REPORTS OF THE
Yamhill County Agricultural Economic Conference

Suggesting a
COUNTY AGRICULTURAL PROGRAM

McMinnville, Oregon, February 17 and 18
1927

Conducted by Representative Farmers and Business Men of Yamhill County and the Extension Service of the Oregon Agricultural College, Cooperating
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FOREWORD

This bulletin contains the reports considered and adopted by the Yamhill County Agricultural Economic conference. Its publication is the result of a resolution unanimously adopted by the conference that the reports be printed in order to preserve a record of the proceedings and to make them available to those interested in the development of Yamhill agriculture. Through the cooperation of the Yamhill County Bankers' Association finances were provided for publication of the report. The bankers' association provided for publishing enough copies so that one could be placed in the hands of every farmer in Yamhill county.

Briefly, the purpose of the conference was to analyze Yamhill County agriculture as it exists at present and to determine, as a result of this analysis, ways and means of increasing the return from the $32,322,000 invested in farm lands, buildings, livestock, and equipment in the county. It was to this end that about 250 farmers and business men gathered in the Woodman hall at McMinnville, February 17 and 18, to develop, consider and adopt the reports which make up this bulletin.

The conference was organized according to groups, in order that more careful study might be made. These groups related to the county's major sources of income and covered the following commodities: Prunes, tree fruits other than prunes, small fruits, vegetables, nuts, farm crops, dairying, poultry and livestock. In addition, a group on boys' and girls' club work was included.

Taken together, these reports suggest an agricultural program for Yamhill County worked out by practical and successful farmers with long experience under local conditions, with the assistance and cooperation of representatives of the Extension Service of the Oregon Agricultural College. Singly, these reports represent the best judgment of the conference groups in determining the lines along which our principal sources of agricultural income should develop. Preliminary committees worked for several weeks in preparation for the conference and in gathering local information, as well as national data, which might be useful in making recommendations for a more profitable agriculture.

The conference was a beginning. Its ultimate value depends upon the use of its findings by individuals, by organizations, and by communities in the county. It is hoped that farmers individually and in their organizations will study the information contained in these reports, as well as the conclusions based on that information, to the end that local agriculture may be guided in its development along lines which will bring greatest profit to our farmers and the greatest degree of prosperity to the county as a whole.

It is recognized that the findings of the conference are not final. They must be revised as new conditions develop and as other problems of marketing and productions are met.

The conference was arranged by a committee consisting of representatives from the various granges, the cooperative associations, chambers of commerce, and the county bankers' association. I. B. Shirley, master of the Yamhill County Pomona Grange, was chosen as general chairman. Other members of this committee were Holt Stockton, Peter Zimmerman, J. H. Dunn, A. J. French, Charles K. Hubbard, Roy Stockton, Morton Tompkins,
representing the grange; W. W. Silver, F. W. Meyer, Victor Rees, and L. Hurner, representing the cooperative associations; H. G. Funk, and H. C. Patty, small fruit and general farming interests; Clyde E. Niles, S. L. Parrett, W. S. Link, chambers of commerce; J. L. Sherman, Yamhill County Bankers' Association. The conference was one of a series of four similar events held during the season of 1926-27 in Oregon as follow-ups to the State Economic conference which was held at Corvallis in 1924.

County agent work in Yamhill County will be based upon the findings of this conference as contained in the reports.

YAMHILL COUNTY BANKERS ASSOCIATION
MAKES PUBLICATION POSSIBLE.

To the Yamhill County Producers:

Bankers of Yamhill County recognize the importance of agriculture and have a deep sympathy and interest in the problems now facing producers. We recognize that in the proceedings of the Yamhill County Agricultural Economic Conference, in which a large number of successful farmers, representing practically every section of the County, participated, considerable progress was made towards the solution of these problems.

We believe that the program for agricultural development worked out in this conference, if carried into effect on the 2,864 farms in the county, will go a long ways toward increasing the returns from our $32,322,000 agricultural investment.

Because of our sincere interest in the farmer and his problems, the Yamhill County Bankers' Association unanimously complied with the request of the Conference Committee and provided the funds for the printing of this report in order that the records of the proceedings might be permanently preserved and placed in the hands of every farmer in the county.

Very truly yours,

YAMHILL COUNTY BANKERS' ASSOCIATION.
Report of the Prune Committee

I. THE PRESENT SITUATION.

1. Total Production 500 Million Pounds by 1931.

Dried prune production of the United States for 1926 was something less than 400 million pounds, California producing three hundred million, Oregon sixty million, and Washington approximately twelve million pounds. The total production of these three coast states will easily reach the 500 million pound mark inside of five years; while that of the Northwest alone can be expected to reach the 100 million pound mark. The Pacific Coast states have a monopoly upon the dried prune production of the United States. Oregon and Washington combined have a monopoly upon the tart-sweet dried prune production of the United States. The total prune production is sufficient to feed the American population at the present consumption rate of one and one-half pounds per person, with 225 million pounds remaining for export trade. The Northwest tart-sweet prune is consumed in the United States at the "enormous" rate of four ounces per capita per year, only one-ninth of the total consumption of prunes. When the 500 million-pound production is reached in the next five years we shall have over 300 million pounds for export unless we increase the average consumption of the American consumer.

2. Almost 10,000 Acres of Prunes in Yamhill County.

The prune industry in Yamhill County has developed from 161 acres in 1889 to the present acreage of 9962 acres. The ten to twelve cents per pound received for prunes in 1889 was responsible for the first heavy planting, the acreage reaching 3,048 in 1899. Dropping of prices to two and three cents prevented any rapid increase during the next ten years, the 1909 acreage standing at 2,713. The six cents received in that year, and the other good prices during the following years, reaching as high as seventeen to twenty cents in 1919, was responsible for additional new plantings. Total plantings reached 7,532 acres in 1919, and 9,962 acres in 1926.

3. Local Acre Yields Too Low.

Yamhill County prune orchards are producing far too low yields of too small sizes. The average yield is not more than 1,500 pounds of dried fruit per acre. The average sack count will be within the 50s, running much smaller in dry seasons such as last (1926).


The per acre cost of growing prunes up to harvest time is close to $50, making a per pound cost of three and one-third cents before harvesting is even started. The harvesting, drying and delivering cost is almost three cents. This makes a total cost of over six cents per pound. This is probably as much or more than prunes will net the grower during the next few years.

A three year cost study of over 100 prune farms made by Oregon Agricultural College gave an average cost of production of seven and two-thirds cents per pound. The individual farm costs varied from less than four cents to more than eighty cents. These variations in cost were due largely to differences in yield and size of fruit. Low cost prunes were produced only on orchards producing high acre yields and high prices received only for prunes of large sizes.

I. PRUNE RECOMMENDATIONS AND CONCLUSIONS.

1. Acre Yields of 2000 and 3000 Pounds, Depending on Size of Fruit.

Orchards producing at least 2,000 pounds of fruit above average size or 3,000 pounds average size per acre are the only ones producing at a profit.
Bearing orchards should be brought up to this state of production or abandoned.

Better producing methods necessary to secure such yields are as follows:

Early spring plowing (late March or early April) is always essential for the proper conservation of soil moisture. The more cover crop or weed growth in the orchard the more important is this early plowing. Disking should immediately follow this early plowing sufficient to thoroughly fit the land. Shallow cultivation with a Kimball, Acme or spike tooth harrow often enough to keep down all weed growth throughout the remainder of the summer is the final operation necessary for soil moisture conservation.

An annual cover crop of winter barley and common vetch, cowhorn turnips, rape or any other crop that will make a good growth seeded late in August to be plowed down in March or early April is necessary to maintain the organic matter content of the soil. Five tons of stable manure or one ton of straw supplemented with seventy pounds of sulphate of ammonia per acre per year will take the place of the above cover crop.

Orchards producing yields equal to those named above may be maintained through cover cropping alone. Those producing smaller yields should have the cover crop supplemented with two to three hundred pounds of nitrate of soda per acre applied about March first. This will not only maintain the organic content of the soil but will supply the additional nitrogen needed for producing growth and the year's crop.

2. Proper Pruning is Important Factor.

Closely planted orchards whose yields and sizes are declining should be thinned, removing at least fifty per cent of the trees. The remaining trees should be treated the same as those in orchards not crowded. Mature trees should receive an annual light thinning-out pruning if in shape, to produce satisfactory yields.

Devitalized trees should be given a much more severe pruning. Hanging wood should be removed and dense upright branches thinned out. No heading is necessary on these bearing trees except as the ends of the branches become too low to permit cultivation. Attention is especially directed to brown rot as the most serious pest to be combatted, and to proper thinning at pruning time so as to let adequate light and air to all fruit spurs as a help in control of the pest.

Young, non-bearing trees should receive just as little pruning as necessary to maintain proper balance between branches. Heading-back, or any other unnecessary pruning is detrimental to their development.

3. Dry None But Clean, Ripe Fruit.

A high quality product should be kept uppermost in mind throughout the harvesting and drying season. Harvest should be started by picking up all the good prunes on the ground and cultivating or dragging in all the bad ones before any shaking is done. Fruit should be gathered and delivered to the dryer only as fast as it can be used. It should not be allowed to stand in boxes either in the orchard or dryer. Nothing but clean ripe fruit should ever be dried.

4. No One Type of Drier Recommended.

No one type drier can be generally recommended. The one selected should be capable of turning out a high quality product. The construction cost should be reasonably low in relation to the quantity of prunes to be dried. The labor requirements should be low. The kind and cost of fuel and power for its operation should be considered. Avoid all possible permanent fixed charges.
Individual growers drying only a limited amount of fruit will probably find the old natural draft drier most economical while commercial driers or large growers will find the recirculation type by far the most economical to operate.

5. Drop the “Five Point” Grades.

In making a study of the dried prune market and marketing conditions we feel that some attention might first be given to the matters of grades and quality. Some effort has been made in the past at various times to get away from the ten point basis that is now in use, and to use possibly three or four grade marks to cover the entire range of sizes. So far this has made little headway as the trade and most packers are quite well satisfied with the present system. Attention should be called, however, to the tendency to bring in some five point grades in the larger sizes. We feel that this practice has but little to recommend it, and tends to increase the spread in price between 30's and 40's. Our normal crop produces a large quantity of 40's, and we believe these might be marketed at prices nearer to 30's if it were not for the five point step down to 35-45. We would strongly recommend that the five points grades be dropped.

6. Education Rather Than Inspection, to Improve Quality.

The matter of the quality of the pack necessarily starts in preparation of the dried fruit before it comes to the packing house. It is partially determined by the care used in sorting and handling at the time of grading and packing. Many have advocated that Government inspection is the only way possible to insure against drying bad fruit, unsanitary drier conditions and poor packing methods. It seems to us, however, that inspection tends to average the conditions and has a possibility of averaging down as much as up. An adequate inspection of all driers and orchards during the harvest season would be almost an impossibility without a larger force of inspectors than probably would be available. We believe that a campaign to educate producers to their moral responsibility to the industry will accomplish the desired end quite as effectively and tend to a higher standard of quality than will inspection.

7. The Entire Industry Must Organize to Stabilize Prices.

In turning our attention more directly to marketing, we feel that some attention should first be given to the present situation, which all agree is unsatisfactory, and through this survey, if possible, to determine some of the outstanding factors contributing to the present deplorable situation. This might at once suggest lines along which work might be done to help put the industry on a paying basis.

We find that within the last ten or twelve years many markets have almost entirely quit taking Oregon prunes. This seems to be especially true of the central, or western central states, where the California sweet prunes have displaced our product almost entirely. Even in New York City, the greatest consuming and distributing market in the world, there has been a marked decline in the tonnage of Oregon's handled in the last few years. Formerly eighty to ninety per cent of the out-put of the northwest went into this market, while today not over fifty per cent is handled there.

In trying to determine why our domestic outlet has been diminishing so consistently we believe the absolutely disorganized condition of the industry is in a large measure responsible. There has been no united effort either among packers or growers to keep pace with our competitors. At no time has there been a concerted move to increase or even keep up the consumption of Oregon prunes. In some instances it appears that price cutting rather
than good salesmanship has been resorted to in moving goods. The introduction of new methods of marketing and new marketing agencies in the past few years has probably contributed somewhat to the lack of harmony or unified effort among packers. Another thing that has been very disastrous to our domestic market, is the fact that for the past four or five years opening prices have been high enough to give the grower a fair return but have almost without exception suffered a steady decline during the selling season. Buyers have consequently been forced to take losses on their holdings and have either quit handling Oregon prunes, or resorted to a hand to mouth buying policy, taking only small quantities at a time.

The general decrease in domestic consumption has made a greater surplus, consequently forcing an increased export trade. While a good healthy export market is to be desired, European financial conditions, with the possible exception of England, have made it necessary to offer our goods at a low price. Also, in these markets we must compete with the cheap Yugoslavian prunes.

By way of improving present conditions we believe there are two outstanding things that must be accomplished. Prices must be stabilized, and adequate publicity must be given to the real merits of the Oregon prune. There is no reason to suppose that conditions will mend themselves without effort on the part of those interested in the industry.

To stabilize the price something must be done to eliminate indiscriminate price slashing, and there seems to be but one answer: organized control. An examination of other lines of business that have gone ahead and enjoyed more prosperity than we have, discloses the fact that their prosperity has almost invariably been in direct proportion to the degree of organization. Our industry must be put on the same organized basis if it is to succeed.

