Oregon Agricultural College

Extension Service

PAUL V. MARIS Director

18:

A PROGRAM

For

Deschutes County Agriculture



Report of the County Economic Conference Redmond, February 26 and 27, 1924

Cooperative Extension Work in Agriculture and Home Economics

Oregon Agricultural College, U. S. Dept. of Agriculture, and Deschutes

county, cooperating

Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.

Foreword

This bulletin is printed at the request of the general assembly on the last day of the Deschutes County Economic conference at Redmond, Fedruary 26 and 27.

Approximately 200 farmers and business men from points throughout the county attended the conference. It was organized along commodity lines, covering dairying, poultry raising, farm crops, livestock, land settlement, and boys' and girls' club work.

Each of these groups had before it the recommendations of the State Economic conference held at Corvallis January 23 to 25. In cooperation with specialists of the state college Extension Service all available information was assembled that would be of value in determining a program of production and marketing best suited to furthering the interests of Deschutes county agriculture. The respective conference groups considered this information as well as that supplied from local sources, and prepared a statement and a set of recommendations. These were considered and adopted by the general assembly on the last day of the conference.

Taken together these reports constitute a program for Deschutes county sgriculture. Singly, they represent the most approved practices in the projection and marketing of the county's major agricultural products.

The conference was a beginning. Its ultimate value will depend, however, upon the extent to which its recommendations are known and put into effect by the various communities of the county. Consideration of this bulletin is recommended to all persons interested in the welfare of Deschutes county. Particularly are farmers urged, individually and through their organizations use these reports as a guide in developing the agriculture of the county. The program is not perfect. It is assumed that it will require correction and amendment as conditions change and new facts develop.

Farmers and town people cooperated in formulating this program. It is hoped that this spirit of cooperation will continue in the effort made to accomplish its aims.

CONTENTS

Foreword	3
Introduction	5
Committee Reports:	
Boys' and Girls' Club Work	7
Dairying	9
Farm Crops	11
Livestock	15
Poultry	18
Land Settlement	21
Land Settlement	

Introduction

Deschutes county was separated from Crook county December 13, 1916. It contains an area of 1,928,137 acres according to the 1923 Oregon Blue Book, classified as follows:

Privately Owned:	
Acres of tillable lands	89,039
Acres of non-tillable lands	387,288
Acres of timber lands	243,078
	,.
Public Lands:	
Forest reserves and other public lands	.1,208,732
Total acres	1,928,137
U. S. CENSUS STATISTICS	
The 1920 U. S. census gives the following information arm Area:	for this
Number of farms	751
Number of farms	
	144,979
Acres in farms	144,979 7.4
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total far acres	144,979 7.4 m 35.7
Acres in farms	144,979 7.4 m 35.7
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total far acres	144,979 7.4 m 35.7 193
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm	144,979 7.4 m 35.7 193
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations:	144,9797.4 m35.719368.9
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total far acres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property \$\$\text{3.50}\$	144,9797.4 m35.719368.9
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property Average value per farm	144,9797.4 m35.719368.9
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property Average value per farm opulation:	144,9797.4 m35.719368.9 6,535,511 8,702
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property Average value per farm	144,9797.4 m35.719368.9
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property Average value per farm opulation: Total population of county	144,9797.4 m35.719368.9 6,535,511 8,702
Acres in farms Per cent of land area in farms Improved land: acres 51,744, per cent of total farmacres Average acreage per farm Average improved acres per farm arm Valuations: Total value all farm property Average value per farm opulation:	144,979

PRODUCT	INCOME	% of
	(Dollars)	TOTAL
Livestock and meats	\$ 515.000	43.7
Hay and forage	210,000	17.8
Dairy Products	182,623	15.5
Vegetables, including potatoes	130,000	11.0
Cereals	55,000	4.7
Wool	46,000	3.9
Poultry	41,703	3.4

Total Income\$1,180,326

100.0

INTRODUCTION

Variation in unit prices and other factors would alter the above totals at the present time. However, as they stand they represent the main sources of agricultural income in this county.

Value of Total Agricultural Production:

Income from sales does not represent the entire value of all products raised on farms. The following summary indicates that total production is thmost double the income from sales:

CROP PRODUCTION	VALUE
01.01 11.02 0 0 11.01	(Dollars)
Hay and forage	\$ 745,229
Vegetables	207,259
Cereals	1 7,001
Other grains and seeds	1,100
Fruits	1,301
•	
Total	\$1,029,928
LIVESTOCK PRODUCTION	VALUE
LIVESTOCK TRODUCTION	(Dollars)
Beef Cattle	\$ 468,578
Horses	214,719
Dairy Cattle	195,132
Dairy Cattle	
Sheep	·
Swine	
Poultry	
Goats	
Mules	8,958
Bees	4,798
Total	\$1,147,815
Total Crops and Livestock	\$2,177,743

CONFERENCE GROUP REPORTS

On succeeding pages will be found reports of the various conference groups as approved by the general assembly.

