1947
Clatsop County
Farm Program Planning Conference

Astoria, Oregon
February 18, 1947
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FORWARD

The publication of this report has been made possible by the cooperation of the Clatsop County Court. Each of the six committee reports listed herein were prepared after several meetings of the committee membership.

The recommendations contained in these reports represent the considered judgement of practical producers and people closely associated with rural problems.

Each of these reports was presented at a County wide meeting held in Astoria, February 18, 1947. This meeting was well attended by farm leaders from throughout the County. The reports were approved by those in attendance at the general meeting.

It is the desire of the group that cooperated in formulating these reports and publishing them, that they be used as a guide by farmers and by those interested in the agriculture of the County. They contain many helpful suggestions of value to persons who might be interested in establishing farm business in this locality.

Embodied in the reports are recommendations pertaining to future agricultural developments in this area.

MARK J. JOHNSON,
General Conference Chairman

GORDON HOOD,
Conference Secretary
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LAND USE COMMITTEE REPORT

Climate is Mild and Moist:

Clatsop County has a land area of 524,800 acres, according to the 1945 census. It is divided by the summit of the coast range, which extends in the northerly and north-easterly direction through the County. The topography is broken, although elevation is not excessive in any point, varying from sea level to 3266 feet at Saddle Mountain. The western side of the divide, the principal rivers are the Necanicum, Lewis and Clark, Youngs and Klaskanine.

Principal agricultural areas of the County lie along these river drainage ways and the open ranges of these water courses. The valley floors are narrow but widen as they approach tidewater. A comparable type of agricultural land lies adjacent to the Columbia River, the northern boundary line of the County.

Climatic conditions are mild but vary somewhat between the coastal and the interior County. There is a greater range of temperature and less moisture on the eastern side of the coast range in the Nehalem River drainage area.

The average growing season at Astoria, which is near the coast, is 272 days. At Jewell, which is located on the Nehalem River, the average growing season is 165 days. Average annual precipitation at Astoria amounts to 77 inches, and at Jewell 71 inches. The area of the County located on the western side of the coast range is characterized by heavy fogs and more frequent summer rains than occur on the eastern side.

Grass Land Type of Farming:

Of the total land area in the County, approximately 63,000 acres are included in farms and of this figure, approximately 17,000 acres are tillable. Figures in the 1945 census indicate that there is a total of 910 farms in the County. Of this total, 222 or nearly 25 per cent contain less than ten acres of land.

Many of these operators depend on off-the-farm employment to supplement their farm income.

Practically all of the agriculture of the County centers around a grass land type of farming; production of dairy products and sale of livestock are the primary principal agricultural enterprises in the County. Other important commodities include production of bent grass seed, lotus major seed, poultry and egg production, berries, cranberries, fur-bearing animals, and limited amounts of truck crop.

This committee considers possibilities for further agricultural development confined to development of additional grass lands with the production of pasture and forage crops of livestock feeding, certain seed crops, and the production of those crops which thrive in a cool moist climate, if proper marketing facilities are available for such crops.

Of the total County area by far the largest part is considered land suitable for forest production. Much of this area has been cut over, and at the present time there are approximately 112,000 acres of cut-over lands in the County that are under the joint ownership of the State of Oregon and Clatsop County. Under this plan, the State Forestry Department is responsible for the management and fire protection of these areas, and the County shares the receipts received in the sale of timber production from these lands.

This committee considers this a constructive method of utilizing these lands, because the area is under the supervision of trained forestry personnel. It provides a definite plan of management, taking into consideration the harvesting of the timber crops from these areas on a sustained yield basis. It provides a method of fire prevention and fire control for these areas. It makes the recreational facilities of the area available to a greater number of persons than if the County government had followed the policy of selling small tracts of land in the area to individual persons.

Adequate Fire Breaks Needed:

This committee recommends that further work be done to construct adequate fire breaks in cut-over areas of the County, particularly those areas on which stands of young timber are growing at the present time. Probably the
greatest need for such fire breaks exists in the eastern portion of the County, where there is danger of fire originating in slash areas spreading into areas of regrowth.

This committee recommends that a fire break be constructed from the Columbia River area to the Nehalem River, such fire break located at or near the eastern boundary line of Clatsop County. There should also be closer supervision in areas where logging operations are being carried on in order that there be proper clean-up of slash after harvest to eliminate fire hazard. It is the recommendation of this committee that a joint meeting be arranged between the County Court, Land Use Committee and the Forestry Department for the purpose of working out a more satisfactory system of issuing fire permits. At the present time, fire permits are issued on the basis of information collected at the Base Weather Station, and in some areas within the County the actual conditions existing are quite different from those at the Base Weather Station. Often it is safe to burn near the coast when a similar condition would not exist in the Nehalem Valley.

Some Cut-over Land Suited for Grazing:

It is recognized by this committee that the major portion of the cut-over area is best suited to reproduction of forest timber. However, all of this land in Clatsop County has been carefully classified, and there are limited areas that are suited to grazing. It is the recommendation of this committee that development of these grazing areas be promoted under the present program outlined by the State Forestry Department whereby the department will participate in the development of those areas. Burning is a prerequisite of the seeding of any of these proposed grazing areas, such burning to be done under the present program of the State Forestry Department. A suitable mixture of grass and legume for such seeding would include a minimum of the following:

- 4 pounds Alta Fescue
- 2 pounds Red Creeping Fescue
- 1 pound Highland or Astoria Bent
- 2 pounds Subterranean Clover
- 1 pound White Clover and Lotus Major
- 4 pounds Western Ryegrass

Fencing is necessary to control grass on these areas and to prevent the spread of competitive foliage such as brush or vines. It is the recommendation of this committee that, if grazing areas are developed, they be developed under one of the following conditions:

1. By means of a long term lease to the livestock operator by the State and County Government.
2. County and State Government develop the grazing areas and then lease it for grazing purpose to livestock operators.

