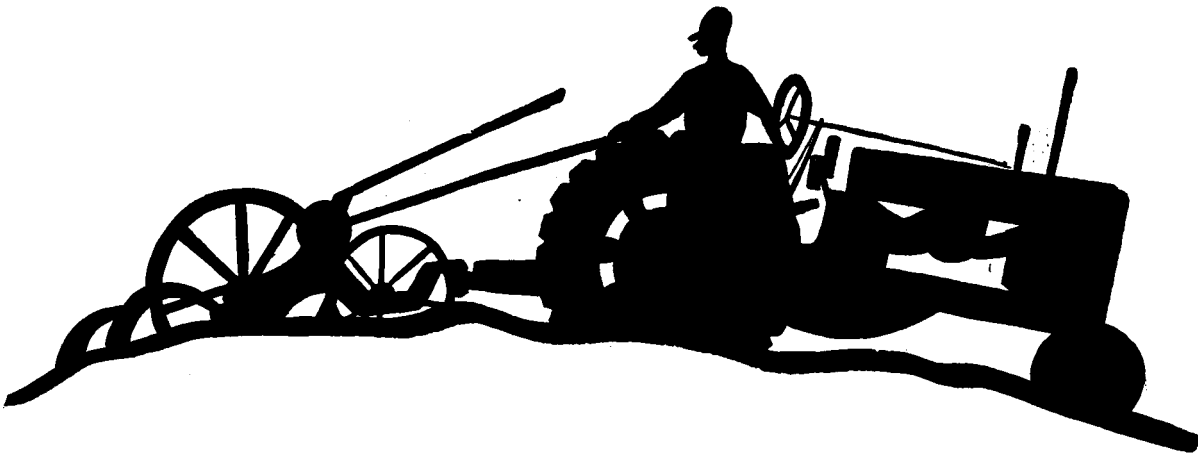


# Oregon Farms

**AN \$850,000,000 PLANT**



Extension Circular 524

October, 1948

Federal Cooperative Extension Service

Oregon State College, Corvallis



**F**ARMING is a big business in Oregon. It is big because of the important contribution it makes to the economy of the state. It is big because a large proportion of the population is engaged in it. And it has achieved this important place in spite of the fact that most of its products must be sold in out-of-state markets.

Farming in Oregon has grown and changed in many ways during the last 25 years. This booklet points out some of those changes and explains the agricultural planning process that helped to bring them about. It also suggests some of the further changes that may be accomplished in the years ahead.

Most activities involved in improvement of Oregon agriculture fall in one of three groups:

- ▶ Conservation of the soil and its productive capacity.
- ▶ Adjustment of the production processes largely to distant markets.
- ▶ Development of social conditions in rural regions that will compare favorably with urban districts in attractiveness for both rural adults and young people.

Cities will continue to maintain or increase their populations by drawing young people from rural regions, but it should not be disproportionately the most able of these young people who turn to the cities.

The nearer the people of Oregon can come to the development of a sound program of agriculture and rural life that is understood and generally accepted by a substantial majority of the people, the greater will be the prosperity and general welfare of all the people of the state.

# Primary Sources of Oregon's Income 1946



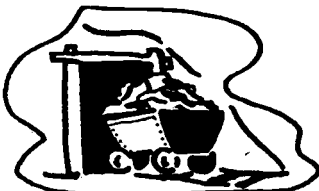
**FARMS . . . \$455 Million<sup>1</sup>**



**FORESTS . . \$380 Million<sup>2</sup> 1948 \$770 M**



**FISHERIES . \$16 Million<sup>3</sup>**



**MINES . . . \$12 Million<sup>4</sup>**



Dollar figures are rough estimates of the value of Oregon's marketings for the year 1946. They include the value of raw products sold plus value added by primary manufacture.

<sup>1</sup>Estimate by Oregon State College Extension Service.

<sup>2</sup>Estimate by Oregon State Board of Forestry.

<sup>3</sup>Estimate by Columbia River Packers Association from fish catch figures provided by Oregon State Fish Commission. Does not include value of fish from outside Oregon waters processed and sold through Oregon plants.

<sup>4</sup>Estimate by Oregon State Department of Geology and Mineral Industries.

# Oregon's Farm Plant

**O**VER 63,000 farms.

Nearly 20,000,000 acres in these farms.

About 5,000,000 acres of cropland.

Investment in land, buildings, equipment, and breeding stock over \$850,000,000.

Three out of every four farms are fully owned by the operators.

Only one in ten is run by a tenant. The balance are operated by part-owners and managers.

About half the farms are family-type commercial farms, the balance are part-time farms or rural residences.

