

PART-TIME FARMING

*An Analysis by a Committee of the Agricultural
Staff of Oregon State College*

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FOREWORD

In 1944 a committee of the faculty of the School of Agriculture was appointed to make a study of agriculture with a view to recommending policies for the guidance of the School of Agriculture in its three major divisions, resident teaching, research, and extension. The committee membership included personnel from these three major divisions. To assist in this work, the committee in turn appointed thirty subcommittees, each to consider a specific area within the field of agriculture. Memberships of these subcommittees likewise consisted of resident teaching, research and extension staff members, and the membership also was developed to include specialists not only in the specific area of activity under consideration but also allied areas. For instance, committees having to do with the many phases of livestock consideration included farm crops specialists in addition to animal husbandry specialists.

These committees applied themselves intensively, and the results were thirty reports unanimously acceptable to committee members. These thirty subcommittee reports were briefed, summarized, and drawn together in a single background statement. This statement represents the opinion of the faculty of the School of Agriculture as a basic cross-section of the State's agriculture and was published as number one in the current series on Oregon agriculture. In addition to the conclusions presented, the committees made many suggestions valuable to the administrative staff in regard to reorganization, shifting of emphasis, and instructional procedure.

A representative number of subcommittee reports will be published in greater entirety than is possible in the background statement to serve as individual contributions to the commodity interest areas involved. This publication is the third of the series covering phases of Oregon Agriculture.

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Part-Time Farming*

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IT IS the purpose of this circular (1) to define what is meant by the term, "part-time farming"; (2) to indicate the present status of part-time farming in Oregon; (3) to present valuable facts to those who would become part-time farmers, including a discussion of some of the factors that contribute to success and failure, and the suggestion of several enterprises that are well-adapted to part-time farming; and (4) to outline the problem of part-time farming as it affects the State.

WHAT IS PART-TIME FARMING?

"Part-time farming is a way of life in which the family lives on a small farm but derives its income from two sources, one of which is farming."† Generally speaking the income derived from the "farm" is not sufficient to support the family, and "outside" employment or some other source of income must be obtained.

PRESENT STATUS OF PART-TIME FARMING

"Part-time farming is not a new agricultural development. Some families in every industrial community have always been attracted by rural surroundings. But the recent expansion of industry, the building of better roads, and a desire of the city worker to attain more security during periods of 'hard times' have led to a great increase in recent years in the number of families that now live on the land. . . . Although part-time farming constitutes both a home and a source of income, the relative importance of the two aspects is given different weight by different individuals. In some cases the home and garden aspect predominates; in others the farming is, or is destined to become, the more important feature."‡

The federal census of agriculture has no classification embracing all the farms that are truly part-time operations. The comparative importance and the distribution of this general type of farm, however, is clearly indicated by a classification of the census data on the following basis: (1) the acreage per farm, (2) the supplemental

* In the preparation of this report liberal use has been made of Oregon Experiment Station Bulletin 340, *Part-Time Farming in Oregon*, June 1935, and chapter 9, "Part-Time Farming," of a book entitled *What Is Farming* prepared by specialists in the United States Department of Agriculture for the United States Armed Forces Institute, Madison, Wisconsin, 1944.

† U. S. Department of Agriculture, *What Is Farming* (see above).

‡ Oregon Experiment Station Bulletin 340 (see above).

Table 1. NUMBER AND PROPORTION OF THE 61,829 OREGON FARMS UNDER 30 ACRES, AND THE AVERAGE VALUE OF LAND AND BUILDINGS PER FARM IN 1940.
(1940 Census)

Region	Number of farms under 30 acres	Per cent of all farms	Acres per farm	Value of land and buildings per farm
Coast	1,658	33.7	11.0	\$2,605
Willamette Valley	13,938	42.5	11.6	3,445
Southern Oregon	2,854	38.7	11.0	2,792
Central Oregon	1,245	48.9	9.6	2,608
Columbia Basin	1,788	31.8	12.6	3,100
Blue Mountains	783	18.1	9.6	2,460
State	22,266	36.0	11.4	\$3,189

(off-farm) employment of the farm operator, and (3) the value of the farm products produced.