This committee does not consider this the proper time to encourage any settlement in these areas for other purposes. It is not practicable or feasible to consider this land as a farm unit in itself. It would be necessary for anyone interested in utilizing this grazing land to have available a base farm on which feed could be produced for the winter season.

Valley Land Could Be Cleared:

There are approximately 5,000 or 6,000 acres of unimproved land located along the several valley floors in various parts of the County. Fundamentally, this is high quality land if properly cleared. The development of machinery for land clearing purpose has simplified this process somewhat. Most of this land to be cleared is in connection with established farms. New settlers are encouraged to contact the County Agent before making a purchase of farm-land. This committee suggests that signs be erected at County lines pointing out the services available to new settlers in selection of land.

Control Program for Weeds:

Limited investigations of Canadian Thistle and Wild Morning Glory are noted on farms of Clatsop County. This committee considers it important that a definite control program be started to eradicate these weeds. County weed control measures practiced at this time will result in a tremendous saving to
all persons concerned, for if these infestations are permitted to grow unmolested for the next five years, the control measures and the cost will be increased seriously. It is the recommendation of this committee that such a weed program be established by the following method:

1. Establish weed control work in the County on an area or community basis rather than as a County-wide weed control program.
2. Have some individual or individuals in each community responsible for control and eradication work in that area.
3. Encourage a broader use of the County-owned weed spray equipment which was purchased for use on farms throughout Clatsop County, as well as for spraying infestations of noxious weeds on County and State owned right-of-ways and roads.

Continue Soil Conservation Practices:

Lime, phosphate, construction of drainage ditches, pasture seeding and pasture clearing are the conservation practices that are making the greatest contribution to the agriculture of Clatsop County. It is the recommendation of this committee that emphasis be placed on these practices.

At the present time there are two soil conservation districts organized in the County. One of these, lying along the Necanicum River, was organized primarily for the control of stream bed erosion. The other, the Warrenton Dune Control district, was organized primarily to stabilize shifting sand areas adjacent to the Pacific Ocean, in and around the vicinity of Warrenton. The Warrenton district has accomplished its primary purpose; proper land use policies in that area will prevent recurrence of the problem.

There is still much work to be done in the Necanicum district if the original plan is completed. This committee recommends that organization of other soil conservation districts within the County be delayed until this work is completed, or until personnel and services of the soil conservation service are available for such work, or until general economic conditions justify directing some public labor to soil conservation development.

Credit Conditions Sound:

Credit facilities on farms throughout Clatsop County in general are in sound condition. At the present time, there is about one-third of the volume of loans outstanding that there were in 1937. The sale prices on farms in Clatsop County at the present time is in some instances above their long time earning capacity.

It is the recommendation of this committee that anyone contemplating the purchase of a farm, pay at least 25 to 50 per cent of the cost, and have a minimum of 20 years to pay the balance of his contract obligations. We urge that those interested in buying farms consult neighboring farmers and others as to true value of farm land.

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DAIRY AND LIVESTOCK COMMITTEE REPORT

Increase Recommended in Dairy Cattle

Production and sale of dairy products by Clatsop County farmers totaled $723,455 during 1945. In a similar period the sale of livestock accounted for $264,809 of the County's gross agricultural income. The sale of livestock and livestock products is the largest source of agricultural income to the county. A significant trend in the livestock industry of Clatsop County during recent years is the steady decline in numbers of dairy cattle kept on Clatsop County farms. The members of this committee attributed the decline in dairy cattle numbers to shortages of farm labor, machinery, equipment, and necessary supplies, and the returns that could be realized from alternate enterprises.

This committee believes that numbers of dairy cattle on Clatsop County farms can safely be increased from 4200 to 6000. However, along with this increase in numbers of dairy cattle, it is equally important that dairymen follow a careful culling program, for as important as numbers is the quality of the animals in the dairy herds.

This increase is recommended in view of the following conditions: There
is an increased number of persons living in urban centers in the County. An increased tourist trade can be anticipated during the next few years. There is an increased amount of land being cleared on farms throughout the County, land that is best suited to forage and pasture crops. It is the opinion of this committee that over a period of years the returns from this land will be greater when utilized as pasture or forage crop production than from other enterprises.

**Full Utilization of Forage Crops**

The basis of any dairy or livestock farming program is the full utilization of farm produced pasture and forage crops. Mixtures of grass and legume seedings should be designed to give maximum production of palatable feed over a long pasture session. Pasture seedings made in accordance with these recommended mixtures will prove to be the most economical method of obtaining maximum forage production when properly supplemented with good fertilization, rotation, and weed control practices.

The making of grass and legume silage for winter feeding has proved to be the most practical way of conserving the excess forage available during the early summer months. The primary advantage of silage over field cured hay is that a better quality and more palatable feed can be made in this manner. Weather conditions during the early summer months are not favorable to the production of high quality hay. The committee recommends that further study be made to determine whether it is more practical to supplement silage with locally produced hay or to supplement silage feeding with high quality alfalfa hay secured from alfalfa producing areas.

The committee does not consider grass silage practical for those dairymen who have less than ten head of cows. For those with a small herd (ten cows or less) root crops are a more practical method of producing supplemental winter feed. Root crops that are giving good results in this area include mangels, turnips, and rutabagas.

**Future Calls for Efficiency**

It is the opinion of this committee that greater efficiency must be the practice to realize profits from dairy farming in the years ahead. Proper use of fertilizer, good pastures, size of the dairy herd, labor saving methods, and production of high quality products are tools that will help dairymen to increase their efficiency of operation.