In Oregon's varied climate practically every important crop of the temperate zone is grown in commercial quantities. Cattle, sheep, hogs, chickens, turkeys, wheat, nursery stock, apples, berries, pears, prunes, filberts, walnuts, beans, peas, pota-



toes, sweet corn, hops, flax, seeds of many kinds, and dairy products are representative. Such specialties as cranberries, lily bulbs, holly, and cut flowers are becoming increasingly important.

Approximately one-half of the state's agricultural income is from cash crops and one-half from animal products. This proportion has

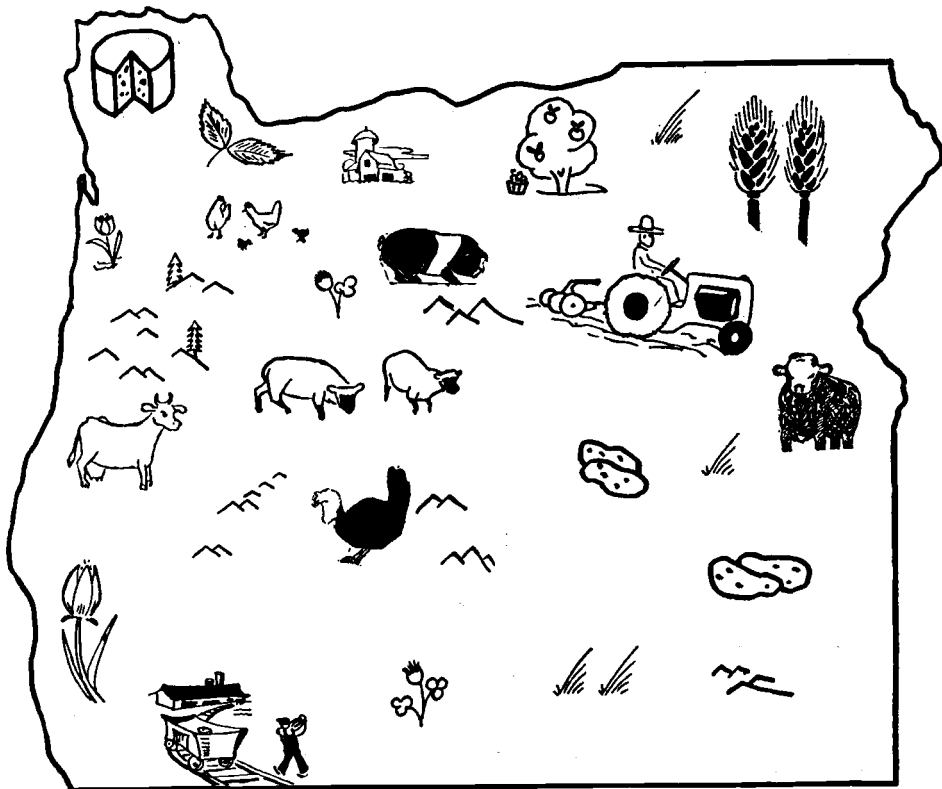
remained about the same for 25 years.

The level of farm family living in Oregon is high. Most farm dwellings have running water, electricity, and radios. Most farmers have automobiles.

Nearly a quarter-million people live on Oregon's farms.

From 15,000 to 20,000 other Oregon people make their living from processing agricultural products.

This drawing pictures only a few of Oregon's many products and does not attempt to show exactly where they are grown.



# Our Farms Are *Efficient*

**T**HE AVERAGE Oregon hen lays more eggs per year than the average hen in the United States. Oregon's average egg production per hen in 1947 was 177. The U. S. average was 158.

The average Oregon dairy cow gives more milk per year than the average cow in the United States. Oregon's average production per cow in 1947 was 5,660 pounds of milk. The U. S. average was 4,981 pounds.

The average Oregon market turkey weighs  $1\frac{1}{2}$  pounds more than the U. S. average marketed at the same age.

Our potato growers harvest more spuds per acre than the average for the nation. Oregon's yield for 1947 was 260 bushels per acre; the U. S. average was 182 bushels.

Oregon growers of snap beans for processing harvested 7.2 tons per acre in 1947. The U. S. average was 1.63 tons.

Oregon wheat farmers harvested 22.8 bushels per acre in 1947. The U. S. average was 18.4 bushels.



These figures are not bright examples, carefully chosen. The same kind of superiority in yield or quality, or both, runs through virtually the entire list of farm products grown in Oregon.

