

Agricultural Planning - Colorado

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

Northern Colorado Agricultural Recommendations
1930

Assembled by

Thos. H. Summers
Extension Economist-Farm Management

and

R. H. Felts
County Agent Leader

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A report of the agricultural recommendations for Northern Colorado made and adopted by the commodity committees at the Northern Colorado Economic Conference at Greeley, Colorado, February 13 and 14, 1930.

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Introduction

An agricultural economic conference was held at Greeley, Colorado, on February 13 and 14, 1930, for the purpose of discussing the economic problems of the farmers in the irrigated section of Northern Colorado. Fifteen commodity committees of representative farmers from nine counties and four committees of representative farm women met and after discussing the problems of the farm and of the farm home, formulated a number of recommendations looking toward the solution of these problems.

These recommendations were made in an attempt to set up an agricultural program for the region, based on facts, which would be economically sound. The long-time viewpoint was taken by those assembled in committees with the thought of working out plans that would put agriculture on a better basis compared with industry and would tend to eliminate periods of overproduction by bringing about a better balance between what the farmer produces and what the consumer demands.

This report includes the recommendations made by the committees which considered the problems of the farm.

Each committee in making its recommendations selected one recommendation which, in its opinion, is the most important at this time, and should receive special consideration during 1930. These most important recommendations are underscored in the following committee reports.

PROGRAM

Northern Colorado Economic Conference
Greeley, Colorado

February 13-14, 1930

Court House

Conference Chairman-----Dr. B. F. Davis, Denver
Vice Chairman-----L. T. Winger, Brush
Vice Chairman-----E. R. Bliss, Greeley
Secretary-----E. H. Folbrecht, Greeley

Thursday, February 13

10:00 General meeting in Court Room, fourth floor
Dr. B. F. Davis, Conference Chairman
10:15 Purpose of the Conference. Pres. Chas. A. Lory, Fort
Collins.
10:45 Instructions to committees. R. H. Felts, Fort Collins
11:00 Committee meetings
12:00 Lunch hour

1:00-5:00 Committee meetings

6:30 Conference banquet. K. P. Hall

Toastmaster-----E. R. Bliss, Greeley

Meeting the Public Fancies-----Jas. K. Wallace,
Livestock Marketing Specialist, U.S.D.A.

The Farmer's View of the Present Situation--C. L.
Hover, Longmont.

The Farm Home-----Mrs. Mary G. Isham,
Brighton.

Friday, February 14

9:00 Committee meetings

11:00 General meeting, Court Room. L. T. Winger, Chairman
Putting Conference Recommendations into Effect.

Help from Bureau of Agricultural Economics --- W. F.
Callendar, Washington, D. C.

Help from the Colorado Agricultural Extension Service --
F. A. Anderson, Fort Collins.

Help from Farm Organizations --- B. F. Davis, Denver

12:00 Lunch hour.

- 1:00 General meeting, Court Room.
Committed Recommendations and Summary of Committee
Discussions.
4:00 Adjournment.

Vice Chairman L. T. Winger was acting chairman of the conference in the absence of Dr. B. F. Davis.

Vice Chairman E. R. Bliss was chairman of the general meeting at 11 o'clock Friday morning.

Vice Chairman L. T. Winger was chairman of the general meeting at 1 o'clock Friday afternoon.

The commodity recommendations were read at the closing meeting by the committee chairmen and adopted by the conference. The recommendations were then discussed by the committee secretaries.

Following is the record of attendance:

Opening meeting-----	325
Banquet -----	150
Meeting 11 a.m. Friday -----	200
Committee meetings-----	250
Closing meeting-----	200

AGRICULTURAL RECOMMENDATIONS

SHEEP

The sheep committee finds:

That the sheep industry is apparently approaching a saturation point in this country with steadily increasing numbers of sheep and low prices of wool. The committee feels, however, that lamb-feeding should continue to be a basic enterprise in this area.

Methods and feeding practices have been developed over a long period. Surplus home grown roughages and by-products are used to good advantage and the fat lambs supply and dominate a definite market demand from January to May when there are relatively few fat lambs from other sections in competition.

The balancing of labor during the winter months and the maintenance of the producing power of cultivated land are well recognized benefits of the industry.

The committee feels, however, that with nearly 50% of the winter feeding of sheep and lambs in the United States carried in Colorado and Nebraska, under the jurisdiction of one cooperative lamb feeding association, that all feeders through that association should stabilize their industry by strengthening their collective bargaining power in the purchasing as well as in the marketing of these lambs.

In some instances there is noted a general tendency to attempt to feed more lambs than the farm will accommodate.

The committee therefore recommends:

1. That where lamb-feeding is practiced the roughages and by-products produced on the farm be used as a basis for planning the extent of lamb feeding operations.

It is estimated from records presented that the average 160-acre farm in this area should produce enough roughage and by-products, with the addition of some concentrates, to feed not in excess of 1000 lambs.

2. That thru the lamb feeders association efforts be made to have lambs graded as to quality and size for purchase as feeders, since the committee feels that the influence of the consuming public is and will continue to be in preference of light fat lambs of high quality.

3. That feeders in this area thru their lamb-feeding association cooperate with the wool growers associations in an attempt to reduce present speculative tendencies, since the committee feels that the present methods of purchasing feeder lambs tend to increase speculation.