It is the opinion of the committee that the minimum number of dairy cows that can be maintained for an economical dairy unit in Clatsop County is 16 to 20 head of cows. On the more productive lands a minimum of two acres of crop and pastureland is needed for each cow maintained in the herd. This means that most of our dairy farms should contain at least 40 to 50 acres of the better land if dairying is depended on for the farm income. On improved uplands a minimum of three acres of crop and pasture land is needed for each cow in the dairy herd.

**More Attention to Dairy Markets**

Competition in the dairy industry is becoming more and more keen. Dairy substitutes are making inroads in markets for certain dairy products. It is the opinion of the committee that dairy substitutes will have a greater bearing on the price received for dairy products than was the case during the war years. The work of the Oregon Dairy Council has been of great importance in promoting sales of dairy products. It is the opinion of this committee that a larger percentage of funds derived from the sale of dairy products should be set aside for sound promotion of the industry. This committee recommends that one cent per pound be set aside from butterfat produced during the month of May for constructive advertising. At the present time one-half cent per pound for production during the May period is set aside for this purpose. Quality of production must go hand in hand with any good sales program.

This committee considers it important that each dairymen take inventory of the facilities on his farm that are needed to bring about high quality production. Careless, unsanitary methods of production are jeopardizing not only the individual farmer but the entire industry as well.

**Healthy Herds Must Be Maintained**

The health conditions of dairy and beef cattle of Clatsop County are very
good, due to the constant vigilance of those entrusted with the enforcement of this program: it is of special importance at this time that farmers do everything in their power to continue this favorable position and not allow it to slip back as it has in some areas. Particular credit should be given for this favorable condition to the Clatsop County Court and the local veterinarians in charge of this program. The maintenance of healthy herds is of first importance for public health and the confidence of the consuming public in the health conditions of livestock. It also enters materially into the farmers' cost of production of meat or butterfat. This committee makes the following recommendations on the three principal herd health problems in the county.

**Tuberculosis**—Clatsop County has become one of the notable free areas of tuberculosis in the state, and this has been due to the enforcement of the test and slaughter program. We recommend that the annual testing be continued and that indemnities be continued as in the past.

**Bangs Disease**—The program of test and slaughter has been effective and we are vigorously opposed to the use of the vaccination method for the control of this disease. We feel that farmers in Clatsop County have nothing to gain from vaccination and much to lose, and we strongly urge that farmers do not introduce vaccinated animals to clean herds. If the vaccination program is used, we feel that further indemnities for reacting animals should be discontinued.

**Mastitis**—This is probably the most serious herd health problem confronting Clatsop County dairymen.

Oregon Station Circular 163, "Mastitis in Dairy Cattle", should be read by every dairymen to get a better understanding of the problems involved in the prevention and control of mastitis. As with many diseases, prevention is most important and considerable progress toward prevention may be expected by dairymen following a program similar to the one recommended in the above mentioned circular.

Treatment recommendations:
1. Confine cows with severe swelling.
2. Reduce feed on acute cases.
3. Consult your veterinarian for advice on treatment with specific drugs.

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**POULTRY COMMITTEE REPORT**

**Expansion in Poultry Industry Recommended**

Production of poultry and eggs in Clatsop County represents an important phase of the agricultural economy of the county. According to the 1945 census report, there were approximately 111 poultry farms in the County. The sale of poultry and eggs amounted to $406,287 during that period. However, in the year just past, production of both eggs and poultry has been down an estimated 28 per cent in Clatsop County, due to the problems of producers in obtaining sufficient feed for their laying and brooding flocks. While many poultrymen discontinued their operations entirely, many others were forced to curtail production somewhat and are now operating their units at below their carrying capacity.

This committee recommends that poultry production be increased approximately 25 per cent, but wishes to emphasize the fact that most of this increase should come from those producers who have curtailed operations during the past year due to feed and material shortages. For those who are contemplating a start in the poultry business, this committee wishes to point out that this is a most unfavorable time for the building of new poultry plants, due to the unusually high cost of building materials and labor required for construction.

**Trend Toward Full-time Commercial Units**

Poultry farming is an important part of the agricultural economy of this County, and we believe that the trend should be towards full-time commer-
cial units. By a full-time commercial unit, we mean a unit of from 1500 to 2000 laying hens where the labor supply for caring for the flock would consist of the operator and his wife. In other situations, where additional labor is available in the family, from 2000 to 3000 laying hens can be cared for. Units in excess of these amounts will require additional hired labor. For those considering poultry units on a part-time basis, this committee recommends that the operator keep from 500 to 800 laying hens.

In order to maintain a satisfactory level of production, this committee recommends that the operator replace at least fifty percent of the flock each year with pullets.

Poultry farming in Clatsop County is confined primarily to production of eggs for market. Most of the poultry meat needs of the immediate areas are supplied by birds culled from the laying flock.

There is a limited opportunity for the production of meat chickens used for local consumption. However, this committee wishes to emphasize that it is extremely important for anyone contemplating this type of enterprise to have a well-established local market at which the birds can be sold.

As to the amount of land and capital that is required to develop a commercial poultry unit, it is estimated that the minimum amount of land should be approximately 15 acres, and the cost of constructing the necessary facilities for housing the poultry flock would be in the neighborhood of $6 per laying hen, with present building costs.

Generally, the most satisfactory way to establish the contemplated poultry commercial unit is to start with a part-time unit, with ultimate plans for sufficient housing to care for a full-time program. At least $3500 is needed to start a poultry project.

This committee believes that the most practical way to start a poultry business is to start with a few hundred birds and plan to have the unit in maximum production in approximately five years' time. By following this plan, the inexperienced operator will learn the multitude of problems of management, and thus get ready to swing into the full production program.