Boys' and Girls' Club Group Report

A. PRESENT SITUATION:

club Deschutes county had 47 members enrolled in work year 1923 of which number 31 filed These 31 were in the final reports. following projects: Gardening, pig, 6; calf, 5; sewing 12. They gave a valuation of their work of \$1,410.16, costing them \$1,182.54, and leaving them a profit of \$227.63. Five clubs in the county completed their work as 100 per cent. These were as follows: Gardening, with Julius Pederson as local leader; pig club at Sisters with H. H. Kilgore as local leader; calf club at Redmond with Roy E. Stevens as local leader; sewing clubs at Terrebonne and Sisters with Mrs. A. McClay and Mrs. Daisy Allen as leaders, respectively.

Club work has become permanent with the boys and girls of the state with the result that in the year 1923 there were 5,777 club members enrolled in different projects throughout the state. Of this number 3,971 filed their final report in the office of the state club leader and made exhibits at one or more local county or These members reportstate fairs. ed a valuation of their work amounting to \$120,940.23. This work cost them \$75,773.41, thus giving a profit of \$45,166.82.

There were 742 standard clubs in the state which means that there members to exhibit at were 742 men or women willing to fair. act as local leaders of these various were 27 county fairs in this state clubs, working with these boys and which offered \$7,100 in prizes for girls and assisting them in their club work. work. As a result over 300 of these

clubs finished their work 100 cent strong. The average per cent of completion in the United States of all members in club work was The percentage of completion in Oregon was 68.

B. RECOMMENDATIONS:

1. Correlate With Conference Program.

We recommend that club be developed in Deschutes county and that it be correlated the program adopted by this conference so far as is possible.

That clubs be organized in the following projects: Gardening, poultry, pigs, calves, sheep, sewing, cooking, and canning.

2. Support Local Leaders.

That each community help secure local leaders for whatever clubs may be organized in that community and that the local leader selected be given the support of the community.

3. Exhibits at County Fair.

Fair boards in all parts of the state have realized the value of club work, thereby not only bettering the fair exhibitions, for the present but also training those young exhibitors to become better exhibitors. The best way to build fairs is the encouragement of these club the In the year 1923

We therefore recommend that the

county fair board for Deschutes county offer suitable prizes for club to enter competition with the adult members in all projects and divis- breeders under the same conditions. ions of projects for which club members are enrolled in this county.

That in the livestock projects the club classification be by projects and breeds.

That all club members be allowed

That the people of each community see that the exhibits of the club members in their community be sent to the county fair.

Dairy Group Report

The dairy group of the Deschutes | 4. Surplus of Milk County Economic conference recognizes the probable expansion of the dairy industry in this section and believes as long as there is any surplus alfalfa hay that dairying can profitably expanded. It is desired, however, to call attention to certain production statistics and also marketing conditions on which our recommendations are based:

A. PRESENT SITUATION:

1. Fat Production.

According to the last census there are in Deschutes county 2600 cows 2 years of age or older which have approximately produced 500,000 pounds of butterfat per cow, or an average production of 195 pounds of butterfat per cow.

The production of 195 pounds of butterfat per cow annually in Deschutes county is higher than state average, but is 45 pounds less than the average for Tillamook Cost studies show that a county. production of 240 pounds of fat per year on the average is required to make profits above production costs.

2. Roughage.

In the production of roughage, alfalfa amounts to 43,000 tons and succulent feeds 1500 tons.

There is a surplus of legume hay amounting to 12,000 tons. The production of 1500 tons of succulent feed is 10,000 tons short of the dairy cows' requirments.

3. Bulls.

There are 60 bulls one year old or older in the county. These are probably no better bred than the average for the state, which would indicate that 30 of them are grades or scrubs.

Produced.

The production of 500,000 lbs. of butterfat in the county is 25 per cent more than that consumed if the percapita consumption conforms with that in the United States as a whole.

5. Tuberculosis.

Tuberculosis testing has covered the county, but should be continued to make the county a free area.

6. Manufacturing Facilities.

There are two creameries in the county, one at Bend andat Redmond. The average land price of butterfat in 1923 was 46.6c per pound. The average prices received locally have compared favorably with the Portland prices when transportation costs are considered.

