Report
and
Recommendations
of
The Lane County Agricultural Economic Conference

Held At
The Eugene Chamber of Commerce
EUGENE, OREGON,
February 13-15,
1924.
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Foreword.

This bulletin contains the findings and recommendations of the Lane County Agricultural Economic Conference held in Eugene, February 13, 14 and 15, 1924, issued by Lane County in cooperation and in conformity with the following resolution adopted by the conference.

"WHEREAS, This, the first Lane County Agricultural Economic Conference, has adopted a program based upon a comprehensive study of production and marketing possibilities, and

"WHEREAS, This program constitutes the best guide for the further development of the agriculture of Lane county; therefore, be it

"RESOLVED, That the general committee in charge of the conference, consisting of C. W. Allen, representing the County Farmers Union; H. C. Wheeler, representing the Lane County Pomona Grange; M. H. Harlow, chairman of the Agricultural Committee of the Eugene Chamber of Commerce; C. D. Rorer, chairman of the Agricultural Committee of the Lane County Bankers Association, and Will Ayres, Eugene Market Master, constitute a standing committee for the purpose of devising ways and means for carrying the recommendations of the conference into effect."

Lane county enjoys the distinction of being the first county in Oregon to hold a conference for the purpose of adopting an agricultural program in general harmony with the program adopted at the State Agricultural Economic Conference held at the Oregon Agricultural College, January 23-25, 1924.

New Problems Confront Us.

It is recognized that the farmers now face a new set of conditions, that with our highly developed system of transportation and communication, the area of competition has been so greatly enlarged as to become nation-wide and in some cases world-wide. Efficient organizations have been developed for marketing certain commodities. Communities engaged in certain types of farming are materially affected by the amount and character of production elsewhere. In order to maintain the best possible balance between production and consumption it therefore becomes necessary to consider facts and formulate plans on a county, state and national basis. In the words of Chairman Allen at the opening of the conference, "We must have co-operation in production as well as in marketing."

Prior to the opening of the conference, the general committee in charge appointed sub-committees on the following subjects: Dairying, farm crops, livestock, horticulture, poultry, farm management, farm engineering, home economics, boys' and girls' clubs. These committees, working in co-operation with the Extension specialists of the Oregon Agricultural College, assembled all available information that would be of value in determining upon a program of production and marketing that would best further the interests of Lane county agriculture. The respective conference groups considered the information and prepared
a statement including a set of recommendations. These were carefully considered by the general assembly and adopted on the last day of the conference as they appear in this report.

We commend this report to the consideration of all persons interested in the welfare of Lane county, and particularly urge the farmers both individually and through their organizations, to use it as a general guide in developing the agriculture of the county. It is not assumed that the program is perfect. It will require correction and amendment as conditions change and new facts are developed. Farmers and town people have co-operated in formulating the program. Let us continue this spirit of co-operation and good will in our efforts to accomplish its aims and to apply reason and judgment to all problems requiring united action.
Lane County Agricultural Conference.
Wednesday, February 13, 1924.

Lane County Agricultural Conference meeting called to order by Chairman C. W. Allen of the executive committee, who explained the purpose of the conference.

Paul V. Maris, Director of Extension Service, O. A. C., spoke briefly upon the meaning of the conference to the county and to the state at large, dwelling upon the results to be derived through the findings of the conference groups.

Thursday, February 14.

The several groups met and discussed the problems of their particular branches of agricultural industry, submitting in writing their findings with suggested recommendations for improvement.

Friday, February 15.

General conference reconvenes.

Dairy report by M. M. Boney, read and adopted.

Horticulture report read by George B. Dorris. Moved and seconded that the informal report of Mr. Dorris be accepted and extend the privilege of the committee to submit a written report later. Carried. Later the horticulture report of the state conference was recommended by the committee and adopted by the county conference.

Poultry report read by the secretary, adopted as read.

Home economics report read by Mrs. F. B. Harlow, adopted as read.

Livestock report read by A. E. McCormack, adopted as read.

Farm crops report read by Ralph Laird, adopted.

Industrial report read by C. D. Rorer, adopted.

Boys and Girls Industrial club committee report read by J. G. Swan, adopted.

Farm engineering report read by R. E. Corum, adopted.

Farm management report read by J. W. Maxwell adopted.

A resolution as included in the foreword by Cal M. Young was unanimously adopted.
Dairy Committee Report.

The dairy section of the Lane County Agricultural Economic Conference has outlined herewith statistics concerning the dairy industry of the county and has drawn certain conclusions therefrom. Recommendations are also made which should serve as a guide in the activities of all organizations interested in the county's welfare.

I. STATISTICAL INFORMATION.

1. Production Statistics.

According to the last census there are in Lane county 11,127 cows two years of age or older, which have produced approximately 1,625,000 pounds of butter-fat. There are 384 bulls one year old or older in the county. There is produced 7606 tons of legume hay and 20,010 tons of succulent feed.


There are six creameries in the county, one being at Cottage Grove, two at Eugene, one at Junction City, one at Springfield and one at Blachly. Besides these, there is a creamery at Reedsport, and one at Albany, both which draw from Lane county, and considerable cream is shipped to still other plants.


The average butter-fat price in Portland for 1923 was 46.6c per pound. The average price received from local plants was 46.6c, with a weighted average from the Eugene Farmers Creamery of 45.5c and a 2-cent bonus to stockholders.

II. ANALYSIS OF STATISTICS.

1. Production.

The 11,000 dairy cows of Lane county are on approximately 3000 farms, making about four cows per farm. Cost-of-production studies in other sections indicate that the small herd has a very high labor and overhead cost, which can be materially reduced by increasing the size of the herd to at least 10 cows. The production of only 146 pounds of butter-fat per cow annually in Lane county is 22 pounds less than the state average and is 84 pounds less than the average for Tillamook county. Cost investigations indicate that it is very difficult to make a paying proposition out of the dairy business unless cows produce an average of approximately 240 pounds of fat per year. The production of 1,600,000 pounds of butter-fat in the county is 30 per cent in excess of that consumed, if per capita consumption in the county conforms with that of the United States as a whole. The production of 7600 tons of legume hay is approximately 30,000 tons less than their normal requirement. There is a production of 30,000 tons of grain and grass hay in excess of the requirements of other livestock, indicating that this inferior dairy feed makes up the bulk of the hay ration of the dairy cows. The production of 20,000 tons of succulent feed is 32,289 tons short of the dairy cows' requirement. The 384 bulls in the county are probably no better bred than the average for the state, which would indi-
cate that 192 of them are grades or scrubs.

There has been considerable tuberculin testing in the county but no attempt has been made to make it a tuberculosis-free area. The percentage of affected animals is not large but should not be allowed to increase.


The five creameries in the county are adequate to take care of all the products produced in the county. In view of facts presented at the Agricultural Economic Conference at Corvallis, butter manufacture should receive first consideration and quality of product should be emphasized. Cheese factories or condenseries, moreover, are not to be recommended. Unless there is a large organization ready to advertise and standardize the product of a new cheese factory, it is not likely to succeed; while in the case of condenseries, it is generally true that factories are established by private concerns capable of handling the manufactured products in localities where large quantities of milk can be produced and whenever the status of the business justifies expansion.

There are now even more manufacturing plants than are necessary to take care of Lane county's products.


In view of prices received for dairy products in the plants of the county, there appears little reason for shipping to outside plants. Products of the county are adequately taken care of and the main problem in connection with marketing is to improve the quality of the manufactured product.

III. RECOMMENDATIONS.

1. Production Recommendation.

We recommend:

(a). That since the small dairy herd operates under relatively high production cost and usually is the source of low-quality products, the minimum number of cows for economical production should be regarded as 10; that the keeping of a family cow on every farm should not be discouraged, but that effort should be made to improve the quality of all cream sold.

(b). That efforts be made to increase the average production of individual cows in Lane county. That to this end, systematic keeping of records be encouraged and cow testing associations of the most desirable type fostered. Not less than 1000 cows should be placed under test during 1924.

(c). That at least 50 grade or scrub sires be replaced annually by good registered sires. To accomplish this, we suggest that the Lane County Granges and Farmers Union locals adopt the goal that no member of the organization should own or use any but a registered sire. We further recommend that as soon as possible all farmers' organizations and other interested agencies cooperate in putting over a pure-bred-sire campaign similar to that adopted in other counties.

(d). That advantage be taken at once of federal and state aid in making a state-wide tuberculosis test. That on its completion, steps be taken to adopt the compulsory method of eradication.
(e). That every dairyman strive to raise at least two tons of legume hay annually per dairy animal and provide not less than two tons annually of succulent feed per dairy cow, and that he raise on the farm as much as possible of the grain feed required.

(f). That seasonal meetings be held by dairymen to discuss feeding and other problems and that investigations of new and better markets and more economical methods of manufacture and production be supported.

(g). That Dairy Club work, both Calf Clubs and Dairy Record Clubs, be encouraged and given our fullest support.


(a). That since manufacturing plants now in the county are adequate they be supported 100 per cent.

(b). That, since quality product is highly essential to satisfactory marketing, cream grading and payment upon grade be demanded of the creameries complying with this request.

(c). That since certain distributors of butter substitutes are apparently using the profit received thereby to manipulate butter and cream markets, we give our financial and moral support in preventing the success of the referendum against the substitute law passed by the last legislature, and that we further recommend that a contribution be made for this purpose by each dairyman and dairy manufacture proportionate to the amount of butter-fat produced or received.

(d). That the activities of the Oregon Dairy Council in its advertising and educational work be extended to all sections of the state and that we give it our moral and financial support.

COMMITTEE,

E. J. Ward.
T. J. Sweeney.
George Platt.
T. O. Green.
Jen O. Olson.
Further Development Should Fit Supply and Demand.

Horticulture in the State of Oregon has sustained many losses because at the inception of the industry plantings were made with but little thought or consideration of what would be done with the product when it was grown. Plantings were guided more by fancy than by reason, with the result that such sound economic axioms as the law of supply and demand were entirely overlooked. The consensus of opinion among many was that the more fruits, nuts and vegetables were planted, the greater would be our prosperity. It has since been learned, however, that after all the producer of any commodity is largely a servant of the consumer and he must grow only what the consumer desires, and must produce only so much as the consumer can be induced to buy.

Heavy Increase in Commercial Production.

Commercial fruit production in the United States has increased materially during recent years. For example, during 1917 the total car lot shipment of all fruit was 275,231 cars, while in 1923 the total was 443,397 cars, an increase of over 61 per cent in seven years. The car lot shipment of vegetables in 1917 was 269,872 cars, while in 1922 the total was 468,691 cars, an increase of over 73 1-2 per cent in six years. The total acreage of nuts had increased from 183,171 acres in 1910 to 356,000 acres in 1920, an increase of nearly 100 per cent in 10 years. This nut increase, of course, does not include the acreage of peanuts.

National Fruit, Vegetable and Nut Requirements.

The indications are that the total consumption of fruit will not materially increase, except when brought about by an increase in population. According to the recommendation of dietitians, an adequate diet of fruit for the present American population would be about 340,740,000 bushels. Our actual production in 1922 was 332,318,400 bushels, or 97 1-2 per cent of an adequate fruit diet.