Disease-Freed Stock Important

Selection of disease-free stock is extremely important and the person who is planning either a part-time or full-time poultry operation should buy only from a reliable hatchery, which follows a rigid sanitation program to insure their customers chicks that are free of pullorum.

In general, the producers will realize higher returns from chicks purchased early in the spring in order that they will be in production during the early fall months.

In brooding and rearing, this committee recommends that chicks be kept away from the laying stock, preferably isolated a distance of 200 to 300 feet, and the brooder house should be immaculately clean and thoroughly disinfected before a new batch of chicks are placed in the building for brooding. On limited acreages it will be necessary to raise the chicks in confinement. Under these conditions sun porches and wire runs are of great value.

Avoid over-heating of chicks in and around the brooder stoves and follow closely recommended charts on temperatures required for brooding and rearing. Proper information available on this subject may be found in Oregon State College Extension Bulletin No. 627.

Care of Pullets Important

In managing the laying flock, care of the pullets at the time they are placed in the laying houses is extremely important, and this committee recommends that they have a supply of green feed available each day. Fresh litter should be placed in the laying house for the first month at intervals of every week. If deep litter is used, it is essential that the litter be dry in order to keep down contamination of coccidiosis.

Eggs should be gathered several times a day, and kept in a cool place to maintain high quality. Develop regular practices in handling of the laying flock. Avoid drafts and provide light for the flocks for at least 13 hours each day. When egg production begins to decline, increase mash consumption by feeding a moist mash or pellets and cut down on the grain fed.
FARM CROPS COMMITTEE REPORT

Most Tillable Land in Pasture or Seed

The Farm Crops Committee report covers forage and pasture crops suited to this locality and other crops which offer opportunities for feed production. At the present time there are approximately 17,000 acres of tillable land in Clatsop County. It is estimated that 90 per cent of this land is seeded to forage crop, pasture crop, or crop grown for seed purposes. Because of this fact, the farm crops committee considers it proper to make some recommendations pertaining to management and mixtures of grasses and legumes suited for pasture and forage crop production.

This committee suggests that the land utilized for pasture be so arranged that a definite system of rotation grazing can be followed, and that not more than one-half acre per cow be included in any one portion of the pasture unit. This figure is suggested for tideland pasture; on land not equal in productivity to tideland, the unit per cow would be increased accordingly.

An important part of any pasture management program is the practice of frequent clipping just before moving the stock out of the pasture that is being grazed. This will help to provide succulent new growth and will be helpful in keeping the common pasture weeds under control, by preventing seeding.

Pasture Mixture for Long Season

The experience of livestock and dairymen in this locality and the work of the Experiment Station emphasizes the importance of using pasture mixtures which will provide a long pasture season and produce a large amount of forage with maximum palatability.

Mixtures of grasses and legumes that meet these specifications in a satisfactory manner for this locality are as follows:

### Hay Crop on Tideland (well drained)

<table>
<thead>
<tr>
<th>Grass</th>
<th>Units per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Rye Grass</td>
<td>4 lbs.</td>
</tr>
<tr>
<td>Alta Fescue</td>
<td>4</td>
</tr>
<tr>
<td>Akaroa Orchard Grass</td>
<td>2</td>
</tr>
<tr>
<td>White Clover</td>
<td>2</td>
</tr>
<tr>
<td>Lotus Major</td>
<td>2</td>
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<tr>
<td>Red Clover</td>
<td>2</td>
</tr>
<tr>
<td>Alsike Clover</td>
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### Pasture on Tideland

<table>
<thead>
<tr>
<th>Grass</th>
<th>Units per Acre</th>
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<tbody>
<tr>
<td>English Rye Grass</td>
<td>6 lbs.</td>
</tr>
<tr>
<td>Alta Fescue</td>
<td>6</td>
</tr>
<tr>
<td>Akaroa Orchard Grass</td>
<td>2</td>
</tr>
<tr>
<td>Meadow Foxtail</td>
<td>4</td>
</tr>
<tr>
<td>Lotus Major</td>
<td>2</td>
</tr>
<tr>
<td>White Clover</td>
<td>2</td>
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</tbody>
</table>

### Hay Crop on Upland

<table>
<thead>
<tr>
<th>Grass</th>
<th>Units per Acre</th>
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</thead>
<tbody>
<tr>
<td>English Rye Grass</td>
<td>4 lbs.</td>
</tr>
<tr>
<td>Alta Fescue</td>
<td>6</td>
</tr>
<tr>
<td>Non-shattering Tall Oat Grass</td>
<td>3</td>
</tr>
<tr>
<td>Akaroa Orchard Grass</td>
<td>2</td>
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<tr>
<td>Red Clover</td>
<td>2</td>
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</tbody>
</table>

### Hay Crop on Tideland

<table>
<thead>
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<tbody>
<tr>
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<td>6</td>
</tr>
<tr>
<td>Akaroa Orchard Grass</td>
<td>2</td>
</tr>
<tr>
<td>Meadow Foxtail</td>
<td>3</td>
</tr>
<tr>
<td>White Clover</td>
<td>2</td>
</tr>
<tr>
<td>Subterranean Clover (Tallarock)</td>
<td>21</td>
</tr>
<tr>
<td>Lotus Major</td>
<td>3</td>
</tr>
</tbody>
</table>

### Pasture on Upland

<table>
<thead>
<tr>
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<tr>
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<td>6</td>
</tr>
<tr>
<td>Akaroa Orchard Grass</td>
<td>4</td>
</tr>
<tr>
<td>White Clover</td>
<td>2</td>
</tr>
<tr>
<td>Lotus Major</td>
<td>3</td>
</tr>
</tbody>
</table>

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Pasture for Extremely Wet Land
Meadow Foxtail ...................................................... 3 lbs. per acre
Lotus Major .............................................................. 3 lbs. per acre

Pasture on Fern Land (Not Cultivated)
Red Creeping Fescue ................................................. 4 lbs. per acre
Akaroa Orchard Grass ................................................ 2 lbs. per acre
Alta Fescue .............................................................. 3 lbs. per acre
White Clover ............................................................ 2 lbs. per acre
Subterranean Clover (Tallarock) .............................. 4 lbs. per acre
Western Rye ............................................................. 4 lbs. per acre
Lotus Major .............................................................. 3 lbs. per acre

The mixtures suggested herein are the minimum amounts of seed that is recommended for planting per acre. Quite often stands will be obtained sooner and it will be more economical for the operator to increase the quantities of seed planted. In many instances, an increase of 25 per cent to 30 per cent of these amounts is a justified expenditure.

