

1956

Agricultural Planning Conference

FOR

MULTNOMAH COUNTY

OREGON

MULTNOMAH COUNTY EXTENSION OFFICE

611 EAST POWELL BOULEVARD

GRESHAM, OREGON

Foreword

This booklet deals with the future of Multnomah County. It presents the judgment of a large number of local citizens concerning problems, probabilities, and opportunities. It supplies some guides for the action of organizations and individuals interested in local improvement.

The reports contained in this book were developed by local committees for presentation at a County Agricultural Planning Conference on March 14, 1957.

That conference was organized and conducted by the County Agricultural Planning Council with the cooperation of the Oregon State College Extension Service. Similar conferences had been held in the county at several earlier periods, the most recent being in 1945. Experience has shown that these conferences are effective in accurately predicting trends in the local society and economy and in influencing developments in farming and rural living.

Each of the reports in this booklet is the work of a committee that met several times over a period of months and considered data from a variety of sources in arriving at its conclusions. It is believed that this booklet will be significant and useful as earlier similar booklets have been.

If additional copies are needed, they can be obtained from the local County Extension Service office at 611 East Powell Boulevard, Gresham, Oregon.

Louis F. Nuffer, General Chairman

W.S. Averill, County Extension Agent
and General Secretary

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Multnomah County, Oregon

1956

Multnomah County is approximately 70 miles long east and west and varies from 6 to 13 miles north and south. It lies at the junction of the Willamette and Columbia Rivers at the north end of the Willamette Valley. Portland, located at the junction of the Columbia and Willamette Rivers, occupies a considerable area of the county and divides agriculture into two distinct areas.

One is west of Portland, including Skyline and Sauvies Island. The Skyline area is mostly too steep for cultivation and lacks water for irrigation and household use. When water is available, this area will become residential. The Sauvies Island area, some twelve thousand acres, is under dike. This area is devoted exclusively to agriculture, with dairying and vegetable crops predominating.

The second major area is east of Portland. For a distance of 6 to 8 miles, it is largely suburban. East of this is agricultural area devoted to dairy, berries, nursery, and vegetable crops. The extreme edge of the eastern part of the county runs up into the foothills of the Cascade Mountains. A large part of this section is in forest land encompassing a part of the Portland watershed.

The county has some 22 distinct soil types with Powell, Sauvies, and Salem series predominating. Practically all of these soils

respond to drainage, with the exception of the Salem series.

The county has an area of 271,360 acres. 71,058 acres, or 26.2 per cent, is devoted to agriculture; the remainder is non-farm residential, industrial, roads and highways, forest land, and other non-agricultural use. There are 1,680 farms averaging 42.3 acres.

Of these 1,680 farms, 817 owners are working off their farms 100 days or more per year. Fifteen hundred forty-nine operators are actually living on their land, and only 86 operators are operating entirely on rented land. Farms in the county have an average land and building valuation of \$24,120 per farm and an average acre value of \$746.

The normal growing season for most crops is from March to October with an average rainfall of about 42 inches, most of which falls between November and April. Summer rainfall is normally three to five inches.

A wide variety of crops adapted to the northwestern United States can be grown with nursery, small fruits, vegetables, and forage crops predominating. Many specialty crops are being grown on a small scale. In the livestock field, dairying is most important with a few sheep and beef being maintained.

The 1956-57 Agri-Business Conference was set up in March,

1956, by the County Agricultural Advisory Council. The Council is composed of 12 persons. Nine are elected chairmen of the commodity committees, 4-H Leaders' and Home Economics' Council representatives, two are chairmen of Conservation District Supervisors, and one is chairman of the County Agricultural Stabilization and Conservation Committee.

The members of the Agricultural Advisory Council, working with the County Extension staff, set up

the special committees for the Agri-Business Conference, the chairman and personnel for each committee, and the general field or scope of the committees' study and activity.

The remainder of this publication deals with the reports of the various committees set up by the Advisory Council.

Members of the Multnomah County Agricultural and Home Economics Advisory Council are as follows:

Multnomah County Advisory Council

- | | |
|-----------------------------|---|
| Louis F. Nuffer | Chairman Nursery Committee and
Chairman of the Council |
| Albert Palmblad | Chairman Dairy and Livestock Committee |
| Kaz Tamura | Chairman Fresh Market Vegetables |
| John Dreyer | Chairman Small Fruits |
| Alton Thompson | President 4-H Club Leaders' Association |
| Mrs. William Udey | Chairman Home Economics Council |
| Orson Iverson | Chairman Farm Crops Committee |
| Max Perrin | Chairman Bulbs Committee |
| John Strebin | Chairman Land Use Committee |
| Austin Corlies | Chairman County A. S. C. |
| Ernest Lundbom | Chairman East Multnomah Soil
Conservation District |
| Elmer Peterson | Chairman Sauvies Island Soil
Conservation District |
| W. S. Averill | County Agent, Secretary |

Land Use Committee Report

The Situation

Multnomah County is one of the smaller counties of the state, having a total acreage of only 271,360 acres. It is located along the Columbia River, at the mouth of the Willamette River, and includes the city of Portland.

Population in the area increased from 355,099 in 1940 to 471,537 in 1950. Most of the population increase was in Portland and the city limits, creating a heavy demand for land to be used for housing and industrial purposes.

The demand for land to be used for housing and industry has increased land values in some parts of the county as much as 400 to 500 per cent between 1946 and 1956. Interest on such land values makes it impossible in many instances to show a profit from agricultural production.

At the same time land values go up, tax assessment values go up — not only on housing and industrial land, but also on neighboring land being used for agricultural purposes.

Over these same years, the price that farmers receive for

their crops has not materially increased. The yield per acre has increased but not in proportion to land values and taxation.

As a result of housing and industrial expansion, the total number of acres in farms has decreased from 79,313 in 1945 to 71,058 in 1954. This is a decrease of 8,255 acres in a nine-year period. This tremendous change in land use has developed land speculation. Farmers owning land are caught between agricultural production, offers to buy their farms, and the natural speculative desire to wait for even higher prices.

Urban development and increased valuations have largely taken place in the east central and southwest areas of the county. This naturally has an inflationary effect on all parts of the county, adding unrest and uncertainty to agriculture. Farmers hesitate to make permanent improvements or increase other permanent investments on the farm or in marketing facilities under these circumstances.

Taxation

The Situation

The only source of income from farm land is from its ability to produce agricultural crops. The present system of evaluating farm property for taxing purposes is not in the best interest of the

future of agricultural production, and works against the keeping of farm lands in production. This is especially true in areas adjacent to cities where, under the present system, land is valued beyond its ability to produce, which forces it out of agricultural production

and into subdivisions, speculation, and neglect, prematurely destroying the value of much otherwise good farm land.

Farm Property

Our committee wishes to recommend that farm land which is being used continually for production of agricultural crops be evaluated for taxing purposes on the basis of agricultural economy and native soil productivity, and not on the value of adjacent property which may be used for other purposes. This productive ability should be determined by soil types, topography, and other factors that influence the use of this land for various types of crops.

Farm Crops

While they are in the hands of the producer or his marketing representative, farm crops should not be subject to personal property tax for one year from the time they are harvested.

Trees and Shrubs

Producing fruit trees, nut trees, all berry plantings, shrubs, and nursery plantings that are being used for the production of crops, that are being grown for agricultural production, or that are being grown for market should not be taxed as personal property.

Fruit and nut trees that are grown at a substantial expense to the producer for the purpose of increasing the income of the individual from the land since his income is subject to the income tax, both federal and state, the taxing of the trees as personal property creates a double tax. The existence of trees and shrubs on farms does not add to the loan value of the land as set up by loan agencies, including the Federal Land Bank, because they are perishable and their production and value can be destroyed at any time by weather, insects, disease, or neglect.

Soil and Water

Irrigation

During the past 20 years, the practice of irrigation, particularly sprinkler irrigation, has increased from a very few acres to approximately 6,000 acres subject to irrigation in 1956. Expansion of irrigation has been pretty well limited to satisfactory water supplies. On Sauvies Island, irrigation has been limited to the use of water in drainage canals. In the Skyline area, there has been very little irrigation, mostly from ponds. In the eastern part

of Multnomah County, there has been irrigation from Johnson Creek, Beaver Creek, Big Creek, and Buck Creek. The remainder of irrigation in the eastern part of the county has been from wells. There has not been any reliable information available on the ground water which means that some wells have proved very satisfactory while others have been a great disappointment.

Crops irrigated have consisted of pastures, vegetable crops, small fruits, and nursery crops.

Streams

A few years ago the Sandy River and all of its tributaries were closed to irrigation by an act of the Legislature. Through the activities of the Multnomah County Land Use Committee and the East Multnomah Soil Conservation District, the 1955 Legislature opened Big Creek, Buck Creek, and Beaver Creek to irrigation. The first two streams are located in the Corbett area, with Beaver Creek more or less paralleling the Sandy River on the south and emptying into the Sandy River at Troutdale.

Big Creek and Buck Creek both have adequate supplies of water at the present time, and it appears that these streams might furnish enough live water for some time. This is due to the fact that there is not a large acreage of land readily subject to irrigation, although there is sufficient land to pick up most of the water if water is to be pumped from the creek to higher elevations.

Beaver Creek above the Troutdale Road is, for the most part, an intermittent stream. Previous to the installation of Portland water mains, both branches of Beaver Creek went dry early in the summer with the exception of two or three springs on one branch which furnished a small trickle of water. Since the installation of the pipelines and with the leakage from the pipelines, these streams have had a very small amount of water most summers, although the main branch above the John Strebin place has been dry within recent years.

There are numerous opportunities for farm storage ponds on Beaver Creek, and these ponds under present laws can store water from the middle of the winter until the first of June. The only real problem involved is the question of whether or not these dams would be required to have fish ladders.

On Sauvies Island the main drainage ditches include the Gilbert River. Irrigation from these ditches has proved quite satisfactory with the exception that there are some spots that have an elevation of approximately sea level and other spots that have an elevation of 15 feet. When irrigation water is provided for the higher levels, drainage is not satisfactory on the lower levels. Thus it appears temporary gates or weirs will need to be installed in the drainage system in order to store water for irrigation on the higher levels, and at the same time permit satisfactory drainage of the lower levels. This work will eventually be done.

Domestic Water Supply

The Land Use Committee has been interested for a number of years in domestic water supply, particularly for the eastern part of Multnomah County. Originally, farms in this area were supplied by individual wells but as use increased, many of these wells went dry. This resulted in the formation of numerous water districts which purchase water from the Portland water system. Increased housing development has naturally increased the demands on the lines. In a good many places

where the pipelines are small, the result is that friction in the lines reduces the water pressure to a point where it is unsatisfactory.

The Land Use Committee conferred with representatives of the State Water Resources Board at which time this problem was presented. As a result, the following letter from Don Lane, Secretary of the State Water Resources Board, was received by the Land Use Committee. From Mr. Lane's letter, it seems there is an adequate source of supply in the Portland Bull Run Watershed area to support an increased population of approximately 2 million or more persons.