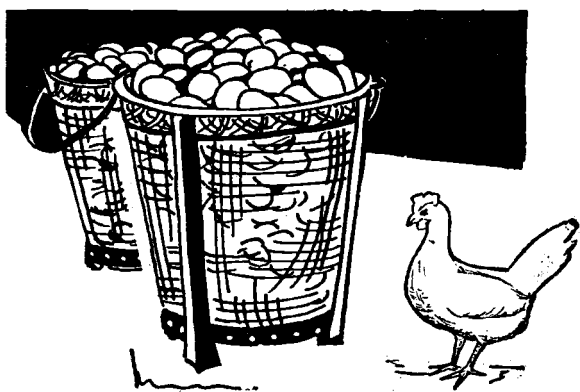
This efficiency is no accident. It has resulted from the fact that Oregon has favorable natural conditions. Our farmers have been quick to take advantage of these natural opportunities. They also have been quick to adopt improved production methods developed through research at the State Agricultural Experiment Station and explained and demonstrated throughout the state by the Extension Service of Oregon State College.

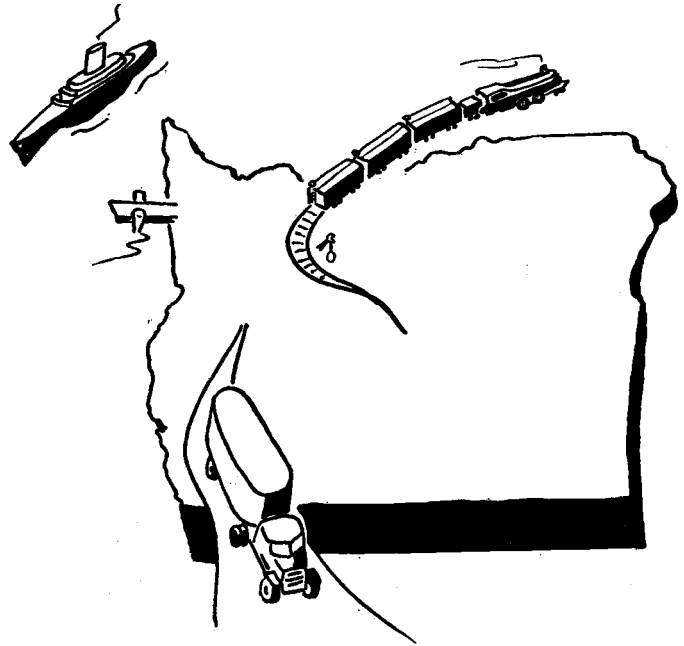
Increased efficiency contributed to the fact that Oregon produced one hundred million pounds more beef in 1945 than in 1924, six hundred million pounds more milk in 1944 than in 1919, 26 million dozen more eggs in 1944 than in 1919, and 440 million pounds more potatoes in 1945 than in 1920.

Oregon alsike clover growers harvested 6.25 bushels of seed per acre in 1947. The U. S. average was 2.9 bushels.

The Oregon onion yield in 1947 was 639 bags per acre. The U. S. average was 301 bags. A bag contains 50 pounds.

Strawberry growers in Oregon harvested 84 crates per acre in 1947. The U. S. average was 76 crates. A crate contains 36 pounds.





# Outshipments of Oregon Farm Products

Commodity	Estimated per cent sold outside Oregon
Cattle .....	30
Sheep .....	70
Wheat .....	50
Nursery stock .....	85
Pears .....	90
Walnuts .....	90
Snap beans .....	90
Potatoes .....	70
Hops .....	95
Flax, fiber .....	90
Seed .....	85

These percentages are estimates.  
No official figures are available.

# How

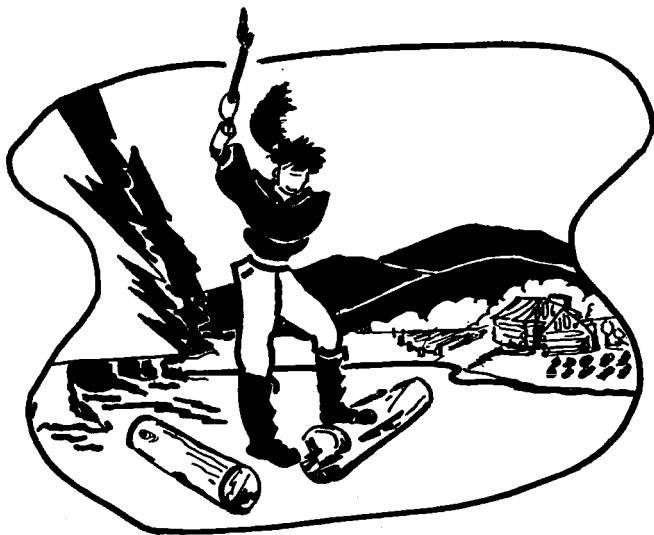
# Oregon Built Its Agriculture

**O**REGON'S first farmers were retired trappers from the Hudson's Bay Company who settled on land in the Willamette Valley and along the Columbia River. They grew food for their own use and for sale in the ports where ships stopped to take on provisions.