It is suggested that the lamb feeders association gather and furnish information to its feeders by July first of each year as to numbers of lambs available for sale, wool in storage, etc., and recommend to its members a fair price by grades for the purchase of these feeder lambs. The committee feels that the association should be able to work out some method for the purchase of feeder lambs at a fair price to grower and feeder.

4. That an attempt be made to discourage early contracting of range lambs and that lamb feeders thruout the area wait until information on feed conditions and numbers of lambs available have been definitely determined and published by the association before making purchases for the following feeding season.

5. The possibility on the average 160-acre irrigated farm in this area of running a farm flock of from 100 to 120 grade ewes. However, experience with a smaller number of ewes is first necessary if the establishment of such a farm flock is contemplated.

6. Since losses in the feedlot have been steadily mounting, that measures be taken to reduce such losses by:

- (a) Short railroad runs before the first feed in purchasing lambs on the range;
- (b) Continuous sorting in the feedlots;
- (c) Feeding a variety of feeds;
- (d) Avoiding too heavy a grain ration.

7. That lamb feeders thruout the area work thru their organization in making every effort to promote the orderly and uniform marketing of lambs.

8. That the press be petitioned to avoid giving undue stress to figures which may not give a true picture of the present lamb supply situation. The committee feels that with a surplus of any commodity reported the press sometimes has a tendency to enlarge upon the situation to the detriment of the farmer. With a big surplus of lambs reported on feed in Northern Colorado this year it is pointed out that little publicity has been given to the excessive death loss experienced and its effect in reducing this surplus in tonnage.

The development of a systematic method for the purchase of feeder lambs that will eliminate present speculative tendencies is the most important factor to be considered in this program in the opinion of the committee.

C. M. Stitt, Fort Morgan
J. L. Tinsman, Severance
Ralph Clark, Eaton
Clyde Bartels, Fort Collins
Ira Watts, Timnath.

Frank Hartman, Chairman,
Longmont, Colo.
E. J. Maynard and D. C. Bascom
Secretaries, Fort Collins, Colo.

BEEF CATTLE

The beef cattle committee finds:

A. That there is urgent need for closer cooperation among cattle feeders, also between cattle feeders' organizations and range cattle producers' organizations. That there is further need for the development of more efficient and orderly marketing of all livestock.

B. That there is an unbalanced situation in the cattle feeding industry on Northern Colorado farms. Some farmer stockmen are attempting to feed many more cattle than their farms can produce feed for, thus being forced to depend on the purchase of the bulk of the feed requirements, consequently increasing the speculation in the feeding enterprise. Other farms that are producing fattening feeds are feeding neither cattle nor other livestock. Such farms need the fertility produced thru feeding.

C. That the average well-balanced Northern Colorado irrigated farm of 160-acres will produce feeds sufficient to finish two to three carloads of cattle, depending on the class and age.

D. That the consumer demand is greater for smaller cuts of beef. That younger cattle make more economical gains in the feedlot than older cattle. That younger cattle require a longer feeding period, more concentrated feed, greater care, and more skillful feeding.

E. That the feeding of cattle in Northern Colorado is confined largely to the winter months. Most operators desire to purchase feeders after the rush of fall work and to put these cattle on a finished cattle market before spring work starts. This practice results in a comparatively short marketing season when the bulk of the fat cattle are marketed.

The committee believes that there is a possibility of lengthening the marketing season by timing feeding operations on the farm so that all cattle are not fed at one time.

The committee also feels that there is some possibility for economical summer feeding. Where stockmen run a cow herd, experience has shown that creep feeding of calves following their mothers on pasture is practical.

F. Experience of Northern Colorado feeders has shown the advantage of windbreaks and open sheds for feedlots during severe weather. Cattle having the use of such advantages make better gains. Such equipment can be furnished thru inexpensive construction.

The committee therefore recommends:

1. The immediate organization of an effective Northern Colorado Cattle Feeders' Association. The aim of such an association to be:

- (a) To develop close cooperation among feeders;
- (b) To stimulate closer contact and cooperation with range producers and their associations;
- (c) To cooperate with state and national livestock associations in all matters relating to the welfare of the cattle industry;
- (d) To assist the program for a constructive educational campaign in the interests of beef consumption;
- (e) Finally, to cooperate with other livestock associations in the development of a more efficient and orderly marketing system.

2. That the average Northern Colorado farmer stockman adjust his cattle feeding operations to the number of cattle for which his farm can furnish most of the required feed, thus tending to eliminate much speculation in the feeding enterprise.

3. That consideration be given to the feeding of younger and lighter cattle, where the feeder has had experience in feeding.

4. That the feeding operations be timed for a more orderly marketing of cattle.

5. That pasture creep feeding of calves be encouraged where breeding herds are maintained.

6. That inexpensive windbreaks or open sheds be constructed as practical equipment for every feedlot.

E. B. Davis, Fort Lupton	Warren H. Monfort, Chairman,
Grant Hartman, Longmont	Greeley, Colo.
Henry Burdorf, Eaton	L. H. Rochford, Secretary
James K. Wallace, Washington, D.C.	Fort Collins, Colo.
F. F. Cuykendall, Roggen	H. A. Sandhouse, Secretary
W. Vay Tidwell, Sterling	Brighton, Colo.
C. H. Gustafson, Lincoln, Nebr.	
John J. Tobin, Montrose	
E. D. Hill, Eaton	

DAIRYING

The dairy committee recommends:

1. That there be no increase in the number of dairy cows kept for milk production and that there be a closer culling of low producing cows. That only heifers from the higher producing dams be kept for dairy purposes.

