

Polk County Agent's Notebook

Copy

Report of

Polk County

Farm Program

Conference

Held at
DALLAS, OREGON
JANUARY 30
1946

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CONFERENCE COMMITTEES

Committees That Prepared Project Reports Are as Follows:

FARM LABOR COMMITTEE

Frank Kennedy, Independence
Claude Larkin, Rickreall
Claude Hoisington, Dallas
E. B. Hamilton, Dallas

HORTICULTURE COMMITTEE

Herman Endres, Sheridan
Perry Wells, Independence
Dean Walker, Independence
Jim Carver, Dallas
Bert Stiles, Dallas

VETERANS ADVISORY COMMITTEE

Morris Christensen, McCoy
Joe Harland, Rickreall
Glenn Hogg, Rt. 4, Salem
John Larkin, Rickreall
Claude Hoisington, Dallas
W. Frank Crawford, Rt. 1, Salem
Jack DeJong, Sheridan
Chas. Evans, Independence

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J. A. Campbell, Amity
Jack DeJong, Sheridan
M. B. Findley, Rickreall
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N. C. Anderson, Independence
W. B. Allen, Rickreall
Mervin Werth, Willamina

POULTRY COMMITTEE

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Arthur Christensen, McCoy
R. L. Walker, Amity
Emil Stevens, Rickreall

LIVESTOCK COMMITTEE

Ronald Hogg, Rt. 4, Salem
Glen Martin, McCoy
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Walter Werth, Willamina
Fred Gibson, Salem
Oscar Smith, Dallas
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J. B. Lorence, Monmouth
J. W. Graber, Independence
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Joe Harland, Rickreall

FARM HOME AND RURAL LIFE COMMITTEE

Mrs. Ross Simpson, Dallas
Mrs. Chas. Bowman, Independence
Mrs. Ira Ray, Monmouth
Mrs. Geo. Van Santen, Rickreall
Mrs. Joe Rogers Jr., Independence
Mrs. Harry Walker, Rickreall
Mrs. Robt. Mitchell, Amity
Mrs. Hugh Van Loan, Monmouth
Mrs. G. L. Russell, Monmouth
Mrs. Vern McGowan, Independence
Mrs. Ira Mix, Independence
Mrs. Wm. Knower, Rt. 4, Salem
Mrs. Wes Elliott, Dallas
Mrs. Ross Chapin, Perrydale
Mrs. Wm. Thurston, Independence
Mrs. S. Van Staavern, Perrydale
Mrs. Grove Peterson, Independence
Mrs. R. I. VanDenBosch, Dallas
Mrs. J. B. Emerson, Sheridan
Mrs. Paul Wishart, Rt. 1, Salem

FARM CROPS COMMITTEE

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Chas. Bowman, Independence
Clarence Primus, Independence
Justin Rowland, Rickreall
Harold Elkins, Monmouth
Robert Farmer, Dallas
Virgil Heider, Sheridan
Forrest Pence, Rickreall
Leo Buyserie, Rickreall

FOREWORD

Following the recommendations of the Polk County Agricultural Planning Committee meeting of over one year ago, a representative group of farm people was invited to a meeting on November 7, 1945. This meeting was held primarily to decide if sufficient changes in agriculture and agricultural problems in the county had taken place, and if at the close of the war there were some post-war problems pending that would justify another county agricultural conference.

After reviewing the situation carefully and deciding that there was a large number of very important matters to study and to make recommendations on, the group unanimously agreed that a Polk County Farm Program Conference should be held, and the date was set for January 30, 1946.

Nine conference committees were appointed and each one met at least two times, and some as many as four, studying the problems assigned to them. Members of the Oregon State College Extension Service cooperated in securing data and other information.

Over 300 people attended the conference on January 30 and some very important recommendations were made, so much so that it was deemed necessary to publish them and make them available for more or less general distribution.

If the report of this conference can have as far reaching effect as that produced from the economic conferences of 1928, 1936, and 1937, certainly this conference will have been very necessary.

Special commendation should be given the various chairmen and members of the various committees, and to Mr. Claude Larkin, general chairman of the conference, for the many hours spent in deliberating over the agricultural problems of the county.

This publication should not be construed as a guide for an indefinite period in fashioning the agriculture of the county. Farmers of the county should be ever mindful of the fact that agriculture, as such, is changing very rapidly, and whenever a new practice or a new phase is discovered it should be accepted, and when changes in recommendations are necessary, appropriate committees should make them.

W. C. LETH, County Agent,
Conference Secretary.



Horticulture Committee

The committee has discussed various problems involving various crops included in the horticultural field and the problems anticipated. A brief presentation relative to the recommendations for each important crop is as follows:

HOPS

In view of the apparent over-production of hops at this time, the committee definitely recommends against any further plantings. Because sections in Washington and California are producing much higher yields than certain sections in Oregon, it is recommended that as hops develop into a surplus commodity that the acreage of hops be confined to those areas able to compete with these other districts by producing higher yields. The average yield in Polk County is 1000 lbs per acre, which is higher than the Oregon average, but which is considerably below the average of approximately 1700 lbs. produced in Washington.

As most of the hop producing area in the county is in the Willamette River section and is affected when the Willamette River is in flood stage, it is recommended that the Willamette Valley project for flood control be supported and promoted to the best interests of the county as a whole.

* * *

APPLES

The apple acreage in the county should be limited to the present commercial growers who follow a sufficient spray program and produce a quality pack. The 550 acres of commercial apples is more than the normal market can consume.

* * *

CHERRIES

No additional acreage is recommended at this time, however it is imperative that the cherry fruit fly menace be recognized and suitable control measures adopted by growers and others having any cherry trees. The committee strongly endorses and recommends the formation of a cherry fruit fly control district including Yamhill, Marion, Polk and Linn Counties, and a strong educational program that will acquaint not only commercial growers, but also owners of individual trees of the necessity for proper cherry fruit fly control in the interests of the industry in

this county which comprises approximately 1700 acres.

* * *

PEACHES

The peach industry of the Willamette Valley is facing considerable danger in the discovery of the presence of the Oriental fruit moth in this state. Because of the distance from other markets, the peach acreage should not be expanded further except as local markets justify.

* * *

PRUNES

Polk county has slipped from first place in Oregon in prune production to second or third place, largely due to the fact that many orchards on shallow hill soils have become uneconomical and because many other orchards have not had proper care during the periods of low prices.

It is believed that present acreage of prunes can be maintained, as the market seems adequate to support such an acreage. The market demand for canned prunes continues to increase, and emphasis should be placed by growers on quality improvement, in order to continue this market as well as the market for dried prunes.

The committee recommends that prunes be planted in the county in about the same rate as old non-bearing orchards are removed. The committee, however, is of the opinion that these should be planted only on such areas that are suitable, with sufficient soil depth and drainage.

* * *

FILBERTS

The committee recommends that no further plantings of filberts be made in view of the foreign market competition in prospect. According to the best information available, only about 60% of the filbert plantings in the state are full bearing, which would mean a much increased production as the newer plantings come into bearing.

* * *

WALNUTS

Walnut planting has reached a point, more or less of stability and the committee believes that there is little reason to justify additional walnut acreage.

SMALL FRUITS

Polk County has considerable area adapted to small fruit production. This area can be devoted to such production as rapidly as canneries require additional tonnage. Growers should hesitate to make any plantings without first consulting with the cannery operators and secure assurance that their products can be marketed. There seems to be justification for a considerable increase in strawberry production, as the acreage is extremely low in the county at this time. Because of the extreme need for high quality and certified planting stock more growers in the county in disease free areas might consider strawberry plant production as an added source of income.

Because of the development of many new varieties, growers should make inquiry as to those most acceptable by existing markets, and plant accordingly. Growers should be encouraged, however, to try new varieties as they appear, in order to keep abreast of demands for such and be in a position to capitalize on them.

* * *

TRUCK CROPS

In the river bottom area and adjacent to Salem there is considerable acreage that can be devoted to the production of truck crops. These, however, should be planted and increased only as contracts can be available from canneries and others interested in such production.

There has been a great increase in the acreage of string beans in the Willamette Valley area to the extent that in this county securing adequate labor has been an increasing problem. Growers should not expand bean acreages and new growers should not attempt production, unless they can locate a suitable supply of harvest labor.

There are several matters which the committee believes could apply quite generally to all the crops mentioned above, as follows:

* * *

SOIL IMPROVEMENT

Soil improvement practices can assist greatly in increasing production and improve the quality in most horticultural commodities, and the committee has the following definite recommendations to make:

(a) Heavier rates of seeding cov-

er crops should be used.

(b) Cover crops should be sown early and as much early winter growth obtained as possible.

(c) Soil, especially in flood or erosion problem areas, should not be loosened in the fall without again repacking and sowing to cover crop. Cultivation should last be done across slopes or water current directions.

(d) Proper types of fertilizer should be applied to cover crops at the time of seeding as a means of securing more efficiency from them all, rather than applying them in the spring. This does not mean that additional nitrogen types of fertilizer should not be added in the spring where useful. More fruit growers should be using commercial fertilizers that they find efficient.

* * *

BEES

Because bees generally are recognized as very valuable in pollination of various horticultural crops, growers should make every attempt to prevent loss through poisoning by sprays or dusts and cooperate to the greatest possible degree with bee keepers in the interests of bee protection.