Pioneer farmers who settled in Oregon found a market for their produce to the south. The California gold rush, to some degree, was possible because of the flour, bacon, and other foods sent to the miners from the Willamette Valley and southern Oregon.

Later farmers found Oregon climate and soil suited to a wide variety of products. They also found—much to their dismay—that many products could be grown that could not be sold at a profit. An example was the development of extensive

apple orchards in which many people from other parts of the nation invested their life savings. Oregon was well suited to apple production so far as soil and climate were concerned, but the local demand for apples was small and apples that were shipped to eastern markets were in competition with fruit of equally good quality grown in other states closer to those markets. It appeared that only limited areas in Oregon could specialize profitably in apple production.



In the 1920's many leaders in Oregon agriculture realized that markets were the key to farm prosperity. The state's small population, they reasoned, could not provide a local demand for all the products Oregon farms could grow. If our agriculture were to expand, its products would have to be sold in other states and in other countries. And if Oregon farmers were to sell their products to advantage in distant markets, those products had to be the kind that Oregon farmers could grow cheaper or better than farmers elsewhere. Also, these products had to have high value in small bulk so that freight charges would not eat up the farmer's profit.

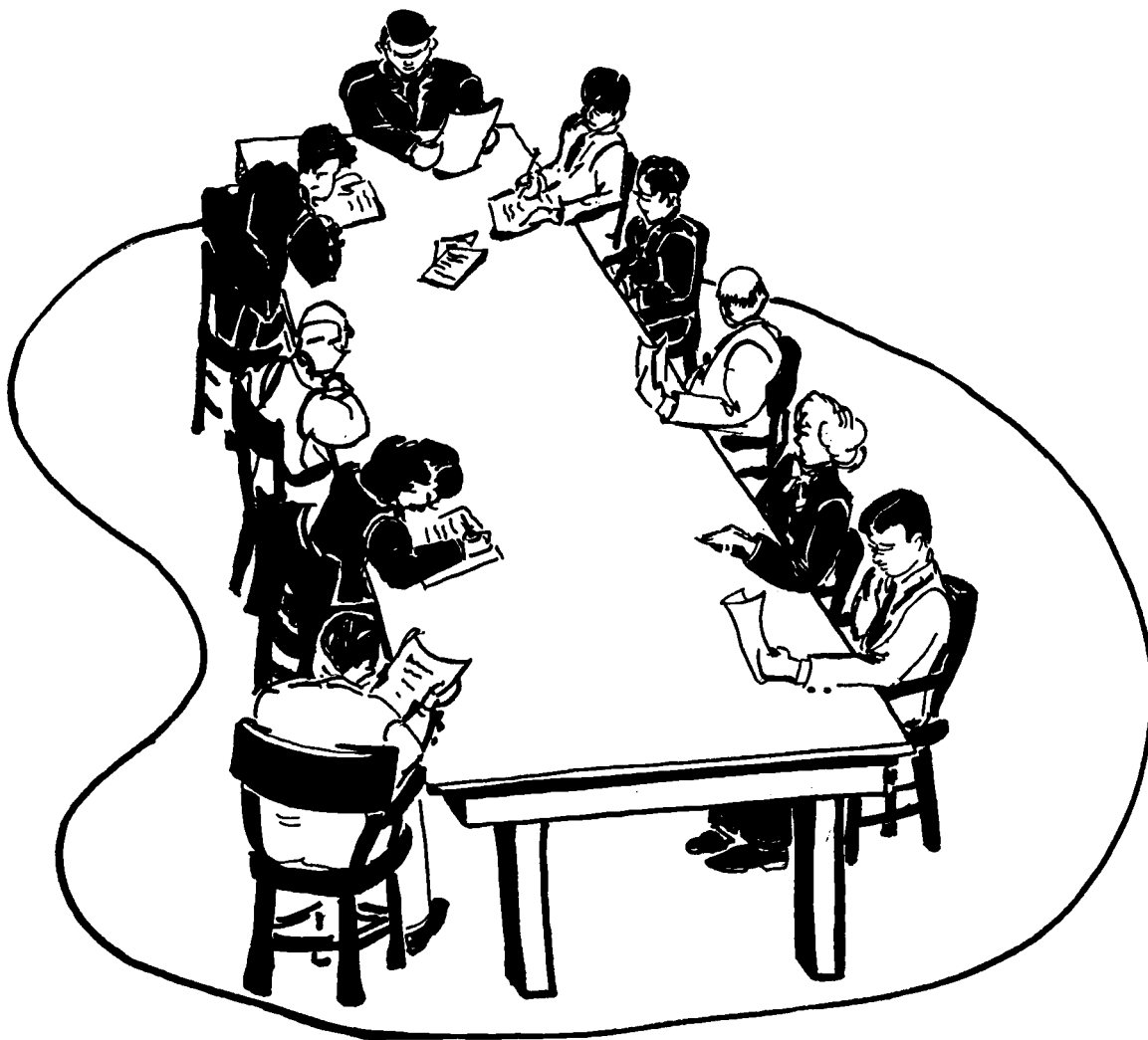


This idea was emphasized in a bulletin published by the Extension Service of Oregon State College in 1923. It also was the central theme of a state-wide conference of farmers, farm produce dealers, business leaders, and others held on the OSC campus in Corvallis in 1924. That conference adopted a series of reports recommending adjustments that should be made in the production pattern of Oregon farming—including new enterprises that could be developed.

The thinking of the people who took part in that conference has had a profound effect upon Oregon farming during the last quarter-century.

The goals they proposed in a great many cases have been accomplished. What is even more important, the whole farm economy of the state has been keyed to a consideration of market possibilities as well as production possibilities. Vast new enterprises have resulted.

For one example, the conferees in 1924 envisioned development of a seed crop industry in Oregon that might eventually bring in a million dollars a year. That seed crop industry has developed—specializing in production of legume and grass seeds for many other sections of the United States—and it now brings in about \$20,000,000 a year.



# Recommended in 1924 - - -

# - - - and this is what happened

More dairy cows and higher production per cow.