2. That there be no increase in the number of dairy products manufacturing plants in this area.

3. That steps be taken to establish a grading system for dairy products and that prices to the producers be based on grade.

4. That record keeping thru dairy herd improvement associations be encouraged and herds be improved thru such records and the use of purebred sires and selection of heifers from high-producing dams.

5. That dairymen raise as much feed as practicable and that more permanent pastures be developed for spring and summer feeding.

6. That the quality of dairy products be improved and that the state dairy commissioner be encouraged and given cooperation in enforcing the regulations on milk houses, barns and plants.

7. That steps be taken to establish a state fund for eradication of tuberculosis in cattle.

8. That steps be taken by the Extension Service of the Colorado Agricultural College, State Dairy Commissioner, and the office of the Colorado Director of Markets, to form a state dairymen's organization for the purpose of promoting the dairying industry in Colorado.

9. That enough cows be kept on every farm to supply the farm family with dairy products.

10. That enough hogs or poultry be kept on every dairy farm to consume the by-products of the enterprise.

11. That a wire be sent from this conference signed by the Chairman to the Senators from Colorado, urging that the Norbeck-Haugen oleomargarine bill relative to shortenings be reported out of committee and immediately passed.

12. That a state tax be put on nut margarine products.

Fred Anderson, Fort Collins	L. T. Winger, Chairman
Harry C. Evans, Fort Collins	Brush, Colo.
W. C. Fisher, Windsor	C. A. Smith, Secretary
J. W. Whowell, Johnstown	Fort Collins, Colo.
Forde L. Beeten, Johnstown	John H. Phillips, Brighton
A. J. Kaschke, Sedgwick	Frank H. Carroll, Longmont
P. C. Lamb, Greeley, R 5	H. D. Parker, Greeley
A. M. Lane, Fort Collins, R 5	J. O. Tolliver, Fort Collins

Ray E. McClave, Fort Lupton
R. C. Benson, Loveland, R 3
F. A. Elliott, Greeley, R 4
W. W. Hanson, Denver, R 2
Tom Connell, La Salle

T. A. Reiser, Fort Collins
Walter R. Freeman, Fort Collins
C. W. Henry, Greeley.

SWINE

The committee on swine finds that:

- A. Hogs are a sideline on most irrigated farms in this area.
- B. That during the rush season hogs are neglected to a large extent and must take care of themselves.
- C. In too many cases hogs are raised under insanitary conditions, in filthy pens, and without the use of pasture.
- D. The hog outlook is very favorable to hog producers due to a decrease in national supply and a favorable relationship between feed costs and hog prices.
- E. There is a tendency in this area to keep an inferior quality of hogs.
- F. Feeding of balanced rations is not generally practiced.
- G. On rented farms landlord and tenant have not generally cooperated in hog production.
- H. There is a tendency to increase production of corn, barley and oats in this area which should be fed to livestock.
- I. The dairy and hog industry are very closely related and should supplement each other especially where butterfat is being marketed on a sour or sweet cream basis.
- J. The majority of hogs are being marketed in November and December when hog prices are lowest.
- K. Packing centers have been moving westward and that, regardless of the supply of cattle and sheep, hogs are necessary for packing centers.
- L. The Denver market is one of the best hog markets in the country.
- M. An increase in the demand for pork products in California, due to increase in population and a decrease in numbers of hogs on farms, and a favorable freight rate compared with the rates from eastern and cornbelt areas, make Colorado a logical hog production region.
- N. There is more or less hog cholera thruout the area.

The committee therefore recommends:

1. That enough hogs be raised on every farm to furnish a home supply of meat and that farmers in this area who are hog-minded carry from 5 to 10 sows per farm and raise 2 litters per year.

2. That whether hogs are kept as a sideline or as a major enterprise they be given good care at all times for most economical production.

3. That the McLean County System of Sanitation be followed as closely as possible, preventing worms and other filth-born diseases.

4. An increase in hog production in this area to help utilize feed crops such as corn, barley and oats, since market conditions and outlook reports are very favorable to hog production.

5. That a more careful selection of breeding stock be practiced and that nothing but purebred sires be used.

6. That balanced rations be fed with use of self-feeders, thus making it possible to market hogs earlier in the year at higher market prices.

7. That alfalfa or sweet clover pastures be used to cheapen cost of production.

8. That on tenant farms, landlord and tenant cooperate in working out a more equitable program for hog production.

9. That hogs be kept on dairy farms, especially those selling sweet or sour cream, and the skim milk be fed to hogs.

10. That all hogs be vaccinated for hog cholera.

The major recommendation is a combination of several recommendations:

Since Denver is becoming a large packing center, and California markets are increasing their demand for pork products, that hog production be increased thruout this area.