The cases of the vegetables and of nuts are different. An adequate diet of vegetables for the present American population would be about 1,310,638,890 bushels, while the 1922 production was only 793,299,000 bushels, or 60 1-2 per cent of an adequate vegetable diet. An adequate nut diet would be about 873,693,260 pounds, while the 1922 production was only 693,507,000 pounds, or 79 3 per cent of an adequate nut diet. Material increases in the consumption of vegetables and nuts can be brought about without forcing consumption above actual diet requirements, while consumption of fruit is practically at the saturation point at present.

Balanced Horticulture Needed.

Indications are that the present acreage of all fruits in the United States is about sufficient to meet the present demand. There is an over-production of certain kinds of fruit and under-production of others. At present the apple, prune and loganberry industries seem to be suffering from
over-production, while the sweet cherries, pears, vegetables, nuts and some of the small fruits will stand reasonable expansion. In this way, the horticulture of the state will gradually adjust itself to a more diversified form.

The heavy planting of those crops which at the present time are showing big profits and the lack of planting of the other horticultural crops showing low or no profits at the present time, is one of the big factors which keep the horticultural industry of the state in turmoil. The wide variation in the annual production of apples is another factor which keeps the horticultural industry upset. The variation from such yields as 223 million boxes in 1920 to 99 million boxes in 1921 is a factor which is indeed hard to overcome. The wide variation in the canners' pack of our horticultural crops is another factor which should be overcome before the industry in the state or the country can be stabilized.

Absentee Ownership.

Experience proves beyond a doubt that absentee ownership of apple orchards and, for that matter, any fruit growing venture, has been unsatisfactory. Fruit growing as practiced today is a highly specialized business which at best requires one's entire time and attention. Promotion schemes wherein individuals are interested in exploitation rather than in the profits that may be derived from the fruit business itself, should be condemned. Experience proves that such ventures have been the cause of many failures in the Pacific Northwest.

APPLE AND PEAR COMMITTEE.

Commercial apple production in the United States has increased materially during recent years. For example, during 1917 car lot shipments totaled 57,048; in 1918, 65,340; 1919, 81,552; 1920, 102,926; 1921, 95,837; 1922, 112,267; 1923, approximately 121,600. Contrary to general opinion the car lot shipment has undergone a material increase during this period. At the same time, the total apple crop for this period does not show a material gain. Obviously there has been a substantial increase in the per cent of the total crop sent to market; cessation of cider making is doubtless contributing to this condition.

No General Increase Recommended at Present.

An average production of the present acreage of apples in the United States is sufficient to meet the present demand. This is indicated by the fact that during years of heavy production the farm value of the total national crop is actually lower than in years of moderate production, and also by the fact that during years of heavy production it is only the grower with special advantages that makes a profit from the apple business. Of course, as time goes on, planting of apple trees will be necessary, but whether Oregon should share in future general plantings depends largely upon the actions of other apple-producing sections. Heavy planting in eastern states might prove disastrous to plantings out here. It is thought safe to increase the
acreage of Gravensteins in Lane county at the present time. In individual cases, where cultural conditions are favorable, planting to complete an economic unit may be desirable and commendable.

Increase Yields.

It is no secret among those informed that Oregon's average per acre productions are too low to secure success in the business, even though living prices were obtained. Oregon's average production for the past three years has been 113 boxes per acre. This is in spite of the fact that most of the orchards are of bearing age. In many instances yields can be increased materially through orchard management, but orchards permanently injured by cold, by drouth or by diseases and orchards planted in poor locations will never be money makers. It is doubtful whether apple orchards in general can ever be expected to pay unless yields of 300 packed boxes, or over, per acre are obtained. With good yields of proper varieties, however, it now appears that over a period of years fair profits may be expected.

Standardize Varieties.

The apple business in Oregon is suffering in many cases because of undesirable varieties. The varieties that have generally succeeded in Lane county have been Gravenstein, Grimes, Delicious, Rome Beauty and Newtons. In general orchards made up of varieties other than those named should be eliminated by pulling out or top working to a desirable sort. The working over of undesirable varieties is not to be recommended as a general practice. In certain instances wherein trees are young and vigorous this practice may be expedient, but top working of older trees or trees that have been devitalized by drouth, cold or disease is unsatisfactory.

Better Handling Important.

It is the consensus of opinion that much good would come to the apple industry if better methods of handling were employed. Many of our varieties are still going onto the market at the wrong season. Much of our fruits deteriorate in quality because of improper storage. Some of our varieties never attain their best quality because they are harvested at the wrong time. Generally we need more information on the handling requirements of individual varieties.

Pear Production.

Figures show that during the past few years the pear has been extensively planted in the Pacific Coast states and commercial production has been materially increased. California alone now has over 70,000 acres planted to pears, most of which are of the Bartlett variety. Oregon at the present time has approximately 12,000 acres of pears, a goodly portion of which is of winter varieties. Nationally there has been a reduction of approximately 26 per cent in the number of pear trees since 1919. In spite of this, however, the car lot shipment of pears has increased from 8465 cars in 1917 to 17,500 cars in 1923. Indications are that the present acreage will yield considerably more.
than this when in full bearing. California during recent years has planted three times as many trees as are needed for present acreage.

Advisable Plantings.

Some sections of Oregon are especially adapted to the culture of pears. In some cases, it seems desirable that plantings, especially winter sorts, should be increased. It must be borne in mind, however, that pear growing is, to a large extent, a business for the specialists and that general pear planting throughout the state might prove disastrous. During recent years, exceptional prices have been obtained on certain winter pears. It must be remembered that these were secured in the face of a low tonnage and that conclusions drawn from such occasional sales would not be a fair criterion of what might be expected with the industry carried on on a large scale.

The varieties which have been most profitable thus far are Bartlett, D'Anjou, Comice, Bosc, Howel and in a few cases Seckel. In view of the big plantings of Bartletts in other states, it seems rather inadvisable to plant extensively of this sort just now. Plantings to supply local processing plants or other special trade needs may be sufficient. With increased plantings of winter pears, it is highly essential that the American people be taught the desirability of these pears. In Lane county, the Bartlett acreage should be increased to supply local canning needs only, while any increased planting of other varieties is questionable.

Improve Quality.

The matter of delivering a high class product to the consumer needs special attention. Cultural and handling practices must be gaged with this in view. It is especially important that to produce quality these pears be properly grown, harvested at the right time, and ripened under proper storage conditions. More information is needed on correct handling practices for winter pears.

Marketing and Transportation.

Because of the tremendous problems that confront the grower of apples and pears in the Northwest, with reference to marketing and allied problems, such as transportation and distribution, a definite policy cannot be outlined and carried out by any individual state plan along this line.

Through the activities of the Oregon and Washington state chambers of commerce and the bankers of these states, as well as through the activities on the part of growers, definite plans are under way at the present time to bring about a more unified action on the part of the apple growers of these states.

United Efforts Needed.

It is believed that through united efforts alone can come improvement in the way of orderly marketing, constructive advertising and the procuring of more adequate freight rates. This conference, therefore, goes on record as favoring such endeavors and supports the plan as far as possible in order that through co-ordinated action on the part of growers some of the fundamental troubles now impossible to handle, because of lack of organization, can be given attention.
Pressing Problems.

Some of the problems pressing for immediate solution are:

1. Material reduction in the number of distributors.
2. Possibility of a federal licensing system for distributing concerns.
3. Creation of adequate funds for the purpose of national advertising.
4. Thorough investigation into the possibilities of bulk shipment and existing grading practices.
5. The reinstatement of cider as a beverage on some basis that will not conflict with our present prohibition laws, thereby creating a market for millions of bushels of apples, which, since national prohibition, have been needlessly wasted.
6. Why westbound refrigerator cars are not utilized to augment the revenue of the carrier in order that the lowering of eastbound freight rates might be more easily obtained.
7. Collection and presentation of further data looking to a reduction in the freight charges on Northwestern fruit.
8. Further encouragement and extension of the federal inspection service.

NUT COMMITTEE.

Markets.
The markets for the nut growers in Oregon will be confined to markets within the United States. Due to the low production costs in foreign countries, this country can hardly hope to enter the foreign trade to any extent.

Consumption Greatly Increased Since 1900.

In 1900 the United States consumed 74,000,000 pounds of almonds, walnuts, filberts, pecans, chestnuts and Brazil nuts. Of the amount consumed, this country produced 28.3 per cent. In 1910, the consumption increased to 165,000,000 pounds, while domestic production decreased to 21.2 per cent. In 1922, the consumption was 355,000,000 pounds and the domestic production was 95,000,000, or 26.7 per cent.

Heavy Increase in Plantings.

In 1900, the average in the United States of walnuts, almonds, pecans and filberts was estimated to be 71,000 acres. By 1920, this had increased to 356,000 acres, or an increase of 400 per cent, as compared to an increase of 379 per cent in consumption of nuts. But of the estimated acreage in 1920, only 60 per cent was in bearing and these trees have not yet reached maximum production. At the present time pecan acreages are being increased more rapidly than all other nut acreages combined. This potential future competition between domestic grown products must be considered in its bearing of future plantings. At present, Oregon has 4000 acres of walnuts in bearing and 4000 acres non-bearing, with about 1200 acres of filberts, mostly non-bearing.

In view of the high quality and good yields possible with walnuts and filberts as grown in
Oregon, and after considering data at hand, the following recommendations are made:

Recommendations.

Planting.

For some time to come there will be a place for a moderate planting of walnuts and filberts in the State of Oregon.

Districts and Locations.

Walnuts have been proved best adapted to the Willamette and Umpqua valleys. Other parts of the state may prove satisfactory for walnut growing, but have not as yet been tried out extensively enough to warrant conclusions. In general, the plantings should be placed on rolling foothills with soil at least five to six feet deep, fertile and well drained. Air drainage should be such that protection against late spring frosts and early fall frosts is assured. It is not thought advisable to plant above 1000 to 1200 feet elevation. Local conditions may alter part of these requirements.

Filberts are recommended for the Willamette valley only until such time as other districts have been proved as suitable. Soils should be four feet deep, fertile and well drained.

Varieties.

With this comparatively new industry, the varieties are not thoroughly standardized. The ones listed below are considered best and will be so recommended until other superior varieties are developed.

For walnuts, the Franquette should be the main variety. The Mayette, Meylan or other named varieties may be suitable locally but have not yet proved as profitable as the Franquette. Although many seedling orchards are now paying propositions, and have been so in the past, it is believed that in the future the plantings should be of grafted varieties, with a root stock of Northern California Black Walnut (Juglans hindii).

For filberts, the Barcelona should be the main variety with 11 to 16 per cent of the planting as pollenizers. The Du Chilly, Daviana and White Aveline are widely spread and commonly used as pollenizers.

Uniform Grades.

Uniform grades should be established for both walnuts and filberts by the proper authorities of the state, and these grades then should be enforced. Grading should be done by local associations.

Marketing.

Marketing should be through some sort of central agency, devoted exclusively to the marketing of nuts.

Information To Be Made Available.