The creameries in the county are more than adequate to take care of all the products produed in the coun-

In view of the prices received for products in the county there appears little reason for shipment to outside points. In fact, if Deschutes county is to make any name for its products, they should be manufactured locally and as production increases shipping in carload lots will be possible.

B. RECOMMENDATIONS:

1. Increase Average Production.

That efforts be made crease the average production of the individual cows in Deschutes county through the keeping of records and organization of testing associations and further that a committee three be appoined to assist the county agent in forming such an organization.

2. Use Registered Sires.

That every legitimate effort be made to eliminate the scrub and the grade bulls in the county and that only registered dairy sires be used | manufacturing plants one in dairy herds, and further, that assistance of the O. A. C. extension service be secured in the organization of bull associations in communities where desired.

3. Compulsory T. B. Testing.

That every advantage be taken of government and state aid in tuberculosis testing and that as soon as possible, sentiment be created for the compulsory method of tuberculosis eradication in order that the county may become a free area.

4. More Succulent Feed.

That every dairyman strive provide at least twenty-five ťΩ pounds of succulent feed daily for each dairy cow when not in pasture and that the growing of permanent pastures be encouraged.

5. Improve Quality of Cream.

quality of product sinceis essential to successful marketing and since quality of manufactured products is dependent upon quality of cream, better care in handling of both milk and cream is urged. And further that every means of publicity be used in disseminating information as to the best methods of taking care of milk products on the It is also recommended that cream grading and payment upon grades be demanded of the creameries in the county and that only those creameries complying with this request be supported.

6. Support Local Plants.

support local lairy oleo law. we That

hundred per cent.

7. Butterfat of First Importance.

in view of facts presented at the State Economic conference factories or condensaries are not to he recommended. Butter manufacture should receive first consideration and quality of products must be emphasized.

8. Minimum Herd 10 Cows.

The 2600 dairy cows of Deschutes approximately county are on average farms, making an about 7 cows per farm. The cost of production studies in other sections indicate that this is too small a unit for economical production andherd minimum this account the should consist of at least 10

9. Encourage Club Work.

girls' That bovs' and clubs and dairy record clubs be encouraged and given our fullest support.

10. Support Dairy Council.

support the That we Dairy Council in its advertising and educational work relative to the use of dairy products and request that its activities be extended to all parts of the state.

11. Help Defeat the Oleo Bill.

Dairy Associ-State the ation receive our moral and financial support in its efforts to defeat the referendum on the filled milk and

Farm Crops Group Report

I. SEED CROPS

A. RECOMMENDATIONS:

1. Establish White Clover Seed Industry, Because:

enough (a) There is not clover seed grown in the United States to supply the demand.

(b) There has always been a wellestablished market for it at prices ranging from 30c to 75c a pound.

(c) It is a crop which does well here.

(d) Seed crops average in Idaho about 360 pounds per acre.

(e) The freight rate takes a very low percentage of the total value of

(f) A cash crop is badly needed in this county.

2. Observe Following Production Practices:

(a) Each man go into the crop on a small scale at first, not over acres in most cases. As he learns the business he can expand his acreage if he desires.

(b) These small plantings should total at least 200 acres in order to allow carload shipments.

(c) No sulphur should be used until experiments are made to see if it helps or hinders seed setting.

(d) Seed or ground should be inoculated before seeding.

(e) Only the best seed should be All seed used should be tested for purity in order to avoid weeds which would ruin the value of the

(f) More experimental plantings of Ladino clover should be made.

(g) To further the acreage small plantings we ask the state leader of boys' and girls' clubs to agree to include in his club work a are shipped out each year. This furclover seed project on limited acre-nishes about 10% of the total cash age for boys and girls.

II. POTATOES

A. GENERAL SITUATION:

Potato acreage in Oregon is not increasing while it is in neighboring The average yield in Oregon states. is about 100 bushels per acre while it runs from 140 to 180 bushels per acre in the states around us. only outside market is California and the southwestern states. There is a possibility of developing a market by water with the Gulf Coast states, but it will depend upon a steamship service better than in former years.

The average yield in Deschutes county is less than the state average, being only 80 bu. This low yield is due to two things; planting on sage brush and stubble land and to occasional years of frost.