At present there is a general feeling that something must be done. Various plans are being brought forth. Still, we feel that much thought must yet be given in order to bring out of these various ideas a plan that will be best for the industry. Within the next few weeks, without doubt, some plan will be decided upon and a strenuous effort made to put it over. Any organization to be effective must be industry wide and will affect every person connected with the industry. Therefore, we strongly urge all growers to give the best of their thought to these matters and assume the part of this burden that is rightfully theirs. We also want to urge all growers to get behind any good plan that may come out and boost for it.

8. Extensive Advertising Must be Done.

As has been pointed out earlier in this report, our markets have been falling off rather than growing. At present the per capita consumption of Oregon prunes in the United States does not exceed four ounces. We must increase consumption. To our minds adequate publicity of the real merits of our goods, supported by the entire industry, is the only solution. California is just now preparing to spend thousands of dollars in a super-advertising scheme. Under their plan three hundred demonstrators are to work four hundred cities in the United States, demonstrating the California sweet prune. This fact alone makes it imperative for us to meet this competition or lose still further the markets we now have. In the past, some advertising money has been spent but single organizations can not raise a sum sufficient to get very far. Nor has the inducement to individual firms to advertise Oregon prunes been very great, when other competitors received the advantages of the work without contributing anything. Most growers seem to realize the urgent necessity of advertising and agree that all prunes in the state should help pay the costs. There is, however, some difference of opinion as to how this shall be accomplished. Some have suggested a new organization, state
wide, to handle this work. In giving this matter careful consideration your committee feels slow to recommend a new state-wide organization for this purpose alone. The necessary overhead of such an organization would use up an appreciable percent of any sum we are likely to raise. It seems to us that the present Northwest Dried Fruit Association offers an agency, already established, through which the work might be carried on. At present all independent packers and cooperatives in the state are members of this association. This means that practically all prunes in the state are represented in this association. It has already considered the work and has a committee ready to function.

While many of the important points have been touched only briefly, we have tried to set out certain things we believe would be beneficial and that are necessary to the successful marketing of the Oregon prune. Of these points mentioned two are outstanding and we wish, in conclusion, to again call attention to them and to urge upon all prune growers the absolute necessity of making every effort to bring about, first, the organization of the entire industry to stabilize prices; and second, to develop an advertising campaign, conducted by and contributed to by the entire industry, to increase consumption.

Signed: W. W. SILVER,
O. W. HAYNES,
H. L. PRATT,
W. R. OSBORNE,
VICTOR REES,
O. H. SCHREPEL,
L. HURNER,
PETER ZIMMERMAN,
HOLT STOCKTON,
W. L. PARRISH,
H. W. SUNDBERG,
W. S. ALLAN.
Report of Committee on Fresh Tree Fruits
(APPLES, PEARS, CHERRIES, PEACHES)

APPLES

Present Status of the Apple Industry.

While it is true that the total apple tree population of the United States has been decreasing rapidly during the past few years, it is true also that commercial production of this fruit has increased at a remarkable pace, due to better methods of orchard management and marketing. In 1916 the commercial apple crop was 80,241,000 bushels. It rose to about 120,000,000 bushels in 1926.

During the past six years Oregon has shipped 26,871,000 bushels of apples or 4.7 per cent of the commercial crop produced during that time. The commercial crop of the Pacific northwest is approximately one-third the total commercial crop of the United States.

The Apple Outlook.

The law of supply and demand operates in the apple business as in any other. The supply of fruits of all kinds needed for the human diet has about reached the saturation point in this country. As a consequence, low crop years make the most money for the growers. When the commercial apple crop reaches 90,000,000 bushels or more, prices are usually too low to make a profit. This yield has been exceeded four times in the last six years. The country as a whole has quit planting apples and will be content to maintain its present orchards in as profitable condition as possible.

The Apple in Yamhill County.

During the apple planting boom of 1908-1912 many acres of apples were planted in this country, some of them on poor soils. The orchards on unsuitable sites have gradually disappeared until now only about 2000 acres are left, practically all in bearing. The Spitzenburg, Yellow, Newtown, Jonathan, Rome, Gravenstein and Grimes are varieties most commonly known.

Apple Recommendations for Yamhill County.

1. Planting apples commercially is not to be recommended.
2. Orchards of good varieties, on deep well drained slopes should be well taken care of.
3. Orchards that will not produce the equivalent of 250 packed boxes an acre when given good treatment should be grubbed and the land used for something else. Competition is too keen for orchards giving small yields.
4. Poor varieties if healthy and well grown may, in some cases, be top-worked to better varieties. The following varieties are recommended:

   - Rome, Newtown, Gravenstein, Spitzenburg and possibly Delicious on the higher elevations.
5. Better grading and packing will greatly help in obtaining better prices.
6. Home markets, including beach resorts, road side stands, local and Portland stores should be utilized to the limit of their ability to consume our apple output.
7. Canned apples in Oregon amounted to 365,120 cases in 1925. This outlet ought to be encouraged. Returns from dried apples, vinegar, cider, etc., may at times be profitable.
Present Status of Pear Growing.

Pear production in the United States has been gradually but steadily increasing for several years as shown by the following tables.

PEAR PRODUCTION AND TOTAL FARM VALUE.

<table>
<thead>
<tr>
<th></th>
<th>1923</th>
<th>1924</th>
<th>1925</th>
<th>1926</th>
<th>1923</th>
<th>1924</th>
<th>1925</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td>1,580</td>
<td>1,225</td>
<td>1,500</td>
<td>2,100</td>
<td>1,706</td>
<td>2,082</td>
<td>2,400</td>
</tr>
<tr>
<td>United States</td>
<td>17,845</td>
<td>17,981</td>
<td>19,380</td>
<td>25,260</td>
<td>25,260</td>
<td>25,270</td>
<td>27,944</td>
</tr>
</tbody>
</table>

Oregon's share was approximately 6 per cent a year.

PEARS: CAR LOT SHIPMENTS BY STATES OF ORIGIN.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Pounds</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921</td>
<td>780,791 cases</td>
<td>$4,662,000</td>
</tr>
<tr>
<td>1922</td>
<td>46,492,000</td>
<td>5,629,000</td>
</tr>
<tr>
<td>1923</td>
<td>40,533,000</td>
<td>4,571,000</td>
</tr>
<tr>
<td>1924</td>
<td>59,123,000</td>
<td>6,924,000</td>
</tr>
<tr>
<td>1925</td>
<td>69,458,000</td>
<td>8,304,000</td>
</tr>
</tbody>
</table>

The export outlet is coming to be an important avenue for marketing canned pears as the following table shows:

Great Britain, Scotland, and Cuba are our three best customers.
The Pear Outlook.

In view of the fact that plantings are steadily increasing and that many young orchards have not yet come into bearing in the Pacific Coast states, it would seem wise to check plantings of the Bartlett and to encourage only moderate plantings of the best late fall and winter varieties.

Yamhill Pear Growing.

There are approximately 280 acres in bearing and 165 acres not yet in bearing in this county. Probably more than 50 per cent of these are Bartletts.

Pear Recommendations.

1. Late fall and winter varieties, Anjon, Bosc and Winter Nelis, where size can be obtained may be planted.
2. Every step should be taken to improve the quality of pack, to encourage local marketing, and to patronize canneries located in the county and nearby points.
3. Pears do not succeed on low, poorly drained lands with tight subsoils. They should be planted on deep, well drained land with sufficient slope to insure air drainage.
4. Studies in the Rogue River Valley indicate that yields of 150 to 200 boxes per acre, at least, should be obtained to make the business profitable.

Cherries.

The Industry To Date.

The census of 1920 shows the cherry industry is hardly holding its own in the United States as a whole but that it is making a gain in the far Western states, as shown by the following tables:

<table>
<thead>
<tr>
<th></th>
<th>1910 Census</th>
<th>1920 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bearing</td>
<td>Non Bearing</td>
</tr>
<tr>
<td>Western States</td>
<td>1,352,198</td>
<td>1,391,303</td>
</tr>
<tr>
<td>United States</td>
<td>11,822,044</td>
<td>5,621,660</td>
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<tr>
<th></th>
<th>Bearing</th>
<th>Non Bearing</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Western States</td>
<td>2,026,562</td>
<td>622,329</td>
<td>2,648,901</td>
</tr>
<tr>
<td>United States</td>
<td>10,787,751</td>
<td>3,694,531</td>
<td>14,482,282</td>
</tr>
</tbody>
</table>

CHERRIES.

TABLE.

BEARING AND NON-BEARING CHERRY TREES, 1910 AND 1920.

<table>
<thead>
<tr>
<th></th>
<th>1910 Census</th>
<th>1920 Census</th>
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<tr>
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</table>

TABLE.

CHERRY PACKS IN CASES.

<table>
<thead>
<tr>
<th>Year</th>
<th>Oregon</th>
<th>Washington</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>120,181</td>
<td>107,177</td>
</tr>
<tr>
<td>1920</td>
<td>147,728</td>
<td>175,735</td>
</tr>
<tr>
<td>1921</td>
<td>142,429</td>
<td>51,670</td>
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<tr>
<td>1922</td>
<td>173,463</td>
<td>154,320</td>
</tr>
<tr>
<td>1923</td>
<td>168,889</td>
<td>188,225</td>
</tr>
<tr>
<td>1924</td>
<td>254,095</td>
<td>121,028</td>
</tr>
<tr>
<td>1925</td>
<td>118,401</td>
<td>180,078</td>
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</tbody>
</table>
TABLE.

CHERRY SHIPMENTS, IN CARLOADS.

<table>
<thead>
<tr>
<th>State</th>
<th>1920-22</th>
<th>1923-25</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>725</td>
<td>819</td>
</tr>
<tr>
<td>Washington</td>
<td>219</td>
<td>345</td>
</tr>
<tr>
<td>Oregon</td>
<td>142</td>
<td>190</td>
</tr>
<tr>
<td>Idaho</td>
<td>109</td>
<td>103</td>
</tr>
</tbody>
</table>

From these comparisons it will be seen that there seems to be less danger in overproduction of cherries than of any other of our tree fruits.

Future Outlook for Cherries.

Cherries are now holding the most favorable position of any of the tree fruits. This is particularly true of the western sweet cherries which can be grown successfully only in the far West.

California, Eastern Oregon, and Eastern Washington have great advantages in shipping black cherries fresh. A comparison of prices between Willamette Valley and Milton-Freewater cherries will always show a considerable difference in favor of the latter due to two reasons: first, because the Milton-Freewater district is a week or ten days earlier and, second, because their cherries hold up better in shipment. The Royal Anne, on the other hand, can be grown as cheaply and has as good quality in the Willamette Valley as any of the eastern Oregon cherries.

Cherry Recommendations in Yamhill County.

This county has approximately 800 acres of cherries in bearing and 100 acres not yet in bearing. There are also 40 acres of sour varieties.

1. That sour cherries be planted only where there is a local cannery demand.
2. That the Royal Anne may be planted to advantage in localities near shipping points or canneries.
3. That present prices of black cherries and uncertainties of marketing do not justify planting them, except some varieties as pollinizers.
4. Cherries succeed only on well drained, friable top soils and sub-soils.
5. The present average yield per acre is about 2000 pounds. Good pollination would increase the present yields three or four times. Some varieties such as Black Republican or the Centennial should be top-worked into bearing orchards for pollination purposes.
6. Cherry bacteria gummosis annually causes severe losses in young cherry orchards. Planting Mazzard stocks and subsequently top-working the branches to the variety desired will save these losses.
7. The sweet cherry industry is very dependent upon the cannery. Consequently everything should be done to cooperate with and encourage canneries.
8. Exports of canned cherries offer an outlet that should be cultivated.

PEACHES.

The Peach Industry.

The total peach acreage in the United States decreased from 1,367,730 in 1909 to 872,640 in 1918, 36.2 per cent. In 1924, however, a slight increase was shown over 1919. California is the outstanding state for production of canning and drying peaches. That is the only western state where any material increase in peach plantings was noted from 1919 to 1924. Georgia leads all states in peaches shipped fresh.
Oregon has never been a heavy producer of peaches. Now that heavy plantings have been made south and north of her and prices have become so low as to be unprofitable in many sections, it is doubtful if peach growing should be encouraged except to provide for state needs.

The Yamhill Peach Situation.

It is estimated that there are approximately 150 acres of peaches in bearing in this county and about 110 acres not yet in bearing.

Peach Recommendations.

1. A small acreage for local trade or roadside markets may be planted.
2. That such varieties as Early Crawford, Charlotte, Early Elberta, Muir, and J. H. Hale are suitable for such planting.
3. That sandy loams are preferable for peaches of high quality, though some of the hill lands where subsols and surface soils are friable and well drained are producing excellent peaches.
4. Attractive packs and packages will do much toward bringing better prices.

Signed:
W. E. BURKE, Chairman,
L. S. OTIS,
KENNETH MILLER,
R. A. BAILEY,
E. J. STEWART,
ROE ROBINSON.
Report of the Committee on Small Fruits

I. STATUS OF THE INDUSTRY, LOCALLY.

Production of small fruits has developed in the last ten years into one of the important agricultural industries of Yamhill County. No exact figures are available on the amount of money received for small fruits last year, but it is estimated at about $500,000. There are three canneries operated in the county. A considerable amount of small fruit is also shipped to canneries in adjoining counties and to barreling stations.