It is urged that the Agricultural College publish as soon as possible, bulletins containing the latest available detailed information on the nut industry and that prospective planters, particularly, be urged to avail themselves of this information before making final arrangements for planting.

(14)
VEGETABLE COMMITTEE.

Present Vegetable Business of Oregon.

It is generally recognized that vegetables are staple farm products in demand throughout the year. The value of vegetables grown in the state exclusively for sale amounts annually to over $2,000,000. In addition to the value of commercial crops, the value of farm garden products yearly exceeds $3,000,000. The growth of the vegetable industry has proceeded along these two lines.

The Northwest is generally conceded to be going through a steady process of development which is affecting the possibilities for marketing vegetables. Many cities have doubled their population in the past 10 years, while hundreds of new farms and farm homes have increased the extent and value of farm vegetable gardens.

In the past five years, several truck crops have developed a shipping business, notably broccoli, celery and lettuce. Cannery vegetables have been greatly increased in pack in the last five years. The largest vegetable greenhouse in the Northwest was erected in 1923 indicating the increase in marketing hothouse vegetables.

Celery.

Steady Increase in Acreage.

Oregon has in many sections of the state hundreds of acres fitted for celery growing, and the number of carloads that might be grown is practically unlimited. In 1922, 85 cars were shipped and in 1923, 287 cars. There will probably be only a gradual increase in planting, however, because of the intensiveness of the work and the skill required in production. The largest producing areas are in Marion and Multnomah counties. Markets are being gradually developed.

Future Expansion Possible Through High Quality.

The crop for shipping is essentially one for a community enterprise where land of the highest type is located. Oregon celery now has a high standard of quality and reputation which must be maintained.

Problems of Celery Growers.

Problems confronting celery growers are: (1) control of leaf diseases, (2) soil fertile enough to grow first grade bunches, (3) seed strains of high character, (4) sufficiency of water for irrigation, (5) wider distribution in marketing Oregon celery.

Lettuce.

Consumption.

The consumption of head lettuce in the United states in the last five years has increased from 8000 cars to over 27,000 cars.

Rapid Production Increase in Western States.

Sharing in the production of this lettuce for consumption have been the states of Oregon, Washington, Idaho and Colorado, in each of which the acreage planted to lettuce has grown from practically nothing to present proportions in five years. These last three states have produced on an average of 1100 each to 185 cars for Oregon in 1923.
Present Area in Eastern Oregon.

The largest acreage in Oregon is in Malheur county, where, in spite of several years' production, the crop is felt to be yet in an experimental stage.

Competitive Factors.

Expensive freight rates in shipping lettuce to eastern points remove a considerable amount of possible profit to the grower.

Lettuce is a commodity which can be grown in many northern sections which will be producing a crop at the same time as the Oregon crop. To meet this competition, a high grade pack must be the main factor.

Growing Area Must Be Suited to Crop.

Any section contemplating lettuce production for car lot shipping should first prove the adaptability of the area on a small scale, following which no area should produce less than a total of 50 cars.

Problems Are Varied.

The main production problems experienced are as follows:

1. The obtaining of high grade, uniformly producing seed strains.
2. Varying weather conditions during the growing season and particularly during the heading.
3. Injury by insects.
4. Time of planting.

The net returns on lettuce production and marketing, formerly considered to be high, have been shown during the past seasons to average considerably lower than previous anticipations, 50 to 60 cents per crate net to the grower being obtained on an average after deducting marketing expenses.

Broccoli.

Oregon Only Northwest Broccoli Producing State.

Oregon is the only state in the Northwest producing broccoli at the present time, the state most largely competing being California, which now produces 2100 cars against 254 cars for Oregon. It is evident after several years' production that Douglas county has proved to be best suited for the production of this vegetable. The acreage in the Willamette valley has been decreased considerably, due to winter injury. The coastal regions may yet be favorable broccoli sections, but no car lots have yet been produced there to demonstrate the possibilities of extensive broccoli growing.

Seed and Inspection Important Factors.

The factors of greatest concern confronting the growers today and for future successful expansion are:

1. The possibility of distributing to growers a high grade, carefully selected strain of seed, preferably acclimated in Oregon, and personally supervised in its growth, rather than the planting of many areas from unknown seed strains.
2. Federal and state inspections at shipping points with a view of encouraging more rigid adherence to grading and packing which make for more successful yields and best prices. Shipments
of inferior broccoli which might jeopardize the good reputation of the state should not be made.

3. Control of insects injurious to the crop, which, although now somewhat few and scattered, may later extend over a greater area and do considerable damage.

Onions.

Onion Business Staple One.

The production of Oregon onions during the last 20 years has been more or less stable, with increase in acreage during the past seven years, due to the opening up of areas of peat land in Marion county. At the present time, Washington and Marion counties supply practically all cars shipped. Oregon is naturally suited to the growing of onions of the finest quality, especially in the Willamette valley. Washington state and California are the main competing sections.

Disease and Insects Danger to Industry.

Economic production in the future will be necessary to reduce growing charges and give the grower a greater profit. Factors limiting production include soil that is diseased, chiefly through smut; the prevalence of insects, chiefly the maggot, and one or two minor agencies. The smut has proved to be controllable, but maggot control methods are not yet satisfactory.

Experience Important to Success.

In reference to the future expansion of the industry, it is recommended that inexperienced growers should go slow until they learn the intricacies of the business. Experience in production is one of the main factors in producing profitable yields.

Growers Marketing Organization Favored.

It is the opinion that the time is opportune for the encouragement of an active growers' marketing organization along the lines that would be satisfactory with the majority of the growers. Wider advertising by such an association of the superior quality of Oregon onions is favored.

Certification of Seed Strains Favored.

One of the big factors affecting the future production of high grade onions is the dissemination of carefully selected seed strains, and we favor a certification of these seed strains as profitably practiced for strains of other vegetables, notably potatoes.

Cannery Crops.

Oregon Produces Vegetables of High Quality.

Green beans, beets, cabbage, carrots, pumpkin, spinach and squash form the leading vegetables canned or dried in Oregon. The state is capable of producing vegetables of the highest quality.

The pack of these vegetables has increased quite largely in the past few years. Tomatoes form a leading crop which is grown for processing in the southern part of the state.

In order that the growing of vegetables for a factory may be successful from the growers' point of view and that the factory also may be successful in its pack, the closest co-operation between the two is necessary.
The grower must produce a first class, high quality, raw product in order that the canned or dried product may be of the same high quality.

**Contracts Should Be Carefully Made.**

It is recommended that the greatest care be exercised by factory establishments in making connections with only those growers who have the best possible growing conditions to produce high yields and deliver the tonnage which is estimated.

**High Yields Necessary for Profit to Grower.**

Low yields of cannery vegetables are unprofitable both to the grower and factory alike. No farmer can afford to grow these crops unless his conditions of soil fertility and moisture warrant medium to high yields. The stipulated contract price makes it imperative that high gross receipts be obtained. There is a definite limit to the financial profits in growing factory vegetables.

**Superior Seed Strains Important.**

One of the most important problems confronting the grower is the obtaining of a seed strain which will produce a high grade raw article. This is true of beans, beets, carrots and squash.

**Investigations Recommended.**

It is recommended that investigations be made as soon as possible by the Oregon Experiment Station with a view of obtaining for growers and factories such seed strains as are of a superior character.

**Produce Crops Near Factory.**

It is recommended that crops which are grown for a comparatively low contract figure be produced as near the factory as possible to avoid expensive transportation charges.

**Consult Cannery Management Before Planting.**

Up to the present time vegetables have been handled by canners largely as crops filling in between the seasons of packing fruits. It is advisable that Lane county growers contemplating producing vegetables for a factory be guided in the acreage planted, varieties grown, etc., by the cannery management, so that over-production may be avoided and that possible waste through planting of unsuitable varieties may be eliminated.

**Berries and Cherries.**

**Berry and Cherry Production.**

The small fruit acreage of the United States has gradually decreased since 1899, from 309,778 acres, to 272,468 acres in 1909, and to 249,084 acres in 1919. Their culture also is tending to become more and more concentrated into certain localities. The cause of this concentration is probably due to the advantages gained by local adaptability and by co-operative marketing, which factors are particularly valuable in the case of highly perishable commodities of this character. Strawberries occupy half the total acreage of small fruits; raspberries, blackberries and cranberries most of the remainder. Currants, loganberries and gooseberries make up a relatively small balance.

The small fruit acreage in Oregon has increased from a little over 5000 acres in 1909 to 16,500 acres
in 1922. This has been partly due to the increase of loganberries from practically nothing in 1909 to 7000 acres in 1922. Strawberries show an increase from a little less than 3000 acres in 1909 to about 4500 acres in 1922. Raspberries and blackberries increased from a little less than 2000 acres in 1909 to 3000 acres in 1922. One hundred and forty acres of cranberries are reported for 1922.

During the same period cherries have increased from about 2200 acres to 5000 acres. The bulk of this acreage is Napoleon (Royal Ann) although quite a sprinkling of Lamberts and Bings are produced in the state. Very few sour cherries are produced, although the acreage has been slightly increased during the past few years.

Demand for Canned Fruits Increasing.

The canners' pack of small fruits in Oregon has materially increased since 1919. The loganberry pack increased from nearly 200,000 cases in 1919 to almost 270,000 cases in 1922; the blackberry pack from over 122,000 cases in 1919 to a little over 240,000 cases in 1922; raspberries from 30,000 cases in 1919 to almost 60,000 cases in 1922; blackcaps from about 15,000 cases to 26,000 cases; gooseberries from a little less than 10,000 cases to about 15,000 cases. During this same period the cherry pack increased from a little more than 120,000 to considerably better than 170,000 cases. Approximately 60 per cent of the cherries produced in the state in 1922 were canned. For the same year 65 per cent of the loganberries produced, 33 per cent of the strawberries and practically all of the blackcap raspberries were canned.

Recommendations for Small Fruits.

This committee recommends that the acreage of raspberries, strawberries, blackcaps and currants be increased to take care of the fresh fruit and canning demand. The acreage of loganberries should not be increased, but means should be taken to increase the quality and production per acre. That the acreages of evergreens and gooseberries be not increased for the time being. That the acreage of strawberries for canning purposes be increased only at the suggestion of the local cannery, and that the cannery and the Oregon Agricultural College make an effort to find or produce a variety adapted to local production and suitable for canning purposes.

Marketing Federation Recommended.

The following resolution was adopted:

"WHEREAS, Each producing locality of raspberries, blackberries, loganberries, strawberries, gooseberries, currants and cherries has problems of a local nature and of vital importance, varying from each other to a greater or less degree and affecting the industries as a whole; and

WHEREAS, These problems more or less affect consumption and distribution and can best be solved through special and thorough study, in order to make practical and state-wide recommendations; therefore, be it

RESOLVED, That we recommend the formation of a marketing federation composed of local units, at present organized or to be organized in the future, for the purpose of studying all problems
of the industry and of working out from such study suitable and economic methods of producing and marketing the product of the different localities. That every encouragement shall be given such federation for the formation of new local units wherever such organizations seem sound and feasible.

Cherry Improvement Suggestions.