* * *

TREE THINNING

The committee recommends that orchards that have become crowded due to the trees' growth be thinned by actually pulling out a certain proportion of the trees in such orchards. Data on orchards where thinning has been done indicates that in a relatively short time orchards respond to thinning to the extent that with even half the number of trees the production is actually increased. Considerable labor is saved in reducing the number of trees, both in pruning and in orchard cultivation. Tree thinning should be done only after growers secure the best possible advice, either from experienced growers or obtainable from the county agent's office.

* * *

NEW PLANTINGS

New plantings, particularly of tree fruits, should be made on areas where there is sufficient soil depth and drainage and where proper planting distances are determined. Too many orchards, as they attain age, become unprofitable much too soon, particularly because these factors

were not fully considered when the orchard was planted. Considerable attention should be given to a soil fertility program that will maintain high production. Many orchards have been allowed to become depleted in soil fertility, hence are inefficient. Great care should be exercised in securing varieties most desirable and planting stock free from diseases.

* * *

FERTILIZER

Because the average farmer will be purchasing more and more commercial types of fertilizer and because most farmers do not have sufficient information or understanding of the value and proper use of them, it is recommended that meetings be arranged by the county agent to present such information to growers. It is believed that fertilizers can be used more effectively and profitably if growers have a better understanding of them.

PRICE CONTROL

Until prices of farm commodities and consumption level off, the committee believes that a price control program should be encouraged that will prevent excessive inflation and consequent over-production.

* * *

QUALITY

In the post-war period, and especially with the development of surpluses, quality is probably going to be one of the very, and possibly the most important, factors involved in marketing farm products. The committee recommends that every effort be made by producers and processors to increase the quality of products produced as the best means of safe guarding future markets.

Quality can be best improved through proper control of insects, diseases and sanitation (particularly in prune dryers.)

JOINT REPORT OF

Veterans Advisory Committee Land Use Committee

Before considering the problems of veterans becoming established in farming in this county, the joint committees considered the following questions:

1. Can Polk county support more farm families and can more farming units be established in the county?
2. What are the opportunities for part-time farming?
3. What constitutes an economical farm unit?
4. What is a sound farm financing program for a newcomer to this county?
5. What sizes should the predominating types of farming units be in order to provide an average standard of living for an average family?
6. How much net income does an average farm family require at this time?

The following is a summary of the committee's findings and recommendations relative to each of the above points:

1. **Additional Farms.** While there will be some retirement of present

farm operators following the war, a large part of the new farm units that will be available in this county will come from the release of approximately 45,000 acres of Camp Adair for farm purposes. It is estimated that there will be approximately 250 new farm units available in the county for that many farm families.

2. **Part-Time Farms.** Except possibly for the Salem area the committees actually believe that it is best to discourage part-time farming operations. The fact that such units hardly ever have sufficient equipment to do a satisfactory job and insufficient area to make a complete family living makes them undesirable except where the family has a sure and steady form of income from some other occupation or employment. Those with temporary employment should give consideration to becoming established on a full-time farming unit if they actually wish to farm.

Any part-time farming unit should completely provide for the production of all of the necessary food supply

for the family, including one or two cows, 25 to 50 hens, one to three hogs, and sufficient area for an adequate garden. It would also be desirable to have some fruit and perhaps other enterprises in addition but not have additional land requiring cultivation.

3. An Economic Farm Unit. In the opinion of the committee an economic farm unit must meet the following requirements:

(a) Provide for a year-round labor program with full-time employment in productive farm work.

(b) Provide adequate income for a reasonable standard of living.

(c) Provide a balance and variety of crops permitting full use of machinery.

(d) Sufficient cropland with a definitely planned rotation of crops.

4. Farm Financing For Newcomers. It is recommended that newcomers to Polk county from areas not similar rent or work for an established farmer for at least one year before purchasing a farm. Owing to the varying soil conditions it is recommended that newcomers do considerable investigation and inquiring prior to purchasing a farm. They should consult with the County Agricultural Agent, successful established farmers, marketing organizations, and financing agencies, and returning veterans should particularly contact the Agricultural Veterans Advisory Committee relative to the productive capacity and suitability of a prospective farm for the type of farming contemplated. Veterans should contact the County Agent as secretary of the Agricultural Advisory Committee.

In order that newcomers may run as little risk as possible the committees recommend that a prospective farm purchaser have sufficient capital to purchase the necessary stock and equipment and have sufficient cash remaining for the first one year's operating expenses. Also he should have at least 50% of the purchase price of the farm, based on a normal and reasonable appraisal basis at the time of purchase.

Purchasers should analyze the productive capacity of a farm and determine if it meets the requirements of an economic unit as set forth above. In other words, does it provide sufficient net income to furnish

an average standard of living and also retire the farming debt in a reasonable period?

The committee advisedly sets up the following **minimum** requirements for the farming types indicated below which predominate in this area:

(a) **Diversified farming unit.** This type of farm requires a minimum of 80 acres of good soil, all under cultivation. Livestock, dairy and poultry enterprises along with the production of grain, hay, pasture and small seed crops fit into the diversified farming unit.

(b) **Grain, hay and field seed farming unit.** The minimum requirements of this type of farm should be 160 acres of cultivated land. Less than this acreage cannot be operated economically because of the necessary outlay for power and machinery for planting and harvesting.

(c) **Dairy farm.** A minimum of 80 acres of cropland is necessary to maintain a dairy herd of from 20 to 25 cows. Part of this acreage will be devoted to hay and grain and the balance to pasture. Irrigated pasture will reduce the number of required acres. The usual carrying capacity for irrigated Ladino clover pasture is 2½ cows per acre. Some farmers may wish to start out with 10 to 12 cows planning to build up a dairy herd of from 20 to 25 cows, using a portion of the land for cash crops until such time as the full production of the farm is required to produce feed for the dairy herd.

(d) **Orchard and small fruit unit.** Because of crop hazards and the uncertainty of a crop each year, the committee believes that this type of farming should be conducted as part of a diversified farm program unless the operator has sufficient capital to maintain the operation during the non-productive years. It is believed that this type of farming should be conducted in units of approximately five acres for each type of tree fruits and that if fruit raising is to be the entire enterprise that there be at least 20 acres in the entire farming unit.

Small fruit and berries are usually more dependable from the standpoint of a crop each year than the tree fruits.

It is extremely important that no fruit enterprise be established until it is determined that the soil is ade-

quate for it. Orchards require extremely deep soils.

(e) **Truck farm.** The committee believes that in this county there is not now sufficient market for the development of many truck farms. No one should enter into a truck farming operation until he is assured of a satisfactory market for his produce. A truck farm calls for at least 15 acres of the very best soil, usually river bottom, that can be irrigated. Truck crops should be grown only under contract.

(f) **Poultry unit for egg production.** A minimum of 10 acres and 1000 laying hens is considered advisable. Acreage must be provided for range and the production of green feed, but all grains must be purchased. It is advisable that a poultryman plan to increase eventually such an operation to 2000 or 2500 laying hens. It is important, however, that no beginner attempt more than 1000 hens to start with.

(g) **Turkey production.** The turkey enterprise is a good one to combine with other enterprises. This is particularly true for the inexperienced operator. The committee believes that only the most experienced operator should have turkeys as the sole enterprise. One experienced man can care for a flock of 5000 market birds.

(h) **Stock ranch.** No requirements have been recommended because conditions would vary greatly depending upon locations. Special assistance can be made available to veterans in

this connection after they have found possible locations that they are interested in. It is important that outlying range be available in addition to sufficient land to produce the necessary feed supply for the livestock maintained.

As a suggestion the committee recommends that a veteran or newcomer estimate the total amount of capital he can make available and from such information the committee can be of greater assistance in advising to what extent he could engage in any of the above types of farming.

For the interest and assistance of prospective farm purchasers the following list of bulletins are recommended for study. These contain more valuable suggestions and ideas that may save considerable difficulty and dissatisfaction in the future.

Oregon State College Extension Bulletin No. 635: Buying a Farm in Western Oregon.

USDA Farmers Bulletin No. 1961: Getting Started in Farming.

USDA Circular: Shall I Be a Farmer, written especially for the men and women in our armed forces who are thinking of engaging in farming.

Of particular interest should be questions pertaining to the availability of electricity, telephone service, good roads, distance to market, school and churches and many others found in these bulletins.

Copies of all of these publications are available at the office of the County Agent.

Land Use Committee

The most important single land use problem in Polk county is that pertaining to Camp Adair and the committee has several recommendations to make relative to that area:

(1) The area should be disposed of for farming immediately, but not until made as safe as possible for farming operations. Every sales instrument should have clearly written on it that the area has been used for military purposes, and is possibly hazardous for farming operations. The government should provide detection equipment and men to operate it under the supervision of each farm purchaser or operator, in order

to further safeguard purchasers. Provision should also be made to compensate for injury or death from accidents resulting from government use or from explosives.

(2) Land descriptions should be based on township and section lines, instead of on the old donation land claim descriptions which are most difficult to follow.

(3) The government should provide for the relocation of roads and construction of new ones to better serve the area in accordance with the plan developed by the county court, and include a clause in the sales agreement providing for rights

of way for the county for such roads that would make unnecessary further negotiating or condemnation by the county court with the new owners for such road construction. Such a plan should be included in appraisals made of farms, in order that the value of any damage done by such roads might be considered in appraisals.