There are three marketing outlets for small fruit. First is the home market for fresh fruit. This is largely supplied by small growers who are in close proximity to the various local markets. This market cannot very well be expanded. The second outlet is shipping fresh fruit to other localities. On account of our situation, it has never seemed advisable to attempt to market much of our fruit in this way. The third outlet is through the canneries and the cold pack method.

The small fruit industry cannot be profitably developed faster than the market for canned goods and cold packed goods can be increased. Our local canners report that sales are increasing each year. It is hoped that within a few years conditions will be such that the small fruit industry may be expanded still further.

II. LOGANBERRIES.

The loganberry ranks first of the small fruits in Yamhill County, both in quantity and value. There are about 700 acres of loganberries in this county at the present time.

Ten years ago, it seemed that the loganberry would be one of Oregon's greatest assets. Then came over-production, causing a slump that made the loganberry a liability to the state. During the past three years, it has been slowly coming back to its own and this process holds promise of continuing.

Thorough Cultivation Required.

Proper culture of loganberries calls for thorough cultivation to keep down the weeds and grass and conserve moisture. It makes little difference what sort of tools are used so long as the work is thorough.

There are two general methods of training. One system provides for training the entire vine, while with the other the ends of the vines are cut off after they are brought up to the top wire. There are plenty of advocates for each system, and each grower will have to decide for himself which is the better method.

The cost of cultivation, taking out the old vines and training the new vines, is estimated at $37.50 per acre.

Yields of Two Tons Per Acre Should be Obtained.

The average yield of loganberries in Oregon is estimated at one and a half tons per acre. In order to get fair returns on the investment and fair pay for labor, yields of two tons per acre are required. Any yard that does not come up to this yield can hardly be called profitable.

Advertise the Industry.

The great need of the loganberry industry is organization of the growers, not so much for the purpose of increasing the price of loganberries as for advertising and pushing the sales of the loganberry and its by-products. There
has been recently organized in the state of Washington a Berry Growers' Foundation for the sole purpose of advertising berries of the Northwest. A number of berry growers from the Gresham district are members of this organization. It would be to the advantage of the berry growers of Yamhill county to get in touch with this organization and do what they can to carry on the good work. We suggest that a committee of growers be appointed for this purpose.

(A committee of three growers was appointed to inquire into the plan of advertising the berries of the Northwest, and to recommend some specific plan of advertising the berries of the Northwest, and to recommend some specific plan for advertising the loganberry. This committee consists of H. G. Funk, B. M. LeFevre, and Eugene Hoke.)

No Increase in Acreage.

The great lesson to be learned from past experience is that production must not be expanded faster than consumption demands. In the past three or four years, a number of loganberry yards have been grubbed out, which is the main reason why those remaining in the business are now getting a living price for their berries. There are more yards in Yamhill County now than necessary to supply our local canners. Growers have done nothing in the last five years to build up the demand for loganberry products.

It is the opinion of this committee that it would be unwise to increase the loganberry acreage at this time. We would urge all growers to bend their best efforts to improving the quality of the berries now produced.
III. STRAWBERRIES.

The second most important berry raised in the county is the strawberry. It is estimated that there are about 300 acres of strawberries now under cultivation here while there are 134,000 acres of strawberries in the United States.

The increased strawberry acreage is largely due to development of the cold pack system. In 1926, Oregon and Washington packed 35,000 barrels of strawberries.

The average yield of strawberries is about 1½ to 2 tons per acre. The estimated cost of cultivation is $66 per acre. This amount can be cut down to at least $40 per acre if the plants are set out in check rows 2½ feet apart each way so they can be cultivated both ways.

Prices now being paid by canners for strawberries range from $120 to $160 per ton.

Strawberry Recommendations.

The varieties recommended by the canners are the Ettersberg and Clark's Seedling. The Marshall makes a first class berry for cold pack, and is a heavier yielder.

The committee believes that under proper soil conditions the acreage devoted to Ettersberg could be profitably increased at this time.

The Gold Dollar variety is recommended for those who desire to raise berries for local market.

IV. RASPBERRIES.

The third most important berry in this county is the raspberry—red and black.

In the production of red and black raspberries, location and soil are to be considered first. A rolling or sloping contour is better than the more or less heavy soils of the Willamette valley. A rich, mellow soil is necessary for medium or heavy production. The soil should not be too heavy, and if an impervious subsoil prevents the rapid sinking away of excess water tilling should be done, or the top soil should be of sufficient depth that water does not rise to a level with the root system. Otherwise plantings are very short lived.

Red Raspberry Recommendations.

The best canning and shipping red raspberry is the Cuthbert. However, in some localities it crumbles in canning, probably due to some climatic or soil condition which may be corrected.

Red raspberries should never be planted where hot winds prevail as they are very easily cooked by hot winds or bright sunlight.

Fruit must be picked as soon as ripe to be of best quality.

Plantings should be about 8 feet between rows and 3 feet between hills.

Wires should be strung on either side of row and about 3 feet from ground. Canes are held between them.

Canes should be headed back in late winter to about 4 feet in height. Some growers train the vines in a manner similar to the method used in training loganberries. Where fertility is adequate, a heavier crop results and usually an earlier one. This practice might be followed by those wishing to sell on an early market in the fresh state, but when sold to the canner where the fruit is graded, experience indicates that a smaller fruit is produced and gradings are of course reduced.

All sprouts should be hoed out of the rows, only allowing those around the hill to grow.
Plowing and disking should be shallow and cultivation should be continued as long as it is possible to get through the rows with implements.

The committee recommends a 100 per cent increase in the red raspberry acreage.

The red raspberry has very few enemies. The cane borer does some damage and occasionally white grubs work on the root system, but generally it does not have the diseases which wilt the plant as does the black raspberry.

**Black Raspberry Recommendations.**

Black raspberries require even a better drained soil than red raspberries and are generally shorter lived.

The main varieties are the Munger, Cumberland, Plumb’s Farmer and the Kansas or American. For canning and drying purposes they rank in the order named.

Some advocate setting in hills 6 feet by 8 feet or 9 feet, to cultivate both ways, while others plant in rows 8 to 10 feet apart and 3 or 4 feet in the row.

New growth should be pinched back in June to from 15 to 24 inches. This is not the general practice. In winter the old vines should be removed and the bearing vines headed back to about 3 feet. Cultivation should be started in early spring, not too deep. Any method of cultivation may be practiced which will maintain a good mulch and keep the weeds down.

Picking black raspberries is not so difficult as is the case with red raspberries, for they will stand moderately hot winds and can be left for a day or two, though in that event the grower loses in weight of fruit when sold. The crop may be sold fresh or dried.

The black raspberry often develops a grub in the root system. Whether this grub kills the plant when in a healthy state, or through some cause the plant becomes weakened and invites the attack of the grub is not generally agreed on and is uncertain as yet. It is conceded that the grubs exist and that apparently well plants are often girdled so that they die. In the eastern part of the United States, the black raspberry grower is troubled by a disease which is variously called blue stem, the yellows, and mosaic. It may be present in local plantings but if so it has not become such a problem as is the case in the east.

Owing to the decreased yield in the eastern part of the United States, some demand for the western product in the dried state has developed in the last few years. However, there is a very limited demand for the dried black raspberry. From all that could be learned by B. M. LeFevre from a personal canvass of the cities of ultimate consumption, the amount used only runs to 500 or 600 tons. A very small surplus would have a decided tendency to reduce the price to bare cost of production. The cost of production of course varies with the yield, but generally runs from 6 to 8 cents per pound for raising and picking.

Michigan is the great canning center of black raspberries. The amount canned there is at least ten times that canned here. Michigan also has the advantage of freight rates.

While the committee feels that more red raspberries might be grown in Yamhill county and made to help out the farm income, we believe that any considerable planting of black raspberries should be considered carefully. Any one considering such plantings should not depend entirely on the statements of possible buyers of the product. It is to be hoped that the price will never go so high as to cause general planting, as in the case of the high prices of prunes some six or seven years ago which has almost resulted in the ruin of industry.

The committee recommends increasing the blackcap raspberry acreage about 10 per cent.
V. EVERGREEN BLACKBERRIES.

Very few evergreen blackberries have been set out in Yamhill County. Canners have been supplied very largely from the patches of wild berries in this county and the coast counties.

For several years the call for the evergreen blackberries from the canners has been very persistent but in 1926 the market broke and today there is a large carry over from the pack of that year. Any further planting of the evergreen blackberry should be done conservatively. There are unlimited quantities of these berries in all the coast counties and most of the fish canneries have put in machinery to can them. As long as these conditions exist, or until the demand is greatly increased, it would be unwise to greatly increase the present acreage except to block out more economic units.

VI. GOOSEBERRIES.

For a number of years prior to 1925, gooseberries were in good demand. The acreage increased very rapidly in Oregon until production totaled about 1000 tons a year. In the last two years there has been practically no market for gooseberries. At present the canneries are practically cleaned out. There will probably be a small demand this year at a moderate price. Plantings in Yamhill county are more than sufficient to take care of the needs of the canneries under present conditions.

Berry grading rules adopted by the Northwest Canners Association were discussed by the committee. It was agreed that these rules are too harsh. A resolution was adopted asking cannerymen to confer with a committee of fruit growers, looking toward a revision of these grading rules. The following growers were elected to this committee: H. G. Funk, B. M. LeFevre, W. B. Dennis, H. F. Deyoe, H. F. Hertig.

Whether more canneries are needed in Yamhill County was considered by the committee. After considerable discussion it was unanimously agreed that it would be unwise to establish any more canneries in this county at the present time.

Respectfully Submitted:

H. G. FUNK,
W. E. PAXSON,
W. B. DENNIS,
EUGENE HOKE,
B. M. LEFEVRE,
H. F. DAVIDSON,
P. T. PETERSON.

Club Resolution Adopted.

Inasmuch as the boys and girls of today will be manning the farms of Yamhill County in the next generation, and because our agriculture is largely devoted to horticultural crops, we request the county agent, county club leader, county school superintendent, and club division of the O. A. C. Extension Service to give these horticultural crops their deserved prominence in the club program of the county.

Furthermore, that prunes, strawberries, bramble fruits, nuts, and other tree fruits be included in the club program of the county.
Report of the Vegetable Crops Committee

At the present time the sale of vegetable crops in Yamhill County is confined to demands of local markets, outside markets that are conveniently reached by truck and roadside markets. No carloads of vegetables are shipped out of the county.

The deliberations of this committee have been concerned with the following vegetables, which are of major importance in the county.

Watermelons.

The acreage of watermelons in 1926 was estimated to be approximately 135, with a probable yield equivalent to 36 to 45 carloads, although no straight cars of melons were shipped. Seventy-five per cent of this output was sold in Yamhill and neighboring counties. It is estimated that twenty-five per cent of the crop remained unsold due to lack of a market and low prices.

The problem of selling Yamhill County watermelons profitably is a vital one. During the month of September, Portland imports at least one carload of watermelons a day. These imports originate in California and Washington, with Oregon supplying practically none. Many of these cars of melons are either consigned for sale or bought at an extremely low price, which makes it difficult for Yamhill melon growers to compete with such imports.

County growers figure their product cannot be grown and sold at a price less than $20.00 per ton. The cost of production is approximately estimated at $8.00, not including taxes, interest on investment, other overhead expenses and marketing.

The variety of melons most favored by county growers is the Yamhill Sweet Hearts, or Ice Cream.

Your committee realizes the necessity for Yamhill melons to be better known on the markets of the state. They are of superior quality but this is not generally known by the consuming public.

Until public demand can be stimulated the present acreage of watermelons and cantaloupes is more than sufficient for local markets.

Cantaloupes and Muskme1ons.

The present acreage of these vegetables is divided among the following varieties: Burrell Gem, Golden Cream and Improved Hoodoo.

The market demands a salmon fleshe1 melon of uniform standard size, graded for maturity or ripeness. Melons from competing sections are carefully graded and packed in standard crates. Yamhill cantaloupes should be handled and packed in a similar manner.

In view of the outbreak of powdery mildew affecting cantaloupes in California and the possible spread of this disease through shipments into the state of Oregon with a consequent menace to our fields, we urge the State Horticultural board to investigate or inspect shipments into the state and if necessary condemn those affected with mildew.

Some effective means of advertising both watermelons and cantaloupes should be put into use in order that the consuming public may know the good qualities of these crops.

Tomatoes.

There are now about 50 acres of tomatoes in the county.

Bonny Best variety is most widely grown and is recommended.

The supply of tomatoes now being produced for fresh market is sufficient. It is evident there should be no increase in acreage.
The average yield of tomatoes in a suitable season on bottom land is 8 to 10 tons per acre. On upland this yield will probably be from 2 to 4 tons. There are prospects of an increase in tomato acreage provided canny operations proceed favorably.

Sweet Corn.

There are now about 70 acres of sweet corn in the county. This crop gives much promise as a canning vegetable and can be grown to excellent advantage here.

City Marketing Problems.

Your committee calls attention to the following problems relative to marketing fresh vegetables grown by bona fide commercial growers of the county.

First, we deprecate and discourage the practices of some gardeners, who, not realizing the necessity of marketing standard varieties in standard packs and crates, offer local merchants vegetables that are unstandardized and under valued, thus reacting against markets available to those growers who make a practice of systematic grading and careful packing. Small amounts of unstandardized lots of vegetables are sold to local merchants with a consequent unsettling of market conditions. Yamhill County bona fide vegetable growers are united in their endeavors to cater to and satisfy the city trade of the county by offering well grown, high quality vegetables. They should receive the greatest possible encouragement in their business from those who handle these goods for sale.