C. F. Andrews, R. 5, Longmont
Clarence E. Johnson, R. 2,
Longmont
Henry Eberharter, R. 1, Boulder
Vivian Drage, R. 2, Loveland
Bruce Whitmore, Severance
Ed Webb, R. 1, Longmont
S. O. Nelson, R. 1, Greeley
E. G. Clay, Omaha, Nebr.
R. F. Foster, R. 3, Loveland

Geo. H. Thompson, Chairman
Julesburg, Colo.
A. C. Allen, Secretary
Fort Collins, Colo.

POULTRY

The poultry committee recommends:

Poultry for Market

1. That the farm flock representing the production of "meat only" and a few eggs be reduced to actual farm family needs of about three dozen hens, because

- (a) The surplus production has not proved sufficiently profitable over a five year period to warrant expansion;
- (b) Specialized broiler production near large cities is taking the highest meat prices and leaving only a packer or storage price for farm surplus production;
- (c) The outlook for poultry meat is for lower prices than in recent years, but likely to continue above the prices of other meats even in a period of lower price levels.

2. Earlier culling, since the prices for hens and fries are 4 to 6 cents per pound higher in August than on February first with an added income of \$80 to \$100 per farm.

The committee suggests that capon production offers a price 12 to 15 cents higher than stags or roosters kept beyond broiler age.

Egg Production

1. That a 300-400 hen sideline enterprise be encouraged on farms where high egg production per hen, experience of the operator, and equipment warrants, because

- (a) The trend of poultry prices is likely to continue above the price of other livestock products. And quality eggs are likely to continue in stronger demand, due to lack of effective substitutes rich in vitamins;
- (b) This enterprise is large enough to form an efficient marketing unit, case lot shipments and secure good care, housing and feed.

The committee suggests that a gradual development be made, starting with 300 chicks the first year, maturing 100 pullets, properly housed and fed, and growing into the 300-400 bird unit in two years as experience of operator warrants.

The committee feels that a production of 150 eggs or more per bird for Leghorns, 130 for heavy breeds, is necessary for commercial profits and such production can only be secured from flocks making such flock averages. Buyers of baby chicks need to consider the percentage of good pullets raised and egg yields secured as a true basis of values instead of low first cost per chick. In case of doubt, county extension agents and extension poultrymen should be consulted as to the reliability of hatcheries, breeders, etc.

Marketing

1. Cooperative exchange egg marketing as the only agency buying on grade and giving producers some benefits from these grades, since

- (a) The increase in consumption of fresh eggs, poultry, meat and baby chicks depends on selling on a recognized graded basis;
- (b) That as production of eggs increases, out of state shipments become necessary, and cooperative efforts have proven most effective.

2. That accredited hatchery flock owners and independent breeders be encouraged to keep demonstration flock records. And that extension forces cooperate in the U. S. Standard Breeding Plan as a sound basis of continued improvement in the marketing of chicks.

S. Earl Lumry, Boulder
Chas. M. Elder, Boulder
Roy Shannon, R. 1, Box 79,
Lafayette, Colo.
Mrs. E. B. Davis, R. 1,
Fort Lupton
O. R. Kerlee, 1115-4th St.,
Greeley, Colo.
Mrs. Louie E. Rieke, R. 2,
Sterling, Colo.
R. E. Larkin, R 2, Eaton
H. J. Decker, R.5, Fort Collins
Mrs. O. C. Prunty, R. 1,
Box 98, Greeley
Lillian Stroh, Milliken
Mrs. J. K. Wallace, USDA,
Washington, D. C.
Mrs. C. B. Preston, R 4,
Fort Collins

Carl Melzer, Chairman
Littleton, Colo.
Russell J. Hill, Vice-Chairman
1544-1st St., Greeley
O. C. Ufford, Secretary
Fort Collins, Colo.
Mrs. Eric Nelson, R 4, Fort Collins
Leonard G. Abbett, Platteville
Harve Vanderlip, Greeley
Mrs. A. H. Tetsell,
303 Denver St., Sterling
Mrs. A. J. Bartholomew,
Motor Route B, Sterling

TURKEYS

The turkey committee recommends:

1. An educational program along the lines of better stock, management, feeding and finishing for marketing.

2. That not over 5 to 7 hens and 1 tom be kept on the average farm. If a larger flock is kept, special equipment is necessary.

3. No hatching of turkey eggs after July 1.

4. That a well-balanced ration be fed thruout the season.

5. That birds be well finished before marketing.

6. That the Agricultural College carry more research work on turkey diseases.

7. The certification of all turkey flocks where a business is made of selling breeding stock in order to protect the buyer.

8. That no increase be made in turkey production at this time, but that improvement be made in quality.

Mrs. Ralph Hanna, Chairman
Wellington, Colo.
Mrs. Cora De France Forster, Secy.
Berthoud, Colo.

Mrs. Geo. M. Streck, R. 6, Box 193,
Greeley
Mrs. E. Erickson, R. 5, Box 207,
Greeley
Mrs. E. B. Davis, Fort Lupton
Mrs. C. E. Brown, Littleton
C. E. Brown, Littleton
Lillian Stroh, Milliken
Mrs. C. B. Preston, R. 4,
Fort Collins
Mrs. Eric Nelson, R. 4, Fort
Collins
Mrs. Geo. Schofield, Laporte

RABBITS

The rabbit committee recommends:

1. That there be a gradual increase in the number of rabbits raised and marketed in this area.

2. That registered stock be used and does be bred regularly for three litters per year for breeding stock and four litters per year for meat. That not over six rabbits be saved per litter, of which not over 25% be saved for breeding stock, the remainder to be used for meats.