Small farm provides only part-time work

Families living on farms of less than 30 acres numbered 22,266 and comprised 36 per cent of the total number of farms in Oregon in 1939. (Table 1.) The average size of these farms was only 11.4 acres with only 4.9 acres of harvested cropland. The total value of the land and buildings averaged \$3,189 per farm. (That value perhaps was about equally distributed between the land and the improvements)*. The value of the farm machinery averaged \$262 per farm.

Many of those farms did not require the full-time attention of the operator, and many of the operators sought supplementary income from off-farm employment.

Off-farm employment supplements part-time farming

The 1940 census reports that 27,802 farm operators, or 45 per cent of the farmers in Oregon, had supplemental employment in 1939. (Table 2.) The average amount of off-farm work was 153 days. The number of those operators working on other farms for wages was 9,387, and they averaged 66 days employment each. This was approximately 20 per cent of all farm labor hired in the state.

Table 2. NUMBER AND PROPORTION OF THE 61,829 OREGON FARM OPERATORS REPORTING SUPPLEMENTAL EMPLOYMENT IN 1939, AND THE AVERAGE NUMBER OF DAYS EMPLOYED PER OPERATOR.
(1940 Census)

Region	Number of farms reporting supplemental employment	Per cent of all farms	Average number of days off-farm employment
Coast	2,221	45.1	169
Willamette Valley	15,789	48.2	156
Southern Oregon	3,273	44.4	151
Central Oregon	2,616	38.6	151
Columbia Basin	2,318	41.2	133
Blue Mountains	1,585	36.6	134
State	27,802	45.0	153

* Oregon Station Bulletin 340, *Part-Time Farming in Oregon*, Table 6, page 18.

The number of farm operators employed at nonfarm work was 20,188, and they averaged 180 days employment each.

Low-income farm indicates a part-time enterprise

A group of 29,041 farms or 47 per cent of all the farms in Oregon had a total farm production worth less than \$600 per farm in 1939. (Table 3.) The average value of all products sold, traded, or used by the farm household was only \$254 per farm. It is evident that those families solely dependent on income from such farms would have a very restricted purchasing power.

Table 3. NUMBER AND PROPORTION OF THE 61,829 OREGON FARMS REPORTING UNDER \$600 TOTAL VALUE OF FARM PRODUCTS SOLD, TRADED, OR USED BY THE FARM HOUSEHOLD IN 1939, AND THE AVERAGE VALUE OF PRODUCTION PER FARM.
(1940 Census)

Region	Number of farms reporting less than \$600 value of products	Per cent of all farms	Value of production per farm
Coast Region	2,503	50.9	\$266
Willamette Valley	16,601	50.7	255
Southern Oregon	4,263	57.8	235
Central Oregon	2,500	36.8	245
Columbia Basin	1,886	33.5	263
Blue Mountains	1,288	29.7	289
State	29,041	47.0	\$254

Some of the farms included in Table 3, strictly speaking, may not be part-time farms in the usual sense of the term. Such farms can be grouped roughly into three general classes, namely, (1) subsistence farms, (2) retirement homes, and (3) rural homes. The income from the farm would be low in each of these three cases, but the low income would not be a serious problem except in the first class, namely, subsistence units. Here, supposedly, we have the farm family devoting its time to no other productive business than the pursuit of agriculture and yet receiving an income entirely inadequate for the needs of the family. It is not known how many of these cases we have in Oregon.