Second, there is a tendency for those who buy vegetables for city retail trade to purchase their supplies from outside peddlers who are not growers but travelling commission merchants. Such business does not tend toward the proper kind of cooperation between bona fide grower and merchant. Your committee condemns such practices as being disloyal and asserts that they detract from the agricultural prosperity of the county.

Your committee recommends that this conference go on record in favor of a central marketing agency in the city of Portland for the purpose of distributing farm produce grown in Oregon.

Vegetable Crops Committee:

MORTON TOMPKINS, Chairman,
A. G. BOUQUET, Secretary,
N. W. HUTCHINS,
C. R. MILLER,
C. A. ROCKILL,
DALE FOWLER,
M. R. TILDEN,
CHAS. HUBBARD.
Report of the Nut Committee

I. STATUS AND IMPORTANCE OF THE NUT INDUSTRY.

Yamhill County was one of the first in Oregon to grow walnuts on a commercial scale, the first planting having been made twenty-eight years ago. Since that time the acreage has constantly been increased until now, in 1927, it ranges in the neighborhood of 5000 acres, from which in 1926 was produced 300 tons of walnuts representing one-half of the total state production. The value of that crop was approximately $150,000.

While the acreage of filberts is comparatively small, this crop is now being produced in quantities in excess of local consumption requirements and is meeting with success on many soil types in the county.

The production of walnuts in the United States is confined pretty largely to Oregon, Washington and California. Nearly 80 per cent of the nation's walnut crop is produced in these states. California production during 1925 was 30,500 tons, which is an increase from 5430 tons in 1900.

While the nut acreage in the United States is increasing rather rapidly, domestic production as yet is by no means sufficient to meet consumption requirements. During 1925, according to the U. S. Bureau of Agricultural Economics, 11,878 tons of shelled walnuts and 14,002 tons of unshelled walnuts were imported. During 1925, according to the same authority, 7,787 tons of filberts were imported.

II. CONCLUSIONS AND RECOMMENDATIONS.

WALNUTS.

1. Proper Location is Important.

One of the most important items for success in planting a walnut grove is the proper location for such planting. With the rapid increase in acreage the time is rapidly approaching when nut production will meet consumption requirements. When this time arrives competition will become more keen and only those growers who obtain high yields and produce walnuts at a comparatively low cost will be able to make a profit in the business. Lowland where there is danger of killing frost either in the Spring or Fall of the year, or where winter temperature falls below eight degrees and air drainage is not good, must be avoided. A number of plantings on the valley floor and lower elevations have in the past suffered seriously from winter killing or injury. There is no record of winter injury or killing on any of the hill plantings.


Walnuts must have a deep soil in which to grow. The soil should be at least 6 feet or more deep before any hardpan or solid rock formation is found. Older plantings in this county show that walnuts do equally well on all slopes if the soil is good and the location in regard to frost has been carefully selected.

3. New Land Better Than Old.

For planting walnuts, land that has just been brought under cultivation or that has produced only a few other crops is to be preferred to old crop land.

4. Use Grafted Trees.

The first walnut trees planted in Yamhill County were seedlings. While some of these seedling groves bear and produce well, it is nevertheless advisable to use only grafted trees in future planting.
The grafted Franquette is the only variety of walnut that should be planted. It is hoped that at least two more types of walnuts as good or better can be introduced which will make production even more certain than is the case at present.

Only Franquette trees which have been grafted on a Northern California black walnut root should be used.

5. Plant Trees on Two Year Old Stocks.

Trees from 6 to 8 feet in height and grown on a two-year old stock are the most satisfactory to plant. Trees smaller than six feet may be planted and with additional good care will grow into good bearing trees. Trees more than eight feet tall often suffer a shock by having such a large part of their root system destroyed when they are dug from the nursery.

After planting, the trees should be cut back to eighteen inches and not more than twenty-four inches, to balance the root system with the top.

6. Plant From 40 to 60 Feet on the Square.

In some of the older walnut plantings the trees were set out too close together. In light of present information the trees should be planted from forty to sixty feet on the square.

7. Planting Alone is Best.

Walnut trees planted alone with no interplanting of other fruit, hay, grain, or vegetables, will bring the quickest returns. Individuals with limited means may find it to their advantage to use a filler, but under no conditions should clover or potatoes or other root crops be planted in a young walnut grove, as they invite gophers and gophers are death to young walnut trees.


In planting a walnut tree, the hole should be not less than three feet in diameter and not less than three feet deep. Before planting, all damaged roots should be cut back to a place where they are sound, and all ends of larger roots should have a smooth oblong cut. Trees should be planted two or three inches deeper than they stood in the nursery. In planting, top soil should be put into the bottom of the hole and if two or three forks of good manure are used around the sides of the hole it will be of great benefit to the tree. Instead of digging the hole, blasting can be done. If this is done during the fall months of the year before the heavy rains begin, it will be of benefit to the young tree. Blasting should never be done in wet soil as more harm than good will result.

9. Proper Early Pruning is Important.

The first pruning of the walnut is at planting time which is pruning the roots and cutting the top back in the latter part of February or March. This cutting back is done at a height of 18 to 24 inches above a good bud. A slanting cut is made about 1/16 of an inch above the bud. White lead or grafting wax is used to seal the cut. In April or May when this young transplanted tree begins to grow, remove all sprouts after they have leaves, leaving two top buds to grow. When these two buds are four to six inches long, cut the lower one off letting the top one grow. The average tree growth with good care during the first year should be about 36 inches. The following year the same process is followed, leaving the top bud and removing all sprouts below. The third year the trees may be high enough to form a top. Then go through the same operation of sprouting, leaving only the sprouts above a height of 7 1/2 feet to form the head of the tree. Forming the head is a matter of choice with the individual grower. Most of the older growers consider
that 7½ feet from the ground is the proper height. The head or scaffold limbs of a walnut tree should not be formed in a space of less than 14 inches. Otherwise it will bring the lateral limbs too close together, forming a bad head.

10. Moderate Pruning Up to 12 or 14 Years.

Up to the age of 12 or 14 years very little if any pruning should be done on the inside of the tree, concentrating pruning the growth on the outside of the lateral limbs, lightening them and thereby inducing them to grow upward at an angle of 45 degrees. After a strong scaffold limb system is established, moderate thinning out of the trees on the inside should be undertaken. No cutting back of walnut limbs ever should be attempted. Moderate and sensible pruning should be done every year.

Pruning should be done in July or August or March and early April. These are the only periods the trees will not bleed. No pruning should be done during cold weather.

11. Cover Crops Are Great Soil Builders.

If barnyard manure is available in sufficient quantities, growing cover crops for maintenance of soil fertility is not necessary. Cover crops should be seeded after the first fall rain, or by September 15th, if the moisture supply is adequate. Cover crops are great soil builders and if conscientiously followed will pay many fold the cost of sowing them. Cover cropping should begin with the planting of the grove. If put off too long, it may take years to bring the soil back to the condition it was in at the time of planting.

In the use of cover crops for maintenance of soil fertility, moisture must be preserved by intensive soil cultivation during the growing season. Plowing should be delayed as long as possible to permit a good growth of the cover crop. Care must be taken to not delay plowing until the cover crop takes moisture which is needed by the trees. Plowing should be about five and one-half to six and one-half inches deep. After plowing, the ground should be thoroughly worked with a roller disc and harrow in order to fill up dead furrows and establish a good mulch, thus preventing loss of moisture. After thorough spring working, the orchard should be cultivated every eight to ten days during the growing season. This to be practiced after each rain.

Cultivation on young trees should be stopped about the middle of July on account of frost danger to the tender shoots. On older trees, cultivation can be carried on up until nearly the first of September.

12. Begin Harvesting When the Hull Checks.

Harvesting should start as soon as hull begins to check and nuts start to fall from tree. Several pickings about a week apart are necessary to get good quality.

Nuts after picking should not stand longer than 15 hours before washing and drying begins.


The maximum heat for drying walnuts should not exceed 110 degrees. The test for determining when the nuts are sufficiently dry is the degree of brittleness of the membrane inside the nut.

There are three modern methods of drying walnuts: by the prune tunnel type, the bin or hopper type with forced draft, and the tunnel type with forced draft (also known as recirculation). The time of drying by the latter type is about one-half that required in other methods.

While bleaching is not necessary to the quality of the walnut, it is generally conceded that it improves its appearance and hence reduces sales resistance.

15. All walnuts sold in the shell should show a cracking test of at least 90 per cent sound kernels.

FILBERTS

1. Soils at Least Four Feet Deep are Required.

For commercial purposes the filbert should be planted on soil at least four feet deep, fertile and well drained. The river bottom lands as well as those on the so-called prune hills are adapted to the filbert.

2. Plant 25 to 30 Feet Apart.

The distance apart should be 25 or 30 feet, the greater distance where the tree growth may be rank. Trees may be planted directly from the layer or they may be transplanted when already bearing. The latter method is used to utilize the ground for other purposes as long as possible.


The Barcelona is recommended for commercial production at present, with the DuChilly second. Care should be taken to plant eleven to sixteen percent of the property varieties as pollenizers.

4. Sprout the Trees Twice Each Year.

Cultivation should be the same as for other orchard trees for best results. The trees should be sprouted at least twice per year, oftener if possible, thus permitting utilization of plant food otherwise taken by sprouts. Proper pruning should be done; first, to shape the tree, later to take out superfluous wood.

5. At harvesting time the Barcelona (which is self-hulling) can be gathered at a cost of 2 or 2½c per pound. The DuChilly must be hulled which represents a cost of approximately 4½c per pound.


Very little artificial heat is needed for drying filberts. Where the crop is not large a spacious porch may be used. With a larger quantity, trays like the prune tray may be stacked in an open building if protected by a roof.

7. Production Now Exceeds Local Demand.

Marketing presented problems last year for the reason that production has passed the bounds of local consumption. Marketing agencies which reach outside markets must now be used in selling the filbert crop. This condition may have some influence on the planting of new acreage. It seems that filbert growing has now reached a commercial basis. Hereafter, anyone putting out a new planting, knowing the facts, will not be disappointed.

(Signed) F. W. Meyer, Chairman.

A. E. WRIGHT,
H. W. CURRIN,
R. H. CAMPBELL,
W. H. BENTLEY,
DR. J. H. WILKENS,
N. E. BRITT,
CHAS. TRUNK,
E. W. MATTHEWS,
A. L. MATTHEWS,
H. G. OGDEN,
Walnut & Filbert Committee.
Report of Farm Crops Committee

WHEAT.

I. THE PRESENT WHEAT SITUATION.

1. Surplus is Grown.

Yamhill County produces a surplus of wheat and oats, and grows corn and barley for home consumption. The following table shows the acreage and yields of these grain crops:

<table>
<thead>
<tr>
<th>Grain</th>
<th>Acres Grown</th>
<th>Bushels per Acre</th>
<th>Pounds Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>21,459</td>
<td>23.9</td>
<td>1,434</td>
</tr>
<tr>
<td>Barley</td>
<td>981</td>
<td>24.2</td>
<td>1,151</td>
</tr>
<tr>
<td>Oats</td>
<td>22,998</td>
<td>29.4</td>
<td>940</td>
</tr>
<tr>
<td>Corn</td>
<td>1,111</td>
<td>29</td>
<td>1,624</td>
</tr>
</tbody>
</table>

The acreage of wheat has steadily decreased since 1879, giving way to corn, clover, hay crops, orchards, etc.

2. Rink is Leading Variety.

A hasty survey shows that approximately 85 per cent of the wheat grown in the county is Rink, about 5 per cent is Holland and the remaining 10 per cent consists of a large number of varieties, including White Winter, Prohi-bition, Marquis, Federation, Defiance and others.


Cost of production records indicate that the cost of producing winter wheat in the county is about as follows: (It is realized that costs vary on different farms but these figures represent about the average. Figures given indicate the cost per acre with an average yield).

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on land at 5 per cent</td>
<td>$6.25</td>
</tr>
<tr>
<td>Taxes</td>
<td>1.50</td>
</tr>
<tr>
<td>General farm overhead, fences, etc</td>
<td>1.00</td>
</tr>
<tr>
<td>Plowing</td>
<td>2.25</td>
</tr>
<tr>
<td>Depreciation and repairs on machinery</td>
<td>1.00</td>
</tr>
<tr>
<td>Harrowing twice</td>
<td>.60</td>
</tr>
<tr>
<td>Disking</td>
<td>1.00</td>
</tr>
<tr>
<td>Drilling</td>
<td>.50</td>
</tr>
<tr>
<td>Binding</td>
<td>.65</td>
</tr>
<tr>
<td>Twine</td>
<td>.30</td>
</tr>
<tr>
<td>Shocking</td>
<td>.30</td>
</tr>
<tr>
<td>Threshing</td>
<td>2.00</td>
</tr>
<tr>
<td>Seed</td>
<td>2.00</td>
</tr>
<tr>
<td>Sacks</td>
<td>1.20</td>
</tr>
</tbody>
</table>

Total                                           $20.55


A large part of the wheat grown is shipped out of the county, a very small percentage being milled locally. Approximately 20 per cent of the total yield is used for feed and seed, leaving a balance of 480,000 bushels to be marketed outside the county.
### PRODUCTION OF CEREAL CROPS IN YAMHILL COUNTY—1850 TO 1924.