(4) The government, having taken over the area and having imposed a distinct burden on the taxpayers of this county, should reimburse the county for the tax loss for the period in government ownership.

(5) The committee believes that the plan to give priority in the purchase of Camp Adair land first to former owners and operators, second to veterans and third to others, is proper.

(6) In order to prevent speculation in the area, the committee recommends that any farm shall not be sold for a period of less than five years without due cause, unless the difference in cost and sale price is made payable to the government, and it is recommended that any such payment be made use of in this area by the government.

(7) The committee strongly believes that the area should remain in economical farm family units, and not be sold in tracts smaller. In many instances it will be advisable to combine units where formerly they were too small.

(8) Appraisals should definitely consider the increased weed damage and other physical damage done to farms during the government ownership as being harmful to such areas.

(9) Sales should be made in such a way that farms sold be immediately placed on the county tax rolls and not be sold subject to tax-free government contract.

(10) The committee recommends that definite recommendations be provided through the Land Use Committee, County Agent's office, Experiment Station and other sources for the best means of starting farming operations with the ideas in mind of destroying the weeds and for getting the soil into the best possible stage of tilth as soon as possible. Deep plowing on much of the area should be avoided, as this practice would turn under accumulated weed seeds that would be brought up for

many years to come. Any practice that will prevent this would be not only of value to each farm, but to the area and to the county as well.

For other sections of the county various problems have been considered, and the committee has the following recommendations to make:

A comprehensive water storage survey of streams in the county should be made by federal engineers to make available definite information with which further plans for irrigation water supplies could be made.

There are several problem drainage areas in the county, and it is requested that the same agencies be asked to supply drainage surveys for such areas, giving information on the best possible means of drainage as well as costs.

The committee recommends that more individual farms and community drainage projects be undertaken. Tile drainage alone on farms is one of the most economical means where drainage is a problem, and it is believed that ditches as well as tile systems can be established on a community basis that would greatly increase values and production in the county.

Because the county now has over 100,000 acres of hill land that is producing very little revenue, owners or operators of such areas should consider planting some of the newer forage plants on such areas, in order to increase individual farm as well as county agricultural income. The committee definitely believes that such crops as *alta fescue*, subterranean clover and others could increase the income from this area in a short time to total over one-half million dollars per year, which would probably be the largest single source of increased revenue available to the county at the present time.

In view of the fact that there is an area estimated at approximately 30,000 acres or more of cut-over and logged-off land in the county that is suitable for grazing purposes, the committee recommends that grass seed trials be established on such areas for the purpose of determining their value for beef cattle grazing and the development of the area for grazing as such trials indicate are practical.

The committee believes that many

farms have a considerable quantity of timber that has not been given full consideration from the standpoint of its market value to such farms. Information coming to the attention of the committee is that in western Oregon farm woodlands contain somewhere between 25,000 and 50,000 board feet of timber per acre. In 1944 over two and a half million dollars worth of wood products were sold from farm woodlands in western Oregon where there are almost two million acres of farm woodlands. In-

formation is available from the office of the state forester and from the extension forester, Oregon State college, on present markets for farm timber and such assistance can be secured on request through the county agent's office.

The land use committee has assisted in making and reviewing the recommendations of the veterans' advisory committee and strongly commends these recommendations to veterans and others planning on locating in this county.

Farm Home and Rural Life Committee

Farm homes and farm families are now entering upon a new era in family living. During the past four farm families have been geared to wartime situations. The greatest problems for farmers and homemakers have been those of production and conservation. It required rapid and many times complete changes in family living from prewar to wartime living. Now families are again facing new problems and changing situations in our post-war period.

HOUSING:

Our ultimate goal for successful and happy living on a farm depends on a good home. Because of this ultimate desire to have a good home, one which produces more than a mere subsistence, a general survey was taken to check living conditions of rural farm homes and rural non-farm homes. The survey showed that few new homes have been built and few homes have been remodeled during the past four years due to the fact that materials have not been available for this. However, there is need for improvement in replacement of homes and in further remodeling, repair and painting. The survey further showed that 62.7% of rural farms and 90.4% of rural non-farm homes in Polk county have electric lighting. There are still a few sections of the county, however, where electricity has not been available to farm homes. In the per cent already supplied with electric lighting, many cases show it is inadequate or improperly used. Regardless of the fact that rural electrification in Polk County is in an advanced position, the problem still exists how unserved

farms in the county can obtain electric service. A large number of homes in the county reported no type of refrigeration for homes to prevent food spoilage and waste and also the major number of families use wood as a cooking fuel. This would indicate that the electrification of rural farms and rural non-farms has been principally for power and lighting purposes.

From the summary of existing conditions in Polk county at the present time, the committee wishes to make the following recommendations for long time housing program:

1. That meetings be held throughout the county on better lighting, heating of farm houses and correct installation and insulation of wiring for electricity. This information given on installation and insulation would be applied largely to putting in new pieces of equipment such as home freezer lockers, stoves, and refrigerators.
2. That more information on types of building materials for remodeling homes and cooperative costs of building be made available to farm families planning to build or remodel dwellings.
3. Recommend that interest be stimulated through 4-H club projects, contests and meetings of county organizations to sponsor beautification of farm homes and buildings. This is to be done through planting of native shrubs and flowers, improvement of homes by more walks, driveways and parking areas.
3. Recommend that a project be planned and carried out for the improvement of better tenant houses

which are durable, convenient and comfortable.

5. Since a great percentage of accidents occur in the home and on the farm, the committee recommends that meetings be conducted on safety practices for the farm and home. This could also be made a project for the 4-H club.

6. It is recommended that, because of the increase in all kinds of mechanical equipment within the past few years, farm families be given help and information on the selection, use and care of such equipment.

SANITATION

From the survey, it seems that the water supply has been improved in Polk county with the greater number of rural families having water in the dwelling unit. However, there is still need for improvement in sanitation facilities. In one section of the county there exists the ever-present problem during some seasons of the year of floods. This situation, when it occurs, creates problems in sanitation, water supply and health. We recognize the importance of such projects as the Willamette Valley project and what they can contribute to improved family living in Polk county. Therefore the committee wishes to recommend that such plans or projects be carried out for taking care of sanitation and water supply in areas where flood situations exist and occur. This will help to solve the need for better sanitation.

FAMILY AND COMMUNITY LIFE

During the past few years, community activities have of necessity been directed toward certain goals. These activities have been to aid in the war effort. Due to lack of transportation and distances from community centers, many families have not been able to participate in community affairs. However, with the coming of peacetime, this is no longer true. Therefore the committee wishes to make the following recommendations:

1. Recommend that organizations such as churches, farmers unions, Granges, community clubs, etc., sponsor community programs where the whole family can take part.

2. Recommend that organizations develop their own local talent, particularly with the younger people

and young adults participating and leading the groups.

3. Recommend that leadership training meetings for adults of one or two days in length be held twice a year in all organizations in order to help lead and sponsor youth groups.

4. Recommend that programs be planned and carried out where several communities can cooperate in combining recreational programs.

5. Recommend that a program be worked out between the 4-H club and Future Farmers so there is closer cooperation and carry-over between the two programs.

6. Recommend that projects in home and community recreation be carried on through regular training meetings for leaders of all organizations.

7. Recommend that people be urged to regularly attend the church of their choice and take an active interest in community church affairs.

8. Since the school is the center of rural community life, the committee recommends improvement of small rural schools through consolidation with other rural schools.

9. Recommend that opportunity be given young farmers and farm couples to form a club for farm and home improvement and confined to the age groups of less than 35.

FOODS AND NUTRITIONS

One of the first necessities of the home is an adequate food supply. The food supply should be adequate not only in amount but in content. The maintenance of the family health depends upon the right proportions and regular use of certain foods in daily meals. The rural families of Polk county are fortunate in being able to supply all the essential foods through home production.

The committee makes the following recommendations:

1. Recommend that a program of instruction in adequate diets for family members be carried out.

2. That more information and help on planning and planting winter gardens be given to families and that families be urged to plant winter gardens to give the family better variation between preserved and fresh foods throughout the year.

3. Recommend that information be made available to parents in rural communities of the necessity and

benefit to the school child of the hot lunch program.

4. Recommend that local communities and organizations sponsor and support the hot lunch program.

5. Due to the increase in new kitchen equipment, large and small, it is recommended that more information about recommended practices for preparing and preserving foods be made available to homemakers.

6. Surveys show that Polk county farms furnish a home grown living to the farm family of \$175.03 per farm each year which amounts to 57.7 per cent of the living costs (food and fuel) that the family has. This seems a real saving and a desirable practice to continue therefore we recommend:

a. That families be urged to produce their own supply of milk, eggs, meat and garden products.

b. That home food preservation be done by improved practices in freezing, canning and drying of food.

c. That families be encouraged to plan a food budget to guide them in the amount of food to be grown and preserved.

HEALTH

The health program was organized in Polk county in 1935. Progress has been made in the immunization and tuberculosis control program in the county. However, there is further need for a continuation of the program. Therefore the committee wishes to recommend that support of this program be continued.

CLOTHING

During the past four years, homemakers of necessity have been limited as to kinds of textiles available for home construction of garments. In view of the fact that many developments have taken place in the field of textiles and that these new textiles, which may be combinations of different fibers or synthetic fibers, will be made available to homemakers, the committee makes the following recommendations:

1. That homemakers be given information about new textiles as to their care, suitability, use, cleaning, content and labeling.