Copy of letter from Don Lane,
Secretary Water Resources Board:

STATE OF OREGON
State Water Resources Board
Salem
January 7, 1957

"Mr. W. S. Averill
Agricultural Agent
Multnomah County
Gresham, Oregon

Dear Mr. Averill:

In accordance with the request of the Multnomah County Land Use Committee, we have made a preliminary check on the adequacy of supply of the City of Portland Water Department.

U. S. Geological Survey Circular No. 372, published in 1956, states that Portland is at present utilizing approximately fifteen per cent of the average flow of the Bull Run River at the water system headquarters. This percentage has been confirmed by H. Kenneth Anderson, Chief Engi-

neer, Bureau of Waterworks, Portland, Oregon.

Portland is at present serving a population of 566,831 people. Of this total, 421,268 are inside the city limits; 136,722 are served with Bull Run water by water districts and companies; and 8,841 people are served on city-owned lines outside the city limits. The annual water consumption for the City of Portland during the period July 1, 1955 to June 30, 1956, was 17,637,868,424 gallons. The average daily consumption was 48,322,927 gallons or a daily average consumption per inhabitant of 114 gallons. Outside companies, water districts, and consumers during the same period of time utilized 3,959,956,132 gallons. These companies, districts, and consumers had an average daily consumption of 10,849,195 gallons or an average daily consumption per inhabitant of 79 gallons.

It was estimated by Mr. Anderson that the supply of Bull Run River is adequate to serve a population of 2,500,000 persons in the metropolitan Portland area. The current and long range planning of the Portland Bureau of Water works is predicated upon future expansion of the service area to include the metropolitan area of Portland.

Plans are being prepared for additional storage facilities on Bull Run River as future demand increases. It is the opinion of the Chief Engineer for the Bureau of Waterworks that additional storage will not materially increase the delivery cost of water.

Portland has not exercised that portion of its contracts with dis-

tricts that authorizes the City to curtail or shut off district supplies because of the need within the City. It appears that adequacy of supply is not the major domestic water problem in the metropolitan Portland area."

Wells

A number of wells have been put down for irrigation purposes in the eastern part of Multnomah County. Some of these wells have been satisfactory and others have been a complete disappointment. Several years ago, the Land Use Committee requested the U. S. Geological Survey and the State Engineer to make a groundwater survey in the eastern part of Multnomah County to determine the facts regarding the availability of groundwater and the places where wells could reasonably be expected to be satisfactory. As a result of the committees' activity, the survey was started in 1954.

The following letter from R. C. Newcomb, District Geologist, Groundwater Branch, U. S. Geological Survey, Box 3418-1001, N. E. Lloyd Blvd., Portland 8, Oregon, is a progress report on this survey:

"Subject: Progress report on the groundwater investigation in the East Portland Area.

The investigation into the occurrence of groundwater in the area lying between the Columbia and Clackamas Rivers eastward from the Portland city limits to the Sandy River was started in 1954 after recommendation by the State Engineer and approval of our Branch Chief. The project

has been called the East Portland area for lack of a better short name that is representative of the area.

A field canvass was made of the various sources where ground water information could be obtained and owners of many of the wells were contacted for additional information. About 300 wells and springs were visited. The water level fluctuations have been measured monthly in 13 wells. Drillers' logs have been collected and interpreted on about 75 wells.

Concurrently with our work the Engineering Geology Branch of the Survey has been mapping that area as part of their mapping project of the Portland metropolitan area. Our men have collaborated in that mapping in the East Portland area and have provided the subsurface information for much of that work. The geologic map of the area has been completed in the field form.

The project has had to be deferred several months at two different times because of the pressure from other work.

The remaining work to be done includes completion of the well and spring data collection and the preparation of the report. In all, there is probably about 6 man-months of work required.

We hope to be able to get some of the work done this spring, and will undoubtedly finish the report by June, 1958, at the latest — earlier, if we get the opportunity to do so."

The completion of this groundwater survey is very important to this area for the reason that only a very small part of the eastern

part of the county can be served from streams. This means that groundwater is the only other available source of water for irrigation purposes.

With ever increasing land value and production competition coupled with the types of crops being grown in the area, it is essential that there be adequate irrigation if agricultural production of nursery crops, vegetables, and some of the small fruits is to continue satisfactorily.

Drainage

Because of the heavy winter rainfall and the tight subsoil structure in many of the soils in Multnomah County, the drainage of farm land is of major importance. In the eastern part of the county, it is estimated that 23,500 acres of land can profitably be tile drained. Through the efforts of the Land Use Committee, Soil Conservation Districts, the ASC Program, 1,500 acres of land in eastern Multnomah County have been tile drained by the fall of 1956, leaving 22,000 acres of land that still should be tile drained.

On Sauvies Island, the original work was set up primarily for the surface drainage of water but, as time has progressed, farmers are finding it profitable to put in tile. In order to secure satisfactory tile outlets, it has been necessary for the drainage district to launch a rather extensive program of lowering the water levels in the drainage district ditches. This work is now in progress.

It is estimated that 8,000 acres of land on Sauvies Island can be eventually satisfactorily tiled and,

of this acreage, only 2,810 acres have been tiled, leaving 5,190 acres that should be tiled.

By tiling, farmers are finding that they have the opportunity to work their ground earlier in the spring and later in the fall, and at the same time have more moisture actually available for plant growth. In many cases, the increase in crops and the decreased cost in tillage operations have more than paid for the expense of tiling in from one to three years. A good quality of clay tiles satisfactorily placed is good for 50 to 100 years. The committee strongly urges the continuance of tiling projects.

Erosion

Because of the contour of the ground in eastern Multnomah County and in the Skyline area, erosion is of considerable importance. Land values and taxes make it necessary for much of this land to be intensively cropped in order to produce a satisfactory income. One of a number of methods being used to prevent erosion includes the laying of tile so that excess moisture can quickly be drained out of the soil allowing normal rains to soak in rather than run off. Where a satisfactory stand of grass is obtained, there is very little erosion even on steeper land. There are about 6,000 acres of farm land that should be contour-cropped. There are an additional 500 acres of land that probably will respond satisfactorily to cross-slope farming, and there are approximately 30,000 acres that should have cover crop seeded in the fall where an inten-

sive cropping program is followed.

Through work with the different agencies, great strides have been made in the reduction of erosion, but erosion is still a major problem, and the Committee strongly recommends that all farmers give this problem their best attention.

Soil Map

In 1919 a soil map for Multnomah County was published. This map is on a scale of an inch to the mile which did not allow for a great deal of detail and made it impossible to show minor variations in soil types. For some years, a movement has been afoot to reclassify soils and to publish a map on a larger scale, showing

not only the soil type but certain other soil characteristics such as slope and other factors. Such a map could be of tremendous value to agriculture in this area, and the committee strongly recommends that all progress possible be made on the completion of a new soil survey map.

The new soil map might be speeded up if farmers in the Skyline area would organize and join a soil conservation district. The soil surveys under the U. S. Department of Agriculture are the responsibility of the Soil Conservation Service, and the policy seems to be to give Soil Conservation Districts first priority for assistance.

Classification and Zoning

The Situation

According to the apparent thinking of the County Planning Commission, it seems that the area along the Columbia River north of Sandy Boulevard and as far east as Troutdale, or farther, will be classified for industrial purposes. With this classification, it is expected that industries will develop along with increased power, both electrical and gas, and with the development of spur railroad facilities, highways, etc.

It also appears that there will be several major changes in highways connecting the Mt. Hood Loop road with the present Banfield Expressway and other four-lane roads leading into Portland. These developments, particularly on the highways, will shorten the

time required to get into downtown Portland, making residential development in the eastern part of the county more desirable.

The development of industries along the Columbia River will create a demand for additional residences close to the industries and close to main roads crossing the arterials leading into Portland. Where residences are developed in farming areas, the farmer's problem of spraying and dusting crops and operating equipment at night is increased. In some cases, it becomes practically prohibitive because of the fact that sprays from high pressure equipment will drift, and dust will almost always drift in one direction or another. People residing in the housing developments in rural areas will object to these opera-

tions for various reasons including their fear of poisonous sprays or dusts.

Zoning

The committee recognizes the value of planning and zoning in Multnomah County. The committee further recognizes these principles: (1) Under long-range planning, occasionally people are going to be inconvenienced and not allowed in all cases to make subdivisions as they desire, without regard to other plans and developments in the neighborhood. (2) Under planning and zoning, no individual receiving his livelihood from agriculture should be forced from his occupation or compelled to dispose of farm property because of any policies, actions, or decisions of a Planning Commission. (3) It is the right of the individual owner of farm property to develop his acreage for subdivision purposes even though such property may be within an area which has been designated "Agricultural Use Only".

This committee believes major housing developments generally east of Gresham will not be rapid, and agriculture in this area will continue to be important for several years to come. With this in mind, the committee believes

that farmers in this area would be well advised to continue agricultural production. They can give serious consideration to the use of fertilizer, modern equipment, and better methods of farming to increase the income per acre until such time as there is a real demand for the use of the land for housing or industrial purposes. It is also the belief of this committee that farmers in this area should thoroughly study the situation before making expensive permanent investments in buildings and other improvements suitable only for agriculture.

This committee agrees with the Tax Committee's plan for a change in assessed valuation of agriculture.

The committee believes that a few park areas should be purchased at strategic positions along the Sandy River, Beaver Creek, and the Columbia River, and perhaps on some of the small streams in the Corbett area. It is the feeling of this committee that the loss to the county in taxes would be less than will be the increase in valuation of these lands if the purchasing date is put off. The number of people using Dabney Park on the Sandy River is an illustration of the need for such facilities.

Part-time Farming and Economic Unit

This committee feels that it is impossible to set up a minimum acreage known as an economic unit, but that an economic unit depends upon the crops to be grown and the net return possible from the operation. The committee feels that a farmer is entitled

to a reasonable salary and a 6 per cent or more return from his investment above costs of operation, and that any farm operation not producing such a return is not an economical unit. This recommendation simply means that in certain enterprises a smaller acreage

might be economical where, with extensive farming, a much larger acreage would be necessary. In addition, the committee feels that no person should undertake to purchase agricultural land in this area for agricultural purposes without first having sufficient cash to make at least a 50 per cent down payment while still having sufficient funds for one or two years of operation, even though the purchase be made on a lesser down payment.

Part-time farming in Multnomah County is rather widespread. By part-time farming is meant those small acreages of from 5 to 15 or 20 acres where the family is living on the operation, but a

major part of their income is from sources off the farm. Experience has shown that these small acreage operations are not economically sound. Weather to a large extent controls the time of seeding and cultivation, and the man who is working off the farm cannot always expect to have the weather in his favor.

A small acreage as a home and a place to raise a family has decided advantages, but before undertaking such a project, it is strongly recommended that people study carefully Oregon State Extension Bulletin 753, "Do You Want to Live in the Country?" This bulletin points out many of the questions involved in such an operation.

Woodlots and Reforestation

The Situation

There is in Multnomah County an estimated 14,000 acres of land in farms that is not suited to permanent pasture or seeded or cultivated crops. At the present time, very little attention is being given this land. The Weeds, Woodlots, and Reforestation Committee recommendations are directed to this particular area with the intent of increasing the income that may be obtained.

