of livestock in the valley.

4. That the yield of sugar beets be increased thru the better use of water; better use of cultural practices such as proper method of spacing and cultivating, and better crop rotation.

5. That sugar beets be planted after potatoes when potatoes are put on sweet clover or alfalfa ground.

The committee submits the following for consideration:

A. Since the beet sugar industry has been the foundation upon which the most highly developed agricultural district of the Rocky Mountain states has been built, both industrially and agriculturally, the sugar beet as a crop is recommended to the farmers of the San Luis Valley.

B. The beet industry has so many angles that some of the important ones are often overlooked.

C. The San Luis Valley, because of its proximity to ideal ranges and with its climatic conditions, could and should be made the greatest livestock finishing district in the state. To do this it needs only a few things to balance up the feeds that are so abundantly produced.

D. It has been stated repeatedly by good authorities that beet growing districts of eastern Colorado are making beef and mutton as much as two cents per pound cheaper than is now being done in the San Luis Valley.

E. The feeding of livestock and the production of beet sugar are so closely related that to attempt to separate them is impossible. There are, however, sufficient reasons for seriously considering this crop without mentioning the livestock industries. This statement seems to be particularly true in a community where there is only one extensively cultivated crop.
F. A crop requiring deep tillage and clean cultivation will be of very material benefit to the agriculture of the valley in that it would be a means of holding up to a high standard of production all of the grain or now cultivated crops and free them from many of the weed troubles now so prevalent.

G. To produce beets at a profit on a large scale in the valley it is necessary to continue as rapidly as possible the leveling of land and the building up of the fertility of the soil thru the use of more sweet clover, alfalfa and manure.

6. New recommendation: Since it develops that about 40,000 acres were devoted to potatoes in the San Luis Valley in 1928 and since the price for this crop was not favorable to the grower, this committee recommends that 15,000 acres of the potato and other suitable acreage be brought into beet production as rapidly as possible.

7. New recommendation: That the prospects for securing a sugar factory within the next two or three years are very good, and recommends that land be leveled and brought into beet culture as rapidly as possible and suggests the following crop rotation:

Legumes - Alfalfa, sweet clover, pastured and fall plowed.
Cultivated crops - Potatoes - vegetables
" " - Beets - vegetables (manured)
" " - Potatoes - beets - vegetables
Legumes seeded with grain or peas.

Recommendation No. 6 is considered the most important at this time.

John Fultz, Chairman,
Hooper, Colo.
A. J. Hamman, Secretary
Alamosa, Colo.
G.A. Lyeckman, San Accacia.
J. J. Schecter, Alamosa.

SMALL GRAINS AND SEED CROPS

The committee on small grains and seed crops approves the recommendations made last year with the following changes and additions:

Small Grains

Wheat (Same as last year)

1. That no increase be made in the wheat acreage.
2. That Marquis wheat be the standard variety grown.
3. That tests be made in the growing of Early Bart wheat.
4. That the following rotation for wheat or small grain be considered:

Alfalfa, 5 years  
Potatoes, 1 year  
Wheat or small grain, 1 year, seeded with sweet clover  
Sweet clover - pasture, and fall plowed, 1 year  
Peas, 1 year  
Potatoes, 1 year  
Small grain seeded to alfalfa or sweet clover

Oats (Same as last year)

1. An increase of 20 percent in the production of oats, thru increased yields per acre, this increase to be brought about by the use of the best varieties having local sources of registered seed, by the general use of good seed, by proper seed treatment, by planting oats on good soil, and by the use of a good crop rotation.

Barley (Same as last year)

1. An increase of 25 percent in the production of barley from the same present acreage, by the use of good seed, by planting on better land and thru a good crop rotation.

2. That the following crop rotation, including barley where alfalfa is not grown, be given some consideration:

   Barley seeded to sweet clover, 1 year  
   Sweet clover pastured and fall plowed, 1 year  
   Peas, 1 year  
   Potatoes, 1 year

3. That Trebi barley be the standard variety grown.

It is further recommended:

1. That more farmers grow registered and approved seed to supply seed for local demand.

2. That farmers take advantage of the offer to have their seed grain cleaned free of charge by the mills.

Seed Crops

Sweet clover seed (Same as last year)

1. That the present acreage of sweet clover be maintained but used more for green manure and pasture instead of so much for seed.

2. That the production of seed from other varieties and strains be given attention.
Potato seed

1. Same as last year: That an increase be made in Bliss Triumph and Irish Cobbler acreage for certified seed to supply the local demand and the demand from the South.

2. Same as last year: That the production of high quality seed of standard varieties be given more attention.

3. Changed to read: That the production and marketing of seed of high quality and high yielding varieties and strains be increased.