Recent trends in Oregon

If we accept the material in Table 3 as a good indication of the number and importance of part-time farms in Oregon in 1939, then it is of interest to compare this situation with that of ten years earlier. Census figures indicate that the number of part-time farms (gross value product per annum of less than \$600 per farm) in 1939 was double that of 1929. It is true that the total number of all farms in

Oregon increased during this 10-year period, but the percentage of part-time farms increased from approximately 25 per cent in 1929 to 47 per cent in 1939.*

One of the trends in Washington and several other counties near the Portland metropolitan area in the past four or five years has been that of dividing larger farm acreages into small tracts, most of which range in size between 1 and 10 acres. The number of tracts of this size has increased greatly since 1936. The divisions of acreages, according to actual recorded subdivisions listed in the Washington County recorder's office, are made up of the following sized tracts: 207 tracts of 1 acre; 164 tracts of 2 to 3 acres; 147 tracts of 5 acres; and 25 tracts of 7 acres.

Between 1921 and 1936 there had been actual subdivisions recorded as follows: 151 tracts of 1 acre; 96 tracts of 3 acres; and 136 tracts of 5 to 10 acres.

The county officials have indicated that this trend has increased rather than decreased in the past five years. In many cases these subdivisions are of farm lands that, even in larger units, have not been profitable farm operations because the land is either poorly drained and more or less classified as white soil; or because they are located in the hills where the small acreage tracts as a rule have not been large enough to support a family. Farmers in these hill areas have indicated that in order for a tract of land to produce anywhere near a satisfactory income, the tract should consist of a unit of not less than 40 acres of cultivated land; and further, an average of 160 acres of land is required before 40 acres of good farm land can be found. On some of the valley soils there are instances where very satisfactory incomes can be earned from a small tract when the owner is operating a truck farm or poultry enterprise. Many of the new operators, however, have had no experience with farming of any kind. They have been seeking these acreage tracts because *they have been convinced that 5 acres of farm land will give them virtual independence from the worry of losing their present employment in industry and that they can make a reasonable living on these tracts.*

In many cases these tracts are purchased "on a shoestring" and the owners expect to pay for them from the production they will obtain from the land. In most cases there is no farm operation or crop that will fit into this size unit to any advantage. Either the machinery required for its operation is excessive in comparison to the amount

* The general level of farm prices in Oregon in 1929 was 63 per cent higher than the general level of farm prices in Oregon in 1939. Therefore, it is only natural that the census of 1930 should show a smaller number of so-called "part-time" farms than is shown by the 1940 census. When a correction is made for this change in the general level of farm prices, however, it still appears that the proportion of all farms in the state that could be classed as part-time farms has increased approximately 16 per cent from 1929 to 1939 (on a corrected basis the percentage in 1929 was 40.5 per cent compared to 47 per cent in 1939).

of produce that will be obtained or the optimum crop is so specialized that amateurs are not likely to be successful in producing it.

Many of the part-time farms at the present time are lying idle and growing up to weeds because the expense of hiring someone to operate them is higher than the production will justify, and the owners themselves are fully employed in industry.

In some cases the areas that are being subdivided will require money outlay of county funds totaling much more than the areas will ever produce in taxes. For example, at the present time the county will have to spend a minimum of \$10,000 per mile to build roads to service many of the areas; and, in addition, there are a number of cases in which schools and other public facilities will have to be made available.

As the income from industrial employment is cut off, most of these people will be unable to make sufficient farm income to be able to stay on the land. In addition, while the distance is short, transportation to work in industrial areas will be from areas where there are no organized transportation facilities available.

Unless industry reconverts to peacetime production in a short time, it is likely that a large number of part-time farmers will be in a rather serious economic situation. They have become accustomed to higher incomes and a higher standard of living than they will be able to maintain if conditions revert to prewar standards. The part-time farmers who have had some agricultural experience and who are not afraid of hard work may find a certain amount of seasonal employment in agriculture. This employment will be mainly during the summer season when the crop harvest is in progress, and it will be employment, in many cases, for other members of the family rather than the head of the household.

WHY DO WE HAVE PART-TIME FARMING?