▶ In 1945, Oregon had 42 per cent more milk cows than in 1920. Because of higher production per cow, they produced 70 per cent more milk.

Improve quality of butter.

▶ Butter samples from Portland markets in the 1920's showed only 5.3 per cent scored 92 and above while 69.6 per cent scored 90 or below. Oregon State College established a scoring service in 1929 which has been continued since.

In 1942-43, after 14 years of quality improvement work, 59.1 per cent of the samples tested scored 92 and over, and only 3.6 per cent below 90.

Reduce apple acreage by eliminating low-yielding orchards.

▶ In 1945, apple acreage was 77 per cent less than in 1920. Production dropped only about one half.

Increase pears.

▶ Pear acreage in 1945 was 40 per cent larger than in 1920. Pear production for 1942-46 was nearly five times the production for 1918-22.

Reduce prune acreage, improve yields.

▶ Prune acreage in 1945 was 29 per cent less than in 1920. Production increased one-third.

Increase cherries.

▶ Cherry production in 1942-46 was about five times the average for 1920-22. There were 68 per cent more acres of cherries in 1945 than in 1920.

Replace much of the oat acreage with barley.

▶ Barley acreage increased from 67,000 in 1920 to 314,000 in 1947. Production increased six times. The increase was made without decreasing the oat acreage.

Replace grain hay with legume hay.

▶ The acreage of small grain hay dropped from 467,390 acres in 1920 to only 218,567 acres in 1945. Alfalfa, vetch, and clovers became the major hay crops.

# Recommended in 1924 - - -

## - - - and this is what happened

Promote poultry keeping as a specialized industry. Increase poultry production.

Legislation needed for control of grazing on 13 million acres of public domain. In 1924 it was being rendered practically worthless by unrestricted use.

Market steers as two-year-olds. Carrying to older ages is unnecessary and unprofitable.

Increase the lamb crop and lower losses.

Make an inventory and classification of the lands not now in farms, designating those of value: (a) for reclamation and farm use; (b) for grazing; (c) for reforestation.

► Oregon chicken production increased from a little over 3 million birds in 1919 to 6½ million in 1945. Egg production increased from less than 15 million dozen in 1919 to over 40 million dozen in 1945.

In 1944 there were 4,598 poultry farms in the state which produced approximately 25 million dollars worth of poultry products.

► The Taylor Grazing Act passed by Congress in 1934 created the control over this public domain which stockmen had earlier urged.

One result has been adjustment of stock numbers in line with range resources and thus some stabilization of the industry.

► In 1924, Oregon produced 216 pounds of beef per head of cattle on hand January 1.

In 1947, production was 258 pounds. This is evidence of increased efficiency in production, including a larger calf crop and marketing cattle at younger ages.

► In the 1920's the Oregon lamb crop averaged 88 lambs per 100 ewes.

For 1946-47 the average was 95 lambs.