The following recommendations and plans are suggested for communities sufficiently organized to carry on the work:

1. That surveys of the cherry orchards of the state by communities be made for the purpose of locating proved pollenizers.
2. That sufficient grafting wood from proved pollenizers be obtained during the winter while thoroughly dormant for needs of the following spring.
3. That enough expert grafters be employed to do the work at the right time each spring, under the foremanship of men selected by local committees.
4. That better methods of orchard management be encouraged. These will include the use of cover crops, manures and chemical fertilizers wherever needed to increase the vigor of the tree and to enlarge the crop; careful pruning to allow for better development of fruit buds; thorough cultivation and careful irrigation, where irrigation is available; and control of insect pests and fruit diseases.
5. That the use of more bees in cherry orchards be encouraged.

This plan calls for a program of work extending over a three-year period, providing that trees worked over to pollenizers have their top third grafted the first year, middle third the second year and lower third the third year. All suckers are to be stripped away during the growing season.

Cherry Planting Recommendations.

1. Increase the planting of Royal Ann with pollenizers in districts where the supply is not sufficient to take care of the local demands.
2. Increase the planting of Bings, Lamberts and Royal Anns east of the Cascades where demand for fresh fruit shipment is greater than the supply. (Not safe to ship fresh cherries east from western Oregon on account of prevalence of brown rot.)
3. Further planting of sour cherries, except for local cannery demands, is discouraged on account of the large acreage in the eastern, middle western and other western states.
4. That the Oregon Agricultural College Experiment Station be requested to carry on some cherry pollenization work in Lane county similar to that in Wasco county.

Prunes.

Prune Production.

The dried prune production of the United States for 1922 was something less than 300,000,000 pounds, California producing 225,000,000; Oregon, 50,000,000, and Washington, approximately 12,000,000 pounds. The total production of these three coast states will easily reach the 400,000,000 pound mark inside of five years, while that of the Northwest alone
can be expected to reach the 100,000,000 pound mark. The Pacific coast states have a monopoly upon the dried prune production of the United States. Oregon and Washington combined have a monopoly upon the tart sweet dried prune production of the United States. Total prune production is sufficient to feed the American population at the present consumption rate of 1 1-2 pounds per individual, with 135,000,000 pounds remaining for export trade. When the 400,000,000 pound production is reached in the next five years, unless we increase the average consumption of the American consumer, we will have over 226,000,000 pounds for export.

Acreage Should Not Be Increased.

The acreage of prunes should not be increased. This is true, at least, until the new plantings have come into bearing, increased production has stopped and markets or demands have grown to such an extent that they will at least balance the production.

Improve Size and Quality.

We are producing entirely too many small prunes and our energy should be used in better growing methods for the purpose of increasing the size and quality of product rather than for expanding the industry. The average size can be materially increased by better soil practices, including building up the organic content of the soil, and better pruning practices.

Standardize and Advertise.

The Oregon tart sweet prune not only competes with the other dried prunes of the coast but with all other dried fruit as well. It competes also with the great quantity of fresh and canned fruits on our American markets. The extreme high prices asked by the retailer for the dried prune are a big factor in cutting down the consumption of the product. Because of intensive advertising the California sweet prune is now selling for considerably more per pound than is the Oregon prune. The latest retail quotation puts the price on California 60-70 size sweet prune equal to that quoted on the 30-40 size of the Oregon tart sweet prune on the New York markets. Variation in the quality of the pack of our Northwest prunes is a big factor in holding down consumption. This will continue to be the case so long as the uniform grade and pack are not consistently followed by all the packers of the Northwest.

Resolutions of Prune Committee.

“WHEREAS, Prune growers are having difficulty in finding satisfactory markets for the present prune production; and

“WHEREAS, Production will be increased when new plantings come into bearing; and

“WHEREAS, The consumption of prunes is insufficient readily to absorb the production, and it is the belief of this conference that the consumption can be increased; and

“WHEREAS, The present method of distribution is not advantageous to the best interests of the producers and the future of the prune industry; and

“WHEREAS, The fact is recognized that no existing organization controls sufficient volume of
prunes to establish price, market, or do effective advertising now; therefore, be it

“RESOLVED, That this body favors the organization of prune growers for the following purposes:
   1. “To establish a uniform grade and pack.
   2. “To establish a uniform trademark.
   3. “To advertise the product effectively.
   4. “To develop a central sales agency, which will market all prunes of existing organizations and other organizations to be formed.
   5. “That we favor the organization of new co-operative units, in districts where they are now organized, with the view to affiliate with the existing organizations in the establishment of a central selling agency covering the entire Northwest.
   6. “That this conference favors the continuance of all co-operative prune organizations now existing and pledge our support and assistance to those who desire to reorganize. We recognize and appreciate the splendid co-operation and assistance of the Portland Chamber of Commerce, Extension Department of the Oregon Agricultural College, and such other organizations as have lent their aid and support to this committee in working to this end and hereby solicit the continuance of their valuable assistance and support.

“Amendment I. We recognize the splendid service and efforts of the organization committee of nine, as originally appointed by the Portland Chamber of Commerce, and recommend that they continue to work out the detail of this plan.

“Amendment II. RESOLVED, That the committee of nine be empowered to take such steps as they deem advisable to carry their plan into action.”

(22)
Poultry Committee Report.

I. STATUS OF POULTRY INDUSTRY IN LANE COUNTY.

The poultry industry of Lane county is a valuable agricultural asset. According to the census report the value of chickens and eggs produced in the county in 1919 was $563,924. This is $240,456 greater than the value of swine, and $56,089 greater than the value of beef cattle. The poultry industry has not received the sympathy of the press and economists to the extent that other lines of agriculture have. This is due to the fact that the poultry industry has suffered perhaps less in agricultural deflation than other lines.

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

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

In value of chickens and eggs produced, Lane county ranks fifth in the State of Oregon. It produces a surplus of eggs that must be exported from the county and in part from the state. Facing this condition, the poultry interests of the county must consider the co-operative marketing of surplus products and any future increase must be along the lines of producing an exportable product of exportable quality.

II. CONCLUSIONS AND RECOMMENDATIONS.

1. The poultry business is a technical one and requires much regular detailed work and careful supervision. It is not presumable that every Lane county farm or farmer is adapted to successful poultry keeping. Small farm flocks, too small to be considered an important unit of farm work, usually suffer from poor management and neglect. Lane county is an exporter of eggs, which forces the issue of producing a high exportable quality. Eggs of this necessary quality will never be produced by the haphazard, ill-managed, nondescript farm flocks. A drawback to the industry in the county is the fact that, in the aggregate, the greater volume is produced by the general farm flocks, rather than by the well-managed economical units.

The poultry committee therefore specifically recommends for the general farmer, where adequate housing and management can be given, a sideline unit flock of 400 laying hens and pullets. A flock of this size commands respect and regular attention and yields a more profitable return for labor.

For the farmers that are not interested to this extent it is recommended that only a sufficient number of hens be kept to supply the home table, preferably less than two dozen hens.

The greatest undermining factor of permanent
poultry farming in Lane county is the general lack of understanding relative to the amount of land necessary to commercial poultry keeping. Many established farms, successful for a few years, have been compelled to drop poultry raising as the result of soil contamination. It is therefore strongly recommended that 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 1000 hens. Commercial poultry keeping on one, two and five acre tracts, where the young stock is to be reared each year, must be considered only a temporary and dangerous undertaking.

Success in poultry keeping depends upon the ability of the producer to raise to maturity pullets that are healthy, vigorous and free from intestinal parasites and inflammation. This can only be done through careful effort to brood chicks on disease-free soil and providing free range conditions for growing them to maturity. It is therefore recommended that the movable colony brooder house be used as recommended by Oregon Agricultural College in Station Circular 52. On farms building permanent brooder houses, it is recommended that each house be constructed in the center of a given area so that this may be divided into four yards, one yard to be used each year only until such time as the chicks may be moved out on free range, as explained in Station Circular 54, Oregon Agricultural College.

With the Pacific Co-operative Producers' Association now economically functioning and backed by several years' experience, no difficulty is foreseen in the marketing of a material increase of poultry products in Lane county, provided this increase is of exportable quality. It is hereby recommended that, inasmuch as the Pacific Co-operative Producers' Association is a necessary asset of inestimable value to the poultry industry of the state, it be given the whole-hearted support of all poultry producers of exportable products.

One of the limiting factors of Lane county poultry production is the increase of poultry diseases. It is recommended that the conference of Lane county indorse the action of the poultrymen assembled at the State Agricultural 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 management. The poultry industry of Oregon is a $10,000,000 industry, and its magnitude and permanent security warrant at least a one-man study of its problems along this line.

Poultry keeping is not recommended as a means of reclaiming logged-off areas. The high price per acre, the dangers of soil contamination due to inability properly to cultivate or fence it, the cost of clearing, poor roads and lack of marketing facilities are the factors influencing the recommendation.

Green, succulent feed is one of the four major classes of poultry feeds. Kale will always be the outstanding recommendation. There are times in some winters when it is either frozen or made unfit for feeding. It is hereby recommended that poultry producers protect the health and production of the flock against such disasters by growing
a patch of root crops to be used to supplement the kale or take its place in emergencies.

Oregon has reached the point in poultry development where the poultrymen might well secure and maintain their own official egg-laying contest. It is recommended that Lane county poultrymen support the efforts now being made to secure the establishment and operation of such a contest. Proper poultry housing is essential to financial success. There is too great a tendency to construct poultry houses along the lines of individual hobbies rather than houses that through experimentation have proved successful in Lane county. It is recommended that producers desiring to construct new laying houses be guided by the plans recommended by Oregon Agricultural College as fully explained in Station Circular 51.

It is recommended that the poultry producers secure all chicks for brooding purposes at one time, because of the dangers of attempting to brood together chicks of different ages. It is cheaper, all things considered, to purchase, for example, 500 day-old chicks in order to secure 200 vigorous laying pullets than to attempt to hatch this number in two or three hatches from insufficient incubator capacity. A uniform lot simplifies the brooding, feeding, growing, housing and production problems.

It is recommended that chicks be hatched early enough to mature the pullets so that they will lay eggs during the fall and winter when eggs are high in price. Poultry producers must have the benefit of the high-price months in order to get more months of lay from the pullet before molting as well as to get the best average price per dozen for the year.

The poultrymen of Oregon in January organized an association to encourage education along poultry lines, to secure 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. The name of the organization is Oregon Poultrymen's Association. It is recommended that the Lane county poultrymen and others interested support this organization. The officers of the association are as follows: President, Grant B. Dimick, Oregon City; vice president, Oscar Dunlap, Junction City; secretary-treasurer, H. E. Cosby, Corvallis; W. J. Warner, Medford, and J. L. Russell, Corvallis, members of the executive board. The annual dues are $1.

COMMITTEE,

Oscar Dunlap.
Paul Jenkins.
H. E. Cosby.
J. Beebe.
C. M. F. Rutter.
Home Economics Committee Report.

These facts pertaining to the home we think you should know.