(United States Census)

<table>
<thead>
<tr>
<th>Product</th>
<th>1924</th>
<th>1919</th>
<th>1909</th>
<th>1899</th>
<th>1889</th>
<th>1879</th>
<th>1870</th>
<th>1860</th>
<th>1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>1,111</td>
<td>1,214</td>
<td>695</td>
<td>314</td>
<td>240</td>
<td>99</td>
<td>493</td>
<td>2,149</td>
<td>44</td>
</tr>
<tr>
<td>Bushels</td>
<td>31,921</td>
<td>35,548</td>
<td>19,392</td>
<td>8,500</td>
<td>5,845</td>
<td>1,997</td>
<td>493</td>
<td>2,149</td>
<td>44</td>
</tr>
<tr>
<td>Acre Yield</td>
<td>28.7</td>
<td>29.3</td>
<td>27.9</td>
<td>27.1</td>
<td>24.4</td>
<td>22.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oats</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>22,998</td>
<td>27,148</td>
<td>28,231</td>
<td>24,126</td>
<td>22,819</td>
<td>12,294</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushels</td>
<td>622,448</td>
<td>859,927</td>
<td>905,956</td>
<td>659,220</td>
<td>687,461</td>
<td>379,182</td>
<td>219,939</td>
<td>58,919</td>
<td>*5,988</td>
</tr>
<tr>
<td>Acre Yield</td>
<td>27.1</td>
<td>31.7</td>
<td>32.1</td>
<td>27.3</td>
<td>30.1</td>
<td>30.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>21,459</td>
<td>32,108</td>
<td>14,082</td>
<td>52,585</td>
<td>38,783</td>
<td>51,992</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushels</td>
<td>480,222</td>
<td>806,422</td>
<td>288,859</td>
<td>1,072,740</td>
<td>894,740</td>
<td>957,816</td>
<td>374,898</td>
<td>98,164</td>
<td>22,452</td>
</tr>
<tr>
<td>Acre Yield</td>
<td>22.4</td>
<td>25.1</td>
<td>20.5</td>
<td>20.4</td>
<td>23.1</td>
<td>18.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Barley</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td>981</td>
<td>746</td>
<td>566</td>
<td>812</td>
<td>809</td>
<td>573</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushels</td>
<td>22,347</td>
<td>19,208</td>
<td>14,690</td>
<td>21,960</td>
<td>24,114</td>
<td>13,183</td>
<td>11,627</td>
<td>355</td>
<td></td>
</tr>
<tr>
<td>Acre Yield</td>
<td>22.8</td>
<td>25.7</td>
<td>26.0</td>
<td>27.0</td>
<td>29.8</td>
<td>23.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Oats yield in 1850 includes rye.
II. WHEAT RECOMMENDATIONS AND CONCLUSIONS.

I. No Reduction of Winter Wheat Acreage.

For shipment out of the county, winter wheat is the most profitable grain crop which farmers can grow. We recommend no reduction in the winter wheat acreage, except on farms where little or no crop rotation is practiced. In this case we urge that part of the grain crop be replaced by clover or vetch.

2. Spring Wheat Not Profitable, on the Average.

Spring wheat will pay cost of production only under exceptional circumstances. We recommend that farmers think carefully before planting any spring wheat.

3. Thirty Bushel Yields Should be Had.

Under normal price conditions of $1.00 a bushel or less for wheat, yields of better than 20 bushels are necessary to pay costs of production. Yields must get up to 30 bushels per acre before very much profit can be expected.

4. Standardize on Rink.

Since the growing of miscellaneous varieties tends to mix various grades with consequent losses in price and yield, and since farmers' experiences and experiment station results show that Rink is the highest yielding variety, we recommend that all growers standardize on this variety, and do not experiment with others until they are proven to be better by careful comparative tests.

5. Use Certified Seed.

We urge that all growers attempt to secure pure seed of the Rink variety, and that they try to keep it pure by not growing any other variety. We recommend the use of certified seed when it can be obtained.

6. Copper Carbonate Best for Smut Control.

Very little copper carbonate is used in Yamhill County for treating wheat. By using it instead of formaldehyde or bluestone, a saving of at least twenty per cent of the seed is possible. In addition, there is no danger of hurting the seed, the grain comes up sooner and better stands are secured with less bother from weeds. We urge all growers to give this method a trial. Its usefulness is proven by the fact that virtually all of the large wheat growers of eastern Washington, eastern Oregon and California, have adopted this method. Saving of seed alone will amount to $8,000 per year in the county.

OATS AND BARLEY.

I. THE PRESENT OATS AND BARLEY SITUATION.

Yamhill County grows an average of about 25,000 acres of oats yearly, about the same acreage as winter wheat. Only about 1100 acres of barley are grown.

1. Prejudice Against Barley.

There is a wide spread prejudice against barley, because of its beards and its tendency to lodge on rich ground. All of the barley and a great deal of oats are used at home. Nearly every farmer grows a few oats for his home use to feed his horses and cows.
2. Barley Will Outyield Oats.

Barley will outyield oats on the average of 250 pounds per acre in this county, although the yield in bushels per acre will be about the same.


Farmers in Eastern Oregon, California and other places, take advantage of the superior yielding qualities of barley and grow it altogether for their own feed. They feed barley rather than oats to hogs, cows and horses. Some farmers here hesitate to feed barley to horses because of its heating effects. In the cool climate of the Willamette Valley, there is no basis for this fear. Many horses in the Sacramento Valley and along the Columbia River know no other grain feed.

4. Hannchen Barley Equals Corn in Feed Value.

Hannchen barley is as food a feed for hogs, dairy cows or horses, as corn. When fed to dairy cows or horses with legume hay, it makes a better balanced ration than oats. It could easily replace much of the corn now shipped in.

II. OATS AND BARLEY RECOMMENDATIONS AND CONCLUSIONS.

1. Increase Barley at Expense of Oats for Feed.

We recommend growing barley for home feeding because of its superior yields over oats. More land can then be released for growing other crops for sale.


We recommend O. A. C. No. 7 barley for fall planting, and Hannchen for spring planting.

3. Spring Oats Give Poor Cash Returns.

Under normal price and yield conditions, spring oats may be expected to return less money per acre than any other grain crop. We urge a reduction of spring oat acreage except in cases where a special market exists, such as a demand from logging camps or from millers.

4. Add Legume to Rotation Scheme.

We urge a change in rotation on those farms growing only wheat and oats. Clover grown for seed could be used in some cases on part of the acreage. In other cases, vetch or clover for hay could be used. More profitable grain yields will follow such rotations.

5. Higher Yields Per Acre Necessary for Profit.

Costs of growing oats will be about $20.00 per acre on most farms. On average priced land, in order to pay cost of production, yields must be about 30 bushels of barley per acre, and 45 bushels of oats. Unless these yields are realized, no profit can be hoped for except on very low priced land where the interest charges and taxes are low.

CORN

I. THE PRESENT CORN SITUATION.

1. Acreage Has Steadily Increased.

About 1,100 acres of corn were grown for grain in 1924. Corn acreage has been increasing steadily since 1879 according to census returns.
It costs slightly more to grow an acre of corn than other grain but returns in pounds per acre are usually higher.

Yields of corn fluctuate from 20 to 35 bushels per acre. The yield has been increasing steadily since 1870 due to the use of locally grown, acclimated seed of varieties adapted to conditions here.

Cultivated crops are badly needed on most farms in order to kill weeds. For this reason corn growing is a benefit to all other crops grown.

As a rule corn growing enables better use of the land with less work, as the field ordinarily does not need plowing in order to seed a grain crop. This cuts down the cost of producing the grain.

2. Corn Is Imported Annually.

Yamhill County imports from 600 to 900 tons of corn every year. This is used for hog, dairy and poultry feeds. A local market thus exists for the grain produced on about 750 additional acres of corn. This is only a small amount, but the Northwest imports yearly about 60,000 tons of corn. Most of the neighboring counties import more corn than does Yamhill County. There is thus a market within the state for a large amount of corn providing it can be grown at a profit here.

3. Harvesting by Livestock Offers Promise.

Sheeping or hogging off corn is a paying practice on some farms. There is a possibility of extending this cheap method of harvesting the crop.

II. CORN RECOMMENDATIONS AND CONCLUSIONS.

1. Increase the Acreage of Corn.

There is room for extension of the corn acreage to replace some of the spring planted oats and wheat. The corn acreage of Yamhill County could be increased three times with profit to the county.

2. Corn Fits Well Into Rotations.

Growing a cultivated crop is necessary in order to get the most from the land. This clears the land of weeds, puts it in shape for increased grain yields, and cuts down the cost of producing the following grain crop.

3. Minnesota No. 13 is Leading Variety.

For grain, Minnesota 13 is recommended; for silage, Golden Glow or Minnesota 13. A locally originated hybrid between Bloody Butcher and Minnesota 13 is used with success. Feeding results show that yellow varieties are superior to white varieties.

4. Use Only Locally Grown Acclimated Seed.

5. Artificial Drying is Feasible.

When hop or prune dryers are on the farm, it is feasible to dry corn for commercial or seed use.

<table>
<thead>
<tr>
<th>Year</th>
<th>Acres of Corn</th>
</tr>
</thead>
<tbody>
<tr>
<td>1879</td>
<td>89</td>
</tr>
<tr>
<td>1889</td>
<td>240</td>
</tr>
<tr>
<td>1899</td>
<td>314</td>
</tr>
<tr>
<td>1909</td>
<td>695</td>
</tr>
<tr>
<td>1919</td>
<td>1,214</td>
</tr>
<tr>
<td>1924</td>
<td>1,111</td>
</tr>
</tbody>
</table>
HAY.

I. THE PRESENT HAY SITUATION.

1. Acreage is Extensive.

In 1924, according to the census, Yamhill County produced 38,496 acres of hay of which 808 acres were timothy, 12,009 acres clover, 61 acres alfalfa, 409 acres wild hay, 21,861 acres grain hay and 3,348 acres vetch hay.

2. Surplus Exists.

Yamhill County produces a surplus of legume hay consisting of clover and vetch. During 1926, 128 carloads were shipped out by rail and a large amount went to Tillamook County by truck. Cost of production records show that cost per ton of producing alfalfa in eastern Oregon is about the same as cost per ton of producing vetch and oats or clover hay in the Willamette Valley.

Records taken on 73 Willamette valley farms in 1925 show the respective costs to be as follows:

<table>
<thead>
<tr>
<th>Items</th>
<th>Clover Hay</th>
<th>Vetch Hay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Man Labor</td>
<td>$3.26</td>
<td>$5.19</td>
</tr>
<tr>
<td>Overhead Man Labor</td>
<td>1.40</td>
<td>1.63</td>
</tr>
<tr>
<td>Horse Labor</td>
<td>1.14</td>
<td>2.22</td>
</tr>
<tr>
<td>Tractor</td>
<td>.01</td>
<td>.92</td>
</tr>
<tr>
<td>Other Machinery</td>
<td>.66</td>
<td>1.11</td>
</tr>
<tr>
<td>Automobile</td>
<td>.19</td>
<td>.17</td>
</tr>
<tr>
<td>Seed</td>
<td>.07</td>
<td>3.31</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>.26</td>
<td>.21</td>
</tr>
<tr>
<td>Taxes</td>
<td>1.68</td>
<td>2.23</td>
</tr>
<tr>
<td>Interest on Land Value</td>
<td>5.59</td>
<td>7.79</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>1.20</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>$15.46</td>
<td>$24.78</td>
</tr>
<tr>
<td>Credit for Pasture</td>
<td>1.13</td>
<td>.17</td>
</tr>
<tr>
<td>Net Cost Per Acre</td>
<td>$14.33</td>
<td>$24.61</td>
</tr>
<tr>
<td>Tons Per Acre</td>
<td>1.7</td>
<td>2.3</td>
</tr>
<tr>
<td>Total Cost Per Ton</td>
<td>8.33</td>
<td>10.87</td>
</tr>
<tr>
<td>Cash Cost Per Ton</td>
<td>2.09</td>
<td>3.73</td>
</tr>
</tbody>
</table>

3. Alfalfa Successful on Some Soils.

In Yamhill County there are 16,000 acres of friable, well drained lands with open subsoils ideally adapted to alfalfa growing. There are several successful alfalfa fields in the county yielding from 4 to 6 tons per acre annually. Like other legumes, alfalfa is a soil builder. A stand will maintain itself for from 6 to 10 years if it is given proper care and planted on good soil.

II. HAY RECOMMENDATIONS AND CONCLUSIONS.

1. Legume Hay is Best.

Legume hay (vetch or clover) is the highest yielding and the best hay for Yamhill County. It is seldom profitable to grow grain hay.

2. Seed Growing Not Now Profitable.

In some localities, Hungarian vetch is a surer crop than common vetch. The seed market is oversupplied and little profit can be expected from growing of Hungarian vetch seed at the present time.
3. Legumes Increase Succeeding Grain Yields.
   Both clover and vetch increase the succeeding grain crops. This should be considered in figuring whether or not a profit has been made from the hay crop.

4. Two Ton Yields Needed to Pay Costs.
   Yields of two tons per acre should be secured to pay cost of production, under normal selling prices for hay.

5. Vetch and Oats Better for Shipping Out of County.
   For shipping outside the county, vetch and oats is usually more profitable than clover due to the higher price usually received for it an the fact that it usually yields more than clover.