Reforestation

It is a recommendation of this committee that land not suitable for pasture or cultivation be planted to trees as a long-time investment. As time goes by, it is evident that our national forests are going to be cut, thereby harvesting what nature has built up over a period of years. Even though

the national forests and big timber holdings are replanted, the amount of resultant lumber available will be less than what we have had in the past. Better use of forest waste products and their combination with chemically produced products will probably result in more and more use of this type of material. However, the committee feels there will still be a demand for a good grade of lumber.

The planting of rough land to trees becomes a long-time investment, but it is also believed that, by using the best thinning methods considerable income could be derived during the period from planting to the period when the final cutting is made.

The committee suggests that small trees can often be purchased

from the State Forest Nursery. It further recommends that these trees be planted in rows where they can be cultivated and cared for, during a period of at least 1 to 3 years before being transplanted in the rough land where they have to compete with a certain amount of brush, heavy grass, or fern. The committee feels that trees at least 2 to 3 years old stand a better chance of survival. In all cases, newly-planted areas should be protected from grazing and fire.

Christmas Trees

This committee believes that plantings for Christmas trees offer an additional source of income. These plantings normally can be made thicker than for regular reforestation. Christmas trees can be grown either as thinnings in a long-time timber production, or as a specialized crop. It is hard to say now whether the cutting of Christmas trees in conjunction with long-time timber production will be the best method of management, or whether it may be better to make rather heavy plantings, let the trees grow up to good Christmas tree size, then cut them high enough so the top branch will form another Christmas tree in a few years. There appears to be two alternatives to this method. One would be comparatively thick plantings, coupled with the digging and balling of Christmas trees, thereby selling live trees.

The Situation

Weeds are one of nature's ways of covering the land. If man is to

The other would be a comparatively thick planting with the cutting of Christmas trees at ground level so they would not come back, thereby constituting a thinning program.

Windbreaks

Windbreaks, particularly in the eastern part of Multnomah County have definitely established their desirability. In the past, the so-called Port Orford cedar has appeared to be the most desirable variety to use. Two difficulties have arisen, however. One was the unduly heavy freeze of November 11, 1955, which completely killed or seriously thinned windbreak plantings. The other difficulty is the apparently widespread prevalence of Phytophthora root rot which is taking out a rather large number of windbreaks particularly on poorly drained soil.

The cedar tree locally known as Hogan's cedar makes a good windbreak and has demonstrated its ability to withstand both of the above mentioned difficulties. So far, the State Forestry Department has not seen fit to propagate these trees for farm use as windbreak trees but they can be purchased from local nurserymen. This committee believes that persons planting windbreak trees might do well to pay the additional cost for Hogan's cedar trees when making windbreak plantings.

Weeds

plant and harvest economic crops, he must find ways of controlling nature's competitive plants.

In past years, cultivation, hoeing, and burning were the principal means. At present there are numerous weedicides — some general and some selective — that may be used. There is still the problem of controlling persistent annual and perennial weeds to prevent their taking over pastures, woodlots, and cultivated land.

County Roadside Spraying

The committee urges the county to take the lead in roadside spraying for the purpose of controlling wild evergreen and Himalaya blackberries along roadsides. The control of bushy plants and the control of weeds such as Canada thistle, tansy ragwort, Jt. Johns wort, and certain of the annual weeds which are becoming pests is also needed.

The committee recommends that the county contact land owners along the right-of-way before the spraying is done, so the land-owners can point out the locations of desirable shrubs and co-operate with the county's spray crew. It further recommends that such a spraying program will undoubtedly necessitate the use of more

than one kind of spray, since it appears that sprays that will satisfactorily control blackberries and brush will not control Canada thistle. The committee recommends that the best sprays be used for Canada thistle, St. Johns wort, and tansy ragwort.

Farm Spraying

The committee highly recommends that land owners take the necessary steps to control wild blackberries, brushy plants, and noxious weeds on their own property, thereby setting the example for others. It appears now that chemicals are available that will satisfactorily control most of the noxious weeds. These chemicals, or newer chemicals as they are developed should be used.

Tansy Ragwort and Ragweed Control

At the present time, Multnomah County has been established as a weed-control area for the purpose of controlling tansy ragwort and ragweed. The committee highly recommends this program and suggests that even greater effort should be made in the control of these weeds.

Taxation: S. B. Hall, Chairman

Larry Aylsworth	Kola Fellman	Wayne McGill
Louis Nuffer	Archie Hall	Elmer Sturm

Soil and Water: Fred Cholick, Chairman

Ernest Lundbom	Austin Corlies	Ray Shiiki
B. D. Molinari	Jimmie Gordon	Erwin Douglas

Land Use Classification and Zoning: John Seidl, Chairman

Erick Enquist	Vern Wasson	Dick Ellis
Art Strebin	Art Burns	Marsh Dunkin

Weeds, Woodlots, Reforestation: John Campbell, Chairman

J. W. Altman	M. B. McKay	Louis Garre
Carl Lyski	Eugene Richards	Harvey Tofte

John Strebin—General Chairman
W. S. Averill—Secretary

The Home and Community Committee Report

The Home and Community Committee has made a study of local problems which are affecting home and community life. It is hoped that the recommendations made by this committee will help all families in Multnomah County to acquire the kind of home and community life they want for themselves and their children, considering the social needs for good family living as well as

material necessities for comfortable living.

"How can this be accomplished?" Only by working together for a common good and reaching more people can we hope to provide the home and community life we want for ourselves and our children. We have tried not to duplicate the work of other groups in the county but rather to emphasize and encourage continued effort along these lines.

Community Safety

Accidents don't just happen. They are caused. If we know why accidents happen, we can take intelligent action to prevent them.

In 1955 there were nearly 63 million automobiles on the highways, most of them driven by motors of 200 to 300 horsepower. In 1955 the traffic deaths totaled 38,310 persons. Three out of four accidents involve cars traveling in clear weather on dry roads. Nine out of ten vehicles apparently are in good condition at the time of the crash. In 1953 a nation-wide inspection of 500,000 cars and trucks showed that 32.5 per cent, nearly one-third, had mechanical defects. Drivers under 25 years of age constitute about 15 per cent of the total drivers and are involved in almost 25 per cent of the fatal accidents that occur in a single year.

The committee recommends:

1. That more emphasis be placed on driver training education. This education could

begin with the pre-school child in his toy automobile and could be continued in the elementary grades. Actual driver training classes should be a required course in high school. The average driver would profit greatly from a driver training refresher course.

2. That there should be a more rigid enforcement of all traffic laws. This enforcement should make use of modern methods and procedures of traffic control.

3. That drivers traveling below the prevailing rate of speed and obstructing traffic be subject to traffic control laws.

4. That automobile companies be encouraged to promote safe driving by advertising to sell safety as well as cars.

5. That higher dividers on freeways be constructed wherever feasible.

6. That insurance companies be urged to give drivers under 25

years of age lower rates where their record is accident-free.

7. That "Safe-teen" clubs, Junior Safety Councils, and similar organizations for "teenagers" be encouraged in all high schools.

8. That bicycle safety measures be stressed in all schools.

9. That pedestrian safety programs for children and adults be encouraged in all communities.

Home Safety

In 1953 more than 29,000 deaths were due to accidents in the home; in 1954 more than 14,000 people died because of accidents on the farm. More people in the 1 to 5 and over 65 age groups die because of home accidents than in any other age group. Accidents do not just happen; there is a cause. Accidents can be prevented, or at least the number reduced materially, by first finding the cause and then doing something about it. Most fires in the home are caused by carelessness. The committee recommends:

1. That an educational program of some type be encouraged by the county, state, and national governments. The program should be carried on by various organizations, agencies, commercial enterprises, and civic groups, and by the public relation programs of the TV stations, by animated cartoons, and by spot announcements on the radio. These should be ing, and to the point.

2. That each family obtain a first-aid kit, keep it up-to-date, and in a convenient location.

3. That every home install a fire extinguisher and keep it in working order.

4. That every family be able to

take care of simple first-aid treatments, know how to call their doctor, the ambulance, the police, and the fire department without delay.

5. That all families check their homes for accident hazards and correct them in the following manner:

a. Keep handles of cooking utensils turned toward back of stove and out of reach of children.

b. Have hand rails on all stairs.

c. Keep stairways well lighted.

d. Keep all stairsteps in good repair.

e. Keep poisons and all medicine clearly labeled and out of reach of children.

f. Keep electric fuses, cords, and plugs in good repair. Have a qualified electrician check wiring to prevent overload if using a number of small appliances.

g. Keep knives sharp and in a rack.

h. Cut away from oneself when cutting with a knife.

i. Keep step-ladder in good repair.

j. Keep tools and toys picked up and in their proper place when not in use.

k. Keep floors clean by wiping up spilled water, grease, and food immediately. Floors are dangerous if slippery type waxes are used. Non-slippery waxes are available on the market.

1. Check throw rugs for rubberized backing to prevent skidding.
6. That furnaces and flues be checked periodically to see that

they are in good operating condition.

7. That fireplaces be kept clean and fire screens used at all times. The installation of dampers operating from outside the fireplace should be a part of the building code.
8. That attics and basements be kept clear of rubbish, oily cloths, and waste paper.

Civil Defense

Natural disasters occur from time to time and bring about emergencies involving everyone. The world is moving further into the Atomic Age and the need to know what to do in case of an attack is of great importance. Civil Defense is here to stay and is an insurance policy for survival.

The committee recommends:

1. That each family have an action program — know what to do and where to go.
2. That each family have survival kits including food, water,

reading material and games, etc., for the children.

3. That each family have a first-aid kit and know how to use it.
4. That each family keep fire-prevention material handy and in good repair.
5. That state, county, and local authorities continue vigorously to plan and publicize an action program for public defense.
6. That the public cooperate with the civil defense authorities in the action program for civil defense.

Parks and Recreation

Multnomah County is growing—an estimated increase of 22.4 per cent between 1950 and 1955 is reported by the Bureau of Business Research, School of Business Administration, University of Oregon. The 1950 census states that 90.3 per cent of the total population of 471,537 is urban, 8.3 per cent is rural non-farm, and 1.3 per cent is farm. There is a steady increase in the rural non-farm population as housing projects

continue to be developed in the areas surrounding the city of Portland. The Portland Park Commission is handling the parks and recreation problems within the city, but little has been done in area outside the city limits. It is true that there is a number of state parks with picnic facilities within easy driving distance of any part of the county, but the families living outside the city of Portland have few, if any, neighborhood parks or playgrounds.

It should be understood that "parks" refers to areas with trees, picnic tables, and stoves or fireplaces; while "playgrounds" refer to areas clear of trees, poles, etc., where there is space for a ball field and other games as well as facilities for arts and crafts.

The school districts, as a rule, have been foresighted in looking ahead in purchasing land for building sites for additional schools as population increase demands them. It is the general feeling that the schools and playgrounds are not used as much for community activities as buildings of this type should be.