► Land Use Committees have done some inventory and classification work in every county and have completed it in 9 counties.

These committees are part of the county agricultural planning organization.

**T**HESE RESULTS and many others that could be cited, show that this foresight paid dividends. The plans drawn up by farm people in consultation with Extension Service and Experiment Station authorities were sound. Both farm people and the College agents concentrated their efforts toward realization of those goals. The plans were expanded and changed as the years went by, with discovery of new potential markets resulting in the development of new enterprises not originally envisioned. The pattern of Oregon agriculture today is a direct outgrowth of that partnership between the people and the College—a partnership in planning and action.

# Oregon Farmers are

**T**HE STATE-WIDE conference of farmers and business leaders in 1924 was the beginning of an agricultural planning development in Oregon that has attracted nation-wide attention. In the years immediately following, similar conferences were held on a county basis.

Committees of farm people studied all of the factual information available on the resources of their county, its production, the markets for its products, and the new enterprises that might be developed. These committees presented their reports at a public, county-wide meeting. Those reports were subsequently printed in booklet form for the guidance of farmers, businessmen, government agency representatives, and new settlers.

These county planning conferences worked so well that they became a standard fixture in Oregon agriculture. In most counties, they have been held at intervals of five to ten years. The most recent series took place after World War II to consider readjustments necessary in adapting agriculture to peacetime conditions.

As experience broadened the viewpoint of the farmer-planners, the scope of their planning also broadened. In the early conferences, attention was concentrated upon production possibilities; practices that would increase yields on individual farms; marketing activities that would improve returns or reduce losses.

In later years, increased emphasis was placed upon improving the rural community as a place to live. Health and medical facilities, improvement of roads and schools, provision for supervised recreation for rural youth, education in family life to reduce the rising divorce rate—these and other social considerations have become a natural part of the planning consideration. Farmers have, from the first, shown a lively interest in the use of Oregon's land and the preservation of its soil.

Experience also brought forth the realization that periodic conferences—five to ten years apart



—were too infrequent to meet the needs of Oregon's expanding economy. As a result, county agricultural planning councils now are being set up as continuous advisory bodies. These councils meet annually—oftener if necessary. Their function is to guide the program of the Extension Service and other agricultural agencies in the county and to bring the influence of the appropriate agency to bear upon any local problem that should have its attention.

The council also is an agricultural policy body. It defines goals for the development of farming and rural life as envisioned by local people, and focuses attention on those goals.

# Opportunities Ahead

## Concentrate upon quality.

▶ No money is made from cull products; rarely from even No. 2 grades. Our specialty crops were built upon quality—and there must be an unceasing battle to improve them. The constant need for improvement applies to seeds, potatoes, butter, eggs, bulbs, canned goods—the entire list of products for which Oregon is becoming noted.

## Additional irrigation.

▶ Acres now irrigated: 1,300,000. An additional 200,000 acres east of the Cascades can be brought under irrigation. In the Willamette Valley 650,000 acres are suited for general irrigation and another 500,000 acres are suited for irrigated pasture. Flood control dams now planned or under construction may store enough water to irrigate 355,000 acres in the Valley.

## Drainage.

▶ Now in drainage or diking projects: 350,000 acres. Another 500,000 acres need community or district improvements. One million acres need tile or improved farm drainage.

## Improved water use.

▶ Production on 600,000 acres of irrigated wild meadow hayland could be doubled by improved irrigation and drainage followed by seeding to adapted grasses and legumes.

## Use of improved forage crops on all adapted lands.

▶ Sub clover and alta fescue in western Oregon; Ladino clover on irrigated lands; Ladak and ranger alfalfa in eastern Oregon; meadow foxtail on wet lands; lotus in its proper places; crested wheatgrass and other dry land grasses for eroding wheatlands—the full use of this proved program would cut production costs and add thousands of animals to present herds.

## Sage removal and reseeding, eastern Oregon.

▶ Sagebrush now occupies 25 per cent of Oregon's land area. Grassland without sage is far more productive.

A quarter of Oregon is producing only 2 or 3 pounds of meat per acre where it could be growing 10 to 20 pounds. It is practical to clear the sage in many places and to increase the grass.

## Grass seeding on adapted cut-over forest lands.

▶ Nearly half of the state is in forest. Each year 250,000 or more acres are logged. In eastern Oregon most of the area is selectively logged, which leaves the forest partially standing but exposes or disturbs about 25 per cent of the soil. These disturbed areas often become covered with brush and thickets.

A program of grass seeding should be followed on both public and private forest lands of eastern Oregon. In western Oregon after logging the land usually produces ferns, brush, weeds, and other highly inflammable cover. Where such land is not to be immediately planted to trees, it might well be seeded to grass in many cases. Seeding to grass accompanied by grazing would reduce the fire hazard and would permit use of the land for grazing pending reforestation.