3. That a three way system of rabbit raising be adopted:

- (1) Production of breeding stock.
- (2) Production of meat.
- (3) Production of fur.

4. That rigid culling be adopted.

5. That proper sanitary measures be followed by the use of clean, outdoor hutches, free from draughts, allowing $1\frac{1}{4}$ sq. ft. per 1 lb. of live rabbit.

6. That all meat rabbits be marketed alive in greater volume thru some central sales agency, under strict supervision and inspection.

7. That rabbit raising be considered as a means of supplementing the family income, as well as a specialized enterprise on a commercial basis.

D. C. Myers, 416-12th Ave.,
Greeley
S. D. Griffith, Court House,
Greeley

J. M. Nance, Chairman,
Englewood, Colo.
A. H. Tedmon, Secretary,
Littleton, Colo.

BEES AND HONEY

The committee on bees and honey recommends:

1. That the continuation of the investigational work on the cost of production of honey in the intermountain states be requested and that a copy of this recommendation and request be sent to the Bureaus of Entomology and Agricultural Economics.

2. That the beekeepers of Northern Colorado retain sufficient honey for a year round supply for the local trade and that more attention be given to the local trade.

3. That both moral and financial support be given the activities of the American Honey Institute.

N. L. Henthorne, Chairman
Greeley, Colo.

R. G. Richmond, Secretary
Fort Collins, Colo.

W. E. Evans, R. 1, Box 17,
Fort Collins

A. J. McCarty, Longmont

D. W. Spangler, Longmont

L. R. Rice, 2019 - 7th Ave., Greeley

V. H. Flood, 1744-8th Ave., "

D. Alfred Danielsen, Brush

James A. Dutcher, Windsor

ALFALFA AND IRRIGATED PASTURES

The committee on alfalfa and irrigated pastures recommends:

1. That the yields per acre be increased thru the application of acid phosphate fertilizer where necessary and that an educational campaign be put on by the Extension Service and other agencies to acquaint farmers generally with the benefits to be obtained by this practice.

2. That on tenant farms where the use of acid phosphate fertilizer is necessary to produce a satisfactory yield of alfalfa (3 tons per acre) that the cost of materials and labor be shared equally by landlord and tenant.

3. The use of hardy varieties of known origin either home or northern grown.

4. That one-third of the farm acreage be devoted to alfalfa grown in suitable rotation with other crops.

5. That as much of the hay crop as possible be fed on the farm.

6. That every farm have an irrigated pasture sufficient to provide for the dairy cows and horses necessary on that farm.

Ross Stephens, Chairman
Longmont, Colo.

James E. Morrison, Secretary
Sterling, Colo.

R. G. Maxwell, R. 3, Fort Collins

W. E. Dalby, Wellington

Denzel Hartshorn, R. 2, Longmont

Ben Rannels, R. 5, Longmont

Will Dickens, R. 2, Longmont

A. H. Borgman, Longmont

J. H. King, Sterling

D. W. Working, R. 2, Capital Hill
Station, Denver

SUGAR BEETS

This committee, designated to study the sugar beet crop in Northern Colorado for the purpose of providing a farm income sufficient to permit the members of the farm family to have the necessities and comforts of modern life comparable to that enjoyed by families in town or city life and to be a potential factor in the social, religious, political and economical life of the nation, finds that to achieve these ends consideration must be given not alone to the production of the beet crop but to the marketing as well. The committee therefore recommends:

1. That in order to maintain fertility and a balanced crop rotation not more than 20% of the crop acreage be put into beets. In the United States there is no surplus of beet sugar as a menace confronting most other agricultural crops since the United States produces only one-fourth of the national requirements. It follows that any restriction of acreage suggested by this committee is with the viewpoint of maintaining soil fertility and with no thought of curtailing production to increase prices.

2. That all growers associate themselves with the Mountain States Beet Growers Marketing association in order to have power to bargain with the buyer and to secure a fair share of the net returns from the sale of sugar from a ton of beets, the division being based on the grower's cost of producing a ton of beets and the manufacturing cost of the conversion of a ton of beets into sugar. As the grower in his individual capacity lacks bargaining power and as the best minds of our nation are convinced that only thru cooperation can agriculture attain an equitable farm return and be placed on a parity with industry. The committee also considers it a poor economic policy to allow the buyer of a 22 million dollar crop to also be the seller, a situation which exists without a growers' selling organization.

3. That the best farm methods be practiced for economic production: (a) Better preparation of seedbeds, especially discing before plowing; (b) closer supervision of hand labor in blocking and thinning; and (c) the encouragement of any mechanical labor-saving devices in order to cheapen costs of production.

4. The maintenance and increase of soil fertility thru rotation and fertilization and by the feeding of livestock for the profitable use of by-products on the farm, thereby supplying a market for hay and grain produced in the rotation.