   On land which gives low grain yields and which is a reasonable distance from a shipping point it is often more profitable to grow hay than grain, due to lower costs of production.

7. Increase Alfalfa Acreage.
   We recommend that the alfalfa acreage be increased, particularly on dairy and poultry farms where summer green feed is needed. Care should be taken in the selection of soil for alfalfa. When planted on upland, lime should be applied at the rate of a ton to two tons per acre. The Grimm variety should be used because of its hardiness and longevity.

   We recommend that the county agent establish alfalfa demonstrations in various communities in the county. The county agent should be consulted before planting alfalfa.

### Production of Hay and Forage in Yamhill County—1899 to 1924

*United States Census.*

<table>
<thead>
<tr>
<th>Product</th>
<th>Acres</th>
<th>1924</th>
<th>1919</th>
<th>1909</th>
<th>1899</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>38,496</td>
<td>31,446</td>
<td>30,474</td>
<td>12,674</td>
</tr>
<tr>
<td>Acre yield</td>
<td></td>
<td>51,615</td>
<td>68,583</td>
<td>48,489</td>
<td>22,287</td>
</tr>
<tr>
<td><strong>Hay</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>1.3</td>
<td>2.2</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td><strong>Timothy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>328</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Timothy &amp; Clover mixed</strong></td>
<td></td>
<td>480</td>
<td>610</td>
<td>910</td>
<td>*8,017</td>
</tr>
<tr>
<td><strong>Clover</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>12,009</td>
<td>4,036</td>
<td>6,298</td>
<td>1,216</td>
</tr>
<tr>
<td>Acre yield</td>
<td></td>
<td>51,615</td>
<td>68,583</td>
<td>48,489</td>
<td>22,287</td>
</tr>
<tr>
<td><strong>Alfalfa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>61</td>
<td>427</td>
<td>146</td>
<td>1</td>
</tr>
<tr>
<td>Tons</td>
<td></td>
<td>1,140</td>
<td>1,189</td>
<td>13,773</td>
<td></td>
</tr>
<tr>
<td>Acre yield</td>
<td></td>
<td>1.9</td>
<td>1.3</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Wild</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>409</td>
<td>594</td>
<td>902</td>
<td>250</td>
</tr>
<tr>
<td>Tons</td>
<td></td>
<td>707</td>
<td>985</td>
<td></td>
<td>400</td>
</tr>
<tr>
<td>Acre yield</td>
<td></td>
<td>1.2</td>
<td>1.1</td>
<td>1.1</td>
<td>1.6</td>
</tr>
<tr>
<td><strong>Grain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>21,861</td>
<td>14,955</td>
<td>17,092</td>
<td>3,033</td>
</tr>
<tr>
<td>Tons</td>
<td></td>
<td>25,866</td>
<td>27,065</td>
<td>4,982</td>
<td></td>
</tr>
<tr>
<td>Acre yield</td>
<td></td>
<td>1.7</td>
<td>1.6</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>3,348</td>
<td>1,689</td>
<td>350</td>
<td>157</td>
</tr>
<tr>
<td><strong>Forage</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>9,184</td>
<td>3,130</td>
<td>548</td>
<td></td>
</tr>
<tr>
<td><strong>Crops</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acres</td>
<td></td>
<td>5.4</td>
<td>8.9</td>
<td>3.5</td>
<td></td>
</tr>
</tbody>
</table>

*Timothy and clover in 1899 includes all tame and cultivated grasses.*
SEED CROPS

I. THE PRESENT SEED CROPS SITUATION.

1. Clover Seed Excellent Cash Crop.

Clover seed is one of the most profitable and best cash crops produced in the county. Several carloads of this seed are exported annually. Seed yields average 2½ bushels per acre although much higher yields are often obtained by some growers.

2. Cost of Production is About $14 Per Acre.

Cost of production per acre is as follows:

- Interest on land at 5%: $6.25
- Interest and depreciation on equipment: $1.10
- Taxes per acre: $2.00
- Cutting: $1.00
- Hauling and threshing: $1.15
- Seed: $1.75
- Sacks: $0.50
- Land plaster: $0.50

Total: $14.25

The cost per acre for growing clover hay with a 2-ton yield is approximately the same. Accordingly, whether a man cuts his clover for seed or hay depends largely upon whether or not he needs the hay.

3. Ten Year Average Price to Grower is 17½ Cents.

As taken from the books of a local seed buyer, the prices paid per pound for clover seed during the past 10 years run as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Price per lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1917</td>
<td>$0.23</td>
</tr>
<tr>
<td>1918</td>
<td>$0.37</td>
</tr>
<tr>
<td>1919</td>
<td>$0.50</td>
</tr>
<tr>
<td>1920</td>
<td>$0.15</td>
</tr>
<tr>
<td>1921</td>
<td>$0.16</td>
</tr>
<tr>
<td>1922</td>
<td>$0.17</td>
</tr>
<tr>
<td>1923</td>
<td>$0.20</td>
</tr>
<tr>
<td>1924</td>
<td>$0.22</td>
</tr>
<tr>
<td>1925</td>
<td>$0.24</td>
</tr>
<tr>
<td>1926</td>
<td>$0.28</td>
</tr>
</tbody>
</table>

4. High Average Yield.

The large seed growing centers of the United States are Illinois, Wisconsin, Indiana, and adjoining states. The average seed yield in these states is from 1 to 1½ bushels per acre while our average is 2½ bushels.

Seed is bought in Western Oregon and shipped east for mixing with inferior seed. Consequently the local price is usually about 2 cents per pound higher than the Middle Western grower receives. Local growers, therefore, receive more money per acre for their clover seed than do Middle Western growers.

Freight rates on clover seed take a much smaller percentage of the crop than is the case with hay, grain, or fruit, so the geographical position of Oregon is less of a handicap in producing clover seed than is the case with most products.
5. Seeding Alone Best.

Formerly the best method of seeding clover was in the spring on a winter wheat crop. Recently this method has not been successful and the committee recommends as a safe method seeding alone on a firm, fine seed bed about May 1 to 15. As soon as clover is well up pasturing with sheep is recommended.

6. Crop Usually is Pastured or Clipped.

The seed crop is usually pastured or clipped. Many sheep owners pasture until about May 10th. By this means the sheep pasture is worth from $5.00 to $8.00 per acre and the clover straw has some value in addition to the value of the seed crop.

7. Clover Increases Grain Yields.

As a rule, clover seed in this county does not return quite as much per acre as the winter wheat crop following it, but if it is not grown, the grain crops soon fall to the point where they do not pay costs of production. Part of the profit from a clover crop is thus taken in the following grain crops.

8. Vetch Seed Prices Fluctuate.

Vetch seed is also a good cash crop but is more subject to seasons of over production and low prices than is clover.


Because clover mildew has become prevalent in the county we recommend that the county agent establish mildew control demonstrations to determine the effectiveness of control methods and the amount of damage done by mildew.

II. SEED CROPS RECOMMENDATIONS AND CONCLUSIONS.

1. A Legume on Every General Farm.

No general farmer can afford not to grow either clover or vetch. The man who has few livestock will find that clover seed will fit into his operations the best of any legume crop.

2. Legume Necessary to Sustained Grain Yields.

It is impossible to maintain profitable grain yields without growing a legume crop.

3. Increase Clover Seed Acreage.

We recommend a large increase in the acreage of clover for seed. On general farms, a fourth or fifth of the acreage should be in clover each year.

It is impossible to overdo the clover seed business, due to large imports into the United States from foreign countries. Western Oregon cannot supply this deficit.

4. Land Plaster Recommended.

From 50 to 75 pounds of land plaster per acre is recommended as a fertilizer for clover.

SEED FLAX

I. THE PRESENT SEED FLAX SITUATION.

1. Good Local Market Exists.

There is a linseed oil plant in Portland which annually uses 500,000 bushels of seed flax, now shipped in from South America, Montana and other flax
growing sections. For 1927 a minimum price of $1.85 per bushel is guaranteed with the Duluth cash price if it is higher than $1.85 per bushel.

2. On Heavy Clay Soils Flax Outyields Other Spring Crops.

There are 28,600 acres of the Wapato and Cove soil series in the county which are spring crop lands or pasture lands only. On these heavy clay soils seed flax does particularly well. On such types seed flax in 1926 yielded as high as 18 bushels per acre and returned from 100 to 300 percent more cash per acre than did any other spring crop on similar soils.


Flax is not hard on the soil and takes about the same amount of plant food as a comparable yield of oats or barley.

II. SEED FLAX RECOMMENDATIONS.

1. Seed Flax Good Cash Crop on Heavy Clay Soils.

On the heavy clay bottom soils in the county which are of necessity spring crop lands, your committee recommends seed flax as a good cash crop.

2. Seed Early.

Early seeding is important. The earlier the seeding the better, providing the land is dry enough to be properly worked. Flax should not be grown on the same land more than two successive years owing to the decreased yields resulting from diseases which accumulate in the soil.

POTATOES AND SUGAR BEETS

I. THE PRESENT SITUATION.

1. Production Exceeds Local Needs.

Yamhill County produces ample potatoes for local consumption requirements and ships out ten or more carloads of potatoes annually. In 1919 there were 1402 acres of potatoes and 899 acres in 1924.

2. Production Costs are High.

Potatoes are an expensive crop to grow and one that involves a great deal of labor. Total production costs here average about $60.00 per acre and in part of the county where yields are above the average the costs are about $70.00 per acre.

3. Low Acre Yields Secured.

A cultivated crop is badly needed on many farms to get rid of weeds, but potatoes give low acre yields over a large part of the county.

4. California is Only Outside Market.

The only outside outlet for potatoes is California. In order to supply this market from Oregon a good, well graded product is necessary.

5. Sugar Beets Experimental.

Sugar beets offer possibilities as an added cultivated crop. This crop, however, is an intensified one which gives a rather low per acre return when labor costs are considered.
II. POTATO AND SUGAR BEET RECOMMENDATIONS.

1. We recommend no increase in the acreage of potatoes in this county.
2. We urge the growers to standardize on Burbanks for the late crop and one of the early round white varieties for the early crop.
3. A profitable potato crop is impossible with poor seed.
4. Yields of less than 100 bushels of potatoes per acre will not be profitable in most years.
5. Sugar beets are not beyond the experimental stage in the Willamette Valley so far as profitableness is concerned. They should be grown with caution and planted only on the sandy and silt loam soils.

(Signed) R. V. STOCKTON, Chairman.
JOHN DUERST,
L. H. KUYKENHALL,
W. B. DUERST.
Report of Dairy Committee

I. STATUS AND IMPORTANCE OF DAIRY INDUSTRY.

Dairying in Yamhill County has gradually developed during the past fifteen or twenty years until now it is among those of first importance. Its benefits are far reaching. The dairy cow has been the direct means of returning the fertility of the soil to our worn out farms and at the same time she has produced a fair return to our dairymen. In times of financial stress dairying has been one of the most important stabilizers of bank balances and at such times the praises of this industry have been sung by bankers and merchants as well as by those engaged in it.

Data from the United States census show that there are now 9358 producing cows in the county. This is an increase of 9.2 per cent over the number in 1919. Annual production is approximately one and three quarter million pounds of butterfat, or an average of 185 pounds per milking cow. There are 307 sires one year old or over in the county of which 65 per cent are pure bred.

The average production of 185 pounds of fat per cow is slightly higher than the state average and is higher than for some other counties but it is lower than the average which cost data show to be necessary for economical production.

The dairy marketing situation in Yamhill County is very satisfactory. The average price paid for butterfat by local manufacturing plants during 1926 is in excess of the average price paid for butterfat in Portland. The average local price was 47.8c per pound as compared to 45.1c per pound in Portland.

The following table shows the number of persons supplying milk and cream to the various local manufacturing plants:

Record of Business Done by County Creameries and Condenseries, 1925-1926.

<table>
<thead>
<tr>
<th></th>
<th>1925</th>
<th>1926</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Persons supplying milk</td>
<td>627</td>
<td>602</td>
</tr>
<tr>
<td>B. Persons supplying cream</td>
<td>1,093</td>
<td>1,109</td>
</tr>
<tr>
<td>C. Milk purchased (pounds)</td>
<td>24,760,700</td>
<td>25,652,599</td>
</tr>
<tr>
<td>D. Cream purchased (pounds)</td>
<td>2,212,651</td>
<td>2,418,185</td>
</tr>
<tr>
<td>E. Butterfat purchased (pounds)</td>
<td>1,723,919</td>
<td>1,812,324</td>
</tr>
<tr>
<td>F. Butterfat used for manufacturing butter (pounds)</td>
<td>870,125</td>
<td>898,469</td>
</tr>
<tr>
<td>G. Butterfat used for manufacturing cheese (pounds)</td>
<td>65,000</td>
<td>76,000</td>
</tr>
<tr>
<td>H. Butterfat used for manufacturing ice cream (pounds)</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>I. Butterfat used for manufacturing condensed milk (pounds)</td>
<td>679,422</td>
<td>794,255</td>
</tr>
<tr>
<td>J. Whole milk sold (pounds)</td>
<td>3,735,202</td>
<td>1,071,320</td>
</tr>
</tbody>
</table>

The milk and cream produced in the county is marketed principally through the four creameries, the cheese factory and a condensery. Comparatively few producers take advantage of the sweet cream market in Portland and to a limited degree whole milk is sold to Portland distributors. With the present highway system there is no reason why the sale of whole milk and sweet cream to Portland can not be greatly increased.