This program, if followed in both eastern and western Oregon, would add many millions of dollars annually to the income of the state without endangering the timber income.

# Opportunities Ahead

## Fertilizer.

► The use of commercial fertilizer has increased from 8,000 tons in 1923 to 125,000 tons in 1948. There will be a further substantial increase when supplies become available.

The use of nitrogen and other fertilizers on improved permanent pastures will greatly increase the forage supply. Grain on 1,000,000 acres of land could be increased 20 per cent by the use of nitrogen fertilizer.

## Lime.

► Western Oregon soils need 200,000 tons of lime annually. In 15 years, the use of lime has increased from 10,000 tons to 100,000 tons in 1948.

## Raise production of dairy herds.

► The average Oregon dairy cow produced 266 pounds of butterfat in 1947. The average cow in standard dairy herd improvement associations in this state produced 360 pounds. It would be possible to raise the average production of all cows to the 360-pound level by following three steps:

(1) Extend influence of good sires through artificial insemination; (2) expand production testing to be used as a guide for culling, feeding, and breeding; (3) improve dairy feeding, particularly through use of home grown pasture and roughage.

Such practices already have raised the average production per cow in Oregon nearly one-third since 1919. Increased population on the west coast and in Oregon will undoubtedly provide an increased market for dairy products. Continued improvement in the quality of dairy products will add to their value.

## Improving small woodlands.

► Three million acres of woodlands owned by farmers and other small owners in western Oregon are now growing an estimated 300 board feet per acre yearly; two million acres in eastern and southern Oregon are now growing an estimated 100 board feet.

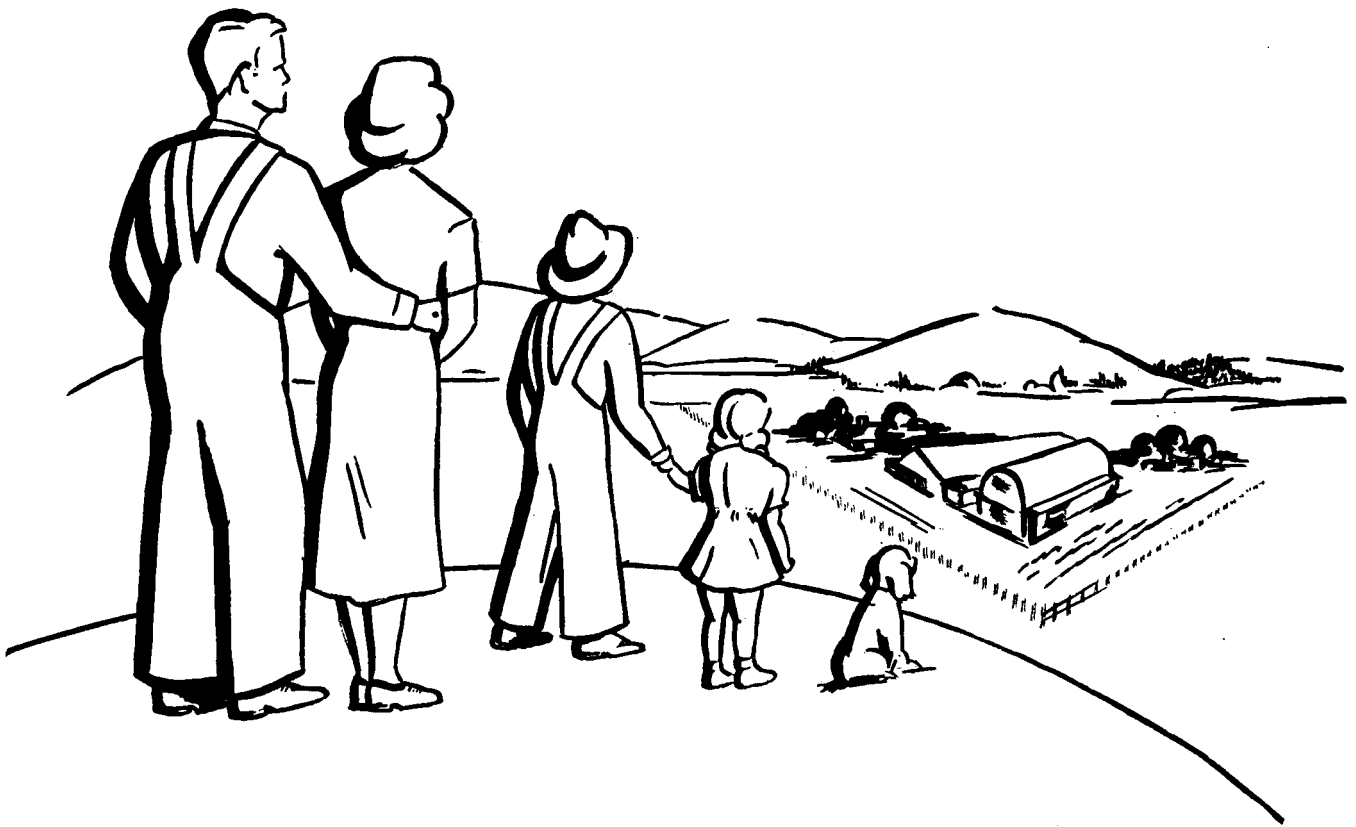
Under better practices to restock, improve, and properly harvest these woodlands the yields could be doubled in 25 years, adding over 1 billion board feet to Oregon's annual timber output. This quantity of timber would represent a value of \$100,000,000 after manufacture in the state, at current prices.