V. A. Winger, Brush
John Glasier, Denver
J. D. Pancake, Greeley
Ben Psalsgraph, Windsor
A. J. Bartholomew, Sterling
J. P. Dillon, Sterling
P. Y. Ancell, Keensburg
C. H. Chapin, Fort Morgan
Chas. Evans, Greeley
S. K. Clark, Lucerne
A. A. Brooks, Eaton

E. H. Markham, Chairman
Meade, Colo.
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Sterling, Colo.
Geo. R. Smith, Secretary
Longmont, Colo.
G. E. McCrimmon, Secretary
Julesburg, Colo.
Wm. Johnson, Brush
F. M. Harter, Keensburg

POTATOES

The potato committee recommends:

1. Table Stock Quality

- (a) That the Agricultural College be commended for the work on flea beetle control already under way and that they be urged to concentrate all their efforts which their funds will permit in finding some practical control measures.
- (b) That all potato growers stop irrigation sufficiently early in the fall to allow potatoes to properly ripen.

The committee feels that in this northern district one of the big problems relating to the potato crop is the control of the flea beetle.

2. To Control Surpluses

A very complete report on actual plantings of early and intermediate states and intentions to plant of late state will be published by the U. S. Department of Agriculture about March 18. Past experience has shown that actual plantings closely follow intentions, and it is recommended that potato growers study these reports very closely in determining the acreage to be planted.

- (a) In years of surplus production it is recommended that growers definitely plan to feed this surplus to livestock, keeping inferior quality from human consumption. In all years the sale and use of inferior grades tend to depress the general price level so it is believed that the full benefit of grading can only be realized by keeping these grades off the market.
- (b) That there be no expansion of acreage but rather a reduction and that this district plant only such acreages as will conform to best plans of crop rotations.

The present shortage of potatoes is due to weather conditions rather than to reduced acreage in 1929.

3. Growing the Crop

That in order to insure a more profitable crop, growers use the following practices:

- (a) Plant a larger amount of seed per acre than is generally used;

- (b) Use the best possible seed obtainable;
- (c) In irrigating potatoes start sufficiently early in order that the plants make a continuous and vigorous growth thruout the growing season.

4. Marketing

Since better grading, even weighing of bags, and more orderly marketing is of value in properly disposing of the crop, growers are urged to consider cooperative marketing as a possible means of obtaining these results.

The committee feels that the problem of a surplus is the one vital factor affecting the potato growers and that it can best be solved by control of acreage, more effective grading and cooperative marketing.

A. L. Mumper, Greeley
C. L. Oldemeyer, Brush
J. G. Johnson, Fort Morgan
C. A. Finch, Eaton
H. Bickling, Greeley

W. C. Edmundson, Chairman
Greeley, Colo.
H. H. Simpson, Secretary
Greeley, Colo.

E. R. Bliss, Greeley
E. E. Walter, Greeley
Carl C. Tams, Greeley
H. L. Collins, 715 Mining
Exchange Bldg., Denver

GRAIN AND SEED CROPS

The grain and seed crops committee recommends:

1. That there be no increase in acreage of corn, barley and oats on irrigated farms in Northern Colorado except as rotations demand.

The committee feels, however, that Northern Colorado does not produce feed grain crops commensurate with livestock demands since this area imports considerable feed grain supplies. Therefore, the efficient producer of feed crops can successfully compete with other areas in corn, barley and oat production.

2. Since corn, barley or oats are feed crops which are and should be grown on Northern Colorado farms according to the personal desires of individual farmers and the livestock which they select, that production of corn, barley and oats be increased not in acreage, but thru increased yield per acre by

- (a) More attention to seed;
- (b) Attention to cultural methods and irrigation;
- (c) Seed treatment of barley and oats for smut.

3. Since some improved strains and varieties of field seeds have been developed in Colorado, adapted to Colorado conditions, and have been proven and standardized by the Experiment Station, that these Colorado grown improved strains be given consideration as a basis for higher yields.

4. That more attention be given good cropping systems since maximum and most efficient production of corn, barley, oats and wheat can be secured by following some system of rotation adapted to the district and individual farm and intelligent use of barnyard manure and commercial fertilizer.

5. That wheat be considered only as an early fall cash crop and a minimum yield of 35 bushels per acre in order to pay production costs on irrigated land.

6. More attention to treatment of wheat for smut together with attention to seed selection and cleaning.

7. Group effort in marketing wheat or other crops in harmony with plans of the Federal Farm Board.

8. As a basis of successful farming a long time program of registered local grown seed corn every year (unless personal field selection is practiced). Further, that registered barley, oats or wheat be planted every fifth year or oftener to renew farm seed stock.

9. That rye for grain be not considered a profitable crop to be grown on irrigated farms in Northern Colorado.

Raymond Condon, Platteville
John Hicks, Henderson
Forest Johnson, Longmont
Robt. Bliss, Greeley
Wm. Diedrick, Brighton
D. W. Robertson, Fort Collins

Geo. Hoffman, Chairman
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T. G. Stewart, Secretary,
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Grain and Seed Crops, Continued.