It is about 60 years since the act of congress established agricultural experiment stations in recognition of the fact that science could aid agriculture and make it more profitable. The first bureau of home economics on the same basis as other bureaus of the Department of Agriculture was established last year. Enriched soils, better livestock, increased production, better markets and other agricultural improvements are for one purpose only—to make prosperous and happy rural homes and communities. To solve the rural problem permanently, there must be an understanding of what is a reasonable standard of living for the farm.

In three surveys, one of 10,000 farm homes in every state in the Union taken in 1919 by the United States Department of Agriculture, the second of over 200 Lane county farm homes taken by the Lane County Catholic Agricultural Union in 1920 and 1921, and the third of over 250 homes taken in the last three months of 1923 in four other counties of Oregon by Oregon home demonstration agents, the results are practically the same. About 96 per cent of the women do all their washing and ironing, while less than half have any kind of washing machine. About one-sixth of the homes have power to run machinery. About two-fifths of the homes have running water in the kitchen, which is the greatest single labor-saving device a housewife can have. About three-fourths of the women, in addition to other activities, have to fill and clean lamps. Less than one-twentieth have vacuum cleaners which eliminate the third heaviest household work, that of sweeping. About four-fifths of the homes have out-door toilets and while on the average for the country as a whole about one-fourth of the homes have bathtubs, Lane county scores much higher, about one-half of the homes reporting bathtubs. Nine tenths of the women report doing all the family sewing; about the same percentage make all the bread; about two-thirds of them care for the poultry and for the garden, wash the separators, take care of the stoves, carrying fuel and ashes, and about four-fifths of them make butter. In addition to this, one-fourth of them help in the field in the busiest season. It must be borne in mind that these percentages are averages, which include many convenient modern homes.

In January, 1921, a middle west magazine asked its readers the question, "Do you want your daughter to marry a farmer?" Of seven thousand farm women answering, 94 per cent said "Yes", because the advantages outweigh the disadvantages. But their answers were based on a recognition of the fact that lack of labor-saving equipment need not be a characteristic feature of the farm home. More than half the women of the country are wasting vital energy in performing routine work. Where there is little or no labor-saving equipment, the standard of living has to drop to the level of the equipment, or the housewife has to make up for its lack with the hardest work.

The standard of living on a farm is largely
determined by the agricultural and economic conditions, but even while working toward the reforms necessary to give adequate profits to farms, every effort should be made to maintain good standards of home life.

Successful home life depends not only on conveniences and equipment, but also upon the physical condition, the health, of individual members of the family in the home. The close relation between food and health has been more clearly realized in recent years than ever before. Lack of lime in the diet results in defective development of the teeth and bones. Lack of iron results in anemia; lack of iodine results in goitre; lack of sufficient protein results in growth failure; lack of vitamins may be responsible for lowered vitality. There are distinct food needs, not one but all of which must be consistently met to maintain health. These facts are either unknown or are not applied in the daily living of a considerable proportion of the population of the United States.

Notwithstanding the latent advantages of country life, it is nevertheless a surprising fact that health conditions in cities on the whole average higher than in the country, due to the rapid progress cities have made in positive health programs. A large percentage of the illness that comes to men and women in mature years is due to improper food habits during some period of their lives, perhaps in early childhood.

County-wide studies of the nutritional condition of Lane county have not been undertaken, but contacts made show physical defects, as in other counties of the state, due to poor food habits. To clothe the family economically, healthfully and suitably is the responsibility of the women in the home. Since the development of the clothing industry has taken textile manufacture from the home and increased the output of ready-to-wear garments, the problem of the selection of household and clothing materials and articles has become highly complicated. Suitable dress is a definite factor in promoting health and happiness.

The American farm home offers the best opportunity for conservation of American home and family life. To that end we urge serious study of the problems involved, and a whole-hearted desire and effort to eliminate the objectionable features which cause families to drift cityward, placing emphasis on the desirable features of life in the open country.

RECOMMENDATIONS.

1. We recommend that the rural organizations which are carrying on organized programs include some definite systematic studies of home problems, the sanitary and health conditions of rural homes, nutrition, clothing, recreation, standards of living and educational advantages.

2. Women themselves may conserve time and strength through study of their methods and adoption of better methods of work. They may save time and strength through scientific arrangement of their equipment and routing their work. They may save time and strength through having working equipment at the proper height for each individual woman. They may save time and strength through keeping the human machine, their own bodies, in
the best physical condition through proper exercise, proper rest, proper food, proper working conditions, of heat, light and ventilation in their homes. To this end, we recommend that individuals and organizations give as much constructive thought and study to these subjects as they do to other problems which affect the home and community.

3. Since a large percentage of women do the family sewing and only a small percentage of them have had any training in that art, we recommend that women be encouraged to avail themselves of opportunities for improving methods used and increasing knowledge of materials.

4. Because of the effect of proper clothing upon the health and happiness of the individuals, we recommend that women be given sympathetic cooperation in their efforts to dress the family suitably and economically.

5. That women be taught and encouraged to make use of all kinds of labor-saving devices, many of which can be installed at little or no expense.

6. We recommend that an effort be made to bring about a realization of the true relation between existing abnormal physical conditions and faulty food habits.

7. We recommend that an effort be made more generally to establish essential food habits; first to prevent and second to correct abnormal physical conditions, with emphasis on the serving of hot lunches in rural schools.

8. We recommend that an adequate food supply be secured through:

(a). Promotion of home vegetable gardens to insure needed amounts and varieties of fresh vegetables for as many months as possible, using canned or dried vegetables only when fresh are not obtainable.

(b). Attention to sufficient fruit production to provide for home use throughout the year in fresh, canned and dried forms.

(c). Careful conservation and distribution of the farm meat supply by adopting methods of canning and curing appropriate to the community.

(d). Development of safe and adequate milk supply with recognition of limited value of dried and canned milks.

(e). Promotion of farm poultry flocks and encouragement of use of eggs and poultry products for home use.

(f). Utilization of a larger per cent of whole grain products in the diet and encouragement of local milling of whole grain flours where economically feasible.

9. Recognizing the fact that about four-fifths of our girls eventually become homemakers, we recommend the support of scientific home economics as an essential in the course of study in schools and that provision be made for giving girls in rural schools this training.

10. In order that home economics projects in club work may receive due recognition, we recommend that the same financial support and other recognition be given to girls who excel in home economics projects in club work as are given to boys and girls who excel in pig or calf work.

11. We recommend that rural organizations, as
well as those of the cities, take active interest in the national Better Homes week, which this year is May 11-18, and that in it the emphasis be placed on the mechanical improvement and equipment which will mean shortened hours and less exacting labor for women.

12. Because of the unfilled demand for educational assistance in home economics from the Extension Service, we think a greater number of home economics workers is needed. We recommend that additional home economics workers be supplied in those subjects, clothing, shelter and food, which contribute to better homes and therefore are the most vital projects conducted by the Extension Service.

13. Finally we recommend that:
Our goal be to have every home in Lane county, Economically sound, Mechanically convenient, Physically healthful, Morally wholesome, Artistically satisfying, Mentally stimulating, Socially responsible, Spiritually inspiring.

COMMITTEE
Mrs. F. B. Harlow.
Mrs. Emmett Howard.
Mrs. Ralph P. Laird.
Mrs. C. S. Calef.
Mrs. Roy Corum.
Mrs. H. H. Powers.
Mrs. Clinton Hurd.
Mrs. Koupal.
Mrs. E. H. Ross.
Mrs. Rhoda Eby.
Livestock Committee Report.

We recommend to all who would enter any branch of the livestock industry that they first carefully analyze their natural feed and climatic conditions and select only those lines of livestock which are best adapted to thrive under those conditions.

I. HOGS.

1. The growing and production of hogs is recommended in Lane county in so far as it may be carried on using wastes, by-products and feeds grown on the farm. We would not recommend hog raising becoming a major industry where these feeding conditions are not met.

2. In our judgement the county is facing a serious shortage in brood sows, and we recommend that on farms keeping as many as 5 cows one brood sow be maintained or on farms where by-products justify the keeping of 5 pigs or more that one brood sow be kept for every 5 pigs.

3. We recommend that greater emphasis be placed upon the importance of providing suitable green pasture and growing feeds in the successful raising of young pigs.

4. Due to the freight differential which operates unfavorably to the importation of pork products from the Middle West, the swine industry in Oregon should be profitable to the producer as long as the production of pork products in this state does not exceed the local demand. At the present time there is a shortage of breeding stock and we will be unable to meet the local demand for some time to come.

II. GOATS.

1. Having in mind their great value as land cleaners as well as their annual return from mohair, we strongly recommend the maintenance of goats on all brushy areas or on farms where brush or stump land is present.

2. Goats may well be made a major industry on much of our logged-off land and on the brushy mountains of the Coast and Cascade ranges where there is unlimited natural feed, and where their presence will greatly increase the carrying capacity of the land for other stock.

3. The limiting factors in the expansion of the goat industry today seem to be the matter of fencing and the presence of predatory animals upon many of our best ranges.

III. SHEEP.

1. In our opinion many more sheep can be advantageously kept on our valley farms. Sheep on our valley farms, if properly handled, will prove highly profitable; but should not be kept in such numbers as to interfere with the major operations of the farm.

On some of our hill farms and on certain types of rough land where conditions are especially favorable to sheep, larger flocks may well be main-
tained and under proper management may be made a major industry.

2. Due to the fact that the fat lamb is the greatest single item of profit in the sheep industry, we would most strongly discourage the carrying of more sheep, either on the farm or on the hill ranges, than may be maintained in the best of condition. Sheep not properly fed cannot show an adequate profit.

3. We find it necessary to the profitable pursuit of the sheep industry that all lambs going to market be docked and buck lambs castrated.

4. The greatest limiting factors in the increase or in maintaining our present flocks is the presence of predatory animals on our hill ranges and losses from sheep-killing dogs on the valley farms.

IV. BEEF CATTLE.

1. The number of beef cattle in Lane county at this time is only 50 per cent of the number which this county is capable of carrying. Large areas of the land in this county are better adapted to production of beef than any other commodity. In view of these striking facts, it is our recommendation that those now engaged in beef production remain in the industry and that the present number of livestock be not only maintained but increased as rapidly as economic conditions will justify until cattle in this county are consuming all available feed now not utilized.

2. We further recommend that under any condition, and especially during the present period of depression and small margin of profits, the quality of the beef herds be maintained and improved; since nothing is so essential to successful production of beef as individual animals of the highest beef-producing type. This condition will come about only through the use of pure-bred bulls.

3. We would discourage the practice of switching from cattle to sheep, or sheep to cattle, as the market may fluctuate from time to time.

4. We recommend that every encouragement be given to the furtherance and maintenance of boys' and girls' club work in the livestock industry.

5. It has come to our attention that the assessment levied against our beef cattle in the county is now 150 per cent of their cash value, based on prices at the present time and for the past few years. We recommend that any steps possible be taken to rectify this injustice to the cattle owner.

V. MARKETING.

We endorse the McNary-Haugen Bill, now before Congress, as a step in the right direction in solving the problems of marketing now confronting agriculture, and we recommend that such endorsement be made known to our senators and representatives in Congress.