Dairying in Yamhill County can be safely expanded as the national dairy situation, on the basis of present facts, is strong. Per capita consumption of dairy products is increasing and although production is also increasing it is not in excess of the consumption requirement.
### DAIRY PRODUCTION IN YAMHILL COUNTY—1850 TO 1924.

(United States Census.)

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Number Dairy Cattle</th>
<th>Milk Produced (gallons)</th>
<th>Production per cow (gallons)</th>
<th>Value of Production from sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td></td>
<td>* 44,290</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1860</td>
<td></td>
<td>4,517</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1870</td>
<td></td>
<td>3,031</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1879</td>
<td></td>
<td>2,572</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1889</td>
<td></td>
<td>4,295</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1899</td>
<td></td>
<td>13,731</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1909</td>
<td></td>
<td>7,751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1919</td>
<td></td>
<td>8,563</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1924</td>
<td></td>
<td>9,358</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Butter and cheese, pounds.

†Dairy cows 2 years old and over.

§Only "Dairy cows" are segregated as dairy cattle.

**Includes heifers and cows 2 years old and over.

It is known that butter contains vitamins which are necessary to health, and that the butter substitutes do not contain these necessary vitamins. A survey shows that the consumption of these butter substitutes in the county is in the neighborhood of 79,900 pounds. If butter were used in place of this large amount of butter substitutes there would be room for 40 additional ten cow herds in the county. These herds would bring an additional return of approximately $36,000 to dairymen.

The dairy farm at the present time is furnishing one-third of the beef consumed in the United States, according to Federal statistics. In Yamhill County the proportion is nearer two-thirds.

### II. DAIRY RECOMMENDATIONS.


The value of cow testing associations in aiding the dairyman to intelligently carry on his dairy business is realized. They afford him a means of weeding out his poor cows and intelligently feeding the good animals. Hence, it is recommended that the county agent attempt to organize a cow testing association, possibly a joint association with Polk County unless enough members can be found in Yamhill County. Considerable interest in such an association is apparent.

#### 2. Feed More Home-grown Grains.

During 1926 there were shipped into the county 2460 tons of prepared dairy feeds. Local feed dealers manufactured 1860 tons of prepared dairy feeds. Large amounts of grains are shipped out of the county each year. If feeds grown on the farms were fed on the farm a saving of about $4.00 per ton in freight would be effected. We recommend feeding more home grown rations to assist in lowering the cost of production.


Statistics show that there is a surplus of legume hay grown in the county. About 5000 tons were shipped out last year. This hay is largely oats and
vetch, and clover. It is recommended that more alfalfa be grown because of its higher feeding value and lower cost per ton.


A silo is recommended for every herd having 8 or more cows. Corn or oats and vetch make profitable silage crops. Kale or other soiling crops or pasture should be available throughout the year to be fed with silage, hay and grain. Clover and rape sowed in the late spring furnishes pasture during the summer months and the clover can also be pastured during the following spring.

5. Quality of Cream.

It is recommended that closer cooperation be encouraged between the producer and manufacturer of dairy products in improving the quality of cream and market milk, as the loss sustained through marketing low grade dairy products is in most cases 3 to 4 cents per pound of butter fat. It is estimated that this loss to the producers in Yamhill County was $10,000 in 1926.

6. Tuberculosis Eradication.

It is recommended that eradication of tuberculosis by means of compulsory testing of all animals be continued. The cost of testing should be included in the county budget each year. The charge of thirty-five cents per head to the dairymen should be discontinued. This work is a public health measure and the expense should be borne by the public.

7. Use of Pure-bred Sires.

Average butter fat production per cow in the county is 185 pounds per year. This is much too low for economical production. Thirty-five per cent of the bulls used in the county are grades or scrubs. It is recommended that a good pure-bred sire replace every scrub or grade.

8. Size of Dairy Herd.

Yamhill dairy herds average 7.3 cows in size. This is far too small for the most economical production of milk or butter fat. Overhead expense decreases with the increase in size of the herd. Also, the larger herds tend to have a higher average production per cow. Ten cows or more should be the aim of every dairyman in the county.


The excellent results obtained in boys' and girls' club work in the county along other lines than dairying justify extension of club effort to include dairy calf projects. Dairying is an important branch of agriculture in the county and shows room for increase. Development of dairy calf club work should follow that increase.

10. Contagious Abortion is Serious Disease.

This committee recognizes the serious losses suffered by dairymen from the ravages of the contagious abortion disease and sterility. We recommend, therefore, that the appropriation requested by the Oregon Dairymen's Association for investigational work to be done by the Oregon Agricultural College on these problems be allowed. We further request that the chairman of this committee write to the Yamhill County representatives in the State legislature urging that they vote for the bill providing funds to continue the conduct of dairy investigational work during the next two years.

(Note: After this recommendation was made and before publication of this bulletin, the appropriation requested for this purpose was made by the legislature and approved by Governor Patterson.)

(Signed) CHESTER L. MULKEY, Chairman.
Report of Livestock Committee

I. STATUS OF THE LIVESTOCK INDUSTRY.

The general status of the livestock industry from a national standpoint indicates a fairly healthy tone so far as the future is concerned. That is particularly true with reference to the branches of the industry with which Yamhill County is concerned, namely, sheep, goats, and swine.

In Yamhill County, there are 14,000 sheep, 3,000 goats, 10,000 hogs, and around 600 beef cows.

The sheep industry in the past has been profitable over a long period of years. Indications are that it will continue to be profitable, as it is generally conceded that where sheep are kept in sufficient numbers to utilize the available feed, there is little likelihood of it being overdone. However, prices may sometimes get too high to justify purchase.

The uses for mohair in the United States have been steadily increasing in the past few years. This has materially affected the price. Oregon and Texas produce the greater part of the mohair in the United States. Competition comes from Africa. During the year just past, foreign surplus of mohair has been dumped on the United States markets, due to a falling off of the demand in foreign countries.

The hog situation changes rapidly, due to feed conditions in the corn belt. At present, high prices have tended to increase numbers of hogs.

II. LIVESTOCK CONCLUSIONS AND RECOMMENDATIONS.

1. The livestock committee wishes to emphasize the fact that, on the whole, livestock on Yamhill County farms should be used as a means of building up soil fertility which in many cases has been badly depleted. That is, a few goats or a flock of sheep have a place in the farm rotation system. Rape and clover pasture grows satisfactorily on many farms and should be utilized by some form of livestock.

2. While it is recognized that the individual farm is a problem in itself, the committee feels that 50 to 100 ewes more or less on a farm of 150 acres is a means of increasing the yields of other crops. At the same time these ewes offer a satisfactory return within themselves.

3. Goats also fit in although the type of pasture may influence the number run. It is recognized that goats are especially valuable in connection with brushy lands, in addition to such pastures as are used also by sheep.

LIVESTOCK DEVELOPMENT IN YAMHILL COUNTY—1860 TO 1924.
(United States Census.)

<table>
<thead>
<tr>
<th>Census Year</th>
<th>Beef Cattle</th>
<th>Sheep</th>
<th>Goats</th>
<th>Swine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number Value</td>
<td>Number Value</td>
<td>Number Value</td>
<td>Number Value</td>
</tr>
<tr>
<td>1850</td>
<td></td>
<td>914</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1860</td>
<td></td>
<td>8,045</td>
<td></td>
<td>3,692</td>
</tr>
<tr>
<td>1870</td>
<td></td>
<td>18,851</td>
<td></td>
<td>5,185</td>
</tr>
<tr>
<td>1880</td>
<td></td>
<td>17,086</td>
<td></td>
<td>13,602</td>
</tr>
<tr>
<td>1890</td>
<td></td>
<td>21,276</td>
<td></td>
<td>11,935</td>
</tr>
<tr>
<td>1920</td>
<td>1,881</td>
<td>$87,340</td>
<td>16,229</td>
<td>39,851</td>
</tr>
<tr>
<td>1925</td>
<td>14,424</td>
<td>133,833</td>
<td>9,021</td>
<td>27,063</td>
</tr>
<tr>
<td>1910</td>
<td>23,133</td>
<td>$126,341</td>
<td>19,603</td>
<td>$30,487</td>
</tr>
<tr>
<td>1900</td>
<td>1,610</td>
<td>18,078</td>
<td>14,109</td>
<td>13,576</td>
</tr>
</tbody>
</table>
4. We caution against overstocking the farm. We feel, however, that the carrying capacity can be built up with increased fertility of the land, and as the farmer gains in experience in handling his flocks. Coyotes are a problem that needs continuous attention in the production of either goats or sheep in Yamhill County.

5. Hogs have their place in the county. The experience of those carrying hogs would indicate that farm wastes should be utilized by hogs. Also, that hogs offer an excellent market for such feed crops as corn or barley when those crops are produced on the farm.

6. Attention is called to the draft horse situation. Although it is felt that on the whole, machinery in the county will eventually take care of the farm labor formerly done by horses, it is well to bear in mind that the number of horses is gradually decreasing and that those who look to horse labor had best consider the future supply and be governed accordingly.

7. The rotation of native sod pastures is recommended as a means of improving the stand of grass and of decreasing the stand of weeds and brush.

8. Support of boys' and girls' club work is urged, both for its benefit to our young people and for its influence for better agriculture.

Submitted by the Livestock Committee, FRANK BROWN, Chairman.
Report of Poultry Committee

1. INTRODUCTION.

The poultry group has made a study of the poultry industry from many angles. It will attempt to incorporate in this report the possibilities of expanding the industry and to present definite methods of poultry farm management which, if followed, will make poultry keeping a safer and more profitable phase of agriculture in Yamhill County.

1. Poultry Keeping Has Been Profitable.

Well managed poultry keeping has proved profitable each year during the agricultural depression which followed the war. There has been a general expansion of the industry throughout the United States and there is now prospect of keener competition in the next few years. When known principles of management are ignored, there is no reason to assume that any greater number of producers will succeed in the poultry business than in any other business. Poultry keeping requires careful attention to many details, whether it be conducted as a side line of a few hundred birds, or on a strictly commercial basis.

2. Yamhill Has Large Surplus of Poultry Products.

According to the United States census report for 1924, Yamhill County produced eggs and poultry valued at $538,568.00. This is $235,860.00 more than in 1910. The county ranks sixth among the counties of Oregon in value of poultry products. A large surplus is available for sale outside of the county. This surplus will undoubtedly become larger. This fact, together with the increasing competition from other sections, makes it very important that efficient production and good marketing methods be practiced.

II. POULTRY RECOMMENDATIONS.

1. Side Line Flock of Not Less Than 400 Laying Hens.

On farms where labor is available throughout the year; where green feed can be provided and where capital is available for necessary outlay, it is recommended that a flock of not less than 400 laying fowls be developed as a side line.
2. Minimum of 1000 Hens for Commercial Unit.

As a major farm activity when one man expects to derive his major income from poultry, it is recommended that a minimum unit of 1,000 laying fowls be developed as soon as experience warrants.

3. Reduce Present Flocks to Home Needs If They Can't Be Cared For.

On farms not interested in poultry keeping and where other farm work requires practically all available labor, it is recommended that such flocks as are now carried be reduced to the small number necessary to meet the needs of the home table.

4. Purchase Chicks Early.

Commercial egg producers must have the benefit of fall and winter prices to get a fair average price for their year's production. They must get fall and winter production in order to get the longest period of production before molting season.

It is strongly recommended that producers secure chicks early enough in the spring to be mature and into flock production by October.

5. Buy All Chicks at One Time.

It is false economy to attempt to brood and range together chicks of different ages.

It is better business, for example, to secure 500 chicks at one time where 200 pullets are desired, than to attempt to secure 500 chicks from two or three hatchings of small capacity incubators.

It is recommended that producers secure all chicks at one time where only one brooder equipment and one range are available.

6. At Least 5 to 10 Tillable Acres Needed for Each 1,000 Hens.

Many poultry farms, successful for a few years, have been compelled to quit business because of soil contamination dangers. This results when the same area is used year after year for brooding and ranging large numbers of growing fowls.

Poultry keeping on a commercial scale on one, two and three acre tracts of land is a hazardous and generally a short lived enterprise. Real estate agencies are not justified in exploiting such small tracts for permanent intensive poultry farms.

It is recommended that commercial poultry farming should not be encouraged on less than from 5 to 10 acres of tillable soil for each unit of 1,000 hens where young stock is to be raised on the farm each year. On small farms, a system of field rotations must be worked out to make poultry farming a success over a period of years. Lack of acreage is a great factor in poultry farm failures.

7. Clean Soil is Necessary.

Poultry producers will succeed according to their ability to rear pullets to maturity that are vigorous, fat and free of intestinal parasites and inflammation. Clean soil for brooding and ranging growing stock must be provided. To meet conditions on various farms, three brooder equipment arrangements are suggested for careful study.

(A) On farms where the acreage is large and where only a reasonable number of chicks are to be brooded each year, the portable brooder house (See Station Circular 52) is recommended.

(B) On farms of limited acreage where a large number of chicks are to be brooded, a permanent brooder house of larger dimensions may be desired.
in order to reduce the labor overhead. In such case, the house should be so located on a given area that two or more yards may be provided. Under this arrangement only one yard is to be used each year in its logical turn. Where the yard is small, the danger of disease is lessened by covering the close in runways with sand or gravel to a depth of about three inches.