Freight rates are 24 cents to the Portland market and 53 1--2 cents a hundred to San Francisco. rate from Portland to San Francisco is 35 1-2 cents and from upper Willamette valley points it is 48 cents. The Deschutes county grower thus at a handicap of from 18c to 5 1-2c a hundred as compared with western Oregon growers. western Oregon growers average about 100 bushels per acre. therefore freight differential worth from \$5.50 to \$18.00 an acre to the average grower. This handihas been overcome cap, in part, by better grading and a better product here, but with better grading in western Oregon this condition cannot be expected to continue.

B. LOCAL SITUATION:

From 80 to 200 cars of potatoes income of Deschutes county farmers in importance.

The cash cost of growing an acre of potatoes here is probably about \$35, on the average. If a man hires the work done it is the consensus of opinion of the farm crop group that the cost would be at least \$75 per acre. In other words, crops of less than 75 sacks per acre cannot be expected to pay ordinary hired help wages and pay for the actual cash cost of growing.

The operation of the old Deschutes County Potato Growers' Association helped to advertise and build markets for the county's surplus crop. Part of this business, notably the seed business with Yakima, has since been lost because there was no organized effort to maintain it.

C. RECOMMENDATIONS:

The farm crop group makes the following recommendation about potatoes:

No Increase In Acreage.

1. That there be no increase of potato acreage at present, but that potatoes may, on the average, be recognized as the best cash crop so far developed for Deschutes county.

Stick With the Business.

2. Every man growing potatoes should plant about the same acreage every year and not skip in and out of the business attempting to hit the high markets.

Grow After a Legume.

3. Potatoes should be grown only on clover or alfalfa land. When the new land is broken up, it may be put into potatoes in order to prepare it better for alfalfa, but in such cases, it must be recognized that the first yield will be low.

150 Bushels Per Acre.

4. Yields of less than 150 bushels sult.

and is probably destined to increase | per acre cannot be expected to be very profitable.

Good Seed Is Cheapest.

5. Good seed is the cheapest, no niatter what the cost.

Grading Law Endorsed.

6. We endorse the compulsory law as to grading.

Organize Association.

7. We favor the formation of a potato growers' association: such association not to engage in marketing to any extent at first. The principle business of this association would be to adopt a brand, sell potatoes on the outside markets only under the brand and attempt to build up the present good reputation of potatoes here by putting out an absolutely guaranteed product. members could sell through the present channels, but all members would be bound to obey such grading rules as the association should adopt. And furthermore it would be the business of the association to build up the seed by hill selection in order to make yields here more profitable and in order to attempt to recapture a part of the Yakima seed trade. We do not believe that the potato surplus is large enough here to justify a marketing association but we do believe that an association like the above would help to put Deschutes potatoes on the map and would result in more profitable crops.

More Storage Cellars.

8. We urge all growers not now equipped with proper storage space to construct storage cellars. proper storage is the cause of great losses of table stock and injures the seed so that poor crops sometimes re-

III. GRAINS

A. PRESENT SITUATION:

The acreages of grain in the county in recent years are as follows: **V**ield

	+		
Grain	Per acre	Acres	lbs per A
Oats	25	900	800
Barley	30	200	1440
\mathbf{W} heat	20	1400	1200
Rye	13	7000	780
m		_	

The large acreage of rye is mostly in the dry country south and southeast of Bend. The larger portion of the other crops is on irrigated lands. Most of the wheat raised here is used for feed. Roughly \$100,000 worth of feed is shipped into the county. coast and Willamette valley counties. A large part of this is mixed feeds, but some of it is feed oats and bar-For home feeding for horses, cows, sheep, or hogs, barley is more suitable with alfalfa hay than other grains.

B. RECOMMENDATIONS:

The crop group then makes the following recommendations regard to grain:

Increase Barley Acreage.

(1) That the barley acreage be largely increased especially on farms where the grain is mostly fed home.

Return Per Acre is Important

(2) That farmers growing grain to sell consider carefully the differences in price per ton that usually exists between barley and wheat and grow the crops which in their opinion will return the greatest price peracre. Barley can be expected yield slightly more pounds per acre than wheat.

Hannchen Barley and Federation Wheat.

(3) We urge standardization on more leafy hay. Hannchen barley and Federation in buying that will keep away from wheat for spring planting.

Fall Planting Risky.

(4) Fall planted grain is a risk in most locations. Wheat should fall planted only on farms shown to be free from late and early frosts

IV. HAY AND PASTURES

A. PRESENT SITUATION:

Deschutes County sent out as baled hay about 3000 tons last year. There are about 45,000 tons of hay produced. This small tonnage of exported hay sets the price for all hay. Most of the hay sent out goes to the These districts are beginning to raise more legume hay and can be expected to need less and less imported hay, thereby cutting down the market for alfalfa hay. We believe that no district can afford to build its future on a basis of hay for export. Individual farms with a special market, such as lumber camps, etc., cam do this with satisfaction but an entire district cannot. Last year Idahe farmers bought at Bend 100.006 lambs for shipment to Idaho for feeding.