Small grains (Same as last year)

1. That the acreage of small grains for seed be increased.

2. That the production and marketing of seed of high quality and high-yielding varieties and strains be increased. (The word "increased" was substituted for the phrase "given more attention" which was used last year.)

Field peas, seed (Same as last year)

1. That the production of seed from high-yielding varieties and strains be given more attention by the Agricultural Experiment Station.

Garden peas, seed (Same as last year)

1. That the acreage of garden peas for seed remain the same.

Miscellaneous seed (Same as last year)

That the possibilities of growing the following seed be investigated by the Agricultural Experiment Station: Red clover, alsike clover, orchard grass, brome grass and timothy.

General recommendations (Same as last year)

1. That grain seeds grading plants be installed in various communities.

2. That a valley marketing utility man be employed.

3. That the Seed Growers organization be urged to get more members.

4. That all agricultural organizations and commercial organizations in the valley cooperate with the Seed Growers organization to produce better seed.

Chas. Speicer, Chairman, Mosaic, Colo.
Fred I. Hamman, Secretary, San Luis, Colo.
Arthur Speicer, Hooper
J. C. Munday, Alamosa.
R. C. Tucker, Dolores
B. H. Harrison, Manassa
J. M. Carr, La Jara
TRUCK CROPS

The committee on truck crops approves the recommendations made last year with the following changes and additions:

1. Same as last year: No increase in the lettuce acreage at the present time.

2. Same as last year: That the Agricultural Experiment Station give aid by furnishing more definite information on cultural methods, irrigation, seed supply and tipburn.

3. Same as last year: Experience has shown that the best lettuce land is located on the river bottoms and in the higher valleys. That the open valleys of a sandy nature are, as a rule, not adapted to the production of head lettuce.

4. Same as last year: That there be no decrease in the acreage of cauliflower.

5. The following recommendation takes the place of No. 5 last year: That no recommendation be made in regard to acreage of pod-peas. This is left to the discretion of the grower as it is felt that if they are not worth picking they make good hog feed.

6. Same as last year: No material increase in the truck crop acreage at the present time, but more attention devoted to quality production and efficient marketing.

7. Same as last year: That the truck growers adopt a definite system of crop rotation in order to maintain soil fertility, and that they diversify their crops so as to guard against crop losses.

8. Same as last year: That truck growers take immediate steps to form a valley wide organization with a local organization in each district.

9. Same as 8-a last year: That the Agricultural College carry on special investigations in the valley on tipburn and cutworm control.

10. Same as 8-b last year: We recommend a truck crop rotation as follows: Peas; lettuce; small grain (with sweet clover 2 years or alfalfa 5 years); potatoes; peas; lettuce.

New recommendations:

11. That growers pay more attention to blocking and thinning lettuce as a possible method of increasing yields. Leave the strongest plant.

12. That methods of cutworm control be carried on by the county agents thru demonstrations.
13. It is the opinion of the committee that $50,000 is too much to spend for shipping in pod-pea seed, since excellent quality seed can be raised in the valley. We therefore recommend the local production of pea seed.

14. We do not feel that the valley is ready yet for a canning factory or pickling stations as more money has been made from the fresh products.

15. We favor the mixed carlot shipments of vegetables and suggest that the number of varieties of vegetables be increased for this purpose and that special consideration be given to the following crops: Spinach, string beans, green onions, carrots, turnips, radishes. This would also mean greater diversification and less risk to growers from the failure of one or more of these crops.

R. E. McCummiff, La Jara, Chairman.
F. E. Grimwood, Blanca
Matt West, Blanca
Wm. L. Thompson, Fort Garland
Donald L. Shumate, " "
J. T. Eskridge, La Jara
R. L. Cochran, La Jara
E. E. Brown, Blanca
H. V. Brenner, Mesita
K. Ona, Alamosa
G. Martinez, Romeo
N. D. Sanborn, Denver
D. Salazar, San Luis
Ricardo Gonzalez, Antonito
C. H. Metzger, Fort Collins, Secretary
E. P. Sandsten, Fort Collins

IRRIGATION AND DRAINAGE

Due to the lack of attendance of the irrigation and drainage committee, the committee did not meet this year. The recommendations made last year, therefore, remain the same.

1. Under present normal conditions of the available water supply with the present duty of two acre-feet of water per acre, no increase in the irrigated area of the San Luis Valley is warranted.