Fall Seeding of Legumes Not Recommended
Proper seed bed preparation is an important part of any pasture management program. It is important that the land be well-prepared and the seed planted on a firm seed bed, being careful that after seeding, the seeds are just barely covered. Much of the seed used in pasture mixtures is small and if covered more than one-fourth inch deep, will result in a poor stand. Fall seeding of legumes such as clover and lotus is not recommended in this locality due to the danger of frost damage. The one exception is that the subterranean clover; it can be seeded in the fall if seeded with the first fall rains.

Your committee considers a good plan is the seeding of the various grasses used in the mixtures during the fall season and then planting the legumes early in the spring. Good results have been obtained when the legume seedings were made during February and March.

Most of the legumes require the use of a special inoculant at the time of seeding. This is particularly true of lotus Major. It is recommended that inoculations be used for this legume, even though it is to be grown on land which has previously grown a similar crop. The use of soil taken from an established planting of lotus major has proven to be a practical method of inoculation.

Fertilizer Practices Pay Dividends
The full utilization of farm-produced animal fertilizer is important. However, much of the farm-produced fertilizer has been exposed to considerable weather action before application and most of its value is lost. The use of liquid manure tanks for storing these fertilizers is recommended for dairy and livestock farms.

The use of commercial fertilizer to supplement animal fertilizer will pay dividends in most fertilizer programs. Your committee recommends the early spring application of 300 pounds of super-phosphate (20 per cent) to pasture and hay meadows. Application of this fertilizer should be made when spring growth first starts. Fall applications can be made with the first fall rains. Two applications of phosphate fertilizer, one in the spring and one in the fall, is a desirable practice.

The use of nitrogen on pasture and hay meadows has also proved to be beneficial. Nitrogen applied at the rate of 100 pounds of 20 per cent material per acre will provide increased production and a longer pasture season.

County Produces Half of Nation's Bent Grass Seed
The production of bent grass seed is an important part of the agricultural economy of Clatsop County. Clatsop County produces 35 per cent of the bent
grass seed production of the United States. Yields of marketable seed produced per acre have been declining for the past several years. This committee believes that the decline in yields can be attributed to three factors. These are neglect of good cultural and rotation practices, growth of competitive weed crops, and infestations of nematode.

This committee recommends that some trial work be conducted to determine the best cultural practices to increase the yields of bent grass seed. In this particular field we consider the method of application and kind of fertilizer to be used, rotation practices, and reseeding practices as needing further study.

This committee recommends that trials of selective weed sprays be used on established stands of bent grass to determine the possibility of controlling some of the common weeds found in bent grass seeding. In addition to helping to control the growth of these weeds, such trials might also prove beneficial in cleaning operations.

Harvesting Lotus Major Seed Presents Problem

This palatable legume has been produced in Clatsop County primarily for seed production. The committee would point out that the ultimate use of this and any other forage crop is for livestock feeding. It is its opinion that there is much lotus major now being planted in Clatsop County for seed production which should properly be considered for livestock utilization. This statement is made in view of the fact that there is only a limited amount of equipment available for harvesting a seed crop here that matures during a short harvest season, and the necessary investment in machinery cannot be justified for the smaller plantings which are being made.

Unlike bent, which can be harvested over a relatively long season in spite of adverse weather conditions, lotus major has a very short harvesting season, and, if subjected to rains and other adverse weather, will result in heavy seed losses. This committee believes that a producer should have at least 25 acres of lotus, at present seed prices, to justify the investment in machinery needed to care properly for crop. It is quite possible that the minimum acreage required to justify the investment in equipment would be considerably higher in future years should there be some decline in seed prices.

The committee estimates that it would require an investment of $5000 to have all of the machinery needed for harvesting lotus major. Problems of harvesting and marketing present seed production prompts this committee to recommend that an association of lotus growers be organized to provide for a more orderly method of marketing local seed. This committee recommends that each producer give serious thought to setting aside a small amount of seed produced on his farm. This allotment of seed should be used for promoting interest in this crop in those areas where the value of lotus major is not generally recognized at the present time, and where there is some likelihood of its succeeding as a forage legume. The committee recommends that plans be developed in cooperation with the County Extension Office whereby seed set aside for promotional work be distributed to County Agents and Experiment Stations in selected areas.

County Weed Control Program Needed

At the present time Canadian Thistle is the most important noxious weed in the County. While infestations are not extensive, it is growing in practically all farming areas in the County. This committee urges that a county-wide weed control program be initiated. If this plant is permitted to grow unhampered for several more years, control measures will be much more costly and will need to be much more comprehensive.

Other noxious weeds that are a lesser problem include wild morning glory, quack grass, and creeping velvet. With reference to weeds that are a particular problem in bent grass lands, plaitain, chickweed, buttercup, smart weed, and tussic have proved to be the most troublesome.