The following conditions have contributed to the development of part-time farming:*

1. "Stranded" industrial population groups, particularly in the mining and lumbering regions where industry has exhausted the resources, but many of the workers fail to or are unable to move onward.
2. Over-aged workers, discriminated against by employers who have a liberal supply of applicants from whom to select.
3. The shorter work day and work week, affording ample time for production of food supplies at home.

* Oregon Experiment Station Bulletin 340 (see footnote on page 3).

4. Cyclical unemployment, and the possibility of getting workers to help themselves over a depression period, at least in part, by home production of foods.
5. Seasonal industry, necessitating a complementary adjustment with other remunerative activities.
6. Decentralization of industry, accompanied by relocation of workers in suitable surroundings.

In addition to the foregoing six items, one very important factor in the growth of part-time farming has been the fact that so many town and city workers have had a longing to live on "a little farm in the country."

SUGGESTIONS FOR THOSE WHO ARE CONSIDERING PART-TIME FARMING*

The decision to become a part-time farmer is a serious one. Unless a man has farmed previously, he must adopt a new way of living. If he makes the wrong decision, it will result in unhappiness; the work is drudgery; the returns are usually below expectations, for plants and animals thrive best under enthusiastic and watchful care. It will be costly to reverse a decision once it has been made and the farm purchased. Before making it he should carefully weigh the advantages against the disadvantages.

DISADVANTAGES OF PART-TIME FARMING

Confining

Farming, if livestock is raised, requires the presence of someone every day. Even without livestock one cannot be absent for long periods, especially during the growing season. Farming, moreover, requires a regular routine; the farmer is not free to do as he wishes on the spur of the moment. His life must be organized to meet the requirements of the crops and livestock. The work will necessitate early rising and frequently late hours. Even a slight alteration of the work schedule may cut the production of the milk cow or chickens.

Hard physical labor required

To be successful, one has to work long hours frequently under unpleasant conditions—hot sun and cold rain. Regardless of how well work is planned, adverse weather or unexpected setbacks will necessitate periods of extra exertion to catch up.

* The greater portion of this section, with some rearrangement of topics, has been copied almost verbatim from *Part-Time Farming*, U. S. Department of Agriculture. See footnote on page 3.

Costs of production high

Land near cities is higher in price than land of equal agricultural value farther from town. The part-time farmer is not able to take advantage of many labor-saving machines. Unless he is unusually skillful, he will not obtain as high egg production per hen or as much milk per cow as can be obtained by a competent full-time farmer.

Many disappointments

Production may fall far below anticipation. The hazards of drought, hail, disease, and insects take their toll of crops. Sickness or loss of some of his livestock may cut deeply into the farmer's capital as well as decrease his earnings.

Cannot change jobs freely

If a man is running a part-time farm, he will have many ties that hold him where he is. To leave may result in considerable loss of capital because it involves much more than loading his household goods on a moving van.

Additional burden if job is lost

Part-time farming actually may be an additional burden if a man loses his job, especially if he owns or is buying the place. The opportunities for selling part-time farms tend to rise and fall with opportunities for nonfarm employment in the same area. Producing enough to eat is not enough for security. A man will need to meet the rent if he is a tenant. Unless his place is free of mortgage, he must keep up interest and principal payments and taxes. If the farming is to supplement his income, the continuation of farming will probably depend largely on the income he makes in nonfarm employment.

ADVANTAGES OF PART-TIME FARMING**Environment**

Living on a farm provides a wholesome and healthful environment in which to rear children; they have room to play and plenty of fresh air. They can be given chores adapted to their age and ability. The ownership or care of a calf, a pig, or some chickens develops a sense of responsibility for and an appreciation of work. Fresh vegetables, fruits, and dairy products in abundance and with a flavor unknown to those who get them from the market are the rewards of those living on a farm.

Security

Part-time farming gives a measure of security if a man loses his job *provided* the place is free of debt and the farming operations furnish enough income to meet fixed expenses and minimum living costs.