2. More help be given to homemakers in the construction of garments through better dress and coat and suit workshops.

3. That through projects or meet-

ings, information be made available to homemakers about the selection and buying of ready-mades.

4-H CLUB

The name of 4-H club is universally recognized. The operating unit of 4-H club work is the local club. On it depends a large part of the success or failure of the 4-H club program. The size of the clubs has a great range. Many groups of young people interested in forming or belonging to a 4-H club need adult leadership and local sponsorship. Some clubs are seasonal and short-lived and parents are often indifferent or uninformed. To prepare youth for their place in a more perfect America is a job of education. To serve rural America particularly—but looking to all youth eventually—is the double responsibility of 4-H club work. Therefore the committee makes the following recommendations:

1. That there be one or more well-organized 4-H clubs in every community.

2. That every boy and girl 9 to 21 years of age be given the opportunity to become a 4-H club member.

3. That steps be taken to acquaint people in the community with the values and methods of 4-H club organization.

4. That leadership training meetings be held to give adult volunteer leaders training in understanding the aims and purposes of 4-H club work, their duties as a 4-H club leader, 4-H methods of teaching and subject matter for information.

5. That home extension units and other cooperating community and county organizations incorporate as part of their program, securing leaders for 4-H clubs.

6. That leadership training be developed within the 4-H club itself.

7. That more emphasis be given to such projects as home beautification, farm crops and gardening, and new projects be developed and existing projects revised from time to time to challenge the interest of boys and girls and so attract and hold increased membership among older youth.

8. That opportunities be provided that have common appeal to boys and girls such as fairs, camps, summer schools, achievement days and recreational facilities.

9. Recommend that better parental understanding of the 4-H club program are given by procuring parental consent and pledge of assistance before young people undertake a project. Have members include par-

ents in special club functions.

10. Recommend that the work of the 4-H program be kept before the public through newspaper articles and radio programs.

Poultry Committee

This committee reviewed the past and the present poultry situation and made recommendations for poultrymen in this county to follow for the next few years.

PRESENT SITUATION

Statistics show that the production of poultry products in the United States has increased 50% during the war. The number of hens in Oregon and Polk County has been rather steady except for a 15 to 20% increase during the war years.

The Pacific coast has changed from an exporting to an importing area of poultry products during the past 15 years.

The country as a whole will no doubt have to decrease poultry production from the present high level. Inasmuch as the Pacific coast is an importing area, Polk County should maintain the present poultry numbers provided quality of products is creased. A Polk County poultryman will not only have to produce a quality product to stay in business but he must obtain economical production.

SIZE OF FLOCK NEEDED

The size of flock needed depends upon whether the family wants meat and eggs for home consumption, poultry as a sideline business, or poultry as the main business.

The family which wants meat and eggs will find 25 birds sufficient. The farm that make poultry a sideline should maintain a 500-unit size flock. The farm that expects to make poultry its main business should have a unit of not less than 2000 laying hens and around 20 acres of land so a two-year range rotation may be provided.

BREED TRENDS

White Leghorns have always been the most popular breed in Oregon but it has declined some in the last ten years. The change has been toward New Hampshires. This change has resulted from increased fryer

production and a larger demand for meat-type hatching eggs. This trend is expected to continue somewhat and may even expand if the quality and conformation of the meat-type chicken is improved.

Broiler production has always been near the center of more densely populated areas and if the west coast continues to increase in population, broiler production may increase to a limited extent.

CAPITAL REQUIRED

The average layman believes that it doesn't require much capital to get started in the poultry business. Figures show that, exclusive of land and the home, it requires an investment of about \$5 per bird to build and equip a brooder and a laying house under present conditions.

CAUTION IN BUYING CHICKS

In purchasing day-old chicks, the purchaser should know that the chicks are from flocks which are bred to live and lay, and flocks free from pullorum disease. Since there is a correlation between the type of egg a chick comes from and the type of egg the chick will lay when matured, only large grade-A eggs should be used for hatching. Because of disease hazards, it is usually dangerous to buy started chicks.

SEPARATE BROODING AND LAYING OPERATIONS

The brooding operation should be entirely separate from the laying flock with 200 or 300 feet separating them. This precaution is necessary to prevent disease from the mature flock reaching the young chicks.

BROODING EQUIPMENT

Around 500 chicks is the maximum number that should be brooded in one group with 50 square feet of floor space being allowed for each 100 chicks in addition to the wire sun porch.

Pullets two to five months of age will need two square feet of floor space per bird if reared in confine-

ment.

NECESSARY GENERAL PRACTICES

Regardless of whether pullets are on range or confined, green feed should be fed liberally throughout the growing period.

All range equipment should be portable so it can be moved in order to control diseases and to avoid killing out green feed.

From 50 to 100 per cent of the flock should be replaced each year with pullets. A laying hen decreases production 20 to 25 per cent each successive year.

Pullets should never be placed in the same house with older birds. Older birds will not give them an equal chance for feed and space. Also older birds are more likely to have diseases and readily transmit them to the pullets.

Breeding flocks should be fed a breeder's ration 2 to 4 weeks before hatching eggs are saved. The ration should contain an additional supply of vitamins in order to produce high hatchability and livability.

Eggs should be gathered three or four times a day, cooled immediately and held at a temperature of from 40 to 66 degrees with relative humidity of about 90 per cent.

TURKEYS

Turkey production in the United States during 1945 increased 43% over pre-war level. In Oregon the increase was 65%.

During the war the government purchased about 25% of the turkey crop. Now that it is not buying so many turkeys, the producers must cut production or induce people to eat more turkey. In view of the present situation, it seems advisable to recommend that Polk County producers curtail production 10 to 15%.

It is the in-one-year and out-the-next turkey producer who greatly affects the markets. The committee is of the opinion that turkey production should be continued by the experienced, equipped, long-time established growers of the county for the next few years.

Also it seems advisable to recommend that an advertising program be put on and get markets to halve, quarter or even cut turkeys into pieces for the consumer. Producers will have to obtain more than a five

cent per pound premium on small birds to compete with the large Broad Breasted Bronze.

Oregon ranks fourth in market turkeys and second in the production of hatching eggs and poults among the states. If growers will continue to improve quality of stock, fertility and hatchability, they can continue to enjoy a good export business in eggs and poults.

The most popular breed is the large Broad Breasted Bronze. They grow fast, make rapid gains, and are heavy at market time.

A farmer should not enter the turkey producing business unless he has enough capital to purchase all of his equipment and his poults and to pay for raising them to 8 weeks of age. If the producer can do this, he can afford to borrow money to finish them.

Each 100 turkeys require two acres of land to provide for a two-year rotation.

In handling a flock of breeder hens, feed represents 33% of the cost; labor 27%; depreciation on breeders, 31%, and overhead, 9%.

The first essential in successful brooding is to obtain poults of good quality. Poults should come from flocks which are vigorous, broad-breasted, well-balanced, early maturing and free from transmissible diseases.

Good brooder house and equipment are essential for successful turkey production.

Feed costs are often reduced 10 to 20% where an adequate supply of green feed is provided.

Breeding stock should be selected before any birds go to market. The breeders should have free and easy action when walking and no tendency to tip forward. The breast should be broad, heavily fleshed and carry its width well back.

4-H CLUB WORK

In 1945 in Polk County there were only two 4-H projects in poultry and one in turkeys. Since there are 3200 boys and girls in the county eligible for 4-H club work, the committee recommends and encourages more rural boys and girls to engage in this project. It is the experience and know-how gained in early youth that pays dividends in later years.

Livestock Committee

The committeemen considered the problems which will affect the livestock industry in the county for the next few years and made recommendations as to how the livestock farmer can best meet these problems.

SIRE IMPROVEMENT PROGRAM

Livestock prices are higher now than they have been for some time which makes it more important to have high quality sires. In view of this condition, the committee recommends that every farmer who owns a non-desirable scrub sire, market it now while prices are high and replace it with a more valuable and productive type animal.

Sires have to be proven before their abilities to transmit desirable qualities are known. When a good sire is found, wider use should be made of him, possibly through artificial insemination breeding.

One new method recently developed to measure the value of one sire with another, is to weigh offspring from different dams at a given age. Two members of the committee who raise sheep expressed a desire to try this method this year and encourage other farmers to do likewise.

Sheep producers should use the Willamette Valley Purebred Ram Sale as a good source for high quality breeding stock. This sale is limited to high quality entries and is a dependable source that should be encouraged as a means of marketing outstanding breeding animals.

CLASSIFICATION PROGRAM

The committee would like to have classification programs developed by all breeds of livestock, similar to the classification program the American Jersey Cattle Club now employs. This would better assist a purchaser in buying an animal from other counties or states. If a breeder has an animal for sale, he could describe it as classifying good, good plus, very good or excellent and the prospective purchaser, knowing the requirements of that classification, would know the comparative type of the animal.

LIVESTOCK AND FEED BALANCE

In the last 10 years, the total number of animal units in beef cattle and sheep has remained about the same in the county. The number of beef cattle has increased from 200 to 300 cows while the number of sheep has increased from 21,000 to 21,500. The greatest change has been in the great

decrease in hogs. On the other hand, the amount of hay, grain and seed crops has increased. This increase with the livestock numbers staying about the same has made it possible to become an exporting county on some grain and hay crops.