This committee recommends that trials with the use of selective weed chemicals be established to determine its value as a control measure on some of the latter mentioned weeds.
Family Unit Basis of Community

We hear much of changing times, post-war periods, new ages, etc., but despite all these changes the family unit still forms the basis for the community. Two vital requisites for a successful family are a good home and an adequate amount of nutritious food. In addition, each individual must be made to feel his responsibility and make an honest effort to understand and appreciate the problems he meets. A balanced family life leads to a balanced community life.

Our committee made studies in housing, community life, health and youth activity in an effort to find ways of helping Clatsop County families lead richer lives. Our recommendations follow.

Improved Health and Nutrition Sought

Successful living depends on good health. Research is continually offering principles applicable to our daily life concerning health and nutrition. Recent nutritional studies carried out in Tillamook, our neighboring coastal county, indicate lack of emphasis on the inclusion of enough milk, fresh vegetables, and citrus fruits in the meals of children to meet the daily standard requirements of an adequate diet.

The committee recommends:
1. That demonstrations on adequate family diets emphasizing vitamins and minerals be presented in all communities in Clatsop County.
2. That all Clatsop County schools serve hot lunches and that a program be inaugurated to interest parents in the importance of hot school lunches.
3. That each family continue to raise a home garden. In 1945 the census shows home produced food to be valued at $336 per farm, which is a substantial increase to the income. Information on gardens from the extension service would be given to home gardeners.
4. That garden clubs, for adult and the 4-H clubs be encouraged to stimulate more interest in home gardens and provide better family nutrition.
5. That the county keep continuously a full-staffed Health Department and that an educational campaign be carried on to acquaint the public with facts and importance of such a department.

Such a program should include:
a. Study of need for doctors, dentists, and hospital service to serve adequately the county population.
b. Study of services offered by County Health Departments to both rural and urban people.
c. Study of prepaid health insurance.
6. That the county provide a nurse to sponsor a pre-school clinic and to visit schools for regular inspection of children.
7. That ladies' lounge be incorporated in the plans for the memorial library.
8. That the sanitarian make regular checks of septic tanks in the county and that demonstrations be organized to show proper installation of septic tanks in communities where needed.

Remodelling Homes of Major Importance

In the 1945 agricultural census, figures show that 15 per centum of the homes in Clatsop County need major repairs, 807 farms in Clatsop County out of 910 reported have running water, and only 359 of this number have bathroom facilities. 709 have electricity in their homes at the present time and 821 have electricity within one-fourth mile. New housing is important and needed by remodelling present homes to provide more facilities and conveniences are needed even more.

While 87 per centum of the homes have electricity, the electric current supply is not adequate for operation of home and farm equipment. For example, cooking cannot be done while milking machines and other heavy equipment is in operation. This is especially true in the Brownsmead and Lewis and Clark areas for the people at the end of the supply lines.

Because of the situations stated, it was recommended by the committee:
1. That those handicapped by inadequate electric current form a co-
mittee to contact the power company and request relief as soon as new equipment is available.

2. That demonstrations and printed material be prepared and given to show advantages of better arranged and equipped farm homes in saving energy, time and money for the family.

3. That information be given on selection, use and care of lighting equipment.

4. That demonstrations on best use of electricity for home lighting be given.

Even with 37 per cent of the homes equipped with electricity and running water there is a need for more bathrooms in homes and better equipped kitchens to improve sanitary facilities and make homes more comfortable and convenient.

The committee recommends:

1. That families make installation of a bathroom one of the first items of home improvement, undertaken as soon as materials are available.

2. That all building and remodelling be carefully planned before actual construction is begun.

3. That assistance be given in organizing community water supplies where needed.

4. That an effort be made to extend telephone service to all rural Clatsop County. Now only one-third of the farms are served. In the Nehalem Valley direct telephone service to Astoria rather than through Vernonia and Mist is desirable.

Youth Organizations Should be Expanded

The youth program in Clatsop County included three major organizations; the Girl Scouts of America headed by Marie Hubbard; Boy Scouts of America, headed by Charles Anderson, and the 4-H Clubs. In addition, most of the churches have their youth groups and organizations. There are about 400 girls participating in the Girl Scout program, with approximately 224 of them living in the cities of Astoria and Seaside. The Boy Scout program has about 600 boys enrolled, with approximately one-third of these within the city limits of Astoria and Seaside. The 4-H Club program for the year 1946 had an enrollment of 155 boys and 181 girls.

Clatsop County had approximately 3,796 boys and girls between the ages of 9 and 19 in 1946, who are eligible for participation in either Boy Scouts, Girl Scouts, or 4-H programs.

Recommendations:

1. **Need for Leaders**—The need for leaders is the limiting factor in the three youth programs in Clatsop County and it is recommended that various organizations in each County provide leaders for the youth organizations. It was the committee's belief that every boy and girl should belong to one youth organization, in addition to his church youth group.

2. **Parent Interest**—It was the opinion of the committee that lack of parent interest was one reason why boys and girls failed to participate in the youth organizations and also lack of parent interest caused many boys and girls to drop out of the organizations after once enrolling. It is recommended that the youth organizations invite parents to attend meetings and to meet at parents' homes, thus bringing a closer relationship between the boys and girls and the parents.

3. **Teacher Interest**—The committee recommends that teachers in the schools help further youth programs in the County by discussing the value of the youth organizations in the school and showing the importance of these organizations to the future life of the boys and girls. It was also suggested that teachers take more interest in the organizations themselves.