B. RECOMMENDATIONS:

1. Feed Hay Locally.

We strongly recommend that the present dependence upon outside markets for local hay be discontinued by feeding the hay locally. The exports are not large enough to warrant any reduction οf alfalfa acreage.

2. Use Grimm Seed.

We recommend the use of Grimma alfalta on all farms as it will keep out grasses better, maintain the life better, and yield larger crops of We urge the care dodder and other weeds.

8. Apply Sulphur On Alfalfa.

Alfalfa should be sulphured to get the best results. The crude ground sulphur gives as good return as fine when it is not ground too coarsely. It is not available as quickly as finely ground, so it should be applied earlier in the winter.

4. Silo For The Dairyman.

In order to get the best results from dairy cows, it is necessary to have succulent feeds the year ar-This can most economically be done by silage for winter and grass pasture for summer feed. The county is short 10,000 tons of succulent feed. We therefore recommend to every dairyman that he have a silo in view as a goal to work toward. In many cases it is more economical to grow vetch and wheat or peas and barley for ensilage than it is to grow sunflowers or corn. These crops also help to build the soil.

5. More Grass Pasture.

Grass pasture will furnish a large amount of feed at a low cost. We urge all owners of dairy cattle or sheep to put a part of their acreage into permanent grass pastures and to have their pastures divided into two or more parts so that rotation of grazing can be had.

V. IN GENERAL

Irrigation

It is recommended that the strip the fall or winter so as to beg border method of distribution be rotting before the growing season.

used in the irrigation of alfalfa, clover, and pasture land inasmuch as it is the belief of the committee that less water and less labor is required than by the corrugation method.

In the irrigation of potatoes heavy irrigations make for superior quality and yield. Light frequent irrigations followed by cultivation, are recommended. It is further recommended that the furrows for irrigation of potatoes be not so long as to over-irrigate the upper end of the field while reaching the lower end. An extra head ditch across the middle of the field should be used when the furrows are too long.

Humus

Recommendations have been made showing that increased yields of potatoes and wheat are necessary for profit. There is one outstanding way in which this can be accomplished. This is by crop rotation and the use of barnyard manure which humus and plant food to the soil. Humus increases the water-holding capacity of the soil and makes easier to irrigate. High yields grain or potatoes cannot be expected unless following a clover, alfalfa, or irrigated pasture sod which builds up the humus content of the Straw aids in building up the soil. humus on irrigated land and in the cases where not all the straw is used for bedding or litter, or feed, it can be profitably spread over land when worked into the soil in the fall or winter so as to begin

Livestock Group Report

A. PRESENT SITUATION:

1. County Adapted to Livestock Production.

Livestock production in Deschutes county is largely carried on in connection with the range. Figures obtained from 1922 show there were 25,000 sheep, 8,700 beef cattle, and 1600 hogs. Reports show that livestock is the leading industry, with 43 per cent of the income from agricultural pursuits coming from that source. The opportunity for raising of livestock in the county is emphasized by the fact that it is tributary to the Deschutes, Cascade, and Umpqua forests, all of which afford summer range to Deschutes county stockmen. A surplus of hay on the farms of the county indicate an opportunity for finishing of beef and lamb for the market. It has also been demonstrated that silage crops, such as peas and barley, oats and vetch and sunflowers produce well here.

2. Beef and Mutton Markets Capable of Absorbing Production.

Markets for beef and mutton. while not always satisfactory from the standpoint of price received, are capable of absorbing all that is produced. Feeders of lambs have found ready market from the section in Idaho and other feeding centers with the fat stuff going to both coast and Eastern markets. The same can be said of beef. Attention is called to the fact that the U.S. produces but 50 per cent of the wool consumed and the three coast states produce but 87 per cent of their beef requirement, making it quite unlikely in the range territory where the production is limited by cheap grass, that production of these commodities will ever reach the point of saturation.

The climatic conditions for cattle and sheep in the county are very desirable.

3. Pork Production Is Short.

Deschutes county produces only about one-third of its pork requirement because of the lack of feed grains. There is also a shortage of pork production for the state.

With these facts in mind the livestock committee submits the following recommendations on the various phases of the industry concerned.