(C) Where permanent brooder houses are built, there is no safer way to protect the future prosperity of the business than to have complete control of sanitary conditions through the construction of a small concrete or blacktop outside yard.


As soon as the pullets are old enough to go without artificial heat and are roosting on the perches they should be removed from the brooder house and brooder yard and put out on clean range. Brooder houses soon become crowded and the pullets suffer from lack of ventilation.

It is recommended that producers guide their construction of range houses according to the plans set forth in O. A. C. Experiment Station Circular 54.


Too many laying houses are constructed according to some untried hobby rather than using as a pattern a type of house that has proved satisfactory under local climatic conditions. A good poultry house is necessary for the permanent home of the pullets when they are ready to move in from the range.

It is recommended that producers guide their construction of new laying houses by the plans set forth in O. A. C. Experiment Station Circular 51.

All bulletins mentioned, and others, may be secured from the office of the county agricultural agent.

10. Green Feed is Very Important.

Green feed is one of the four major classes of poultry feeds necessary for growth, body maintenance and production. It increases the efficiency of all other feeds fed, supplies vitamins and adds bulk to the ration. It should be fed liberally. Kale and roots are the leading source of green feed throughout the country.

11. Considerable Capital Required.

Poultry propaganda is misleading and too little has been said relative to the value of experience and capital. The poultry group desires to present the following statements as a basis for drawing conclusions relative to the business view of engaging in the poultry business.

It is better to develop a commercial flock of poultry gradually. Without previous experience the brooding of 500 chicks will be found a reasonable experiment. From this number there should be at maturity approximately 200 pullets. This number will provide plenty of building and feeding expense and experience for the average beginner's first year.

Costs and results vary with individuals. On the average, the beginner should have some idea of the approximate outlay of cash necessary to purchase 500 chicks, to construct the necessary equipment and to feed the pullets up to the point where the 200 pullets begin to bring in an income. It will require an outlay of cash of approximately $3.00 per pullet, excluding the cost of land or home. The first year's expense for this number is highest because of the initial cost of buildings and equipment. This expenditure is pro-rated as follows:

44
Brooder house, brooder, equipment, incidentals ........................................... $0.25
Feeds, litter, cost of chicks, fuel, range house, mortality losses to six months of age, etc. ......................................................... 1.25
Permanent laying house, material, equipment, fencing, supplies ................. 1.50

Approximate total, per pullet ........................................................................ $3.00

With the above overhead investment, plus interest, taxes and depreciation costs, it is necessary to work out a definite system of management that will make the poultry enterprise safe over a period of years.

Under reasonably good management, the producer should get an average egg yield of approximately 180 eggs or better, or an average gross return of $4.50 per hen with eggs figured at 30 cents per dozen as an average price for the year. Feed will cost approximately $2.50 per hen per year including mortality losses, etc. The resulting gross profit of $2.00 per hen on a commercial egg basis minus the legitimate overhead charges should return the average man a labor return of $1.50 per hen.


A large percentage of the surplus eggs in Yamhill County and the state are marketed cooperatively through the Pacific Cooperative Poultry Producers association, a recognized success in the field of cooperative marketing. The association benefits all poultry producers whether members or not. With the surplus eggs shipped away, the local markets are kept at a higher level than if home markets were glutted with eggs. The United States Department of Agriculture recognized in the 1927 Outlook Report that the cooperative associations of the Pacific Coast are a very important factor in the efficient production, distribution and marketing of eggs and largely responsible for the success of the poultrymen in competition with producers located nearer the large markets of the country. The committee recommends support of the cooperative movement by all producers.

13. County Association is Needed.

It is recommended that the poultrymen of Yamhill County form an association known as the Yamhill County Poultry Association for the purpose of carrying on educational work in cooperation with the county agent and other similar agencies.


We endorse and recommend the organization of boys' and girls' poultry clubs in Yamhill County.

Report of Committee On Boys' and Girls' Club Work

I. GENERAL STATEMENT.

Boys' and girls' club work, as sponsored by the United States Department of Agriculture, the Oregon Agricultural College, and the State Department of Education, constitutes one of the most important phases in the education of the boys and girls of today. The girls are given systematic instructions in household economics through lessons prepared by extension specialists and members of the resident staff of the Oregon Agricultural College and the boys receive similar instruction in animal husbandry and farm crops. Judging by the results of club work during the comparatively few years it has been conducted, the boys and girls of the future will constitute a more industrious, economical and competent citizenry than those who have not had the advantage of this training.

Yamhill County began at "the beginning" of club work in Oregon, and in the year 1926 enrolled 144 members, of whom 88 completed the work and made their final reports to the state college. The value of the completed projects was $4886.43. Cost of labor, material and animals purchased was $3294.02, leaving a net profit of $1592.41. In eight of the clubs, every member finished the work, thus giving the county eight 100 per cent clubs.

In 1925, the honor of having one of the two outstanding club boys of the state fell to our county. Alex Cruickshank, the boy through whom we received this honor, was given a gold watch by the State Bankers' Association. Of the two boys, Alex was considered the most outstanding and received further award—a trip to the International Live Stock Show in Chicago given him by western railway presidents.

In the fall of 1926, the first exclusive club fair for Yamhill County was held in McMinnville. The display fully justifies the hope that club boys and girls may be encouraged each year by a similar opportunity to show to the people the results of their interest and industry.

II. CLUB RECOMMENDATIONS.

After carefully considering the club work done in the county during the past years, and the experience gained by those who have been in charge, we, your club committee for Yamhill County, respectfully submit the following recommendations:

1. That the county be divided into convenient divisions, and that some competent and interested person be appointed to have general oversight of the clubs, club leaders, and club activities of each division, subject to the direction of the county school superintendent, and the county agricultural agent.

2. That the county school superintendent, county agricultural agent, division leaders, and local club leaders shall use every reasonable effort to secure an audience before the granges, the parent-teachers' circles, and other organizations of the county, for the purpose of obtaining their cooperation in securing local leaders for the various clubs, and in giving general encouragement to club work throughout the county.

3. That the county club fair initiated in 1926 be made a permanent feature of club work. The county appropriation for this club fair should be made sufficient to conduct it in a satisfactory manner and to also provide for a club exhibit at the state fair.
4. That club work shall be correlated with the program adopted by this economic conference, in order that the club members may learn to work in the same efficient manner as the adults.

5. That each and every member of this economic conference shall consider himself or herself a committee of one whose business it will be to further the interests of club work in his or her own particular community, in order that club work may become what it should be, “a vital force in the development of the boys and girls of Yamhill county and in shaping their future destiny.”

Respectfully submitted,

S. S. DUNCAN,
ETHEL ROSS,
REX NEWELL,
LEE FLETCHER.
HISTORICAL SKETCH OF YAMHILL COUNTY AGRICULTURE

(From the Yamhill County Soil Survey Report by the United States Department of Agriculture and O. A. C. Experiment Station.)

Since the organization of Yamhill County in 1842, agriculture has been the dominant industry. The first settlements were confined to the Willamette and Yamhill Valleys, which at that time were comparatively open country supporting a luxuriant growth of grass, with here and there small patches of oaks and fir. For a number of years, the agriculture consisted of the grazing of cattle on the open range, supplemented by the growing of such crops as were used at home. From the days of the first settlements, the consistent growing of fruits, vegetables, and sustenance crops has played an important part in the development of the agriculture, since it has given the settlers an economic independence not enjoyed in those sections where low yields or a partial failure in the principal money crop meant a serious curtailment in the necessities of the home. During the first twenty years, the valleys were settled rapidly, the range cattle were pushed back into the hills, and the growing of wheat on the level lands became the dominant industry. Spring wheat was grown almost to the exclusion of winter varieties, and yields of thirty-five to forty bushels per acre were not uncommon.

According to the United States census of 1880, wheat occupied 51,992 acres, producing 957,816 bushels; oats 12,294 acres, yielding 359,182 bushels, and hay 6,863 acres, with a production of 12,415 tons—that is, of the 71,882 acres reported under cultivation to selected crops, wheat, oats, and hay occupied over ninety-nine per cent of the entire acreage. Encouraged by the excellent yields which had hitherto been obtained, wheat continued to occupy the land year after year until many of the fields became so impoverished by the loss of organic matter that the average returns were not more than one-half which had formerly been harvested. During the next ten years, under these conditions, the acreage of wheat fell off more than 13,000 acres, while the acreage of oats nearly doubled. Hay was grown on 9,808 acres, yielding 16,897 tons. Hops, which later became an important money crop, were beginning to be grown, though as yet they occupied only 156 acres. Prunes and plums began to assume a place among the money crops, 16,112 trees producing 13,023 bushels. There were 106,289 apple trees, yielding 113,647 bushels.

Clover Contributed to Permanence of Agricultural Industry

During the decade 1880 to 1890 it was found that clover could be grown successfully and its introduction did much to place the agriculture of the country on a permanently paying basis. By 1900, this crop occupied 1,216 acres, wild grasses 250 acres, tame grasses 8,007 acres, while 3,033 acres of grain were cut green for hay. The total value of products, exclusive of home use, amounted to $64,216. The animals sold and slaughtered amounted to $197,083 and the poultry to $42,627. With the introduction of clover and the development of the livestock industry, many of the fields were brought back to productiveness and wheat again received the attention it had formerly been given. The increase in acreage is also partly due to the introduction of fall-sown varieties to supplement the spring-sown grain, the latter having ceased to give satisfactory yields except in unusually favorable seasons. According to the 1900 census, wheat occupied 52,585 acres and produced 1,072,740 bushels, and oats 24,126 acres with a production of 659,220 bushels. Hops were raised on 1,801 acres producing 1,752,845 pounds. The value of all orchard products was $49,596.
During the ten years, 1900 to 1910, the most important changes in the agriculture of the county were a marked expansion of the dairy industry, with a corresponding increase in the acreage of clover, grasses, and grains cut green for hay, an increase in the production of fruits, nuts, and poultry products, and a decided decrease in the acreage of wheat. The last-named crop in 1909 occupied only 14,032 acres and oats 28,251 acres. Clover was grown on 6,298 acres, timothy on 1,265 acres, other tame grasses on 3,437 acres, and there were 17,092 acres of grain cut green for hay. The last-named crop yielded more than 27,000 tons. Hops 2,292 acres produced 1,861,187 pounds.

Total value of the agricultural products of the county in 1909 was $2,897,529. Of this amount the cereals were valued at $696,409; other grains and seeds at $51,609; hay and forage at $495,880; vegetables at $161,111; fruits and nuts, $324,696; and all other crops, $571,013. There were sold or slaughtered 8,394 cattle, 13,139 hogs, and 29,143 sheep and goats. Dairy products, exclusive of home use, were valued at $300,186, poultry and eggs at $235,860, wool and mohair at $52,371.

Cereals Are Greatest Sources of Income

At the present time, cereals still hold first place as a source of agricultural income. Dairying, however, has continued to expand as has also poultry raising. Fruit production has come into greater importance and now ranks second only to cereals as a source of income.
Figures based on the 1919 census show that of the county’s total agricultural income that year of $5,665,079, thirty-five and three-tenths per cent came from cereals. Twenty-one and five-tenths per cent came from fruits and nuts, seventeen and two-tenths per cent from livestock and meats, twelve and eight-tenths per cent from dairying, six per cent from poultry, three and two-tenths per cent from hay and forage, with the balance of four per cent coming from a group of miscellaneous crops. Since 1919 there has been a marked change. There has been a marked increase in the number of producing dairy cows, the wheat acreage has been decreased, numbers of sheep and hogs have been reduced slightly and beef cattle by a marked degree. The small fruit and tree fruit acreage has been increasing, thus enlarging the income from this source.

Contrary to experience in many agricultural counties of the country, the number of farmers in Yamhill County has continued to increase. In 1920 there were 2,592 farms and in 1925 this number had grown to 2,864. The average value per farm was $11,286, while the average size was 83.56 acres.

The Climate of Yamhill County

Yamhill County has a mild, humid climate with a mean annual temperature at McMinnville of 51.8° F. Viewed from the standpoint of rainfall, there are two principal seasons, a wet and a dry season. The wet season extends from about the middle of October to the first part of May, during which period nearly eighty-eight per cent of the annual precipitation occurs. July and August are usually very dry, with a normal rainfall of less than one inch. Between the middle of June and the first part of September a period 50 to 60 days may be expected with very little rain. This distribution of the rainfall is decidedly favorable to the growing of winter grains, while the freedom from rains in the summer gives an ideal condition for haying and harvesting. The annual rainfall at McMinnville, according to statistics of the Weather Bureau, varies from 35.59 inches in 1911, the driest year, to 50.36 inches, the wettest year. The average annual precipitation is 45.78 inches.

The highest recorded temperature at McMinnville is 102° F. and the lowest is -15° F. The average date of the last killing frost in the spring is May 5 and the first in the fall October 28.
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<th>Number Farms</th>
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<th>% Increase</th>
<th>Land</th>
<th>Bldgs.</th>
<th>Implements &amp; Mach.</th>
<th>Livestock *</th>
<th>All Property (dollars)</th>
<th>Land &amp; Bldgs. (dollars)</th>
<th>Land Alone per Acre (dollars)</th>
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*Prior to 1920, census figures for livestock included value of poultry, bees, etc.
‡Livestock values not included in farm property values of 1850.