2. The consolidation in units of the various irrigation systems in the several areas of the valley; these organizations to create sufficient storage facilities to provide an ample supply of both early and late water. In view of the present urgent outlook to immediate action in connection with creating additional storage it is strongly recommended that all phases of this important problem be investigated.
3. In the consolidation of ditch systems delivering water to all lands served by the same watershed, we strongly recommend, where possible, the consolidation of irrigation and drainage interests serving the same area.

4. Because of the immediate need of definite information on the use of water in the valley, it is recommended that a careful investigation be made in each representative soil and crop section of the valley as to the most practical quantity of water necessary to produce the best crop, and that thereafter, other conditions being equal, no more water be used than the practical optimum so determined.

5. That excessive amounts of water applied from flood flows in order to secure ground storage be eliminated through additional reservoir storage.

6. That the present water supply be increased, wherever possible, thru the use of water developed by means of drainage.

7. A more efficient use of water thru:
   
   (a) Leveling of land.
   
   (b) The installation of proper headgates for diversion and of proper measuring devices.
   
   (c) The reduction of waste in application and prevention of avoidable leakage and loss from carrying channels.

8. That the practice of sub-irrigation be generally discouraged and that the more general practice of flooding and row method of irrigation be encouraged.

9. That pumping for supplemental irrigation be used only for specialized crops in favorable localities.

10. That crops demanding early and late water be encouraged in areas where storage water is available and discouraged where early and late water is not available.

11. The study of artesian wells with a view of throttling or closing down wells during the time when they are serving no useful purpose.

12. The organization of new drainage districts where economic conditions very strongly warrant this new development.

13. Favorable action on any legislation to construct a main outlet ditch from the San Luis Lakes to the Rio Grande River.

14. To improve the management and distribution of water, it is recommended that there be held annually at some convenient place in the valley a school for superintendents and ditch riders.
15. We earnestly submit: That the time is at hand for immediate action for the creation of supplementary water supply by means of storage reservoirs and that the people of the San Luis Valley exhaust every available resource in soliciting the aggressive cooperation of every possible agency in assuring immediate development.

John Fultz, Chairman
Hooper, Colo.
R. L. Parshall, Secretary
Fort Collins, Colo.
N. E. Morgan, Center
J. D. Frazie, Antonito
W. N. Evans, Del Norte
START IT WITH A SMILE
Tune: "Leave me with a Smile."

1. When it's time for meeting
And the friendly greeting,
Start it with a smile;
What's the use of sighing,
Send all gloom a-flying,
Start it with a smile.

And while we're together
Always fair the weather
Sunshine all the while;
Ev'ry song we sing
Just make the rafters ring so
Start it with a smile!

2. SHE WEARS A YELLER RIBBON

Round her neck she wears a yeller ribbon,
She wears it in the winter and the summer, so they say
If you ask her "Why the Decoration?"
She'll say, "It's for my lover who is fur, fur, away."
Fur away--fur away--If she is a likin' cows or cowin' hay.
'Round her neck she wears a yeller ribbon,
She wears it fur her lover, who is fur, fur, away.

3. I'M FOREVER BLOWING BUBBLES

I'm forever blowing bubbles, pretty bubbles in the air,
They fly so high, nearly reach the sky,
Then like my dreams, they fade and die;
Fortune's always hiding, I've looked everywhere,
I'm forever blowing bubbles, pretty bubbles in the air.

4. THAT WILD IRISH
Tune: "Wild Irish Rose"

That wild Irish Rose! It spoils my sweet repose,
Pugnacious and grim. It always butts in, That wild Irish Rose!
That wild Irish Rose! You'll hear it when it blows;
Some day for my sake, prohibition will take
The bloom from that wild Irish Rose.

5. PIGGY O'NEILL
Tune: "Peggy O'Neil."

If she eats pie with her knife, That's Piggy O'Neill;
Can't keep clean to save her life, That's Piggy O'Neill;
You should hear her inhaling her soup, She takes music like
having the group,
And when she eats noodles, she plays Yankee Doodle,
That's Piggy O'Neill.

6. COLORADO
Tune: "Sweet Adeline"

Dreaming of Colorado
Out in the Golden West
Dreaming of hills and valleys,
Where there is peace and rest.
Deep in my heart there's a longing
Just for a sight of you,
I know you're always waiting,
I know you're always true:

Chorus:
Colorado, Colorado, I love you,
Paradise forever like 'neath skies of blue
In the sunshine or in shadow, ever new
Colorado, Colorado, I love you!

7. MUH SONG
Key A Flat Tune: Long, Long Trail.

It's a short, short life we live here,
So let us laugh while we may,
With a song for ever moment,
Of the whole bright day,
What's the use of looking gloomy,
Or what's the good of our tears,
when we know a mummy's had no fun
For more'n three thousand years.