4. **Older Youth Programs**—There is a great need for a recreation program for older youth throughout the County. The committee found that in rural areas organizations and recreation facilities were particularly lacking. However, it felt that in the cities most boys and girls lost interest in activities and projects because they are confused by the large number of activities available. It is recommended that each child participate in a few activities and seek to complete them, rather than undertaking many projects and finishing none.
5. **4-H Program**—The committee feels that the above mentioned recommendations were particularly lacking in the county 4-H program. It further recommends:

a. That leaders be sent to district 4-H training schools, and also that training schools in the County with State 4-H leaders in attendance.

b. That the 4-H program should be extended to a great many more boys and girls that had participated in the 4-H program during the past year. Every boy and girl of club age in Clatsop County should have the opportunity to belong to a 4-H club. The 4-H enrollment has been dropping the last two years. However, this was attributed to the unsettled economic conditions and it was felt that a more stable economy in the future would attract more boys and girls to participate in the 4-H program.

c. That the 4-H Fair is vital to the 4-H program and that every boy and girl should be urged to exhibit his project at the Clatsop County 4-H Fair.

d. That the basic club projects in Home Economics and Agriculture be stressed. Club members in livestock and poultry projects should have good quality breeding stock and build on this a foundation, with a definite business arrangement between the parent and the club member.

The committee further recommends that the 4-H club program follow insofar as possible the Ten-Guide-Post set up by the National Committee on post-war planning for 4-H club work in the following statement:

**Ten Guide Post for 4-H Clubs**

To help prepare tomorrow's citizens, physically, mentally, and spiritually, 4-H club work provides opportunities for voluntary participation in programs, built on needs and interests, through which youth are:

1. Developing talents for greater usefulness.
2. Joining with friends for work, fun and fellowship.
3. Learning to live in a changing world.
4. Choosing a way to earn a living.
5. Producing food and fiber for home market.
6. Creating better homes for better living.
7. Conserving nature's resources for security and happiness.
8. Building health for a strong America.
9. Sharing responsibilities for community improvement.
10. Serving as citizens in maintaining world peace.

**Improved Community Life Needed**

For better living, we must have improved community life. During the last year in Clatsop County, there were 184 divorces filed and 153 granted. There were 224 marriages. County authorities state that the principal causes of divorces were excess drinking, the inability for young people to adjust to new situations, and to get along with one another through compromise. There were 16 official county child delinquencies but over 100 non-official cases. Home recreation and community recreation have been decreasing during the past years. Six rural areas have no church and eight have no Sunday school, others have too few to fill needs.

It was recommended by the committee:

1. That district meetings dealing with family relationships including information on preparation for marriage be held.
2. That grange and other organizations study and consider the proposed Legislative Bill No. 2635, which will, if passed, prohibit utilization of the facilities of interstate or foreign commerce in connection with desertion or abandonment of minor children.
3. That family fun be encouraged between parents and children.
4. That leadership training in recreation is needed. It was found by the committees that there were eight lodges in the County, which with churches and other organizations could provide recreation for family groups.
5. That Sunday Schools and Churches be established in every rural community.
6. That each community provide some sort of gymnasium for young people for recreational purposes and that present gymnasiums be made available for use at all times during the day and certain evenings each week.
7. That people make more use of the five libraries in the County and the Book-mobile service.
8. That the radio be used extensively as a supplementary means of extending the extension program, since 90 per centum of the families in Clatsop County have radios.

**Transporting Young Children a Problem**

Transporting children in first three grades to and from school seems to be a problem in many school systems. Solution to this program might be:
1. That mothers take turns bringing the children home from school.
2. That mothers have a sewing, craft or recreation class at school grounds to keep children busy the afternoon hours.
3. That bus transportation be discussed in regard to a better schedule to accommodate persons living along the Columbia River route. This would apply to children as well as adults.

**SPECIALTY CROPS COMMITTEE REPORT**

This committee report includes vegetable crops suited to home garden production in this area, horticultural crops, such as cane and bramble berries, cranberries, truck crops, nursery crops, bulbs, and certain floral crops that are suited to our climate, with special consideration to markets where expanded commercial production is recommended.

**Most Vegetables Can Be Grown**

Practically all of the vegetable crops recommended for planting in Western Oregon as mentioned in Extension Bulletin 587 are suited to planting in this area. However, it is the opinion of this committee that planting days should be approximately two weeks later than the days appearing in the bulletin. Because of the cool coastal climate, it is not practicable to attempt to grow melons, tomatoes and late potatoes in this area. However, this committee would like to point out that the conditions here are ideal for the growing of a wide variety of vegetable crops that can be harvested from the garden during fall and winter season. Such crops would include green broccoli, white broccoli, carrots, beets, cabbage, rutabagas, turnips, brussel sprouts, kale, and swiss chard.

The biggest obstacle to satisfactory production of these crops in the winter season is the difficulty to keeping weeds and grass controlled. Insect pests usually incurred in growing of gardens in this area include flea beetles, strawberry weavil, slugs, garden worm, aphis, cabbage worm, and root maggots. However, suitable insecticides are available for control of these pests.

**Grow Some Caneberries for Commercial Use**

It is the opinion of this committee that there is an opportunity to grow a limited acreage of these berries for commercial sale to the resident public of the County. Anyone growing this type of crop should remember that there is considerable competition from weeds and grass because of the moist climate and ideal growing conditions for these plants during the fall and winter months.

Cane berries that have proved superior for this area include the Lloyd George, Willamette and Newberg raspberries. Bramble berries that have proved to be superior are the Pacific and Cascade blackberries, boysen and youngberries in certain sections.

Fungus diseases are the most difficult infection to control in bramble berries. Infestation of weavil is common in strawberries, and the use of poison baits is a necessary practice. Varieties of strawberries that have proved superior in this area are the Rock Hill everbearing, improved Oregon, and the Corvallis No. 12; the latter has proved to be a good quality berry but
somewhat lower yielding than the other varieties. These fruits for home use can be grown in protected areas.