B. RECOMMENDATIONS

I. RANGE LIVESTOCK

1. Expansion Limited to Grass Available.

Figures show there is now on the tributary forest lands rightly belonging to the county room for expansion in the production of beef cattle to the extent of about 25 per cent. The same can be said of sheep, with the possibilities of increase somewhat grass available may be somewhat greater than for cattle because of grass that is available. There is a shortage of winter range county, however, for both classes of stock. It is fully recognized by the committee that the economical production of range livestock should be based on the amount of grass available, and increasing beyond point is not justified from the standpoint of profit in the business. present shortage of stock the county is having a beneficial effect on the condition of the that it is allowing for reseeding and and a better feed condition.

2. Regulate Uncontrolled Grazing Land.

Inasmuch as there is a considerable quantity of unappropriated graz-

ing lands in Deschutes county, and highly specialized undertaking and ciently utilized because of non-reg-sidered carefully and wlation, it is recommended that this body go on record as favoring some form of control similar to that exerwised by the Forest Service on national forest ranges, with the view of improving the grazing and estabfishing more permanency to the livestock business.

3. Stability Urged.

Shifting from sheep to cattle or vice versa is a practice to be condemned as it is felt that such procedure does not build for permaneney in the business. We commend the Forest Service plan to issue 5 and 10 year permits on the forests, as being a step toward putting the industry on a sounder basis.

4. Finish Cattle on Silage and Alfalfa.

It is recommended silage that grown such as peas and barley, oats and vetch, or sunflowers, and that local stockmen consider the matter of finishing cattle for market on such silage and alfalfa Experiments conducted at the Eastern Oregon experiment station at Union have demonstrated this combination as the most economical ration for finishing steers. We also feel that lamb feeding can be encouraged in the county. but that where attempted it should be done with an allowance of a pound of grain per head per day in addition to all the hay the lamb will eat. perience of the most successful lamb feeders in the west has shown this to be the most satisfactory ration for lambs and gives the desired finish for market.

5. Consider Hazards Before Feeding Lambs or Beef.

It is fully realized that the feeding

whereas this land is not being effi- where carried on it should be conthe fully realized when it is attempted. Good feeding using good stock and high class feeds, such as are obtainable in Deschutes county, is essential to success. Experience has shown that the successful feeders are those who adhere to this principle, who study the feeding carefully feeding every year within reason and only on such a scale as their financial standing and feed will permit. We offer this as a means of marketing at least a part of the surplus hay. We recommend as the best practice among cattlemen marketing of steers as two-year-olds except under such conditions as obtained during the past two years, when calves were the best price getters.

6. Cull Ewe Flocks.

Inasmuch as there is much variaation in the fleece weights among range sheep as well as farm flocks. and whereas this can be corrected by careful culling, we recommend the careful culling of the ewe flock on the basis of fleece as well as the other points now considered.

7. Sudy Cost Of Production.

We favor a careful study of the production costs of the range livestock business, as there are many leaks that might thus be avoided. We recommend a careful study of the question of calf crop from the view of following such practices as bring the most calves to each 100 breeding females; also a careful study of losses and their causes on the range.

III. FARM SHEEP

1. Base Number On Available Waste Crops.

Farm sheep have shown a good of lambs or beef for market is a return when kept in small numbers on the fàrm. We recommend this phase of livestock on Deschutes county farms, to be handled 1. Study Is Urged. under fence. The number of sheep carried should be based on suitable ord as favoring a study waste crops. grasses or winter rye are recommended as a supplement in this connection. We emphasize the importance of every farmer of Deschutes county considering this phase of continue his livestock exchange list livestock as a weed cleaner and a gleaner of farm waste, but caution against overstocking

III SWINE

1. Keep Enough to Clean Up The Wastes.

There is some room for expansion of the hog industry in the county on the basis of farm waste. We boys and girls in better farm pracrecommend that every farmer keep tices. a brood sow for every five pigs he clubs in this connection. We unqualsows only, as quality is the basis of in connection with all classes of determining the value of the animal. livestock.

IV. MARKETING

It is our wish to go on Pastures in form of the livestock marketing and to endorse any plan that will assist the stockman in overcoming the present hap-hazard method of marketing.

We request the county agent to and urge stockmen to avail themselves of this service in buying or disposing of livestock.

V. GENERAL

We endorse the boys' and girls' cluh work for Deschutes county as the means of encouraging the We urge seed, pig and calt needs to clean his farm of waste. We liftedly recommend the use of the strongly urge good type, prolific best possible type of pure bred sires

Poultry Group Report

A. PRESENT SITUATION:

The poultry industry of Des-€hutes county is an increasing agricultural asset. According to the census report the value in 1919 was \$77,435.00. In value of chickens and eggs produced, this county ranks 26 in the State of Oregon. The poultry interests of the county must consider later the cooperative marketing of surplus products and any expansion of the industry should along the lines of producing a product of exportable quality.