In view of the stabilizing effect of the local livestock cooperative shipping association on the prices received for livestock in the county, we strongly recommend the strengthening of that organization.

We endorse cooperative marketing of wool and mohair as the most logical means of obtaining a fair price for these commodities since grades determine the value of the product. Cooperative marketing for the small wool and mohair grower is
the only way in which grading can be economically brought about.

VI. PRESENT STATUS LIVESTOCK IN LANE COUNTY.

Based on the 1920 census Lane county carried in livestock 10,500 beef cattle, 24,000 sheep, 17,000 goats, and 16,000 swine. At present the number of beef and swine animals is reduced to the point of supplying just about sufficient for the needs of local consumption. A little less than 6 per cent of the land in the county is improved, and it is estimated that the improved area is about equal to the pasture lands available for livestock production. There is a vast area of brushy and heavily timbered land in the county only partly suitable to grazing.

Competition in the production of range livestock comes from the more suitable areas of cheaper grass lands in Eastern and Southern Oregon and in other western states. Twenty-three per cent of the beef produced in the United States comes from the dairy industry. Lane county conditions from the standpoint of goats and sheep are very suitable for economic production when kept within the proper carrying capacity.

Lane county needs about 18,000 hogs and 5,000 beef cattle to supply local consumption annually. We are at the present time much below this number.

During 1919 the total income from livestock, meats, wool and mohair was about 22 per cent of the total income, indicating the importance of the livestock industry to the county.

COMMITTEE,
Cal M. Young,
E. A. McCormack,
W. W. Hawley.
Lester Millican.
W. J. Butler.

(32)
Industrial Committee Report.

As Chairman of your Industrial Group, I beg leave to report the following as the result of the investigation of your Committee:

**Payrolls Yield $8,000,000; Manufactured Products $10,000,000.**

The study of this subject has been approached in its relation to, and its effect upon the development and improvement of agriculture in Lane county. The most important facts brought out by this investigation are: Nearly 10,000 people are employed in the various Lane county industries with payrolls amounting to more than $8,000,000 annually. These payrolls comprise more than two score industrial plants, including our lumbering industries and our agricultural activities. These may be regarded as the basic industries of Lane county. On the steady operation of these industries and their success in marketing their finished products, depend not only the wellbeing of the people employed in these industries but also the business conditions of Lane county. These are the industries that produce and prepare Lane county's raw products for use herself and of the world. With the exception of capital investments, all outside money brought into Lane county comes through the channels of trade dependent upon these industries. A significant fact revealed in investigating Lane county's manufacturing industries is that its greatest revenue producers are its manufactured products, which total $10,000,000 annually.

**Agriculture Produces $6,000,000 a Year.**

The investigation and study also reveal that agriculture in Lane county produces more than one-half as much as the combined total proceeds from all other industries, including timber. The total annual value of Lane county's agriculture amounts to slightly over $6,000,000. The business turn-over of the smaller manufacturing plants in Lane county amounts to nearly $5,000,000, that of lumber $4,000,000 annually.

**Support Local Industries.**

From the above facts, the value of the smaller industries is readily appreciated. The benefits the community may derive from patronizing home industries, causing them to furnish and employ more people, is self-evident. Those who would like to see outside capital attracted to Lane county can readily realize their desires by supporting the smaller industries which the county already has; this would cause a wider home market, which in every case is the most valuable market for any industry. Take as an illustration one item alone—that of oleomargarine. Every pound of oleomargarine purchased by any one in Lane county displaces a like amount of butter. The profit made by local creameries in the county is principally made from the home market rather than the market reached by shipping to distant points. For instance, the price of butter in Portland and Seattle is virtually the same as in Eugene. You can readily understand that if your local Eugene Farmers Creamery is compelled to ship its surplus to these points, it does so at a loss or a differential of the difference between the freight or express from Eugene to these distant markets.

(33)
As other illustrations, we should give preference to the products of our cannery; the woolen goods manufactured by our woolen mill; the tile manufactured by our concrete pipe plant; the doors, sashes, and similar products manufactured by our local planing mills; the flour made by our flour mills; the wheel-barrows, fruit- and step-ladders, cedar chests and other similar articles manufactured by our local Far West Manufacturing Plant; our local printing and publishing plants; our local bakeries and laundries; also those plants that manufacture, in whole or in part, machinery, cigars, incubators, soft drinks; also the product of the creameries and wholesale houses; and last but not least our local merchants. Similarly our local merchants and wholesale houses should not import agricultural products into the county, thereby creating a surplus and destroying the price of locally produced agricultural products to the detriment and loss of the producers.

An Enlarged Payroll Makes for Enlarged Consumption.

Think for a moment just what the general effect would be if we could increase the payroll of Lane county to double the present amount. It would mean a consuming capacity or home market of double the present capacity: it would mean that the farmers of Lane county would have a market for many perishable products of the farm which they are now unable to sell in as large amounts as they are able to produce. In considering agricultural betterment in Lane county, the business interests of Eugene and other cities and towns within the county, particularly Eugene, have had these fundamental economic facts uppermost in their mind.

Business Men Work to Widen Market.

As an illustration of the importance of our industrial development and the realization that our agricultural development can only grow as our payroll increases and our population becomes more dense, the business interests of the city of Eugene raised approximately $55,000 to establish a wood-working specialty plant in Eugene known as the Far West Manufacturing Company. The entire capital for this industry was raised among the business men of this city. The plant is now completed and in full operation, and stands as a monument to the far-sighted wisdom of our business men. At the present time, this plant employs 35 men, most of whom are heads of families, and most of whom have homes in the city of Eugene. This is only one illustration of several that I might cite which would go to prove that while our business men are taking the keenest sort of interest in agricultural betterment and rural development, we are assisting in bringing this about by an urban development which I am sure all of you realize is quite necessary toward the development of wider markets for the products of the farm. More factories mean more people: more people mean a wider market for the things we produce on our farms: more people and more industries mean less taxes, since additional capital and more people mean a less amount per capita of taxes to be paid.

(34)
Eugene Building Permits Exceed Million Dollars

Eugene is one of the few cities in the Pacific Northwest that issued building permits during the year 1923 in excess of one million dollars. Compared with southern California cities, Eugene would come about seventh or eighth in the total amount of new construction completed last year. The total amount of our new construction last year equalled and slightly exceeded that of Spokane. The business men of Eugene realize that we must increase our population, both on the farms and in the cities. Furthermore, they realize that this can only be brought about by making agriculture more profitable for the men on the farm. With a more dense population we can more reasonably hope to increase our industrial development because industrial development depends to a very great extent on the home market. Much has been said on the subject of interdependence of rural and urban population. In closing this rather brief report, I want to call your special attention to the fact that the rural people have it in their power to assist very materially in the industrial development of this county. The manner in which they may do it is to give preference to those things manufactured in Lane county; to give preference to those things manufactured in Oregon; to patronize the home merchant first and if it is necessary to send out of Lane county for any article of general use, not to send the money out of the state.

Cater First to the Home Market.

The general result of your State Agricultural Economic Conference held at Corvallis (and I anticipate the same general result of our Conference held in Lane county) will help to emphasize the fact that we should produce those crops for which there is a home market, that we should practice what I might refer to as thoughtful marketing. By that I mean that we should think seriously before planting—plant those things first for which there is a more or less stable home market and after that consider those crops for which there is a more or less stable world market.

The business men of Eugene plan to continue to support in every way possible industrial development that will place on the world’s market in a concentrated form the raw material which is produced on Lane county’s lands. This will include dairy products and products of the orchard and the field. I hope to see the time when we shall have a packing plant established in Eugene that will send out the livestock we raise as cured meats and as cold-storage slaughtered animals rather than on the hoof. At the present time we are manufacturing our wool into cloth in Eugene; furthermore, I hope to see the day when the cloth will be manufactured into clothing by factories established in Eugene. I hope to see every ounce and every pound of raw products produced from the farm in Lane county, not now used by our home market, sent out into the world in cartons, cans and packages.

Bear in mind that the whole subject is interrelated and that the town is dependent on the county and the county on the town. Let us all work, each for all, and all for each.

COMMITTEE,
C. D. Rorer, Chairman.
Boys' and Girls' Club Work Committee
Report.

Your committee on boys' and girls' club work wish to report the following recommendations to this Agricultural Economic Conference:

1. No program for farm betterment should fail to provide for the training of boys and girls along the lines of livestock raising and homemaking. The most economic and efficient plan yet devised for this training is through the boys' and girls' club work as conducted by the Extension Service of the Oregon Agricultural College and the State Department of Education.

2. Lane county is not at present provided with a county club agent, county agricultural agent, or rural school supervisor who can go ahead and lead these various clubs; hence those communities which desire active work should provide local leaders for carrying on this work. We suggest that through the Grange, Farmers' Union, Parent-Teachers' organizations or other clubs of interested citizens, steps be immediately taken in each community to decide upon the kind or kinds of clubs best adapted to that community, that these organizations provide local club leaders for these clubs, thus giving to these local leaders and club members throughout the summer and fall the support of the community for their work.

3. The county fair board is providing a club department with suitable prizes for each of the various projects in club work. We would recommend that each community where groups are organized appoint a committee to arrange for a local fair where these club members may make exhibits of their work, put on club demonstrations, and hold club contests; that exhibits from these local fairs be sent to the county fair.

4. We recommend that the following clubs be undertaken this year in the various communities, bearing in mind that no club should be established in the community if such club is not adapted to the general economic agricultural and homemaking program as adopted by this conference.
   (a). Cooking, sewing, homemaking clubs to be organized not later than March fifteenth.
   (b). Canning clubs not later than May fifteenth.
   (c). Livestock clubs as follows: Calf, sheep, poultry and pig, these to be organized not later than April fifteenth.
   (d). For communities having land suitable, we would also recommend: Potato, corn and garden clubs, these to be organized on or before April fifteenth.

5. Information pertaining to these various club organizations may be secured from the Extension Service of the Oregon Agricultural College; or from Mrs. L. D. Griggs, president of the local club workers organization, Eugene, Motor Route B; or from Mr. J. G. Swan, former rural school supervisor, who has devoted much time to club work and will be willing to give his assistance in the way of advice or personal help for these club members from time to time.

COMMITTEE, Sam Lehman.
              Ruben Robinson.
              J. G. Swan.
Farm Engineering Committee Report.

Your committee on Farm Engineering has divided its report into three parts: First, a section dealing with the farm plant and equipment involved in the economic production of crops; second, home conditions on the farm; and third, community improvement.

PLANT AND EQUIPMENT

Several generations ago, 90 per cent of the population of the United States lived on farms. At present only about 30 per cent of the people live on farms. This 30 per cent produce food not only for themselves, but for the other 70 percent and for export as well. This change has been brought about largely through the use of labor-saving machinery and equipment. The farm today is a manufacturing plant.

According to the 1920 census the value of the farm buildings or "farm plants" in Lane county was $5,004,365. The machinery used in the operation of these plants was valued at $1,810,415. Allowing one-half of the total investment in buildings as the value of farm houses, there remains a total of approximately $4,300,000 which is invested in machinery and productive equipment. This is 8½ times the investment in beef cattle and 4½ times the investment in dairy cattle.