Therefore, the committee recommends:

1. That school playgrounds be used the entire year for recreation. During the summer months, rooms in the school building should be made available for arts and crafts. Teachers and supervisors should be available as needed.
2. That playgrounds and parks should be large enough to accommodate 200 or more children at day camps. There should be a ball field or two and space

for other activities as well as arts and crafts.

3. That the County Commissioners or other groups set aside plots of land for parks and/or playgrounds in the more sparsely populated areas of the county so that land will be available when needed.
4. That an enclosed swimming pool be made available in each high school district for year-around use.
5. That an Inter-County-City Recreation Committee be set up by the county governments of Multnomah, Clackamas and Washington counties. The committee should include representatives from the so-called "bedroom" or metropolitan fringe areas in these counties. This committee should be an advisory committee to the county governments in the matter of purchasing, setting up recreational areas, and maintaining these areas.
6. That Government Island, McGuire Island, Blue Lake, and a plot of ground on Sauvies Island be obtained for recreational purposes.
7. That the city-owned hill behind Meadowland Dairy be developed as a recreation area.

Health and Nutrition

The committee feels that people in general are not informed and are not putting sufficient emphasis on the importance of natural food values in cereals, fruits, and vegetables as produced by nature. In milling white flour many minerals, vitamins, and oils are re-

moved. Twenty-seven states have laws requiring the enrichment of flour, requiring the restoration of those known minerals and vitamins removed during the milling process. Oregon, however, does not have such a law.

Under present legislation, a

federal act known as the Miller Act prohibits the use of sprays and dusts not authorized by the Food and Drug Administration. The committee feels that people should be conscious of the health factor involved in promiscuous spraying or dusting that may be done by careless or uninformed operators.

The committee wished to make the following recommendations:

1. More publicity should be given to the nutritive value and flavor of home grown fruits and vegetables.
2. Through use of such educational facilities as television, radio, newspapers, and bulletins, the importance of following instructions in mixing, using, and applying spray materials and dusts for the control of insect pests and diseases should be publicized.
3. More emphasis should be given to proper food preparation and cooking as a means of preserving natural food values.
4. All fruits and vegetables should be thoroughly washed before cooking or using.
5. Continued emphasis should be given to safety measures in handling and storing insecticides and fungicides in all forms.
6. There should be an increased investigation on additives for preserving, coloring, and flavoring of food products.
7. There should be continued investigation on the effect of

insecticides and fungicides on human health.

8. There should be a program on nutrition and mental health for each home economics extension unit.
9. Health courses required by Oregon state law should stress the basic seven foods, good eating habits, dental, eye, and hearing tests, and all phases of public health and its value to the individual well being.
10. There should be more regulation on movies and plays regarding abundance of drinking and smoking scenes.
11. Whenever drink vending machines are to be installed in tax-supported schools, they should contain milk, fruit, or non-carbonated drinks, in place of carbonated beverages.

Home and Community Advisory Committee

Mr. and Mrs. Wm. Berke, Chairmen
Mr. and Mrs. Ivan King
Mrs. Berna Olson
Mr. Sid King
Mr. George Covall
Dr. Allen Fisher
Mr. and Mrs. L. O. Anderson
Mrs. Walter Hossner
Mr. and Mrs. R. R. Hoffman
Mr. Wayne Swaggart
Mrs. L. E. Hartwig
Mrs. Carl Hoffman
Mrs. Frank Dempsey
Mrs. E. A. Thompson
Mrs. E. P. Townsend
Mrs. Lowell M. Miller
Mr. and Mrs. E. J. Hill
Mrs. H. R. Wyttenberg
Mrs. Claude Miller
Miss Emma Lou Webster, Sec.
Mrs. Mary Young, Sec.

4-H Club Committee Report

Summary of 1946 4-H Report

In 1946, resolutions were passed that each school district should sponsor a 4-H program, and the parents and community should provide leaders for the projects requested by the pupils over nine years of age.

Leaders of 4-H projects who attended the local leaders' meeting held the first Wednesday of the month, were to receive project or organizational training at the meeting.

Whenever possible leaders

were to take an active part in County and State Fairs and also attend the Annual Leaders' Conference in Corvallis.

The following projects were to be included and worked out in the 4-H County Program: Crops, with emphasis on small fruit industry, growing certified potatoes, and nursery stock; and livestock, emphasizing poultry and rabbit projects. Projects on home gardening, food preservation, food preparation, clothing, and home-making were to be promoted.

Summary of Accomplishments

A summary of accomplishments resulting from these resolutions in the past ten years follows. Multnomah County has 22 school districts; of these, there are 16 very active 4-H districts, two with some Club work and four who have not promoted 4-H. The parents and citizens of the 18 districts have provided leaders for the various projects. Parents cooperation has improved, but leaves much to be desired, and this phase is to be promoted in the next ten years. The home economic units under the home demonstration agent have provided a number of 4-H project leaders.

4-H organization and project training has been carried out by various methods at the local leader meetings.

This past year Multnomah County had one of the largest

delegations at the Annual Leaders' Conference, with 29 members attending. The fairs could not possibly be organized, and exhibits arranged in a manner desirable for public scrutiny, without the faithfulness and cooperation of the leaders.

The club program generally is recognized as a constructive youth program. Moral and material support comes voluntarily from a variety of sources.

Community organizations such as P.T.A., Home Extension Units, Granges, Auxiliaries of the American Legion, Kiwanis, Lions, and Rotary Clubs give real and material support. Commercial firms, Portland General Electric, First National Bank of Portland, U. S. National Bank, Safeway Stores, feed dealers, and local business firms, to mention a few, act as

substantial sponsors in a variety of ways. In addition, sponsors of the National Awards Program have various awards that carry through to the county level. Sears Foundation might be mentioned as one example of this large group.

The project for raising strawberries has drawn some interest, but project material and information on certified potatoes and nursery stock has not been worked up. There has been a large enrollment in rabbit and poultry projects these past years. The food preservation project has had a large enrollment and classes at the fairs have been worked out in the freezing division. The food preparation project and the simple sewing projects have been revised these past two years, enhancing interest in the programs for the members and leaders. A new course in home living has just been made available for members; it is a very thorough project which should give a substantial background to any high school girl who plans to marry shortly after graduation.

The increase in population in the age bracket under 15 years has increased 75 per cent from 1940 to 1953. The census figure for July 1, 1940, showed 1,100,000; on July 1, 1953 it was 1,630,000. This potential of possible 4-H members has shown up in statistical records of the office. In 1946, there were 1,132 enrolled in 4-H pro-

jects; in 1956, the enrollment was 1,869, while the members of clubs increased from 112 to 210.

The 1957 Agri-Business Committee is made up of the Local Leaders' Association with Alton Thompson of Skyline, President. The Local Leaders' Association is made up of all leaders in 4-H. Leaders meet the first Wednesday night of the month, excepting July and August.

The following problems are those the committee expresses as their concern for the coming ten years:

1. The lack of parental cooperation with leaders and lack of encouragement given to their children to complete a chosen project. If a 4-H student is to give his best effort and receive the best return for carrying out a project, the parents must cooperate with the leader and encourage the family member.
2. The need for projects that are timely and of vocational interest to the teen-age members. There is a need for drafting and making workable advance projects available to high school members. This age group has the highest percentage of drop-outs, due in part to lack of advanced projects and competition from other activities. It is during the latter part of the 4-H program that members stand to gain in the way of college scholarship and awards.

Suggested Projects

The following projects for advanced 4-H members have been suggested:

1. **Automotive Course:** Maintenance of an automobile, driver training, and safe driving habits.

2. **Farm Budgets:** How to make correct purchases and keep an adequate record.

3. **Home Budgets:** How to keep correct records of expenditures and savings.

4. **Home Decoration:** Advanced course on how to purchase furniture that goes well with the decor and setting of the home.

5. **Commercial Purchasing Of Merchandise and Clothing:** A co-educational course to teach young men and women how to receive the best value for the money spent on commercially made items. This could include ready made clothing, staple and perishable food, and household equipment. This is directed toward the member who is not interested in acquiring specific vocational skills or techniques.

6. **Firearm Safety:** Knowledge of and safety habits with guns, types of guns and their use, target shooting.

7. **Fish and Wildlife:** Studies on the conservation of wildlife, their habits, and the art of hunting and fishing.

8. **Livestock:** Set up a standard goal to be achieved in raising dairy and beef animals. At the present time, the beginning members are with the senior members. The projects begin and end each year, which is not an incentive type project for those who are interested in raising these animals as a livelihood.

9. **Communications:** Public speaking, radio, and TV. Opportunities for young men and women to meet the public and gain skill using these mediums of communication. Ham radio projects were of great interest to the leaders.

10. **Vocational Projects:** Projects that would offer to young men and women who have decided on a vocation an opportunity to learn the skills and techniques of that vocation through participation in 4-H project.

11. **Junior Leadership:** A county-wide participation in promoting 4-H work and clubs instead of leading one club, depending on the skill and ability of the member.

12. **Home Nursing:** A course set up for teaching what and how to take care of minor ailments; care of family members when confined to the bed; and the need for health and nutrition.

Goals for Leaders Individually and Cooperatively

1. Work toward achieving parent cooperation.

2. Promote public relations and advertising:

- a. Have 4-H signs at city or town entrance to greet incoming travelers.
 - b. Have displays, posters, write-ups, radio and TV programs that will bring the public's attention to the value of 4-H work for boys and girls.
3. Create funds to build better facilities at County and State

Fairs to take care of the growing enrollment in 4-H clubs and other club activities such as the FFA and Future Homemakers.

4. At the end of each project the leaders should summarize their experiences, problems, and solutions, and send it to the agents so they can study ways to make the project better.

Process for Carrying Out Suggestions

It was agreed that the district leaders would form committees within their districts to work on these projects and goals as they pertain to their particular area.

The suggestions that were given as goals for the leaders will be discussed by the Local Leaders' Association and conclusions will be drawn as to how they will be approached.

4-H Advisory Committee

The 4-H Advisory Committee consisted of the Local Leaders Association whose membership is 191 persons.

4-H CLUB LEADERS EXECUTIVE COMMITTEE

Alton Thompson	Mrs. Bob Kerslake
Dale Palmblad	Mrs. L. O. Andersen
Mrs. C. E. Morris	Mrs. Robert Frank

4-H District Leaders

Mrs. Wm. Soester	Mrs. N. P. Sather
Mrs. R. E. Townsend	Mrs. R. I. Neibauer
Mrs. E. C. Luce	Mrs. H. R. Poe
Mrs. John Milne	Mrs. W. W. Gowen
Mrs. Alton Thompson	Mrs. F. W. White
Mrs. C. L. Anderson	Mrs. L. O. Andersen
Mrs. J. O. Forsgren	Mrs. F. E. Kasch
Mrs. J. G. Tuttle	Mrs. Earl R. Essy
Mrs. Carl Baker	Mrs. Leo Rech
Mrs. M. H. Allen	Mrs. Robert Bishop

C. C. Miller and Mrs. Mary Young, County Agents and Secretaries

Farm Crops Committee Report

Certified Seed Potato Situation

The situation regarding certified seed potatoes has changed considerably since 1945. Multnomah County is no longer in an advantageous position regarding the sale of certified seed for the reasons listed below:

1. While this area has grown about 500 acres for the past several years, other areas such as Klamath Falls, Washington, California, Idaho, and other states have increased their acreage considerably. The main reason for this is the advent of the newer insecticides

such as parathion. They have found that they can now grow their own certified seed potatoes successfully.