It is recognized as the best practice not to sell crops off the farm that can be fed to livestock. Therefore the committee recommends that farmers who are exporting feed stuffs adjust their livestock numbers to consume their feed at home as much as possible. Particularly legume hay should be kept in the county.

PASTURE IMPROVEMENT

Polk County has about 100,000 acres of hill land pasture which as it produces three or four months of early pasture before it dries up. This type of pasture in its present state is better suited for sheep than cattle production. Due to the low producing native grasses that now grow on these areas, it sometimes takes in an extreme case as much as three acres to feed one sheep.

The committee recommends that in order to make more and better use of this type of pasture, the fields be cleared of briars and bushes and suitable mixtures of grass seeds be planted including subterranean clover. This practice would provide more pasture for a longer period of time. This can be the greatest source of increasing the livestock income in this county.

In connection with this practice, where it is possible to do so, some irrigated pasture for late summer use works in well. If it isn't possible to have irrigated pasture, then legume or grass silage helps fill the need.

Usually our weather conditions are not suited to curing high quality hay from the first cutting of our legumes. In many cases the farmer would find it more profitable to put the first cutting of grasses in the silo and feed it to sheep or cattle.

The committee also recommends that farmers seed recommended varieties of forage and pasture crops, particularly alta fescue and subterranean clover, and try different ones on small test plots to find out what suits their needs the best. In this connection, the farmers should have samples of soils from pasture fields tested for lime and phosphate and

apply them accordingly. The County Agents office can supply information and recommendations on varieties for such trials.

LIVESTOCK NUMBERS

In the United States, cattle numbers, not including dairy, have increased 17 per cent since 1941. Oregon has shown a 25 per cent increase.

The United States has decreased 12 per cent in sheep numbers while Oregon has decreased 36 per cent. In Eastern Oregon the decreased sheep units have been replaced with beef cattle. In Western Oregon the sheep numbers have increased slightly indicating the farm flock business is being more permanently established.

Hogs in the United States have increased 12 per cent since 1941 while in Oregon they have decreased 30 per cent and in Polk county about 50 per cent.

The committee recommends that a farmer let his own situation be the guide as to whether he increases or decreases his sheep or cattle numbers. If a farmer has either hay or pasture going to waste, he should organize his farming and livestock system so he can use the feed.

At present Oregon doesn't produce enough pork to feed its population. Due to present hog and feed prices, it may not now be profitable to feed hogs on a commercial basis. Oregon farmers long ago based their hog raising policy on the utilization of waste products. Even if this policy were followed in these present years Oregon could produce 100,000 more hogs yearly and Polk county at least 3000 more.

The committee recommends that Polk county farmers consider utilizing some of their waste products to the extent that on farms where whole milk is not sold, one hog be kept for each cow to consume the milk. One hog can also be kept on each 5 to 20 acres of grain stubble and put on enough weight to make the farmer consider it a profitable business. One hog can be kept on the garbage from the average farm family.

Goats are usually not profitable when kept for mohair alone but many farmers feel that goats have sufficient value as land clearers. They utilize the feed on brush covered land, reducing the brush and improving the grazing conditions for other types

of livestock.

MINERALS IN THE RATION

The committee believes that many farmers are overlooking the value of minerals in the ration mixture for livestock. In many experiments, a few cents worth of added minerals gave dollars in added profits.

A recommended mineral mixture can be prepared by mixing together finely ground limestone two parts, steamed bone meal two parts and salt one part. Growing animals need minerals for proper bone development.

MARKETING

It was formerly the practice for most livestock to be sent to central markets such as Portland. Recently there has been a trend toward the farmer selling his livestock at home to representatives of packing companies who canvass the country. Under this system the prices have not always been uniform as to grade or quality.

The prices the farmer hears over the radio and reads in the newspapers is based on grades but he doesn't always know the grade of his stock.

Community auctions are developing all over the country and they affect prices to a great extent. Such auctions should be properly regulated in order to protect livestock health and sanitation.

The committee believes that farmers could do well by cooperative shipping to a central market and receive more competitive bidding.

Some interest has arisen in a cooperative packing plant being located in Oregon City. The committee believes that farmers would do well to encourage this interest as it may mean higher prices for the producer.

APPLYING PHOSPHATE TO MANURE

The committee strongly recommends the practice of farmers applying phosphate to manure as it is produced. The phosphate tends to keep the ammonia in the manure from becoming available at once and leaching out. Also when such manure is applied to crops or pasture, a more balanced fertilizer results and is reflected in the resulting feed. Twenty pounds of P205 (phosphate) per ton of manure gives good results.

LIABILITY INSURANCE and DOGS

Recently there has been a considerable number of sheep killed by dogs.

At the present the county doesn't have any one employed to see that owners purchase a license for their dogs. Since license fees go into a fund to pay for livestock damages resulting from dogs, the committee recommends that the county court employ someone to enforce the dog law and make such collections.

Since the owner is liable for damages caused by his dogs, the committee recommends that farmers purchase liability or comprehensive insurance of a type which covers damage his dog might cause.

4-H CLUB WORK

The committee realizes that many livestock producers received their interest, training, encouragement and desire to be livestockmen through 4-H Club work. Also the committee realizes that not enough boys and girls are participating in this type of work at present. In developing strong 4-H work, a strong local leader organization must be backing the boys and girls. The committee appeals to men and women to offer their services of a few hours per

month to lead a club.

Some of the livestock people have expressed willingness to sell high quality animals for 4-H club and Future Farmer projects at fair prices.

In 1945 there were twelve 4-H club members who had fat steer projects; two had sheep projects and only one had a hog project.

As there are 3200 boys and girls in the county eligible for club work, the committee recommends that boys and girls consider the value of these projects and participate in greater numbers.

POLK COUNTY LIVESTOCK ASSOCIATION

Every livestock producer in Polk county should join the Polk County Livestock Association in order to protect the interest of livestock producers and to further the livestock program in the county.

It is the opinion of the committee that such agencies as 4-H and Future Farmers should be combined under the same supervision in the interests of economy of administration and production of more quality livestock.

Dairy Committee

The dairy committee studied the dairy business, its past and present conditions, and made recommendations as to what course the dairy business in this county should follow for the next few years.

SIZE OF HERD

According to Extension Circular 437, there were 8500 dairy cows over two years old in Polk county in 1944. This shows an increase in the past four years. Since there are around 1700 farms in the county, this is a 5-cow average per farm although several farms have 40 or more cows. The AAA subsidy records show that there are 300 herds in the county with over 8 cows.

If more than two cows are kept, then enough cows should be kept to make dairying a considerable source of income. When the number of cows is too small, the owner may neglect them for other enterprises.

The herd should be large enough to consume the pasture, forage and silage produced on the farm. It is usually a better practice to feed

crops produced on the farm than to sell them. In selling crops all the nutrient and fertilizing value of them is removed from the farm.

FEED SUPPLIES

This county at present is producing more pasture and hay than it is feeding. We are exporting a considerable tonnage of hay to the coast counties where it is being fed to dairy cows.

One of our major feed problems at present is the scarcity of protein supplement feeds. This can be remedied to a considerable extent by producing more legumes for silage, more kale, by providing an improved pasture program, and by producing better quality hay. Hay should be harvested before it is too mature and by such methods as will conserve more color and leaves and thus more feeding value, and this means it must be done in as little time as possible.

In a cost survey made in 1933, it showed a 10-cow herd produced butterfat at 39c; 10 to 30 cow herd

at 35c; 30 to 50 cow herd at 33c; and over 50 cow herd at 31c, showing that generally larger herds are more practical than small ones.

In 1939, Polk County raised 4200 acres of alfalfa. By 1944 this acreage was reduced to 2700. The committee believes this acreage should be increased to feed more economically the dairy cows of the county.

LABOR PROBLEM

Labor supply as well as feed supply must be considered an important factor in the size of the herd. A dairyman should make efforts to secure and maintain a steady labor supply. If he finds a very exceptional man he may find it profitable to put him on a salary and percentage basis. Under this basis the laborer knows that the more he makes for the boss, the more he will make for himself.

GRADE STANDARDIZATION

At present the committee reports there are different grade standard qualifications among counties and cities and even within sections of the same counties. It is the recommendation that a centralization of inspection be brought about with a definite set of production requirements for the same grade of milk produced regardless of locality.

INCREASED QUALITY AND QUANTITY

The total number of cows and the total milk production is at an all-time high. Farmers are moving steadily toward more grassland farming. The acres of improved dryland and irrigated pastures increases yearly.

The population of the West coast has increased and probably will increase for some time. The per capita consumption of dairy products in Oregon and Polk County has probably increased during the war period. This will continue at about the same level so long as there is ample employment, people have money, and quality dairy products are available.

Therefore in view of these facts, the committee believes it would be sound business for the dairy farmers to increase dairy numbers sufficiently to consume the roughage and increased pasture produced.

MARKETING OUTLOOK

Our population is increasing year-

ly which means we have more potential milk consumers added each year. If we were to use dairy products on the basis nutritionists say we should, we would have much room for continued expansion. Other food industries are also after the same potential market. Dairy products consumption has usually been parallel to the family income level. Now our family income levels are high nationally but how long that will continue is uncertain. Consumers income may be expected to remain fairly high for the next few years and milk produced under the above recommended increase should find a waiting market.