In spite of this large investment, very little attention has been, or is being, given to the selection of equipment best suited for the economic production of crops on our farms.

The tractor or the binder is productive equipment in much the same sense that the cow, the sheep, or the hen is productive equipment. We believe the time will soon be here, if it is not here already, when it will be necessary to exercise the same care in the selection and care of farm machinery and equipment as is necessary in the selection and care of livestock for profitable production.

The Farm Mechanics department of the Oregon Agricultural College places the possible saving on farm machinery replacements due to proper housing and care at 5 percent of the cost, or about $90,000 per year for Lane county. It is not uncommon for one farmer to use a binder for 20 years while a neighbor will need a new one in 5 years. Systematic care and repair account for the difference, which in the aggregate may mean a difference between profit and no profit in farming.

Most of farmstead layouts are the result of the gradual addition of buildings and yards located without thought of future development. As a result, the distance traveled uselessly in doing chores on some farms may amount to from 200 to 400 miles per year, most of the distance being covered by the farmer or hired man carrying a load of feed, water, etc. This condition could be greatly improved through the development of a plan toward which to work when making replacements.

Very little farm machinery and equipment has been purchased during the past three years. Likewise very few buildings have been erected on farms in the past ten years. With prospects for increasing prosperity on our farms, replacements may be
expected to be made rapidly within the next few years.

We call your attention to the wasteful methods in use in the storage and handling of manure and the possible improvement in these methods; also to the miles of fence which might be done away with, thereby eliminating a large annual expense for upkeep, removing a source of weeds, increasing the cropping area, and making our farms more attractive. It is also noteworthy that a good gate can be built from the same lumber that goes into a poor one.

As a plan for making our buildings and equipment more profitable and reducing our overhead farming costs we would recommend:

1. That careful studies of various items of equipment be made to determine what equipment is best suited to the needs of our farming operations.

2. That greater attention be given to the care, housing and repair of farm machinery as a means for increasing the margin of profit in production.

3. That new farmsteads be laid out and old farmsteads be replanned to serve more efficiently the purpose for which intended; and that these receive care commensurate with the investment in them.

4. That shelter sheds should be used for stock and be heavily bedded with straw for the conservation and storage of manure as well as for protection to the stock; also that where an individual is not justified in the purchase of a manure spreader a number of farmers might profitably cooperate in such a purchase.

5. The elimination of unnecessary fences about fields and lawns, such action to be undertaken as a community project to avoid difficulties between neighbors over stock at large. Also the construction of better fences and gates where fences are necessary.

THE FARM HOUSE.

We believe the farmer to be as much entitled to a good bath as the banker; that the standard of living on the farm should be as high as in the city, and that it must be as high if we are to keep our children on the farms.

Few farmers become wealthy. Those who do, usually put their money back into the farm to make it a better home, or else they retire and build the good home in town. The home is the ultimate goal. Wealth is not essential to a convenient home, however, for many of the modern conveniences may be had on a less pretentious scale for a very low cost, and it is mainly these conveniences we have in mind in our recommendations to follow.

Based upon surveys made by the O. A. C. Extension Service in 1917 and upon the 1920 census, we make the following estimates for Lane county.

1. Water is carried from well to house on 1640 farms.
2. Outdoor privies are used on 2120 farms.
3. Oil lamps furnish light on 1500 farms.

We also estimate:

1. That there are three labor-saving devices per home in Eugene to one in the country.
2. That very little attention is given to environ-
ment and the beautification of surroundings on farms.

3. The working day for the woman on the farm is long and the labor hard. Too little attention has been given to improvement of these conditions.

4. There are hundreds of small streams in Western Oregon which could be made to furnish cheap power and light for farms near by.

Our recommendations for home improvement include:

1. Measures to insure the purity of the water supply.
2. The installation of running hot and cold water systems. Where finances do not permit better, the $30.00 system installed now is better than the $300.00 hoped for in the future.
3. The use of septic tanks for sewage disposal.
4. The improvement of farm lighting through a study of placing lamps and of various lights and lighting systems.
5. Develop water-power for lighting, etc., where small streams are available for the purpose.
6. Devote more attention to beautification of the farmstead.

III. COMMUNITY IMPROVEMENT.

The general prosperity and progressiveness of a community is indicated by the appearance of its roads, fence rows, schools, churches, and community buildings, as well as by its homes. To a tourist looking for a location these evidences are important. A large number of our community buildings are unsightly because of lack of paint and the planting of shrubs.

In order that our county may be more inviting to strangers and that it may truly display the progress and optimism of our residents we urge the following action:

1. That we do away with or replace brush and weed fences along our highways.
2. That we use more paint for protection and for improving the appearance of our farm and community buildings.
3. That we give some attention to the appearance of community buildings and schools as well as to providing rooms in which to meet.

We would call attention to the fact that our recommendations do not call for large expenditures, but rather point the way to a reduction of farm expenditures and an increase in the margin of profit through the improvement of home conditions at a minimum of cost. In the carrying out of our program the assistance of the Agricultural College would be helpful and we ask for that assistance.

In conclusion, we would like to ask that a committee representing the Farmers’ Union, the Grange and the Chamber of Commerce be appointed to work out details for the carrying out of this program.

COMMITTEE,

F. B. Harlow.
R. E. Corum.
Will Mathews.
Farm Management Committee Report.

Your committee on farm management wish to report as follows:
The major farm organization factors which influence farm income and cost of production are grouped thus:
1. Size or volume of business.
2. Diversity of business.
3. Quality of business.
4. The layout of the farm and farmstead.
5. The keeping of farm accounts.

I. THE SIZE OR VOLUME OF BUSINESS.
It is the belief of this committee, based on the results of farm management surveys, that farm income is increased and production cost decreased in proportion to the volume of business done. We therefore recommend that farms in Lane county be organized on a basis that will permit the handling of the maximum volume of business per farm.

II. DIVERSITY OF BUSINESS.
Farm management surveys in all sections of the country indicate that diversified farming gives the surest profits and is less of a gamble than specialized farming. Diversified farming, moreover, offers a better distribution of labor and a larger number of profit-earning days per year than specialized farming, and permits the use of good crop rotations. Fortunately the outstanding feature of Lane county's agriculture is its great variety of safe and profitable farm enterprises. Because of these facts, it is the recommendation of the Farm Management committee that a greater diversity be developed on individual farms and that a combination of the following enterprises be adopted and applied in so far as practicable on Lane county farms.
1. Dairy or sheep, poultry, clover or vetch seed, potatoes, winter wheat, or other cash minor crops.
2. Dairy, sheep, hogs or poultry, clover or vetch seed, potatoes, winter wheat, or other minor cash crops.
3. Dairy, hogs, clover or vetch seed, potatoes, winter wheat, or other minor cash crops.
4. Sheep or dairy, poultry, orchard or berries.
5. Poultry and berries.
6. Orchard and poultry.
7. Orchard, berries and poultry.

III. QUALITY OF BUSINESS.
It is the belief of this committee, based on farm management surveys conducted in Oregon, that larger farm profits are made from high-producing livestock and from increased yield of crops per acre, and that the acre-yield of crops and livestock efficiency may easily be increased in Lane county. The committee recommends, therefore, that every farm make all possible effort to increase its crop yields per acre by the careful selection of pure graded seed, by crop rotation, by the use of manures, by approved tillage methods, etc., and that the average yield and efficiency per head of livestock be increased by selection, feeding, breeding, pure-bred sires, and other approved methods.

IV. THE LAYOUT OF FARM AND FARMSTEAD.
Since labor is the heaviest item in the cost of
production and since the efficiency of man, horse and machine labor on the farms is directly affected by the farm and farmstead layout, by the arrangement, shape, size and accessibility of fields and convenience of farm buildings, we recommend that farm fields and the farmstead be so arranged that the minimum amount of labor is required in the operation of the farm.

V. RECORD KEEPING.

The keeping of farm records or accounts furnish the essential facts for:

(a). Determining the financial condition of the farm.
(b). Determining what enterprises are making or losing money.
(c). Locating the leaks in the business and suggesting means of plugging the holes.
(d). Analyzing the farm business so that it may be reorganized or replanned on a paying basis.
(e). Determining the cost of production.
(f). Making correct Federal and state income tax reports.

Because of these salient facts it is recommended by this committee that all farmers in Lane county keep a simple record of their cash receipts and expenses along with an inventory at the beginning and close of the year from which their financial standing may be determined and on the basis of which their farm business may be analyzed and planned. (A simple farm account book is published by the O. A. C. Extension Service.)
Farm Crops Committee Report.

I. FEED CONFERENCE.

Grain.
With the increasing growth of dairying and poultry raising, the feed question is becoming of increasing importance.

The average yields of Lane county grain in 1922 were:

<table>
<thead>
<tr>
<th>Grain Type</th>
<th>Bushels per acre</th>
<th>Pounds per acre</th>
<th>Acres grown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter wheat</td>
<td>16</td>
<td>960</td>
<td>18,000</td>
</tr>
<tr>
<td>Spring wheat</td>
<td>9</td>
<td>540</td>
<td>10,000</td>
</tr>
<tr>
<td>Oats</td>
<td>20</td>
<td>640</td>
<td>20,000</td>
</tr>
<tr>
<td>Barley</td>
<td>22</td>
<td>1056</td>
<td>1,500</td>
</tr>
</tbody>
</table>

The yields that year were lower than usual, but the relation between yields probably holds true for other years.

Accurate figures of shipments are not available, but dealers agree that fully as much barley is shipped in as is produced here. The committee recommends, then, that the barley acreage be largely increased at the expense of the spring wheat and oats acreage. Part of this increase can be sold through local feed dealers, thus stopping the importation of barley, but the larger part should be used at home. Every dairy farm should grow barley rather than spring wheat or spring oats.

Farmers in Eastern and Southern Oregon and in California feed barley to all kinds of stock instead of oats. This practice could be greatly extended in Lane county with a great saving of labor and land. Barley is a first class feed for horses, cows, sheep and hogs and could therefore replace many thousands of bushels of oats for home use.

The committee recommends that Hannchen barley be used for spring planting and O. A. C. for fall planting.

Corn.
Corn averages here about 33 bushels per acre. There are about 5500 acres grown annually, 60 per cent of which is harvested for grain and the remainder used for silage or green feed. Corn thus produces approximately 1850 pounds of grain feed per acre, exceeding any of the other grains. Though the cost of growing it is greater, cultivated crops are badly needed on many farms to kill weeds and put the ground in better shape. Hence it is recommended that the corn acreage be increased on those farms where it can be profitably grown. For grain, Minnesota 13 is recommended, or in the colder parts of the county Minnesota 23. For silage, Golden Glow is as good as Minnesota 13, but requires a slightly longer season.

Flax.
Considerable flax is shipped into Oregon from the eastern states for use in oil mills and for feed. Little is known about its adaptability here. A number of years ago about 500 acres were planted which did very well for the first year, returning 15 bushels per acre or more. Disease reduced the yields in subsequent years until the growing of flax was abandoned. The committee recommends that the Oregon Experiment Station make trials of different strains of flax with the object of locating (42)
the best strain for local conditions. We further recommend that one or more local farm organizations here secure small amounts of seed and arrange to have several farmers make small trial plantings.