Work for retirement years

Part-time farming is especially desirable for the elderly or partly disabled or for those whose health requires some outside work or exercise. The income from the farm supplements their insurance, annuity, or social security benefits, and the amount of the work can be adjusted to their physical abilities.

Profitable use of spare time

Part-time farming provides an opportunity to use profitably family labor that otherwise would not be utilized. It provides work opportunity for the entire family subject to the planning and under the supervision of the family itself.

Recreational values

The physical work on a farm is often considered recreational. It is a restful change and a physical conditioner for many white collar workers. Many people like farm life and farm work. To have a little farm of their own is the expressed ambition of many city people.

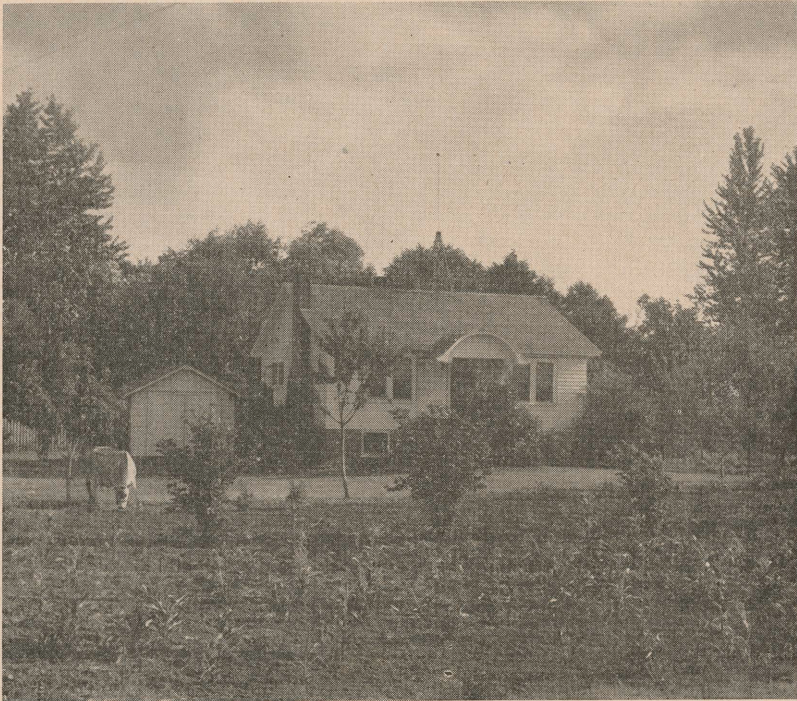
POTENTIAL INCOME FROM PART-TIME FARMING

One advantage of part-time farming is that the extent of farm work can be planned to fit special needs and wishes. If one has a good job and wants to live on a farm because of the advantages farm life offers the family and because of the desire to do a little farm work, the farming activities can be limited to fit those conditions and the farm income will be very small. If, on the other hand, nonfarm employment is seasonal or occupies only part of each day, plans may be made to spend a large part of one's time in farm work. In this case, the farm income may be rather large.

The amount of labor the owner and his family are willing to devote to farm work is the primary factor in determining the amount of farm income he can expect. This factor also governs the amount of land to get, the things to raise, and the amount and kind of equipment needed. The amount of farm income may be only a couple of hundred dollars a year, and that not in cash, but its equivalent in the saving on the grocery bill. On the other hand the farm income may be anywhere above that to well over \$1,000 per year.

EXTENT OF WORK ON A PART-TIME FARM

If one expects the farm to provide only enough vegetables and fruits and perhaps eggs and milk to meet the family needs, the labor required is small. Most families have enough spare time during the mornings, evenings, and weekends to care for a garden large enough to meet most of their needs for fruits and vegetables, and still have a little time left for other recreation. The wife's time will be more fully occupied if she processes and preserves the food. If the family does not preserve food for the winter season, there is little need of having a large garden.



A part-time farm home in Oregon.