2. Also, increases in freight rates have worked to the disadvantage of local growers. They also have given added impetus to other areas to grow their own seed potatoes.

3. Other areas with large flat acreage have been able to use combines for harvesting their potatoes and, as a result, have cut their costs considerably below those of local people.

Certification Program

With no foreseeable increase in demand for certified seed potatoes from this area, it is anticipated that the acreage will remain at about 500 acres per year, or there may be a slight decrease. In order to strengthen the certification program, the committee makes recommendations as follows:

1. The program of eye indexing should be revived to make certain that we have the best possible stock for growing certified seed potatoes.

2. To aid in disease control and roging, it is recommended that tuber unit planters be used for all seed plantings.

3. The use of insecticides other than parathion, such as diazi-

non and endrin, should be investigated for better, longer lasting control of aphids. During the past two years, parathion has not seemed to give satisfactory control.

4. A regular education program should be carried on in conjunction with the County Agents' office and the Department of Seed Certification to keep abreast of any changes in disease control as well as identification of any new potato diseases affecting certification.

5. The growers should look into the possibility of earlier planting and killing down of the potatoes in order to avoid the late season high aphid infestation which has given so much trouble.

Cost of Producing Certified Seed Potatoes

The Committee felt that there had been no accurate figuring of costs of growing certified seed potatoes in the past several years. In order to rectify this, the committee has itemized their costs of growing seed as follows:

APPROXIMATE COSTS OF PRODUCTION PER ACRE OF OF CERTIFIED SEED POTATOES Multnomah County, Oregon

Item	Cost
Rent of land	\$ 25.00
Cover crop	20.00
Preparation of land	25.00
Fertilizer — 500 pounds per acre	22.50
Seed — 10 sacks @ \$4.00	40.00
Planting and dip	10.00
Cultivating	9.00
Roguing	10.00
Dusting — 6 times 20 pounds per acre	30.00
Killing off	7.50
Harvest — 180 sacks per acre	67.50
Cold storage	7.50
Depreciation on machinery	66.00
Storage — 180 sacks	27.00
Soil treatment for beetle	6.00
Pick-up sacks	20.00
Organization expenses — tests, etc.	2.00
Hazards	18.00
Insurance	5.00
Hidden and miscellaneous items	15.00
Total	\$433.00

Cost per sack: $\frac{\$433.00}{180} = \2.40

Sorting15
Sacks and twine20
Sorter and electricity02
Cert. tags and inspection05
Taxes02

\$2.84

1. The committee recommends that users of certified seed potatoes go over their costs carefully to see where under their own situation they can reduce costs.

2. The committee feels that the sale of commercial potatoes is intimately tied in with the cost

factors of certified seed. In view of this, the committee recommends that growers pay particular attention to efficient grading and packaging in small attractive packages for retail trade, and that all growers point toward putting out a premium pack of uniform quality and grade.

Sales of Certified Seed Potatoes

The committee feels that, under the present situation, there are too many sellers of potatoes in ratio to the number of buyers. With seed growers selling individually for the most part, it is difficult to maintain a price that certified seed merits.

In view of this, the committee

recommends that all growers of certified seed in the area band together to form a cooperative sales company. This company could not only help to stabilize the market and sell at uniform prices, but could also act as an organization for purchasing all supplies for the certified seed growers.

Mechanization

Other potato-producing areas are cutting their costs considerably by the use of combine harvesting. These combines are used on land of large, flat acreage. Equipment adapted to that type of operation is not suitable for use in Multnomah County. In this area the fields are relatively small, the weed problem in the fall is troublesome, the vines are relatively rank, and often there is considerable rainfall during harvest.

1. The committee recommends that the Potato Commission and Oregon State College work cooperatively to develop a combine harvester for use in this area, taking into consideration the specific problems that have been mentioned. It is felt that such a machine must be developed if this area is going to compete successfully in both seed and commercial potato

production.

2. It is understood that a cucumber picker is in the process of being developed in the east. It is recommended that Oregon State College's Department of Agricultural Engineering look into the possibility of the use of such equipment for the cucumber producing area of this state.

3. Cauliflower and broccoli harvesting is now a hand operation and consequently is rather costly. It is felt that there are some phases of this operation that can be mechanized. The committee recommends that the Department of Agricultural Engineering at Oregon State College look into the feasibility of the bulk handling of cauliflower and broccoli in tote boxes similar to polebean production techniques.

Disease and Insect Control

The damage done by disease and insects in local field crops, together with the application of necessary fungicides and insecti-

cides to control them, is one of the major costs of production. To assist in the cutting of costs from this standpoint, the committee

recommends as follows:

1. Where rhizoctonia of potatoes is becoming more of a problem, growers should use the corrosive sublimate dip before planting.
2. That the County Agents' office look into the possibility of insecticides to substitute for parathion. During the past two seasons parathion has not given as good a kill as it should. The use of diazinon and endrin should be considered for aphid control where it is possible to use it.
3. The State Department of Agriculture should make a thorough check of parathion sup-

plies during this next season to make certain that the parathion being purchased by growers is of the standard strength as represented on the label.

4. That Oregon State College and the County Agents' office pay particular attention to the problems of root rot of beans, leaf spot of cucumber, and mildew of broccoli and cauliflower. The committee feels that these problems are of the utmost importance to this area.

5. The committee recommends that Oregon State College advance as rapidly as possible in the science of leaf testing for soil deficiencies.

Selling of Processed Vegetables

As the situation now stands, each grower of processed vegetables works on an independent basis with the processors. The processor is not well versed in the farmer's costs of operation and the farmer does not have up-to-date, adequate knowledge of the market situation, carry-over packs, etc., of the processed vegetables.

1. The committee recommends that, for the good of both growers and processors, a bargaining committee be organized with the thought in mind that through this organization, they should develop a better planning of crop acreages to stop over-production and field cut-

offs. The growers will be able to forecast better the problems of production which confront them annually.

2. Realistic cost of production figures should be worked out so that growers have a firm basis for making decisions.

Farm Crops Advisory Committee

O. A. Iverson, Chairman
Bill Van Buren, Vice Chairman
Bill Sester Frank Battaglia
Lloyd Corlies Archie Hall
Art Burns August Johnson
Ted DeWitte M. B. McKay
Elmer Larson Ted Van Doninck
Don Rust
Ned Frandeen, County Agent and Sec.

Poultry Committee Report

The poultry industry in Multnomah County is in a fairly good position, primarily because of the close metropolitan Portland market. The main drawback from an economic standpoint is the necessity of purchasing all of the feed for poultry production. During the past 10 years, the number of laying hens has not changed a great deal. There are still in Multnomah County approximately 130,000 chickens over three months of age.

The well - managed poultry farms have proved profitable over a period of years. During

the times of high prices, uninformed people have rushed into the business and have failed as a result, due to a poor knowledge of the business. It is believed that more uninformed people have failed in the poultry business than in any other farming enterprise. This is due to the fact that it takes a relatively short time to get into it, and from outward appearances, it is an easy business to operate. Unfortunately, very few people are adapted to the intense amount of attention that must be paid to detail in the exacting care which poultry must have.

Economic Units of Operation

Ten years ago it was felt that a flock of two thousand hens would provide adequate income for one family. At the present, however, due to the lessening in margin of profit, it is believed that a flock of six thousand to ten thousand should be maintained. As many as possible of the hens must be replaced with pullets

every year.

It is extremely doubtful that a part-time unit can be operated successfully. While it is possible for a family to supply their own meat and eggs when adequate housing facilities are provided, it is doubtful that even this type of an operation will pay on an economic basis.

Breeds of Chickens

During the war years many of the heavier breeds, such as New Hampshire and Parmenters, were raised in preference to white leghorns. Since that time, the shift has been almost entirely to

the white leghorns for egg production. Research at Oregon State College has shown conclusively that for egg production, there is no breed that will out-produce the white leghorns from an economic standpoint.

Housing

Most successful poultry raisers are raising their flocks completely in confinement. It is felt that this is the most economical way to raise chickens. The range brooding method and the old movable brooding houses are fast going out of use.

Replacement Chicks

Several years ago the practice was to replace all of the chickens once a year in February, March, or April. More and more the practice is becoming a semi-annual affair with half of the flock replaced in February, March, and April and the other half about six months later.

Recommendations

1. The full-time poultry operation should expect to have at least six thousand to ten thousand hens. Fifty per cent of a flock should be replaced each six months to keep a good lay throughout the entire season.
2. For egg production, only the various strains of white leg-horns should be considered. For meat production, the New Hampshire is recommended.
3. From the cost standpoint, anyone entering poultry production should look thoroughly into the possibility of raising the hens exclusively in confinement, particularly on expensive land in Multnomah County.
4. If electric brooding is used, a stand-by unit should be on hand because of the icing conditions and possible power failure in this area.
5. Poultrymen should consider carefully the possibility of getting markets for poultry manure if it is dried and presented properly. It is believed that the greatest market for this is with the landscape gardeners and the home hobbyists.

Poultry Advisory Council Committee

Austin Corlies, Chairman
Robert L. Reed William E. Eyman
Ned Frandeen, County Agent and Sec.

Fresh Market Vegetables Committee Report

Marketing of Vegetables

General Situation

The vegetables grown in the past in this county for shipment out of the area have been mostly cabbage, cauliflower, corn, brussel sprouts, broccoli, and root crops. For the past few years, however, the amount of shipments out of the area has dwindled to practically nothing. There are varied reasons for this situation, and a special committee on the marketing of fresh vegetables will give a complete report of the situation.

A fair portion of the soils in eastern Multnomah County is well suited to the growing of vegetables for fresh market production. With the increasing population of Portland, some of the very best fresh market vegetable land is being taken up by residential and industrial developments.

Marketing Situation

At the present time, fresh vegetables grown by farmers in this area are marketed on an individual basis. Each farmer does his own sales work and purchasing of supplies.

For the past five or six years, the trend away from the early morning farmers' market has increased. The greatest percentage of the growers now deliver their produce on order directly to wholesale houses. This has created the problem of what to do with the early morning market set-up. With the trend definitely away

from this type of operation, it is not anticipated that circumstances will allow it to be revived.

The advent of pre-packaged vegetables has created a new problem for small farmers. It is difficult to justify an efficient pre-packaging operation for a relatively small production such as our individual farmers have. As a result, the operations now used by the farmers incorporate practically all hand work and thus the costs are relatively high. There is also the difficulty of having a steady crew to do the packing that is familiar with the grades and quality necessary for a top-rate pack.

Purchase of the necessary packages and supplies in small quantities is also a problem. It is anticipated that in the very near future most everything grown for fresh market consumption will be delivered in cartons. It is becoming nearly impossible to get crates and boxes at a reasonable price.