## Increase poultry and egg production.

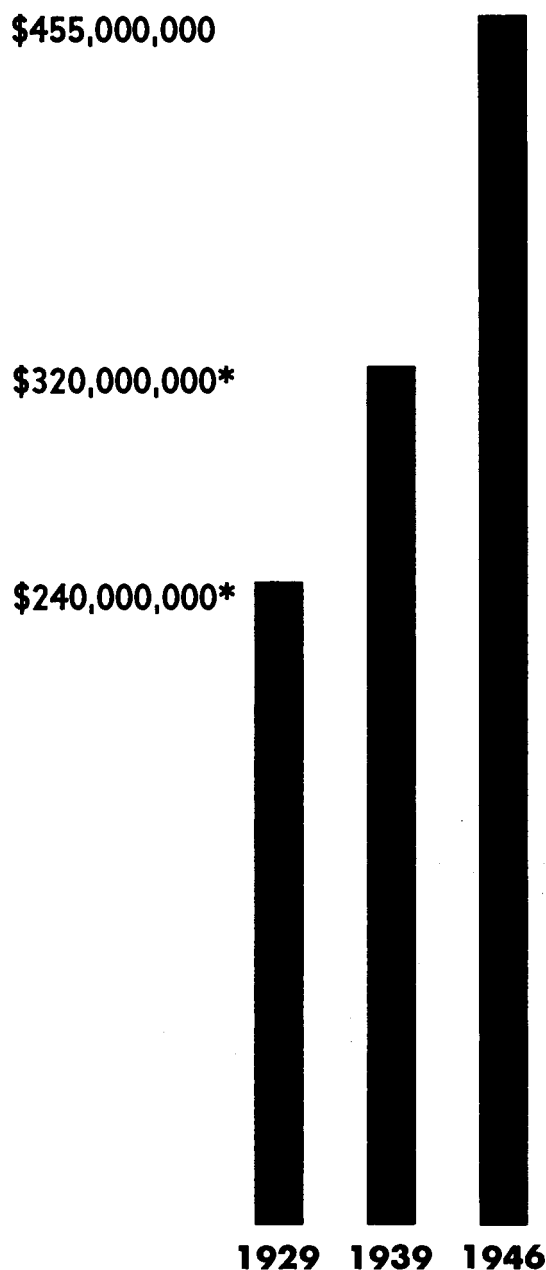
► The Pacific Coast, including Oregon, formerly was a large exporter of market eggs and poultry meat. Now, because of population growth, this area is importing eggs and poultry meat.

There is room for some gradual expansion and increasing poultry production in Oregon. Poultry producers in this state are in a good position to compete for the market in this area. There also is an opportunity for poultry breeders in Oregon who are interested in producing hatching eggs.

**T**HIS summary of our agricultural opportunities is not a complete census. It is merely a listing of a few possibilities that exist for further profitable expansion of farm output and improvement of farm efficiency. Many of these possibilities can be realized within the lifetime of farmers operating today.



# OREGON AGRICULTURE IS GROWING



\* Adjusted to the 1946 farm price level from \$134,000,000 in 1939 and \$160,000,000 in 1929.

Value of Oregon farm products plus value added by primary manufacture, adjusted to 1946 general level of farm prices. This increase is due in part to increase in output per acre and in part to shifts from low value to high value products.

---

Cooperative Extension Work in Agriculture and Home Economics

Wm. A. Schoenfeld, Director

Oregon State College and United States Department of Agriculture, Cooperating

Printed and distributed in furtherance of the Acts of Congress

of May 8 and June 30, 1914