If a large garden is properly cared for and the surplus produce preserved, it will supplement the family income to the equivalent of from \$100 to \$300 a year, depending on the size of the family. The labor put into a garden probably will return less per hour than a man receives for his regular work. If he tries to include in the cost of produce the value of his labor at the regular rates received from his employer, he will probably find that the produce is costing more than if bought at the neighborhood grocery store. Working in a garden is enjoyable and at least partly recreational; it provides superior quality of freshness that cannot be obtained at the market, and gives pride in producing a large share of one's own food. Thus viewed, garden work will be very profitable.

If more farm income is desired, more time must be devoted to farm work. If one has full-time employment the year around, profitable expansion of farm operations much beyond production for family use cannot be expected. One cannot increase farm income much above the savings represented by the production of food for the family's consumption unless there is a large family of working age who are willing to give up practically all recreation, or hire help. On part-time farms the advisability of hiring labor depends quite largely on what the pay scale for hired help is in comparison with what can be made on one's farm job. Generally, part-time farmers hire very little labor.

WHAT TO RAISE FOR HOME USE

Vegetable garden

The vegetable garden is the most essential feature of the part-time farm. No other crops grow more quickly, produce more abundantly, or afford greater variety of foods than do the vegetables.

Few figures are available concerning actual records of the value of garden crops grown for the family's table. The extension service of the University of Missouri published data on a number of co-operators in a 10-year period (1931-1940) that indicated the following: average size of growing area, .52 acre; cash expense, \$7.10; labor of family expended, 85.4 hours; average gross return per family, \$131.67; return per hour of labor, \$1.46; equivalent gross income per acre, \$253.21.

Probably these same figures applied to Oregon do not miss the mark very much. The average rural or suburban garden is capable of producing from \$100 to \$150 gross returns per year. An irrigated garden produces substantially more than one not irrigated because the land can be used constantly during the growing season and the yields of all crops will be heavier.

The usual size of a home garden should be from one-fourth to one-half acre. About 100 hours of labor are required, fairly well distributed over a period from March or April to November. The cost of supplies and equipment, exclusive of land-fitting machinery, averages about \$25. Pipe and nozzles for sprinkling might cost \$100, but with proper care such equipment should last for many years. This figure does not include investment in equipment pertaining to the source of water, the power, or the pump, the assumption being that water for the garden is drawn from the household supply.

No special buildings are needed for the production of garden crops. Tools can be stored in the usual service buildings. Suitable storage should be provided for such vegetables as squash, potatoes, and onions in conjunction with other farm structures. It may be desirable to invest about \$10 for frame, sash, etc., for a 2-sash hotbed. If electric bed is used the cost of wire would be extra. (See Oregon Agricultural Experiment Station Bulletin 307.)

Home orchard

It may be desirable to have some fruit trees. A few are sufficient for family use. These will also provide some shade in the back yard. If first-class fruit is the objective, it will be necessary to spray the trees, which requires suitable equipment unless one is in a locality where it can be done by professionals. The home orchard, as a rule, cannot be considered as a source of cash income. Its chief function is to supply fruit for home use, and it must be justified on this basis.

In regions where fruits are abundant and reasonable in price, it is doubtful whether tree fruits for home use will justify their expense and care. They may do so where fruit is normally scarce and high priced. The fact that tree fruits usually require spraying and systematic insect and disease control is a decided drawback to the home orchard.

On the other hand, small fruits such as grapes, strawberries, raspberries, and blackberries are usually worthwhile. These can be confined to a small area and they involve no great outlay. They require less care than the orchard fruits. (For further information on fruits for home use, see Oregon Extension bulletins 617 and 618, and Oregon Station Circular of Information 328.)

Poultry

Poultry is probably the most common of the various livestock enterprises found on part-time farms in Oregon. For the family interested only in eggs for home use, 12 hens, properly cared for, will usually provide from 4 to 8 eggs per day. They will require little if any land in addition to the space actually needed for the

poultry house. The cost of materials needed to construct a satisfactory shelter need not exceed \$2.00 per bird. About 85 pounds of feed (including grain and mash) will be required per hen during the year.