The situation as it now exists on the Portland wholesale market is very unfavorable to the grower. There are about six or seven buyers in the Portland market who handle about 90 per cent of all produce. This leaves about 75 or 80 sellers and just a few buyers. What happens is that very often one farmer is played against the other to get the prices down and, as soon as the lowest price possible is established, the buy-

ing begins. Very often produce is delivered to the wholesalers and the farmer does not even know the price he gets for his produce until he receives the check a week or two later.

Because of small producers, the standards of quality, size, package, etc., are certainly not uniform. The wholesalers have expressed the wish to have as much

uniformity of quality and containers as is possible. Lack of uniformity is one of the reasons given for buying produce outside the area although it is in season in the Portland area.

There is need for cold storage on the farm, but with small operations, it is extremely difficult to justify farm cold storage from an economic standpoint.

Recommendations

In view of these circumstances, the committee makes the following recommendations:

1. That growers with the majority of acreage band together to form a sales organization (either a private company or a cooperative) to handle all of the sales of fresh market vegetables.
2. This organization should be formed with the view in mind of considering the possible use of central packaging to get a more uniform grade and standard of quality for the wholesalers. It may be possible to do

this and still avoid high priced labor by having several fairly central locations for packing sheds on farms. In this way, several farmers could band together to package and process their produce for the central company.

3. The central selling organization should also standardize carton sizes and containers and do all the purchasing of containers, fertilizers, pesticides, etc., that can be done to an advantage through the central organization.

Market Vegetable Research Problems

The committee feels that fresh market vegetables have been neglected as far as research pertaining to fertilizer recommendations, varieties, insect and disease control, irrigation standards, and new equipment is concerned.

It is felt that there are many fields of research that have never been touched as far as local conditions are concerned. In view of this, the committee makes the following recommendations:

1. In order to accomplish the necessary research, an experiment station dealing specifically with fresh market vegetable problems should be set up in this immediate vicinity.
2. Research work should be done with regard to optimum applications of fertilizers and the manner of best applying them.
3. It is believed that many of our trace elements may be in

short supply and research work should be carried on along these lines.

4. Varieties of vegetables particularly adapted to this area should be investigated and developed.

5. Disease control, particularly of our soil diseases, should be investigated as soon as possible. Root rot difficulties with parsnips, turnips, rutabagas, radishes, have been plaguing growers for years and no solution has been found.

6. The economics and the best possible methods of irrigation should get a thorough study.

7. The committee strongly recommends a land survey of this area for future uses of the fresh market vegetable industry. Land is rapidly being taken up by industry and housing, and new land must be used in the very near future.

8. The Oregon State College Department of Agricultural Engineering should investigate the

possibility of the development for a machine to band fertilizers at planting time for small seeded vegetables. At the present time, no such equipment is available, and it is felt that there is a definite need for it.

9. Along with the land survey, the future possibilities of irrigation for that land must be considered. The committee is wondering about the possibility of Columbia River water for the Corbett area. The economics and feasibility of this situation should be investigated.

Fresh Market Vegetables Committee

Kaz Tamura, Chairman

- | | |
|-------------------------------------|---------------|
| Mario I. Cereghino | Allen Sisson |
| Joseph Cereghino | Joe Casale |
| Erwin Douglas | Frank Damonte |
| Louis Garre | Andrew Fazio |
| Virgil Montecucco | Hawley Kato |
| Paul Montecucco | K. Kinoshita |
| Hajime Okazaki | Henry Kato |
| Andrew Bottaro | Jim Pitton |
| Richard Bottaro | Aldo Rossi |
| Raymond Bottaro | Arthur Spada |
| August Calcagno | Kaz Fujii |
| Ned Frandeen, County Agent and Sec. | |

Dairy and Livestock Committee Report

As pointed out in the Land Use Committee report, the use of land for agricultural purposes is changing rapidly. There are three areas in the county in which dairy or livestock may be carried on. The economics of these areas is going to depend on land values, feed that can be produced, the cost of feed that will have to be purchased, and marketing prices. Generally speaking, livestock

should be produced where the feed is most readily available. The three areas in this county most suitable for livestock production are the Sauvies Island area, east Multnomah county east of Gresham, and, to a limited extent, the western Skyline area.

The Dairy and Livestock Committee have the following recommendations:

Beef

Beef producers, particularly in this area, are likely to face a very narrow margin of profit. If beef enterprises are to be carried on, there must be available quantities of forage, particularly in the form of pasture and silage. The production of good quality hay in this area is likely to be difficult. It is quite possible that feeder operations will be more profitable than cow and calf operations.

The successful beef operator will need to have an adequate, cheap irrigation system, or so-called sub-irrigated land that will produce large quantities of forage. He will need to understand beef production, including the buying of feeder stock, and economic management and be able to put his stock on the market in an advantageous time.

Swine

Swine production is naturally most profitable where adequate, cheap feeds are available. This county does not produce a surplus swine feed, except as a part of the city garbage disposal and the disposal from certain fruit and vegetable processing plants.

There is a place for a few farms

to keep from one to three or four sows to produce weaner pigs. There is a fairly constant demand for weaner pigs to be grown out by a few farmers and part-time farmers who have some feed supply and wish to produce their own pork. It will be necessary in most cases to purchase grain feed to finish off.

Sheep

There are comparatively few sheep in the county, but there is a place for a small farm flock on

some of our diversified farms. Sheep will not go with small fruit or vegetable farms, but would fit

in some other operations as a means of cleaning up fence rows, or utilizing small patches of ground not suitable for general

crop production. Damage by dogs is always a factor in sheep production.

Dairy Goats

Several people in the county have small flocks of dairy goats. One of the problems is to meet sanitary requirements for milk production, but where these conditions are met, the price per quart of milk compares very favorably with cows milk. There is no general market set up for dairy goat milk, and if goats are to be really profitable, a special

marketing organization for goats' milk should be developed.

The keeping of goats for a family milk supply can be a sound investment where this particular type of milk is desired or needed. With proper fencing, goats can be maintained where it would not be economically sound to keep a cow.

Dairy

Pastures

1. The committee encourages the use of soil testing as a place from which to start better use of commercial fertilizers for pastures and forage production, in order to increase yields at a minimum cost of commercial fertilizer.

2. The committee recommends continued study of grasses and other forage plants to determine their palatability and productivity per acre. The committee recommends increased use of silage, pasture, green chop, and hay as may fit the individual farm operation, as a means of providing more and better forage at cheaper cost for dairy cattle.

3. Where water is available at a reasonable cost, irrigation can economically increase forage production, providing good management is used, including judicious use of commercial fer-

tilizer, proper timing of irrigation, the application of proper amounts of water, and pasture management. The establishment of good pasture grasses, the spreading of droppings, proper timing for the application of barnyard manure, the proper rotation of grazing clipping; all are factors for the increase of production per acre of forage.

Pastures

1. On the farms where bulls are kept, the committee recommends eternal vigilance in selecting bull replacement as one means of increasing the average production per cow.

2. All possible means at the disposal of the dairymen should be used to secure an economic increase in the production per cow. General handling, palatable feed, production testing, and many other factors are involved.

3. Below average producers may increase net income materially by improving methods of production.

4. There is a good possibility that shavings for use as bedding may become scarce. Certain conservation measures may be applied to conserve bedding and still accomplish desired results.

5. The committee recommends that beet pulp be used in silage as a means of saving feed costs and the producing silage with greater feed value.

Disease Control

1. When purchasing replacements, dairymen should check very carefully on the health of the herd from which replacements are taken. Things to check for are mastitis, brucellosis, tuberculosis, and breeding trouble.

2. The committee recommends that brucellosis and tuberculosis testing be continued, and that dairymen increase and improve methods of detection, prevention, and control of further herd difficulties, such as shy breeders, mastitis, foot rot, and other trouble inherent in the dairy business.

Records

1. The committee recommends support of the Dairy Herd Improvement Association in order to have records on which to base culling, to provide a basis for providing replacement stock, to check closer on breeding records, and to check generally on the economic soundness of the operation.

Particularly where pipeline milkers are used, it is next to impossible to have any reasonable idea of the amount an individual cow is producing.

2. The committee recommends that dairymen raise their own replacements from D.H.I.A.—tested cows showing better than average production. Where replacements are purchased, they should be purchased only from herds with production records.

Economics

1. The price of dairy products is not likely to increase materially in the next few years. Persons starting in the dairy business should have a sound background and be located on a farm where production can be carried on economically. Feed cost, including home grown forage, should be at below average costs and production per cow should be above average production.

2. The committee urges dairymen to plan, feed, fertilize, and provide water and bedding supplies on an annual basis rather than on a month-to-month basis.

3. The committee recommends that producers form, join, and remain loyal to strong well-managed marketing organizations.

4. The committee recommends that local producers make every effort to keep the market supplied with an ample amount of high quality milk in order to discourage the necessity or desire to bring in milk from other areas. In this connection, dairy-

men should work for prices in line with sound economic production costs, but be careful not to demand dollar values that will make the market attractive to producers completely outside this producing area.

5. The committee recommends that only Grade A milk and cream be used in the bottle and can trade for ice cream, cottage cheese, or powdered milk for human consumption, and that steps be taken to insure dairymen are paid basic prices for all Grade A milk used in this trade.

6. For a family operation, the committee recommends that the herd be capable of producing 300,000 pounds of milk per year. This could be accomplished by having 30 cows producing an average of 10,000 pounds per cow. It is obvious that low milk producing cows are not profitable. During adverse economic

conditions, there has always been a trend to increase the number of cows being milked. In view of general economic conditions, it is entirely possible that present well - established dairymen using up-to-date economic methods may fare as well as many other agricultural enterprises.

Dairy and Livestock Committee

Albert Palmblad, Chairman	
Andrew Vetch	H. L. Gustafson
Kenneth Innis	Ross Johnson
J. W. Adamson	George Cashdollar
Ed Berney	Charles Eckleman
C. A. Chapman	Wayne Kruckman
Arthur E. Cox	William E. Tegart
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Fred Robitsch	Carl Keller
Dick Vetch	Daryl Lundbom
Walter Vockert	James Morgan
Frank Windust	Jim Reeder
Art Blanc	Ed Klinski
W. E. Williams	Omar Spencer, Jr.
Ed Meng	Allen Townsend
J. W. Altman	A. R. Hollopeter
Roy Foland	George J. Perkins
Christ Schluneggar	
W. S. Averill, County Agent and Sec.	

Small Fruits Committee Report

Present Situation

The small fruits enterprise is still a major factor in the economy of Multnomah County. Estimated cash receipts to farmers from berry crops have averaged about 1¾ million dollars per year for several years. In 1954 the estimated income from small fruit production was two million dollars but this declined in 1956 to approximately \$750,000. This sudden decline is due largely to the severe freeze damage suffered November 11 through November 18, 1955. The 1956 harvest consisted primarily of red raspberries of the Washington variety. A large percentage of the strawberry crop was either severely reduced in production or killed. Willamette raspberries were almost all frozen out as were the Himalaya blackberries. A few blackberries of the Evergreen variety were harvested. With favorable prices, the income from small fruits in 1957 should be back up to almost the 1¾ million dollar figure.