The poultry industry has suffered less perhaps in agricultural deflation than other lines. Its expansion should be encouraged in the county because conditions warrant it and a larger volume can be more economically marketed if done cooperatively.

The fact that poultry keeping has been a profitable crop during this period of deflation has resulted in some farmers rushing into the business without due knowledge of the many problems that are necessary to permanent financial success.

The poultry business is increasing rapidly, not only in Deschutes county but the state of Oregon as a whole. It was therefore the work of this group to make a study of the production and marketing condition and to recommend a poultry program for Deschutes county that will permit the permanent continuance and expansion of the industry along economic lines of production, marketing and management.

B. RECOMMENDATIONS:

1. Either 400 Hens Or Just Enough for Home Needs.

The poultry business is a technical one, and requires much reguery farmer or farm is adapted

successful poultry keeping. farm flocks, too small to be considered an important unit of farm work usually suffer from poor ment and neglect. Deschutes county produces less eggs than are used at home, but with an increase in the specialized farm units the county will soon produce more than it needs. This will then bring the problem of how best to market the surplus eggs produced in the county force the issue of producing marketing a high grade exportable Eggs of this quality. quality will never be produced by the haphazardly managed, nondescript, and ill-kept flocks.

mostserious drawback the industry in the county is the fact that in the aggregate the volume is produced by the general farm flocks, rather than by the well managed, economical units. poultrymen assembled at this conference therefore specially recommend to the general farmer, where quate housing and management can be given, a side line unit flock of not less than 400 laying hens and pullets. A flock of this size commands respect, regular attention, and returns a more profitable return per A flock of this size hour of labor. further contributes to the ultimate solution of the marketing problem. For the farmers who are not interested to this extent, and for those who cannot prorate the necessary daily time, it is recommended that only a sufficient number of hens be kept to supply the needs of the home table, or none at all.

2. No Less Than 10 Acres For Each 1000 Hens.

The greatest undermining factor lar detailed work and careful super- of permanent poultry farming in this vision. It is not presumable that ev- county is the general lack of underto standing upon the part of everyone

sary to commercial poultry keeping. Many established farms throughout the state and county, successful for a few years, have been compelled to close their doors and go out of business as a result of soil contamination. It is therefore strongly urged no one be influenced or even encouraged to engage in commercial poultry keeping on less than 10 acres of systematically yarded, tillable soil for each 1,000 Commercia! hens. poultry keeping in two. and one. three acre tracts, where the young stock is to be reared each year, must temporary be considered only a and dangerous undertaking. estate dealers should be discouraged from exploiting small acreage tracts as desirable units for permanent and successful intensified poultry keeping.

Non-irrigated land is not recommended for poultry farming unless abundance of green feed.

3. Healthy Pullets Are Necessary-How To Get Them.

The success of poultry keeping in Deschutes county depends upon the ability or the producers to raise to maturity pullets that are healthy, vigorous, and free from intestinal parasites and inflammation. This can only be done through careful efforts to produce chicks on diseasefree soil and providing free range conditions for growing them to maturity. It is not recommended that permanent new poultrymen build brooder houses but follow the colony brooder plan as recommended by the poultry department of O. A. C.

However, where permanent brooder houses are now built it is recompossible the mended where around it should be divided into four Poultry producers must yards and crop-rotated, one to be benefit of the high price months in used each year and then only until order to get more months of laying

relative to the amount of land neces-| such time as pullets may be moved out on free range, as explained in Station Circular No. 54 of O. A. C.

4. Green Alfalfa And Roots For Succulence.

Green, succulent fed is one of the four major classes of poultry feeds. Green alfalfa is the out-standing recommendation for supplying this class of feed. However to provide for green feed during the winter when green alfalfa is not available, poultrymen of this county should protect the health, growth and production of their flocks by storing the to he third cutting alfalfa as a substitute for the green feed. A crop should be grown to root be used as a supplement for green alfalfa.

5. Disease Investigation Needed.

One of the limiting factors Deschutes county poultry production sufficient irrigated land is farmed is the increase of poultry diseases. in connection with it to supply an | It is recommended that the conference of Deschutes county endorse the action of the poultrymen assembled at the State Economic Conference at Corvallis, January 23-25, 1924, in asking the state to employ one veterinarian to devote full time to the investigation and study of poultry diseases and their prevention. poultry industry of Oregon is a tenannually. million dollar industry and its magnitude and permanent security warrant at least a one man study of its problems along this line.