The Oregon Dairy Council has been doing a fine job of advertising dairy products with the funds it has had. The committee recommends that their funds be increased from the one-half cent per pound of butterfat deducted from the dairyman's pay check for one month of the year to one cent or more.

DAIRY HERD IMPROVEMENT

The average butterfat production per cow in the United States is about 189 pounds. The average in Oregon is 248 pounds. The average in Oregon under Dairy Herd Improvement Association testing is 350 pounds. This increase for DHIA testing is due to more definite information on the actual production of cows tested in herds. Each cow is tested each month and her actual production is known. If a cow shows that she is a consistent low producer, she is sold. Every dairyman should know the production level of his cows and take advantage of DHIA testing.

A cow that produced 200 pounds per year at a feed cost of \$98 showed a return above feed cost of \$78 while a cow that produced 400 pounds at a feed cost of \$130 showed a return over feed cost of \$208 in 1944, according to DHIA records.

A dairyman can increase production by knowing which cows are producing most profitably.

One of the main steps in increasing production is raising dairy replacements from high production sires, therefore the committee recommends that a program of artificial insemination be worked out whereby especially the small herd owner can get service of good bulls.

Production testing is the only way of proving the value of sires. It is the only way of knowing the production of each cow. The knowledge of the level of production is basic to a sound feeding or management program.

DISEASE CONTROL

Mastitis in dairy cattle is now recognized as probably the No. 1 disease so far as losses are concerned, perhaps even greater than those caused by Bang's disease.

Research on the various phases of mastitis indicates that a sound program of control must be based on early detection of the disease, sanitary measures, and treatment or removal of infected animals. Many remedies have been advanced without a high percent of cures. More recent developments in the use of sulfa derivatives, penicillin and other products have been encouraging. Prevention is still the best control and management practices should be followed that will keep mastitis at a very minimum.

Since 1934, until last year, the test and slaughter program for the control of Bang's disease has brought about a great decrease in the number of reacting animals.

During the war years, many veterinarians and technicians were tak-

en into the armed forces and the testing program suffered greatly. Of the number tested in 1944, over one per cent were reactors. The committee strongly feels that a program should be conducted to insure continuous decrease of the disease toward its eradication.

The recent legislation placing the program directly in the hands of the State Department of Agriculture and providing a Bang's inspector for each county should provide more complete testing of this area.

The committee encourages every farmer to insist on having every head of cattle he has tested. Should diseased animals be missed, the disease could spread and jeopardize every herd in the county.

Sanitary control or good herd management must not be overlooked in the study of this problem. Prevention remains the most important consideration.

4-H CLUB WORK

In 1945 there were two standard dairy clubs with a total membership of 17 boys and girls. Since this county has a larger income from dairying than from any other source, more boys and girls should be taking part in the 4-H dairy projects. It is evident that many of them are going to be dairy farmers.

Farm Labor Committee

The committee considered a number of problems relative to the farm labor situation in Polk County and developed at least seven problems that recommendations are made on.

At the outset, it must be said that the committee believes that 1946 may be a more difficult year for farm labor supply than was 1945. This condition should gradually improve as time goes on but the outlook for the next year is definitely not too bright.

Last year we used both prisoners of war and Mexican nationals totaling 1243 and this year we face a problem of having neither as no deal has yet been completed with the government on Mexican national labor.

More children can form an essential part of our labor supply in harvesting certain types of crops if used on a piece-work basis with rei-

atively short hours, good supervision, protection, place to eat, and satisfactory toilet facilities.

Migratory fruit labor will undoubtedly continue to be as plentiful as it has been although this is not adequate.

Another consideration is that if a full employment program develops as Congress plans, there definitely couldn't be enough farm labor during the harvest seasons. With no patriotic appeal now, with few foreign workers and no prisoners of war, the problem of supplying farm labor in 1946 is certainly a big one. Labor-saving machinery may be of some benefit, but prospects now are not for much of it to appear on the market until after 1946.

Seven points are represented relative to the farm labor program in the county as follows:

1. SHORTAGE OF HOUSING.

Farmers that have housing for temporary farm labor during harvest seasons will continue to have an advantage in securing labor.

Where community housing can be developed in sizeable quarters, communities can probably have an advantage also. This committee recommends that farmers attempt to secure or construct some additional housing facilities in order to take advantage of this situation and that communities be surveyed for opportunities for community housing facilities.

2. CHILD LABOR LAW.

Last year over 25,000 youths who worked on farms in Oregon had an average age of slightly over 12 years. Ninety-five per cent of the work they did was piece-work. If a national or even state child labor law were to be developed and enforced, this would probably prevent a large portion of this number from working on farms, hence farmers should give considerable consideration to such legislation and oppose its effect on using youths on farms. The committee is of the opinion that many of these boys and girls are decidedly better off in such work under proper supervision than they might be roaming the streets or otherwise unemployed.

3. POLICY ON SCHOOL VACATIONS & SCHOOL COOPERATION.

The Polk County farm labor committee wishes to commend the officers and directors of Polk County schools for their very fine cooperation with farmers in the past relative to establishing opening dates of school to conform to harvest completion dates. It is hoped that such a spirit of cooperation can be maintained in the future.

4. SOCIAL SECURITY.

The committee is of the opinion that the social security law should be expanded to include farmers and farm laborers, however, it may be advisable to permit farmers to accept or reject such a program.

5. CROP AND LABOR SUPPLY RELATIONSHIP.

A review of the crops requiring a great deal of hand labor in this state, together with the acreages in 1940 compared with year 1945 estimated, appears in the following table:

CROP	ACREAGE	
	IN 1940	IN 1945
Snap Beans	2,200	4,500
Peas	21,000	45,000
Dry Onions	3,200	5,000
Potatoes	35,000	54,000
Peppermint	2,800	7,500
Sugar Beets	2,700	17,000
Hops	19,600	22,000

It is evident from the above table that the acreage of high labor requirement crops has increased tremendously from 1940 to 1945 and that part of the difficulty experienced in securing adequate help has not been that help was not available for the pre-war acreage but that the acreage was so greatly increased that even in normal times it would be doubtful if sufficient labor could be recruited for it.

In other words the committee is definitely of the opinion that growers planning to expand acreages of any of these crops should have adequate labor arranged for before planting any additional acreage. The farm labor service or any other employment service cannot possibly continue to find an increased quantity of help for such crops with the present limited agricultural worker population.

6. FUTURE FARM LABOR SERVICE PLANS.

The Oregon State College Extension service will withdraw from the farm labor field at the end of 1946 having assumed the job for the war period only and as a war emergency task.

The committee in considering this problem is of the opinion that a farm labor service must be made available to serve farmers and assist in locating a considerable quantity of farm labor. The committee believes that some agency in this state could well handle the assignment with certain provisions. One is that this agency should provide at least the proportionate amount of money and personnel for agricultural employment service as agriculture derives from the total income of the state as compared with employment agencies serving industry. Part of the difficulty in the past, the committee believes, is insufficient emphasis on agricultural employment and on lack of full appreciation of the responsibility in serving agricultural interests.

More farm labor has been placed

each year of the three last successive years than was ever before placed in Oregon, attesting to the efficiency and success of the work undertaken by the Oregon State College Extension Service. This committee commends J R Beck, who has been in charge of this program, and his staff for the outstanding job performed.

7. FARM WAGE CEILINGS.

The committee commends the farm wage ceiling program of the Oregon Wage Board and recommends that farmers in each type of production

consider using this board in establishing farm wage ceilings. The hop industry has been very favorably impressed with the program and made use of it during the past season. In light of that experience, this committee suggests that prune growers and possibly growers of other commodities consider using this board and establishing wage ceilings also.

An amendment to the report unanimously adopted was to the effect that farmers oppose all plans changing time to daylight saving and that farming interests are best served by remaining on Pacific Standard Time.

Farm Crops Committee

The committee considered a great number of problems pertaining to the general field of farm crops in this county and because of the extreme diversity, it is necessary to discuss problems and recommendations relative to many of them separately and also to make some recommendations in the work, appropriate to this committee, in general.

GRAIN CROPS

Polk County is not a heavy producer of grain crops as it was early in its agricultural history. It does retain, however, a unique position among Willamette Valley counties in that it produces some grain for export. This situation has developed largely through the fact that many other crops have taken the place of grains because of the higher cash value and in some cases because they fit into a more satisfactory rotation program.

Grain crops should be continued only to the extent that they do fit into the needs of a farm and into a satisfactory rotation program. Spring barley will probably continue to be the main spring grain produced.

While corn is produced on a relatively small area in the county either for grain or for silage, the committee feels that it is important to discuss corn growing, because it can fill a two-fold purpose on many farms. Corn can be a deep rooted and cultivated crop that could fit well into rotations on a large number of farms. In addition, it offers about the only cultivated crop that Polk County farmers can make much use of as

part of a constructive weed control program.

Oregon imports each year about twice as much corn as it produces. These imports run between 4 and 5 million bushels at this time.

Corn to be marketed shelled will necessitate artificial drying which will cost approximately \$10 per ton. One dryer can probably service 200 acres or more. The most economical use would be for hogging off and early maturing varieties are necessary. Eureka and Hybrid 100 are recommended for hogging off and Hybrid 525 has given best results in this county for grain production. For silage 525 and 355 are most widely used.