There is a gradual decline in available small fruit acreage each year, due to the building of houses and commercial establishments upon land suited for berry production. Most of the new construc-

tion is being built on the better-drained land that is most suitable to small fruits production. It is the opinion of the committee that, within the next 10 or 15 years, small fruits production will be down in acreage, but will still be a very important factor on the small farms.

Small fruits harvest provides income for school children and others that cannot be found in most other sections. Many of the school children from Portland and surrounding suburban areas depend upon the small fruits harvest to provide them with money for clothes, school, recreation, etc. This fact was brought forcibly to our attention in 1956 when the severe freeze damage reduced the crop.

Direct purchases of materials such as insecticides, fungicides, fertilizers, weed control chemicals, machinery, oil and gas, lumber, and hundreds of other items contribute materially to the economy of the county, and particularly the economy of the small towns in the outlying areas.

Strawberries are still the most important small fruit crop followed by raspberries, blackberries, boysens, logans, etc.

Caneberry Trends

Production and Price	1939	1944	1949	1954
Tame Blackberries				
Acreage Harvested				
Multnomah County	194	251	352	503
Oregon	813	1,380	1,770	2,157
United States*	26,606	21,791	13,417	10,621

Production and Price	1939	1944	1949	1954
Production (tons)				
Multnomah County	509	486	1,359	1,514
Oregon	1,515	1,909	4,234	5,889
United States†	21,094	15,067	14,127	13,919
Prices paid by Oregon Processors,				
\$/ton	52	242	176	178

Boysen, Young, and Loganberries

Acreage Harvested				
Multnomah County	612	625	599	474
Oregon	4,341	3,932	5,221	2,821
United States	8,389	4,809	12,407	6,725
Production (tons)				
Multnomah County	1,212	918	913	780
Oregon	6,391	5,112	6,838	4,060
United States†	11,366	6,086	19,189	14,167
Prices paid by Oregon Processors,				
\$/ton				
Boysen	76	242	132	236
Logan	56	240	138	194
Young	62	240	132	236

Raspberries (Black and Red)

Acreage Harvested				
Multnomah County	1,352	1,151	810	853
Oregon	4,837	4,374	6,462	4,108
United States	59,049	43,634	34,039	23,868
Production (tons)				
Multnomah County	1,739	934	1,221	1,933
Oregon	4,641	3,389	6,092	5,567
United States†	43,592	25,365	29,806	22,532
Prices paid by Oregon Processors,				
\$/ton				
Red Raspberries	122	306	290	300
Black Raspberries	126	262	388	628

* Blackberries and Dewberries for the U. S.

† Converted from quarts to tons on basis of quart equals 1.5 pounds.

Source: U. S. Census of Agriculture reports, and U.S.D.A.

Compiled by OSC Extension Specialists in Agricultural Economics, February 25, 1957.

STRAWBERRY ACREAGE HARVESTED, 1946-1956

Year	Multnomah County	Oregon	United States
	Acres	Acres	Acres
1946	650	7,500	90,250
1947	800	11,000	112,350
1948	1,500	15,000	116,650
1949	1,275	14,000	116,750
1950	1,200	14,000	126,850
1951	1,500	15,700	143,850
1952	1,200	17,000	129,360
1953	1,100	17,400	112,000
1954	1,500	17,000	107,050
1955	1,400	18,200	108,860
1956	900	16,800	125,400
1957	—	17,600	122,600

Future Trends

As the metropolitan Portland area continues to expand into the outlying farming districts, less and less land will be available for small fruit production. Farms are tending to become somewhat larger. This, however, is not a significant factor, and is brought on by the necessity for those who are farming to rent or buy land in order to enlarge their operations and stay in business.

Declining prices of farm commodities, particularly small fruits, have been a major problem and are having a reducing effect upon the acreage of small fruits in this county. Unless better prices are offered, small growers in particular are going to be forced out of farming. In present day farming, it is necessary to cut costs as much as possible through mechanization. When mechanizing, one must figure the total overhead and depreciation cost. Since so many different pieces of machinery are necessary in small fruit and vegetable production, overhead costs can become terrific within a short period of time. Many of the growers today own more equipment than can be justified on the basis of their acreage or production. However, this equipment is essential in that it can replace livestock and, in many cases, additional hired help which is not available.

Fresh Market Shipments

In the opinion of the committee and the processors, unless some radical change takes place in the

consumption of small fruit crops, there will be little room for expansion in the process field. This will mean that further plantings or production must look for a different market than what exists today. The fresh market possibilities are tremendous, however. There are many problems involved in shifting a part of the production to fresh market. To do this, varieties that are adapted to both fresh market shipment and processing must be grown. A limited amount of strictly fresh market berries could be handled, but it would be far safer to use a combination berry. Some of the berries which could be handled conveniently and probably at a good profit on the fresh market are red raspberries, the new Marion blackberry, and the Evergreen blackberry. These, in the opinion of the committee, would be the principal fresh market shipping berries. Strawberries have not been considered as a profitable shipping berry from this area, due to competition from California and other strawberry shipping areas. Should growers ship fresh berries, it would be necessary to change from the Marshall variety to one that is particularly adapted to fresh market shipment as well as to processing. A few of the Shasta variety are being grown at the present time. The Shasta is one of California's shipping berries, but it is doubtful it could be developed as a substitute variety for a very high percentage of our strawberry crop. Frequent-

ly, weather conditions are not favorable for strawberry shipping.

By the time red raspberries are ready for market, weather conditions are more favorable and it is possible to ship them fresh. This is an outlet that needs to be fully developed. To insure production sufficient for a fresh market supply, it may be necessary to depend upon adjoining counties for part of the supply. The shipping season could start in the Canby area, progress northward to the Gresham area as the season advances, and then south-east to the Sandy - Kelso area. This would give a possible 45 days shipping period for red raspberries. Before red raspberry shipment was through, the Marion blackberry would be in production in the Canby area. This shipment could then be followed through for an additional 45 days. By the time the Marion blackberry was through in the Kelso-Sandy area, the Evergreen blackberry would be coming in again in the Canby area. An arrangement like this would allow growers to ship fresh market berries from about June 20 through September 10 to 15. At the present time, there appears to be very few fruits of this nature in fresh market shipment within our marketing area.

The committee is of the opinion that the processing trade will continue to remain the major outlet for most of the berry crops grown in Multnomah County. The development of fresh outlets would be supplemental to the processing demands and would help create a much more stable economy in the small fruits industry. The tran-

sition to fresh market shipment must be made gradually in order to overcome some of the major problems which face growers today. Since the market has been mostly to processors, the fresh market is an unfamiliar area to both growers and to processors who must meet the fresh market trade. This type of outlet is looked upon by the committee as one which may be slow to develop, but of necessity must come.

Some of the problems which will be encountered upon changing to the fresh market outlet would be:

1. Production problems resulting from climatic conditions over which the grower has no control.
2. Varieties which are well adapted to both the processing and fresh market shipment need to be developed.
3. The labor supply, which at present is used to harvesting for the process market only, must be trained to pick for the fresh market.
4. Growers' attitudes toward fresh market outlet will cause the change to this type market to be slow. Growers as well as pickers, have been trained for a process trade and a great change of thinking must occur.
5. There needs to be better marketing facilities in order to handle large quantities of fresh market berries fast. Through the development of vacuum cooling in this area, this major problem could be solved. Under present conditions, it is necessary to bring the berries into the processing or cooling plant and

hold them for 18 to 24 hours until properly cooled before loading them onto a car. Through the use of vacuum pack equipment, this cooling process time could be greatly reduced. A saving of 40 to 50 hours could be made as compared to the present system.

6. Growers, processors, and pickers alike must learn to recognize the stage of ripeness at which time the berries need to be picked for fresh market shipment. This degree of ripeness will vary according to the type of berry being picked.

7. Growers will need to become quality conscious when picking for the fresh market. They must recognize their obligations to their marketing agency in time to provide berries at the specified times, or notify the agency early enough so that berries can be obtained from other sources.

8. When picking for fresh market, grading will necessarily be done in the field.

Labor

A few years ago migrant labor was a significant factor in the labor supply for berry harvest. Today that labor has all but disappeared. Any increase that growers may have in acreage or production, fresh market or processed, will be contingent upon the labor supply. Today growers are dependent upon school children and women for the pickers. School enrollment is highest in the history of the county; yet these boys and girls are the farthest removed from the farm problem that they have ever been. If

growers are to have a supply of harvest labor, arrangements must be made in the near future for acquainting the city boys and girls with the problem. In view of this existing condition, the subcommittee on labor made the following suggestions:

1. A motion picture in sound and color should be made for the purpose of recruiting strawberry pickers. This picture should be made so that it is suitable for showing in the schoolroom, to PTA groups, and over television. No particular requirements for this film were set out by the committee except that they wanted those responsible for making the film to remember that the purpose is for recruiting and not necessarily for training.

2. The committee feels that, in order to follow up with a training program after recruitment, a second film is necessary. In the second film, several points should be brought out such as: the proper clothing to wear; safety and sanitary regulations; the best technique or method of picking to assure the picker efficiency and the opportunity to make more money; the necessity of good lunches; the need to rest during the lunch hour; the farmer's problems in the growing of the crop; and the importance of proper harvest techniques. It might also include the cost of bringing the berries to the harvest stage with some shots inside the cannery showing the results of poor picking, culling, etc. Human interest factors could also

be included such as after season picnics, children receiving money for their work, and the spending of that money.

3. In order to follow up where the films leave off, the committee suggests that there be three folders prepared for distribution before the pickers enter the field. One of these folders would be how to pick strawberries; another would be for platoon leaders, giving in-

structions to them as to what is expected of them and how to handle their platoons. The third folder would be for the grower on how to handle pickers.

4. The committee also suggested that, where practical, training sessions should be held with platoon leaders for the purpose of giving them information which will help them perform their duties and better acquaint them with the farmer's problems.

Problems Related to Production

The subcommittee on production of small fruits considered the problems involved from the standpoint of economics through individual production problems. The number one problem in production today in Multnomah County is the small farm or unit. In this kind of a unit, the equipment costs are so high per acre that it makes it almost unprofitable. Taxes are increasing each year, which helps to reduce the profit. The third major production problem is soil depletion. On small farms where every acre must be used each year, it is virtually impossible to carry on a good soil building practice. Depletion is becoming more and more evident each year on this type of farm. On many of the farms, particularly in east and southeast Multnomah County, there is a tremendous drainage problem. Some progress is being made with tile drainage on these lands, but a great deal of work is yet to be done. There is also a drainage problem on some of the low-lying lands in Multnomah

County, particularly on Sauvie Island and along some of the lower land in the slough area.

1. Soil-borne disease problems continue to build up each year and more fields are being infected. This results from intensified agriculture and short rotations.

2. The committee felt that the producers in general lacked knowledge of the soil and its adaptability to various crops and varieties, and need considerable help with this problem.

3. One of the major problems is the lack of good varieties that will produce over a long period of time without having to be renewed so often.