Some advantages of poultry raising include:

1. Chickens are adapted for part-time farming, producing either for home use (25 hens), or on a "case-lot" scale (minimum of 500 hens).
2. Land requirements are small, especially where pullets are reared in confinement.
3. Climatic conditions in western Oregon permit good rate of production throughout the winter months when egg prices are high.
4. Cost of buildings normally is moderate.
5. Independent and cooperative marketing of eggs is developed in the more populated districts.
6. Breeding stock (replacements) of high quality is readily obtainable.
7. Hatching eggs bring a premium price.
8. Prices of feeds are moderate in normal years.

Major factors influencing cost and profits in poultry raising are:

1. Yield of eggs per bird. Oregon hens should average approximately 180 eggs per year.*
2. Mortality. Death loss can be kept low by proper feeding, care, and culling throughout the year.
3. Labor efficiency. Convenience and planning of facilities and work will increase the return to labor expended.
4. Economic unit. Studies indicate that overhead and labor costs decrease as the size of the flock increases.
5. Prices of eggs and poultry compared to feed cost.

Rabbits†

Rabbit raising requires little space, has few objectionable features, and may be practiced almost everywhere—often in areas where poultry raising is not permitted. Rabbit meat is produced economically and quickly, only 4 to 5 pounds of feed being required to produce 1 pound of live weight. Young rabbits often reach "fryer

* A high rate of production can be maintained by giving proper care, having good stock, replacing at least 60 per cent of the flock with pullets each year, and using artificial lighting during the months when egg prices are high.

† See Oregon Agricultural Experiment Station Circular 155, *Rabbit Production for Meat*.

Table 4. BASIC REQUIREMENTS FOR POULTRY AS A PART-TIME ENTERPRISE.

Item	Commercial enterprise (minimum of 500 hens)
<i>Housing</i>	
Square feet of floor space per bird	3 to 4 square feet
Lineal feet, dimensions of house*	24 by 70 lineal feet
Approximate cost of house	\$900 to \$1,000
<i>Land</i>	
Confinement. No extra land required	None
Range. One acre per 100 birds	5 acres
<i>Feed</i>	
Pounds of feed required per bird per year	80 to 90 pounds
Approximate cost of feed per bird per year	\$2.50
<i>Labor</i>	
Man hours required per bird per year	3.6 man hours

* For details see Oregon Extension Bulletin 625 for family flock, and Extension Bulletin 480 for commercial flock.

size" within 90 to 100 days after the doe is mated. A good doe properly managed should produce 3 or 4 litters a year with each litter averaging 6 or 7 young. Three or four does and a buck will supply the average family with as much rabbit meat as it will readily use. Any surplus rabbits may be marketed, or if of good quality, may be sold as breeding stock.

Rabbit furs are particularly in demand by the felting and garment trade. Rabbit manure has a high nitrogen content and is especially valuable as a fertilizer for garden and truck crops. This should be of interest to part-time farmers because practically every part-time farm will have a vegetable garden.

Hutch construction need not be unduly expensive and procurement of feed seldom offers a serious problem. (See Oregon Experiment Station Circular 155 for details on hutch construction.)

Rabbits readily consume and find palatable and nutritious a large variety of plant foods. The foods fed in any specific locality, therefore, will depend largely on availability and cost. The whole grains such as wheat, oats, barley, and rye usually form the basis for most rabbit rations. A good quality legume hay such as alfalfa or sweet clover should always be fed in conjunction with any of these grains or grain mixtures. Green feeds and root crops are greatly relished by rabbits and when available may reduce the feed cost as well as help to maintain the health and vitality of the animals.