General Recommendations.

The committee recommends that individual farms and the county as a whole work toward the idea, "I will grow my own feed".

II. GRAIN CONFERENCE.

The figures already quoted show the low yields of spring wheat and oats. It is recommended that these crops be reduced as fast as possible, especially on those farms where part or all of the crop is used for home feed. Barley is preferable, either winter or spring sown on well-drained lands, spring sown on the other lands.

Where winter wheat makes good yields per acre it may be expected to maintain its place on the larger farms. On small farms wheat growing is a questionable practice. It is doubtful if returns of 16 bushels per acre or less will pay on even the lowest priced lands of the county. Land growing hay, permanent pasture, grass, clover, or vetch seed, depending upon the character of the soil, is likely to yield better returns.

The following varieties of grain are recommended:

Winter wheat—White Winter, Foise on the poorer drained land.

Spring wheat—Huston, Foise or Defiance on wet or seepy land.

Oats—winter, Gray Winter; spring, Swedish Select (Shadeland Climax).

Barley—winter, O. A. C. No. 7; spring, Hannchen.

The committee recommends that all parts of the county standardize on the above varieties, try to build up strains of pure seed and have the strains inspected by the Agricultural College and certified.

It is further recommended that the Lane County Agricultural Economic Conference endorse the McNary-Haugen wheat export bill and authorize the chairman of the Farm Crops Group so to notify the chairman of the agricultural committee of each of the two branches of Congress and also President Coolidge.

III. FARM CROP CONFERENCE.

1. Alfalfa.

The 1919 census reports 109 acres of alfalfa in Lane county. Along the sandy river bottoms and on the well-drained benches above the rivers, there are several thousand acres of land well adapted to alfalfa. Most of these lands would produce an average of 4 tons per acre of this crop. When a good stand is secured and properly cared for it will last for many years, thus making plowing and seeding unnecessary and providing large amounts of rich feed at a relatively low cost per acre.

The committee recommends that alfalfa be given a thorough trial on these farms, especially those keeping dairy cows. Much alfalfa hay is now being shipped in from other counties, most of which has a high freight charge against it. This money could be kept at home. In addition, many dairy
farms now feeding a poorer quality of hay could raise alfalfa, thus materially reducing feed costs and decreasing cost of milk production.

Grimm alfalfa is recommended, inoculation is advised, and in most cases an application of land-plaster the first year. Land heavily infested with weeds should be at least partly ridded of them first and the alfalfa should be seeded without a nurse crop.

2. Coast Range Forage Needs.

Results in Clatsop county show that green feed throughout the summer raises milk production 20 per cent. All dairy farms without sufficient good pasture can therefore profitably grow green feed where possible for summer use. Peas and oats are recommended for this purpose as well as silage. Reids Canary Grass and creeping Bent Grass are recommended for pasture. Rotation grazing gives best results. Purple vetch, spring sown and inoculated, will furnish a large tonnage for hay. Rutabagas make the largest returns per acre of any root crop for winter feed.

3. Clover and Vetch Hay.

Lane county grows approximately 23,000 acres of grain hay yielding on the average about 1½ tons per acre. There are less than 5000 acres of clover cut for hay, either alone or mixed. The acreage of vetch hay is considerably less than of clover. For actual feed requirements in order to get the most profitable returns from dairy cattle and sheep, the county is short 30,000 tons of legume hay. This is now being replaced largely by grain hay, mostly oat hay, and by cheat.

A balanced farm program, taking into account the needs of the livestock and cheapness of production of crops, would suggest that much of the above 23,000 acres of grain hay could be changed to advantage to vetch or clover. A large amount of this is on poorly drained land. Hungarian vetch will grow on a large part of this, will produce larger crops of better forage, and will leave the land in better shape for succeeding grain crops. On the wet lands good crops of alsike clover mixed with rye grass and some red clover can often be grown.

4. Pastures.

In England, in spite of very high-priced lands, about 50 per cent of the tillable land is continually in pasture, the pasture being rotated across the farm just as any crop would be. With high labor costs and relatively low prices for grain there is reason to believe that a good pasture will return as much or more net profit per acre as grain crops in Lane county.

The committee urges careful consideration of this by every owner of livestock. It is recommended that the pasture on all farms be divided into two or more parts and rotation grazing practiced.

The farm crops department of the Agricultural College is asked to formulate standard pasture mixtures for the various types of soil and climatic conditions, name these in some suitable way, as Oregon No. 1, No. 2, etc., and endeavor to get the cooperation of seed companies and seed dealers in carrying these under the given names so as to enable easy purchase of the right mixture.
IV. SEED CONFERENCE.

1. Clover Seed.

The middle western states growing most of the clover seed produce an average of from 1 to 1½ bushels of seed per acre. Oregon grows an average of nearly 3 bushels per acre. In addition, the Oregon grower usually receives a slightly higher price in spite of the freight handicap, because of the good color and high germination of seed grown here. The average acre return of clover seed in Oregon for the past three years has been about $30.00. This is higher than the average return in Lane county for any of the grain crops and nearly three times the average returns from spring wheat.

A reasonable increase of clover seed production is recommended and greater care in buying seed so as to avoid the introduction of noxious weeds. This should be a community project instead of the scattered effort of individual growers, as it is easier to thresh, clean the seed and sell it where several close neighbors are interested.

Production practices recommended by the committee include the following: Stands are surer when the clover is seeded in the late winter into a fall-sown grain crop than when it is seeded with a spring-sown crop. An application of from 50 to 75 pounds of land-plaster is apt to increase the soil yield. The clover should be clipped or pastured off until late spring.

The committee authorizes the chairman to write to the Department of Agriculture in Washington, D. C., condemning the publication of reports disparaging to Oregon clover seed, since these reports were based upon one year's trial only.

On many lands too poorly drained for red clover, it is possible to grow alsike clover for seed or hay.

2. Vetch.

The market for Hungarian vetch seed is now more than filled, and it is recommended that most of the fall-planted Hungarian vetch be cut for hay in 1924. There is a possibility of developing a market in the future with some of the Southern Atlantic states, but this is as yet only a possibility.

There are large amounts of hairy vetch used in the east for orchard cover crops and for green manure. The price has so far been good except in one or two years when large importations came from Europe. A tariff of 2 cents a pound now exists, but there is still a large importation. The freight from Eugene to the Atlantic coast markets averages about one cent a pound, leaving the grower about 10 cents a pound at the present time. Seed production in Lane county will vary from 120 to 800 pounds per acre with a probable average of about 400 lbs.

The greatest drawback to the growing of this crop for seed is its excessive shattering. This makes it difficult to harvest unless done at exactly the right time, but the worst result is the tendency of the shattered seeds to volunteer for years in the succeeding grain crops. No man expecting to grow wheat is advised to try hairy vetch, but the committee recommends a moderate increase in acreage for seed purposes on farms other than wheat farms. The cheapest way to grow this crop will probably be to drill in another crop of hairy vetch after tak-
ing the first one off, continuing this for 2 or 3 years, thus making plowing unnecessary.


More than a million dollars worth of grass seeds is imported into the United States every year. A large part of these imports are orchard grass, English rye, Italian Rye and Tall Oat grass. These grasses do not produce seed heavily, but climatic conditions here are nearly perfect for good yields and the cheapness of seed production should commend it to the owners of low-priced land. Orchard grass will live and produce seed crops for five or six years with very little expense connected with growing it.

The committee recommends trials of seed production of these grasses.

V. WEEDS.

The Canadian thistle pest is becoming serious on many Lane county farms. Small patches may be killed by salting lightly and turning goats or sheep on them, and large areas may be killed by continuous cultivation, but landowners who do not control the thistles are a constant menace to their more careful neighbors. The conference urges that the weed committee appointed at the state conference take all the steps necessary to secure adequate weed legislation.

The committee further urges the wider use of the free seed testing laboratory at the Experiment Station at Corvallis as a means of locating the presence of noxious weeds in seeds, and as a means of insuring the purchase of only such seed as is free from these weed seeds.

VI. POTATOES.

The following facts are recognized:

1. California and the Southwest is our only market for table stock.
2. Our freight charges are 48c per hundred to Central California points, a shipping expense that leaves no profit on low-grade potatoes.
3. The potato grading law is helping our potato markets and right now Oregon potatoes are the highest price of any in a surplus producing section of the United States.
4. Heretofore Oregon potatoes have borne a poor reputation because of poor grading.
5. California wants to buy seed here but is never sure of the quality.
6. With the alien land law in force in California, hundreds of Japanese potato growers are quitting the business, giving Oregon a better prospective market.
7. Yields in Lane county average under 100 bushels per acre and the county produces comparatively few potatoes for export. So far this year there is a record of 35 cars having been shipped out and five shipped in.
8. With these facts in mind, we do not have a potato marketing problem so much as a production problem. Our market now exists, but yields of less than 100 bushels per acre are not likely to prove profitable.

The committee then heartily endorses the new potato grading law and asks that any changes be made to strengthen it rather than to weaken it.

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We call the attention of farm organizations and individuals to the great opportunity for any community with suitable soil to develop a potato seed industry. Good seed will always find a market in any year.

Better seed and better storage are the biggest things needed to insure a profit in potato growing here.

The county grows about 1900 acres of potatoes. This could be safely increased 25 per cent, the increase taking place on the mellower soils.

**VII. SOIL NEEDS.**

Most of our Lane county soils need humus in order better to conserve moisture and so make crop production surer in the dry years. Humus also acts as a storehouse for nitrogen, the most important of the crop needs.

The cheapest source of humus is legume crops, and we need more of them. The next cheap source is our straw piles. It has been shown that ton for ton straw has a higher fertilizing value than barnyard manure.

More than 50 per cent of Lane county's straw goes up in smoke. We urge then the cooperative or community ownership of straw spreaders in all grain-growing sections.

**COMMITTEE,**


**Land Settlement Committee Report.**

Since the state Agricultural Economic Conference held at Corvallis, January 23 to 25, 1924, adopted a state program for land settlement and reclamation setting forth facts and recommendations of fundamental importance for the guidance of the state as a whole, we recommend this report to the consideration of the people of Lane county. To the end that Lane county may cooperate advantageously with state agencies in properly coping with the land settlement problem, we also recommend—

That a committee be created to be known as the Lane County Land Settlement Committee, composed of two representatives chosen by each of the following organizations of the county:

1. Pomona Grange.
2. Lane County Farmers Union.
3. Realty Boards.
5. Other similar organizations interested and desiring to assist in land settlement.

This Lane County Land Settlement Committee should perfect plans for listing and appraising lands offered for sale in the county and for cooperating with the state land settlement agencies. The committee should assist settlers after their arrival and location in the county, regarding this service as of paramount importance. Every effort should be put forth to the end that the newcomers may become prosperous, contented, home-building citizens.

**COMMITTEE,**

J. W. Maxwell. E. Eugene Chadwick. H. L. Beck
The farmers of Lane County have demonstrated the advantages derived from successful cooperative marketing.