Alvin Kezer, Fort Collins
Ben King, 328 State Capitol Bldg.,
Denver, Colo.
J. W. Myers, Ault
Francis W. Dressor, Greeley
A. G. Schwab, Grover
Vincent Myers, Ault
C. H. Chapin, Fort Morgan

SEED BEANS

The committee on seed beans recommends:

1. That there be a gradual increase in acreage planted to seed beans in the irrigated sections of Northern Colorado, this increase to be made by new growers starting with small acreages and increasing their acreage only as they acquire experience in raising satisfactory yields.

2. That seed beans be planted only on well drained soils free from alkali.

3. In preparing seed bed that the land be plowed early in the spring where beans follow alfalfa or stubble and worked with a springtooth harrow early where beans follow row crops, and later immediately before planting the land be thoroly harrowed.

4. That the early maturing varieties be planted after June 10.

5. That the amount of seed per acre be increased from 50 pounds, the amount now generally used, to 70 pounds per acre, to allow for some extra plants to be harrowed out.

6. That careful attention be given to this crop to see that a crust is never allowed to form, even though it be necessary to harrow the crop after it is up and thereby tear out some of the plants.

7. That irrigation be light and frequent in order to keep the top soil moist at all times, as this is a very shallow rooted crop and if allowed to get dry while blossoming it stops setting on blossoms and the yield is thereby curtailed.

8. That it pays to stack the beans rather than thresh out of the shock, as it lessens the risk of damage from wind or wet weather and avoids the condition of having some beans in the top of the shock dry enough to crack and others in the bottom damp enough to go thru into the straw pile when threshed.

9. That the grower be present when the tare is taken in order to see if there is any that he can eliminate by better

handling and also to avoid any possibility of suspicion that the tare is unfairly taken.

10. That where beans are grown in a combination with other cash crops as beets and potatoes that they be given their full share of attention.

11. That the following are good rotations:

- (a) Alfalfa, potatoes, beans, small grain
- (b) Alfalfa, beans, beets, small grain
- (c) Alfalfa, beans or potatoes, beets, small grain and clover, manure, potatoes, beans, small grain and alfalfa.

Wm. A. Carlson, Chairman
Walter S. Stratton, Jr., Secy.
Greeley, Colo.

Chas. Stroh, Johnstown
W. D. Balcom, Greeley
Geo. Schofield, Laporte
Ernest Kruse, R. 1, Greeley
Joe Borguson, R. 6, Greeley

IRRIGATION AND DRAINAGE

The irrigation and drainage committee recommends:

1. The conservation of flood waters, by means of storage reservoirs, to insure an adequate supplemental water supply for existing appropriators in rounding out the water requirements of present established irrigation systems. That the inauguration of new irrigation projects be discouraged for the present.
2. Because of the apparent increased acreage of seeped and water-logged lands that immediate attention be given to corrective measures.
3. That consideration be given to the possibilities of relieving seeped conditions by means of pumping.
4. Where relatively large areas of farm lands require drainage that organized districts be formed in perfecting reclamation.
5. That individual farm drainage be done under contract guarantee.
6. That pumping from wells be encouraged as a supplemental water supply.
7. That for economical pumping for general field crops the lift be not to exceed 50 feet.
8. That a thoro investigation be given to the problem of underground water supplies before actual development is started.
9. A more conservative use of water in irrigation and better control of waste water and surface accumulations.
10. That more attention be given to the distribution of water to the user in the proper and uniform measurement of his supply.
11. That there be held annually, at some convenient place, a conference for ditch superintendents and ditch riders to improve the management and distribution of water.

Arthur Nelson, R. 3, Longmont
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R. W. Clark, Edwards St.,
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Ross Oliver, Greeley
A. H. Myers, Eaton
Geo. Ball, Pierce
O. C. Prunty, R. 6, Greeley
Wm. R. Kelly, Greeley
Lou Birkle, Platteville

Frank E. Davis, Chairman
Greeley, Colo.
R. L. Parshall, Secretary
Fort Collins, Colo.

FARM ORGANIZATION

The farm organization committee recommends:

1. That at least one-third of the crop area should be in alfalfa.
2. That all feeds produced be fed on the farm in order to give employment the year round. It is not as profitable to sell at prevailing prices as it is to feed them.
3. That no more livestock be fed on the farm than enough to utilize farm roughage.
4. That farmers depend upon crop rotation, farm manures and green manures to maintain fertility.

The committee feels that such a program should result in yields of crops as follows:

Alfalfa -----	2.75	tons
Barley -----	50	bu.
Corn -----	50	"
Sugar beets -----	16	tons

5. A green manure rotation supplemented by a farm flock of sheep, dairy cows, hogs, or poultry is recommended where financial conditions will not permit the risk of extensive feeding of cattle or sheep. Another possibility would be feeding sheep or cattle on a contract basis to utilize all available feeds.
6. That the average farmer depend upon horses for power in order to become more independent and to reduce his cash expenses.
7. That the use of tractors be adopted on the larger irrigated farm.
8. That a truck be used where the farm is some distance from the market.
9. That the farmer on the medium sized farm hire tractor or truck work rather than own them himself.
10. That the Extension Service call local meetings of farmers in districts covered by this conference to assist farmers in making plans to utilize the data obtained at this conference.
11. That each farmer use the following outline as a guide showing how to approach the problem of working out a satisfactory rotation and budget for his own farm.