Fertilizer practice recommended in connection with growing any vegetable or small fruit crop will include an application of liberal amounts of barnyard manure, supplemented with a complete fertilizer of 10-20-10 or 16-20 Amaphos applied at the rate of two to three pounds per square yard, or 500 to 600 pounds per acre. Applications of lime are also necessary in many instances (with exception of berries and potatoes) applied at the rate of approximately twenty-five (25) pounds per square rod.

**Condition Ideal For Nursery Crops**

The committee wishes to point out that conditions here are ideal for nursery planting stocks. It has been the experience of those familiar with this occupation that plant growth obtained herein two years’ time will be comparable to the normal growth obtained in other areas during a four year interval. Nursery plantings that have proved suited to this locality are rhododendrons, azaleas, pernettya, holly, camilla, perennial plants used by the florist trade, coniferous trees and certified strawberry planting stock in selected areas.

Good cultural practices recommended are comparable to those normally practiced. Best results have been obtained on good clay loams, to which have been added plenty of humus and organic material. Those interested in starting this type of business are advised to put the land in a high state of cultivation and then secure the necessary lining out stock from an established nursery. One detail to which particular attention should be paid is a careful study of available markets before establishing such a business.

Diseases encountered include various kinds of fungus, holly bud moth and holly scale; infections of the latter also appear on camellias.

**Expansion of Bulb Acreage Favored**

Practically all of the 45 acres in bulb production in the county at the present time is utilized for the production of King Alfred Daffodils. Bulb production at present is confined to the sandy soils in the Clatsop Plains area. It is the opinion of this committee that the acreage utilized for the bulb production should be increased in other areas of the county.

This statement is made since the experience of growers in this area has demonstrated that returns from bulb production have been favorable in past years. Further expansion of the industry would provide for better marketing facilities of the bulb produced within the county. Expanded acreage would justify the establishment of local marketing facilities. The establishment of local facilities would be coordinated with existing marketing organizations.

At the present time practically all the locally produced bulbs are marketed through the Oregon Bulb Cooperative.

The committee recommends that experimental plantings of bulbs be made in the Nehalem Valley on well-drained lands to determine their adaptability and production in that area. The planting season for bulbs in this region ranges from August 1 to November 1. However, early plantings are preferable.

The use of 400 to 800 pounds of 3-10-10 or 5-10-10 fertilizer has proved to be a desirable fertilizing practice. However, it is the opinion of this committee that further fertilizing trials are needed to determine the maximum economic application of amount of fertilizer and kinds of fertilizer. It is recommended that bulbs be grown in a two or three year rotation, keeping the ground in cover crop for one or two years and bulb production one year. A minimum of 15 to 25 acres of land is needed for a satisfactory unit.

**Enter Bulb Production Cautiously**

For those interested in starting bulb production, this committee recommends that they have some other source of farm income available until production of bulbs reaches the necessary level. The commercial operator should produce at least 25 tons annually. Experience has proved that it is not practical to establish a bulb unit by depending on labor income while building up planting stock.

Insect pests and diseases encountered in bulb production in this area
include the bulb fly, tarsanemous, bulb mite and limited infestations of fungus and California blight have also been noted in the area.

Croft Lilies may offer limited possibilities in this area, but experimental work is needed before a definite recommendation can be made. The present indications are that irrigation would be needed to produce the necessary size of bulbs needed.

Commercial Tulip plantings are not recommended for this area as they are subject to late frost and fire disease.

Gladiolus can be grown satisfactorily but a large acreage is needed to justify planting here.

Regal Lilies offers some possibilities on well-drained creek-bottom soils.

Pea Production Hit By Competition

The principal truck crop grown in Clatsop County has been peas for the fresh market. However, competition of other pea growing areas, where it is possible to harvest by mechanical means, is making serious in-roads on the market for the high quality peas grown in this area. It is the recommendation of this committee that this crop be governed by local market demands. Frozen peas are offered to housewives at a price which makes it difficult for local growers to realize a profit from production of this crop.

When plantings of peas are made, it is recommended that growers follow the practice of extending their planting season over a period of several weeks in order that all of the local crop would not be placed on the market at one time.

It is the recommendation of this committee that further trials be made to determine most economical fertilization methods for production of this crop.

Other vegetable crops such as lettuce, cauliflower and cabbage can be grown successfully in this area; however, marketing facilities are such that it is often difficult to secure the necessary price to cover cost of production and a reasonable profit to the grower. This type of truck crop production is feasible only when the grower has a contract for the production of such truck crops with a wholesale outlet.

Cranberries Offer Opportunity

Approximately 40 acres of cranberries are in production in the county. Limited plantings have been made during the past few years. There is considerable land (approximately 1000 acres) that is suited to the growing of cranberries in this area.

Marketing facilities are ideal and this crop has returned reasonably high revenue to the growers over a period of years. For those planning to establish cranberry bogs, this committee recommends that they have at least four acres of bogs suitable for production. Costs of improving the raw land are relatively high. At the present time, it is estimated that it would cost at least $2500 an acre to bring cranberry land into production. A five-year interval is required between plantings before a commercial crop can be harvested.

This committee considers that there is unlimited opportunities for production of cranberries in this area and it is the judgment of this committee that cranberries offer one of the outstanding possibilities for increased agricultural revenue in this area.

Some Revenue From Other Specialty Crops

Other specialty crops from which some revenue is derived, but for which no definite recommendations are made by this committee, are the following:

- Foxglove 46 ton
- Cascara 36 ton
- Golden Seal
- Fern

It is the opinion of this committee that there is some opportunity to grow floral crops for sale to the florist trade. Such a crop would be limited to those that reach their harvesting during off season for other areas. An example of such a crop would be sweet peas, which can be harvested over an extended period of time, and which reach their marketing condition at a time when this crop is not available in other areas.