6. Hatch Chicks in March and April.

is recommended that chicks be hatched early enough to be old enough to lay eggs during the fall and winter, when eggs are high in For this county it is recomprice. mended that heavy breeds be hatchland ed in March and Leghorns in April. from the pullet before moulting time desiring to construct new as well as to secure the best average houses be guided by the plans recprice per dozen for the year.

7. Secure Chicks At One Time.

is recommended that poultry producers make the effort to secure all chicks for brooding purposes at one time because of dangers underlying the attempt to brood together chicks of several different ages. In terms or results finances, labor, and permanency, it is cheaper for the average producer to purchase for example, 500 day old chicks to secure 200 vigorous, laying pullets, than to attempt to hatch this number from two or three hatchings from insufficient incubator capacity. A uniform lot simplifies the brooding, feeding, growing, housing and production problems and contributes 10. Consider Marketing largely towards a successful undertaking.

8. Build Laying Houses By O. A. C. Plans.

Proper poultry houses are essential to successful poultry farming. become a problem; therefore it is struct poultry houses along lines of careful study and a plan should be individual hobbies rather than construct poultry houses that have they must either form their own loproven successful in this county cal market association or affiliate through experimentation. It is rec- with some local marketing associaommended therefore, that producers tion.

laving ommended by the O. A. C. as fully explained in Station Circular No. 51.

9. Support State

Association.

The poultrymen of Oregon January organized an association to encourage attention along poultry lines; to securre the passage and enforcement of legislation, which will protect and develop the poultry interests of the state and to perform such other functions as will promote the welfare of the industry. name of this organization is "Oregon Poultrymen's Association." therefore, recommended that the Deschutes county poultrymen and others interested, support this organization.

Plans.

The poultrymen of Deschutes county must consider that when this county reaches the point where it is producing more than is consumed, marketing of the surplus will then There is too great a tendency to con-recommended that this be given a to made so that when the time comes

Land Settlement Group Report

Railroad Cooperation

The railroads are as much interested, if not more so than the people we now have on the lands in Central Oregon in securing more settlers to break up new lands coming under irrigation etc. The two lines into Central Oregon, which were built some 12 to 13 years ago, have been somewhat of a disappointment due to the country as a whole not settling up as fast as anticipated when the lines were first built. Due to lumbering, the railroads have managed to get by, but the revenue has not come up to their expectations at that.

The railroads have been working all the time to try and induce more settlers and are now spending some million dollars or more to encourage settlers and others to get back on the farm. The Hill lines have a number of men now in the east trying to seure more people, putting on a vast advertising campaign to this end, and are in hopes of securing a vast number during the next year or so.

To induce the settlers along with this campaign of advertising, they have, or will put into ffect a home-seekers' rate that will be attractive and help the good work along. These rates should go into effect around June first and will remain in effect all summer.

The railroads will also try and see that people coming to Central Oregon will be well taken care of. That is, to see that they are told the truth regarding the lands and will work with the people dealing in lands and try and get each one of them settled in such a manner that they will be satisfied with our new country. There has been a great deal of knocking regarding Central Oregon in years gone by and it is believed if the new settlers are taken care of in the right way and are shown that they are

welcome and that we want them to be one of us, that it will have a much better effect than in the past.

History of Land Settlement in Oregon

One of the principal causes, if not in fact the principal cause of the agricultural land values and in the unprofitable production of agricultural crops, is the unconscious crime of land speculation which has prevailed for the last sixty years.

In addition to increasing the overhead cost of all farm production an unfortunate result of this speculation has been that of trading settlers. The temptation of the successful farmer to sell at a profit and the temptation of the inexperienced man to buy farm lands, has given an unfavorable reaction to many of the most prosperous communities.

The economic conditions of nearly all of our irrigation projects and the means by which these problems could be solved was discussed at a meeting in 1921. A definite plan meeting of the took shape at the Oregon Irrigation Congress at Pendleton in 1921, at which committee, known as the Oregon Development committee, was appointed to give careful consideration to ways and means of solving the ecoconfronted problems that nomic found the It was Oregon. pressing needs were better marketing facilities and settlers for gon's unoccupied farm lands, particularly the lands of bonded irrigation projects.

The progress that has been made with the marketing problems is not the province of this committee and we will deal only with that of land settlement. It would not be possible to take the time that would be required to give you the details of this progress. We can only touch the most important points.