Corn can be cribbed and some growers follow this method of storing and feeding the following season with very little spoilage. This is only practical where the corn is utilized on the farm where produced.

Abruzzi Rye was introduced into this county on a productive basis in 1945 and approximately 35,000 pounds have been seeded this fall for pasture, cover crop, green manure, and grain purposes. It is the recommendation of the committee that on farms where this variety proves useful they produce their own seed requirements each year. It will be very easy for a surplus of this seed to develop unless growers find sales outlets for limited quantities and produce accordingly. This year there probably will be sale for a quantity into neighboring counties.

FORAGE CROPS

Polk County produces more hay than is consumed, however, it is believed that for the best soil fertility program all hay should be consumed in the county if possible.

The value of forage can materially be improved. Hay quality can be improved by reducing the amount of time between cutting and baling or storing through the use of improved equipment. The first cutting of alfalfa or clover in this county will always be more or less hazardous from the weather standpoint. More feed nutrients can be saved from early cuttings if they are put into the silo instead of utilized for hay where this is practical. This also enables the producer to take the first cutting off sooner and without danger of loss no matter what weather conditions are.

Hay can usually be handled, if utilized on the farm, somewhat cheaper than silage on account of the fact that the great amount of water is not handled as when silage is made. It is believed that the increased quantity and quality of feed produced from silage from first cuttings justifies the extra expense.

The committee recommends that the alfalfa acreage of the county be increased greatly for two reasons. (1) That where alfalfa grows successfully, more actual food nutrients can be produced per acre than from any other hay crop; (2) it is one of the best soil building crops possible to use in the farm rotation system. Red clover comes second to alfalfa in these respects.

PASTURES

During the past few years, the type of pastures has changed more here than has any other phase of agricultural production, through the introduction and use of improved pasture plants.

Subterranean clover and alta fescue have reached such a popular demand that each year seed supplies have been insufficient. These two plants and in combination with other grasses have made possible greater production of pasture over a longer period of time and on land heretofore not very productive. Farmers who have not already made use of these plants should do so immediately if they desire increased production. A bulletin on sub clover and one on

alta fescue should be procured by every livestock producer in the county and bulletins on other improved grass varieties should be requested as they appear.

Irrigated pasture should be increased on farms where water is available as the most economical feed supply for livestock.

Most of the present non-crop pasture land in the county can be made much more productive through some clearing and seeding of improved grasses and offers perhaps the greatest single source of increase in revenue to the county.

SEED CROPS

Polk County has rapidly changed from a grain producing area to seed production with a peak of approximately 40,000 acres having been devoted to seed crops in 1941.

Through having the Commodity Credit Corporation purchasing seed for AAA uses in the South, support prices have become so well established that it has governed the prices offered through regular trade channels. This committee recommends that the AAA Commodity Credit Corporation continue to offer such prices on cover crop seeds produced in this state.

Because the variety of seed crops is so great and because there are certain problems attending each one, the committee chooses to list and discuss them separately as follows:

HAIRY VETCH

Hairy vetch seed production reached an acreage of approximately 22,000 in 1941 and has dropped to about one-fourth of that because of the injury to the seed from hairy vetch weevil. Until the development of the insecticide known as DDT, there was little hope for regaining the production and consequent market of this crop. DDT now offers a possibility to hairy vetch producers in the control of hairy vetch weevil and the committee recommends that a control program be conducted by growers this year in a very pretentious although experimental scale.

The use of airplanes in dusting has been successful and practical on other crops and the committee, after considerable study and investigation, is of the opinion that dusting hairy vetch, Austrian peas and other seed crops with planes is also practical to the extent that it should be given

a large scale trial this year.

The committee recommends that a county-wide meeting of vetch and pea growers be called very soon to discuss this matter completely and for the purpose of planning a control program for the county with the idea of pooling the acreages of these crops by growers in the county wishing to dust and contracting with responsible airplane concerns to do the dusting. The cost of dusting this year will be approximately \$2 per acre which is more expensive than surface type of dusting as practiced heretofore. Growers report injuries to plantings through surface dusting operations of about 10% of the crop which much more than pays the difference in cost between surface dusting and airplane dusting.

The market outlet for hairy vetch continues to be greater than producers have yet been able to supply.

Willamette Vetch

Willamette vetch production has increased to over 12,000 acres in this county largely because of the decrease in hairy vetch production. If hairy vetch increases, the market for Willamette vetch will probably weaken considerably and possibly to the extent that there will be considerable surplus if the present rate of production continues. There probably would have been a surplus this year had not a temporary foreign market developed for it that took not only stored supplies but also much of the current year's crop.

Willamette vetch has proved its superiority over the common vetch to the extent that the committee recommends that whether for hay, cover crop or seed production, all farmers substitute it for common vetch.

The committee recommends that until the market for Willamette vetch no longer justifies it, that a certification program be continued in the county that will guarantee an adequate supply of foundation grade seed.

Because blue tag requirements are so much higher than for red tag, the committee recommends that blue tag seed bring a premium of 15% when sold to growers here for further seed production.

Austrian Peas

Because other areas offer strong competition, the production of Austrian peas will probably continue to

be limited and be produced only by those farmers who can secure relatively high yields.

Crimson Clover

A limited acreage of crimson clover is justified because of the value for the plant as a cover crop and in annual pasture mixtures. Some years there is some outside demand for seed and when this is true, the acreage should be increased accordingly.

GRASSES

Common Rye Grass

This crop has developed from virtually a by-product several years ago to main crop proportions and the market outlook for the future continues to be quite bright.

When produced on a main crop or complete field basis, the crop should receive an application of nitrogen fertilizer. This grass is best adapted to wet and low yielding heavy soil areas and is not to be recommended for well-drained high-yielding grain or seed land as these areas should be kept clean and free from it for other crops.

Perennial Rye Grass (English)

This grass finds a fairly steady market although the acreage should not be increased much over what is now produced annually in this county. It is best adapted to heavier soil types and provides a good type of cash crop when properly fertilized.

Growers should be cautioned in the seeding of perennial rye grass to select seed so far as possible from plantings not infested with the so-called light seed disease. Also seed that is fully two years old only should be planted, as the disease, if present, apparently dies out in seed stock of that age. Reseeding on affected areas should not be practiced without at least one crop of some other type of plant grown first.

Burning the English rye grass straw on the land seems to be quite helpful in destroying spores of the disease and gives some additional protection to the succeeding seed crop.

Alta Fescue

The acreage of alta fescue for seed production has been insufficient in the past, however it is believed that the acreage that will come into seed production this year will probably make further great expansion of the seed areas unwise until further outside market outlets can be develop-

ed. Alta fescue for seed production on most soils produces much heavier yields when planted in rows and cultivated the first few seasons. Solid plantings have the advantage, however, of being usable either for pasture or seed production. When the stand becomes too thick, however, seed yields decline greatly. This grass is not as heavy a seed producer as other fescues but can probably be planted on wetter, heavier soil.

Chewing Fescue

This grass offers a possibility for a seed crop in the county when produced on clean ground and properly fertilized. Future plantings, however, must be based on outside competition.

Red Fescue

It is very similar in production to chewing fescues except that satisfactory seed yields are not as regular. The market outlet, however, appears quite satisfactory. Growers should investigate the possibility of producing popular strains for a more sure market and consider row plantings also.

Other Grasses

Because of the increased use of Tulatin grass, orchard grass, meadow foxtail, canary grass and sudan grass, acreages can be devoted to them although markets at the time are somewhat limited and harvesting methods, particularly for meadow foxtail, need improvement to make particularly that crop profitable. These grasses have specific uses that fully justify planting them, especially as pasture grasses on certain areas.

CLOVERS

Alsike Clover

Alsike clover has a place on Polk County farms, particularly on some of the heavier and wet soils and provides a means of getting a legume crop into the rotation. Recently growers who have secured bees in the number of one hive for each acre have found seed production increasing greatly. This suggests that every clover seed grower should secure additional bees to this extent if possible.

Red Clover

This crop has been reducing gradually as a seed producing crop in the county, largely on account of seed failures during recent years. The failure of this crop to set seed has been charged largely against small

black bugs known as Nitidulids which are pollen feeders and which are sometimes located with difficulty in blossoms or seed heads. Until a satisfactory control of these insects can be developed, red clover seed production cannot be assured. It is the recommendation of this committee that the Oregon State College Experiment Station undertake the study of this insect and other causes of such failure of red clover and determine methods that will assure increased seed yields.

Red clover is still recommended as a valuable crop for hay and in rotations.

White Clover

White clover as such has been grown to a very limited degree in this county but with some success. The market is quite satisfactory, however, yields are not always so. Producing different strains of white clover seems to be more advisable than growing just plain ordinary White Dutch.

Ladino clover, which is the irrigated type and is a giant white clover, offers considerable possibility as a seed crop particularly in irrigated areas. Growers have not been inclined to favor it greatly under non-irrigated conditions although it is reported that a few growers have been successful with it. There is a ready market for ladino clover at prices that well justify its production, however, it will usually be produced by those who can take advantage of the early growth in pasture or silage before letting it go for seed. Latest recommendations are to irrigate it during the growing and blooming season until nearly harvest time which should be about mid-August.