4. The labor supply is becoming a great problem.

5. Weeds and weed control is still a major problem in the small fruits industry. Weed control is probably the most expensive item of any in small fruit production.

6. Use of fertilizers is not well

understood, and it is doubtful that they are economically used in all cases. There is a need for more detailed study on crop requirements and soils.

7. In a number of the small fruits fields, one of the limiting factors in production has been

the quality plant supply. This problem has been greatly reduced through the certification program for strawberries and the register of merit for red raspberries. There is still a need for better supply of blackcaps, blackberries, boysens, logans, etc.

Research Needs

The subcommittee on production recognizes the following as being areas where additional research is needed:

1. The temperature, moisture relationship to fruit bud development in all varieties of small fruits.

2. Correct spacing of rows and types of fruits.

4. Fruit rot control on all small fruits.

5. Soil-borne diseases and their control, particularly verticillium wilt, fusarium root rot, black root rot complex of strawberries.

6. Nematodes, the importance of control and control measures.

7. Virus diseases and vectors.

8. Hormone sprays for obtaining better fruit size on all varieties.

9. Growth regulating chemicals as it may apply to increased yields.

10. Defoliants, that can be used for hardening off plants, particularly red raspberries and Himalaya blackberries.

11. Physiology of fruit bud formation and the factors influencing it.

12. Cover of grass sod between the rows of strawberries and

cane fruit as a possibility to reduce erosion and build fertility.

13. Irrigation practices on small fruits and how it influences the growth and production.

14. More work should be done on control of mildew of red raspberries, strawberries and other cane fruits, particularly boysens and youngberries.

15. Symphylids are a serious threat to some of the berry land. Control measures are temporary and are not working in all instances. Extended research work should be continued on this subject.

Small Fruits Committee

John Dreyer, Chairman

Carl Lyski, Vice-Chairman

Vern Wasson

Eugene Richards

Harvey Tofte

Elmer Larson

Melvin Gradin

Archie Hall

Edward Hanning

O. A. Iverson

Art Strebin

C. H. Stone

Ray Shiiki

Fred Baker

A. G. Aplan

Art Burns

Ralph Clinton

Robert Dix

Kola Fellman

Leon Hubbard

Dick Weed

L. D. Corlies

James Gordon

Roy Hensley

August Johnson

Elmer Sturm

Cletus Rupp

Hawley Kato

Joe Buckley

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Ornamentals Committee Report

General Nursery Industry Situation

The nursery business in Multnomah County is an old one. At present, the estimated value is \$7,000,000. The climatic conditions are extremely favorable. Multnomah County is surrounded by low hills which affords a better moisture spread throughout the season. Winter rains are not excessive, but late spring rains and early fall rains afford an adequate supply of moisture to grow all kinds of nursery crops without irrigation, thus reducing the cost of production. The soils in Multnomah County are of such nature and character that proper soils for most any of the nursery crops can be found. For those nurseries growing ornamentals that must be balled, suitable soils are available. The east winds of the Columbia River Gorge are usually helpful to the nurserymen in hardening off the plants and causing them to become dormant in time for fall digging. Occasionally freezes may occur which are

detrimental. It is reported that ornamental horticultural plants can attain a much larger size in a shorter length of time in this area than in most any other nursery area. This is an advantage in that the nurserymen can produce plants quicker; hence cheaper.

Multnomah County, being the metropolitan county of Oregon, is the mother of the nursery industry. It is from here that the nursery industry has spread over the favorable portions of the state. In the beginning nursery stock was limited to that which was hardy, which could be field grown, and which could be shipped with the improvements in shipping methods and transportations, the nursery crop field has been enlarged. The nursery business since its beginning has been a very specialized business. Only those who have had thorough training in all phases of nursery crop production are able to survive in business.

Present Situation

The steady growth in population of Multnomah County is crowding the nursery industry as well as other farm enterprises. Land is becoming higher-priced and harder to obtain every year. Taxes have continued to climb and nursery expenditures for labor and materials have also continued to increase. While production

costs have increased, price increases have been only moderate.

Growers of nursery stock which require large areas of land are being gradually forced out of the county and into less populated districts for the growing of the stock. Since these nurserymen have been established with their warehousing and markets in the Portland

area for many years, they are still maintaining their headquarters in this county. Portland is the market outlet for much of the nursery stock grown in the state. The marketing setup is not apt to change locations. This will tend to keep the nursery business close to the Portland area. Seventy to eighty per cent of the entire production goes to markets outside of Oregon. Shipments are made as far away as the East Coast. Expansion should be made according to market demands. There is room for expanding certain kinds of varieties of plants for markets in other states.

Since World War II ended, many people have attempted to enter

the nursery business. A few farmers are going into nursery production, but usually it is the backyard gardener or part-time farmer who becomes interested. This has presented a problem to the whole nursery industry in that most of these people are not familiar with nursery culture and do not have a ready market. Some of the smaller growers who have retail outlets can maintain their production and increase it somewhat if their location is favorable and they have some sales ability. These growers are not going to be forced out of production nearly as fast as some of the other type nursery operators.

New Trends in the Nursery Industry

When talking of new trends in the nursery industry, one should consider each of the nursery crops separately, but time and space do not permit this. One of the noticeable popular trends is the use of container-grown nursery stock. Container-grown stock refers to nursery plants which are grown in containers from 1 to 5 gallons in size. Some nurseries are using larger cans or tubs but these are primarily a special item. There are several advantages to using container-grown nursery stock, the main one being that plants can be transplanted most any time of the year. This increases the marketing season tremendously. Not all plants lend themselves to container growing.

By growing stock in containers, it is possible to increase production without increasing amount

of land needed. By growing in containers, it is also possible to grow from 40,000 to 50,000 plants per acre. When markets are available, the plants are always ready to be marketed according to size and price. The canned nursery stock can be moved more easily through supermarkets and retail outlets than can the bare rooted or balled plants.

The growing of nursery stock in cans has presented many new problems to nurserymen. Among these problems are proper soil mixtures, fertilizers, the need for constant supervision of watering, machinery to facilitate mixing of the soil and potting of the plants. Growers are also experiencing a new economic factor in growing stock in cans. It is now necessary for the money which normally is used for har-

vesting to be put out from 2 to 3 years ahead of the sales. Container growing seems to be here to stay, as not only nurserymen in this county and state are doing it, but those in other states as well. This fits into the new look on marketing, and we must continue with it in order to hold our place in the market.

Mechanization is noticeable on all fronts in the nursery business. Plastics, both for greenhouses and pots, are becoming more and more popular. Plastics offer many advantages over glass for greenhouse use and over clay pots for use in the home. The pots can be used over and over with less breakage as compared to clay pots. They can also be handled easier. It is advantageous that they do not lose moisture from the sides and do not require as close attention as do the clay pots.

Aluminum is also being used in many of the greenhouses, particularly for trays for bedding plants. Through the use of aluminum and

plastics, the storage space needed in a nursery operation is reduced tremendously, and this space can be devoted to something more profitable.

Machinery is fast replacing hand labor as a means of cutting down operating cost. The nursery requires specialized labor at certain times of the year, but most nurserymen cannot employ this type of labor on a year-round basis. This means that at the periods of peak employment, sufficient labor is not available.

Chemical weed control is replacing hand hoeing in many of the fields. Nurserymen who are growing in cans are now practicing soil treatment for the prevention of diseases and weeds. Some of the nurserymen are using special sterilization materials in the field prior to taking the soil in for potting. Others are sterilizing the soil in the cans or in the storage bins. This has reduced the number of plants lost from disease and has lessened the weeding problem considerably.

Holly

The growing of holly is becoming more popular each year. Many people, farmers, backyard gardeners, and city dwellers are interested in putting out small plantings of holly. Many of these growers are hoping the holly orchard will provide income after retirement. It is hard to determine what per cent increase in planting of holly has taken place in the past few years, but it has been considerable. Many of the plantings are small acreages in

scattered locations over the county.

There is a tendency more noticeable each year for holly growers to plant only the better strains, selections, or varieties. In the past, many of the plantings have been seedlings which have not been adapted too well for commercial growing.

Insects and disease are beginning to present more of a problem than in the past. At present, growers are applying control mea-

tures for scale, holly bud moth, and leaf-roller. The holly leaf minor was recently detected and may require special attention in the future. Phytophthora disease has been discovered in the coast counties, but so far has not been a problem in Multnomah County. Close inspection must be made

each year to detect its presence so growers can be alerted.

Under proper planning and marketing arrangements, holly could have a good future, but plantings can be easily overdone. The market outlets for holly are in the Eastern and Southern states and need to be developed rapidly.

Bulbs

During World War II and immediately thereafter, the growth of the bulb industry in Multnomah County and the state was rather phenomenal. Much of this growth was the result of the lack of imports from Holland and Japan. Growers experienced a very favorable market during this time and were able to expand their acreage considerably. As soon as the war ended, the imports again began to come from Holland and Japan and cut into the local market severely. This necessitated many growers going out of bulb production. At the present time, the Dutch bulb imports have saturated the market.

Another problem facing the bulb grower is the fast expansion of the Portland area into suburban communities. Bulb growers must have new land quite often and in large acreages. This type of land has about disappeared and a number of the growers are being forced to go to other counties to obtain suitable soil. High land values and high taxes are also pushing the growers to other areas. Major bulbs grown in the county have been narcissus, gladiolus, tulips, lilies, dahlias,

and iris. Daffodils have been reduced from a high of about 400 acres to approximately 47 acres in 1957. A number of the gladiolus growers who normally grow bulbs in the county still maintain their headquarters here but are growing in adjoining counties. These growers' acreage is not figured in the present county acreage.

The future outlook for bulb production is not bright. Unless something happens to the Dutch imports, only those growers who are mechanized and are able to obtain sufficient acreage cheaply enough will be able to survive.

At the present time it does not offer any possibility of future expansion, unless it would be along the lines of specialized bulb production for which there is a special and limited market.

The dry bulb market, through retail outlets, seems to be strengthening, but requires many different varieties. Growers catering to this type of market must grow according to the demand for the various varieties.

There is need for expanded research for insect and disease control. Soil-borne diseases are of particular importance. Quarantines are becoming less effective

with the rapid movement of plants. Control has become more important.

Surveys and pest control methods are the best avenue of approach to these problems.

The Growing Nursery Industry

The nursery industry can be expected to grow. The growth will depend upon the ability of those already established in it to maintain the quality of stocks which they have been producing, and to guide the expansion along the lines of market needs. Most of the expansion can be expected to come through the operation of those experienced and trained operators who are already established in the business. There are

undoubtedly some lines of nursery stock that can be expanded rapidly. The expansion must always be kept within the limits of the current markets. Before going into the nursery business, one should investigate thoroughly as to the market demands and the peculiarities of growing specific crops. It normally is much easier to get into the nursery business than it is to grow quality plants and have a ready market.

Cooperation

One of the major reasons for the favorable position that it occupies today, is the result of the cooperation among nurserymen, nurserymen's associations, the State Department of Agriculture, and Ore-

gon State College. Nurserymen have found out that, by working together, they are able to strengthen each other and protect one another from the pitfalls experienced where lack of cooperation prevails.

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