The committee used 160 acres as an average sized farm unit. In selecting a rotation to use as an example of farm organization the committee attempted to choose crops that could be grown over as wide an area as possible. In any given locality this rotation should be modified to meet local conditions.

This selection was also made with the idea of maintaining the fertility of the soil.

The farm returns that the committee secured, based on this farm setup, would indicate that irrigated land is not worth the current market price.

C. L. Hover, Chairman
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EXAMPLE OF FARM BUDGET

160 Acre Irrigated Farm. Cattle Feeding and Sugar Beets

Crops	Acreage	Yield per acre	Total amount
Alfalfa	58	2.5 tons	145 tons
Barley	43.5	50 bu.	2,175 bu.
Corn silage	8	8 tons	64 tons
Corn grain	6.5	50 bu.	325 bu.
Sugar beets	29	16 tons	464 tons
Pasture	4		
Farmstead, roads, etc.	11		

Feed Requirements

Livestock	Number	Hay ton	Barley lb.	Corn lb.	Pulp ton	Silage ton	Protein conc. lb.
Horses	9	32	16,000				
Cows	3	12	5,000				
Hogs (1 sow, 6 pigs)	1		3,500	3500			
Chickens	75		1,000	1000			3000 mash
Feeder steers	110	91	78,900	24,750	92	34	16,500 cottonseed cake

110 steers purchased @ 792 lbs. @ \$7.26 equals \$8,314
 On feed 150 days, gain 1/8 lb. per day.

Ration per day (pounds): Alfalfa 11, silage 7.5, wet pulp 10.2,
 barley 4.5, corn 2.25, and cottonseed cake 1.

EXPENSES

Labor:				
One man (regular)	\$960	Twine	\$ 18	
Day (extra)	85	Threshing	218	
Contract beet	725	Fuel & oil	50	
Repairs	200	Auto (cash)	200	
Silo filling	128	Telephone	24	
Wet pulp	100	Cattle market-		
Poultry wash	83	ing cost	658	
Cottonseed cake	412	Insurance	8	
Corn	391	Taxes	480	
Feed grinding	104	Water	320	
Livestock expense (misc.)	26	Federal Farm loan	832	
Seed:		Life insurance	<u>250</u>	\$6,502
Beets	87			
Barley	55	Replacements:		
Alfalfa	87	Horse 1	100	
		New machinery	200	
		Depr. on auto	200	
		" " bldgs.	<u>200</u>	700
				<u>\$7,202</u>

RECEIPTS

109 steers sold @ 1062 lbs. @ \$9.54	\$11,043	
Less purchase cost	<u>6,314</u>	
	4,729	
Alfalfa, 9 tons @ \$12	108	
Beets, 464 tons @ \$7	3,248	
Pigs, 4 @ 200 lbs. @ 9¢	72	
Butterfat, 400 lbs. @ 35¢	140	
Calves, 2 @ \$15	30	
Eggs, 600 doz. @ 25¢	<u>150</u>	\$8,477

SUMMARY

Cash receipts		\$8,477
Expenses:		
Cash	\$6,502	
Replacement	<u>700</u>	<u>7,202</u>
Net cash for living expenses.....		\$1,275

Note: If 1100 lambs were purchased @ 34.54 lbs. @ \$12.84 and 1070 lambs were sold @ 90.35 lbs. @ \$14.81, the result would be a gain of \$93 over the above record, giving a total of (\$1275 plus \$93) \$1368 available for living expenses.

Division on customary basis between landlord and tenant (landlord receiving one-half alfalfa; one-third grain; one-fourth sugar beets and paying the tenant to feed the cattle).

Tenant		Landlord	
RECEIPTS		RECEIPTS	
Alfalfa, 25.5 T @ \$12	\$330	Beets, 116 T @ \$7	\$ 812
Barley, 44,100 lbs. @ \$1.25	551	Net on 110 steers	4729
Corn silage, 84 T @ \$5.50	341	Sale surplus alfalfa 9 T @ \$12	108
Corn, 7234 lbs. @ \$1.30	94		
Sugar beets, 348 T @ \$7	2436		
Misc. livestock	392		
Labor feeding cattle	440		
	<u>\$4584</u>		<u>\$5649</u>

EXPENSES		EXPENSES	
Labor (regular	960	Feed from tenant	\$1316
" day	85	Insurance	8
" contract	725	Taxes	480
Repairs	200	Water	320
Fill silo	128	Cattle expense	653
Poultry feed	83	Pulp	100
Livestock expense	26	Cottonseed cake	412
Seeds	142	Corn	591
Threshing and twine	236	Feed grinding	104
Fuel	50	Alfalfa seed	87
Auto	200	Dept. on buildings	200
Telephone	24	Labor to tenant	440
Life insurance	<u>250</u>		
Replacements:			
Horse, 1	100		
New machinery	200		
Dept. on auto	200		
	<u>\$3609</u>		<u>\$4516</u>
Net income	\$ 975	Net income	\$1133

The figures presented are from actual records of a group of farms where feeding has been carried. The net income from this setup can be increased by -

1. More efficient rations;
2. Feeding younger animals;
3. It must also be remembered that during years of higher prices a narrower margin is necessary for profitable feeding than in low price years.

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