Subterranean Clover

This is a relatively new forage crop and pasture plant, introduced to this section in the last few years. A very strong market for seed has developed. Because of its reseeding character, however, the seed requirement for the county could soon become supplied from a limited acreage of seed. Because the seed is difficult to harvest and because harvesting methods are still in an experimental stage, growers in large numbers will not yet consider this as a seed crop. An outside market may develop and is in prospect at this time.

Most successful planting time for

this clover has been May, made either alone or with nurse crops such as sudan grass or winter wheat utilized for pasture. Fall seedings, while recommended when early and sufficient rains are secured, have not been very satisfactory during recent years as rains have not been sufficient or early enough to start new rooted if fall seeded. Early fall seeding is recommended on summer fallowed ground in preference to seeding on fields cropped the same season. This clover seems to respond well to lime, phosphate and landplaster, but also grows to good advantage on some of the poorest soils in the county and without lime.

This clover is an annual and makes its most rapid growth in the spring and early summer and dies in July following its setting of seed. Two strains recommended here are Mt. Barker and Tallerook.

Lotus

While Lotus has been given considerable publicity in other sections, it has not been a very successful crop in this county as yet. Some of the failures have no doubt been due to having seed beds not firm enough. If satisfactory stands could be secured, the plants should be well adapted to certain wet and heavy land areas in the county. Seed production is justified by present prices, although seed harvesting is somewhat difficult.

* * *

VEGETABLE SEEDS

A new field has been developed during the war period in vegetable seed production. The future of this industry, however, will depend greatly on inducement given growers by prices obtainable. The outlook is not bright at this time for any substantial production of vegetable seeds in this area.

FIBER FLAX

The acreage of fiber flax is limited entirely to those growers who can

secure contracts with the various flax plants adjacent to the county.

GRAIN FLAX

This crop is produced to a very limited degree each year although the last few years there has been considerable improvement in the market outlet because of the need for linseed oil and oil meal. Growers contemplating flax production should by all means plant it on areas definitely known to be clean and free from other types of plant or weed growth. Weeds greatly interfere with harvesting. Ordinarily other spring grain crops are more easily produced.

SOIL IMPROVEMENT

Greater use of crop residues is essential for increasing soil fertility and crop production. The committee recommends that under no circumstances should legume straws be burned and in very few instances should grain straw be destroyed.

Farmers who have made a consistent practice of utilizing crop residues have definite evidence that crops yield heavier, erosion is prevented, winter kill is avoided and also humus is added to increase moisture holding capacity and fertility is greatly increased.

The reason most farmers give for destroying plant residue is the difficulty it involves in working the soil. The committee recommends that machinery manufacturers, experiment stations and farmers give considerable attention toward developing equipment which would make spreading the straw less difficult. Field machinery should also be developed for use in better utilizing straw.

Many legume straws in particular have so much fertilizer value that it is absolutely uneconomical to destroy them. Considerable time and money could be spent by farmers utilizing such material when it is understood that various crop residues have fertilizer values on a ton basis as follows:

Crop Straw Residue	Nitrogen Lbs/Ton	P205 Lbs/Ton	Potash Lbs/Ton	Fertilizer Value \$/Ton
Hairy Vetch	39	10	27	\$7.41
Common Vetch (Will.)	28	7	21	5.39
Crimson Clover	32	6	23	5.99
Red Clover	31	7	27	6.11
Alsike Clover	31	7	22	5.86
Austrian Peas	24	6	24	4.92
Wheat Straw	10	3	12	2.18
Oat Straw	12	4	25	2.92
Barley Straw	12	4	22	3.02
Flax Straw	16	4	19	3.43
Grass Straw (aver.)	13	6	15	2.93

(Nitrogen Valued at 14c lb.; Phosphoric Acid 6c lb.; Potash 5c lb.)

Most of the farming areas of the county, particularly the hills and bench soils, would respond to applications of ground limestone and legume production. Areas that do show a response should be on a rotation program with lime being applied to each field about once each 8 years.

While this area produces great quantities of cover crop and green manure seed for use in the southern states, it is the belief of the committee that Polk County farmers have not used the practice of growing cover crops or green manure crops to the extent that would benefit them and the agriculture of this county. Farmers have learned that this practice offers about the quickest way to improve soils and in many instances the crop the following year has more than doubled in production, justifying in one year the practice even though one year's production is lost in producing the green manure crop and then summer fallowing. Such areas should then be seeded to fall crop. This is a recommended practice in fitting an area for seeding to permanent grass plantings as well as for grain or seed crops.

The committee recommends that every farmer consider and establish simple soil improvement trials, using lime, phosphate and landplaster on legume crops. These can be worked out in a small area of a half-acre or less with little expense or trouble. Farmers may secure the assistance of the county agent's office in establishing these trials.

COMMERCIAL FERTILIZER

The use of commercial fertilizers is relatively a recent practice in this area but has now been used to the

extent that it has become established and has proved itself to the point that farmers are using various forms of commercial fertilizer in greatly increased quantities each year.

Because of the experience gained, it has been found that phosphate fertilizers, except when applied with new legume seedings in the spring, should usually be applied in the fall on already established legume plantings and with the seed of other legumes planted in the fall.

Applications made through fertilizer attachments on drills are most effective and more efficient than surface applications. Spring applications of phosphate have not paid nearly as well as fall applications especially when applied on the surface.

Nitrogen fertilizers have been used in greatly increased quantities each successive year in the last five years to the extent that adequate supplies have not been available the last three years. In general, farmers should well consider applying 15 to 20 pounds of actual nitrogen per acre as a top dressing to fall or spring planted grains and 30-40 pounds per acre in the spring to grass seeded areas. This amount might well be increased on some soils although on some of the more fertile soils, it might be decreased to some degree. Each farmer must try varying rates to determine the best rates for his operations.

Landplaster (gypsum) is quite universally used by farmers over the county and recommendations for its use have not changed in the last few years for legume crops.

Because farmers generally are not sufficiently informed on the value

and use of commercial fertilizers, the committee recommends that the county agent's office include information on fertilizers in connection with other meetings held in the county that deal with general crop and seed production.

It has been brought to the attention of the committee that ammonia sulphate production has been stopped at the plant at Salem. It was the opinion of the meeting that farmers would go up to \$55 per ton for the time being, if an adequate amount could be made available. This price was considered not out of line with mixed fertilizer now on the market.

BULK HANDLING

Farmers of the county through lack of sufficient farm labor have developed numerous labor saving devices and practices. One of these is the bulk handling of grains and seed crops to the extent that warehouses in the county have not had facilities equal to handling such crops in bulk. This committee believes that warehouses handling large quantities of grains and seeds should develop improved and greater bulking facilities to better serve farmers using this method.

Because so many farmers are finding farm warehouse units so satisfactory, the committee believes that this offers a suitable means for many to more effectively and efficiently handle their seed and grain crops and effect considerable savings also. Because of the cost of an efficient unit, there are not many farms that can justify developing them. It has been estimated that at the present time such a unit built new would cost between six and eight thousand dollars. At least 200 acres of such crops should be produced in order to justify such a warehouse.

4-H CLUB WORK

Many successful farmers received their early training and interest in agriculture through 4-H club work. Crop production in general makes up about one-half of the farm income in the state, however, 4-H club work in the crops field is very limited. The ratio of livestock to crops projects is about 21 to 1. We believe that young farmers including both 4-H and Future Farmers of America should receive more training in crops work and consequently that crops projects should be emphasized more

greatly by parents and should be conducted as additional projects along with livestock where possible.

WEED CONTROL

The weed problem in Polk County has become extremely serious as evidenced by the tremendously increased acreage of Canada thistle, morning glory, tansy ragwort and others. The committee is of the opinion that these three weeds in particular and others in general should be attacked by a unified control program developed on a county, community and individual farm control basis. Weed laws should be strictly enforced and weed control districts developed as a better means of enforcing control provisions.

The committee recommends that all farm organizations and organizations of farmers in farm communities include in their programs weed control features. There is probably no problem affecting this county that justifies more attention and therefore no problem any organization could do better work on than this.

The committee believes that the AAA organizations should continue weed control as one of its main practices for payment and that this practice should receive as much or more payment as any other practice in this county for which payment is made.

Camp Adair has become the breeding area for noxious weeds and every means possible should be taken to get that area freed from weeds and under farmer-owner control as soon as possible.

The committee recommends that farmers producing livestock produce at least one field of corn each year as a means of combating weed production to a greater degree than is possible through the planting of other crops.

Selective sprays are now available for the control of certain weed pests and it is recommended that this practice be utilized and that as many demonstrations of its use be made in the county as possible in order to familiarize growers with the practice and to secure proper and adequate equipment for its increased use.

The committee recommends that the county agent's office devote considerable time and attention to methods of controlling the three weeds mentioned above to develop the most

successful means of control as well as the most economical.

There is considerable new information and there are new products becoming available for destroying weeds that should be tried out in this county as they can be secured.

INSECTS AND DISEASES

More emphasis should be given to the control of insects and other pests affecting various farm crops. Many

can now be controlled with the use of DDT and other insecticides may be developed that will further aid in this serious problem. Twelve-spotted beetle and flea beetles which have been serious pests on kale, rape, seed-clovers and others can be controlled with DDT, the committee is informed. This information has not yet been generally made available but probably will be this season.

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