Raising pork and veal

Some part-time farmers in Oregon keep hogs. Generally, these are the larger places that also raise a few hogs for sale. Hogs are not very well suited to small places and many communities prohibit the keeping of hogs in thickly settled areas. In any case, pigs should be kept some distance from any residence. Two or three hogs will

supply most of the meat and cooking fats for a family of five, and most families would not want this much pork. If a couple of weanling spring pigs are bought, they will be large enough to butcher in the late fall or early winter. They will cost about \$6 to \$10 each. A small pen and rude shelter are all the equipment needed. Table scraps can be fed to hogs. In addition from 600 to 1,000 pounds of grain per pig costing from \$15 to \$30 will be enough to carry the pigs from the weanling to slaughter stage. If from $\frac{1}{4}$ to $\frac{1}{2}$ acre of good pasture is available, the feed costs would be reduced by as much as 10 to 20 per cent. The advisability of feeding out a pig depends on the price of pork compared with the price of grain. Ordinarily it is advisable to have hogs custom-slaughtered and cured.

Dairy cows

There are two ways in which dairy cows can fit into a part-time farming set-up. One is to provide essentially for family needs (1 or 2 cows), and the other is to supply a small commercial dairy enterprise (usually not less than 10 cows).

In the first instance, 1 cow will provide milk, cream, and butter for about 5 or 6 months of the year, and milk for about 10 months. If one wishes to provide plenty of milk for the family for the year around, 2 cows will be needed. Under this arrangement there will be some surplus milk that can be fed to chickens or pigs, or to raise a veal calf. If the latter is raised, it will add variety to meat supply.

In the second place, where one has a place large enough to produce some feed, especially hay and pasture, and wishes to conduct a small commercial enterprise, it is possible to keep from 3 to 10 cows provided the off-farm work is at regular hours that will permit the proper care of livestock at night and morning.

Generally speaking, each cow will require 1 to 2 acres of pasture in addition to about $2\frac{1}{2}$ tons of hay and 1,000 to 2,000 pounds of grain. The question of shelter is an individual problem depending on the number of cows to be kept and state and city sanitary requirements.

EXPANDING A PART-TIME FARM INVESTMENT

Thus far this discussion of part-time farming has centered around small operators producing primarily for family consumption. If a man wishes further to supplement his income with cash, he may expand in one or two general ways. One or more crops for sale either on the fresh market or for commercial processing may be grown. Here again the amount of time one can give to farm work is the determining factor, but it is also essential that suitable land be available at reasonable cost. The first step in deciding what to pro-

duce commercially is to determine not only the amount of family labor available, but also the proportion of this labor that may be devoted to farm work. Also, the way in which labor is distributed throughout the year must be considered.

As an aid in estimating labor supply, one may list the months of the year. Opposite each month estimate the amount of time the family will be able to devote to farm work. How many hours will owner, wife, and children want to be occupied with farm work each month? If one has a regular vacation period, that may be included for farm work.

DECIDING WHAT CROPS TO RAISE FOR SALE

Crops adapted to the locality

First, a man must learn what crops are adapted to his locality and to the particular soils in the area. Unless he is quite familiar with these crops, he should consult some farm expert, such as an experienced local farmer, the county agricultural agent, vocational agriculture teacher, or the staff of the agricultural college of the state. This is especially important when planning to raise crops ordinarily not grown commercially in the area. Many crops that are sufficiently adapted to justify raising them for family consumption do not do well enough for commercial production.

Ready market crops

It is not enough to be able to produce a crop; one will have to sell it to someone, so it is important to have marketing facilities available. There are three possible outlets: local fresh markets, packers and distributors, and processing plants. The first type of market pays the highest prices; but more time is required in marketing, and losses from spoilage may be higher. The packers and distributors usually pay less but provide a fairly steady and reliable market and in selling to them the time required in marketing is reduced. Sometimes packers and distributors buy the crop in the field and harvest it. The processing plant usually pays least but is a very sure market, and many contract for the total crop at planting time, provide technical guidance, and make loans to cover seed and labor costs. The value of these market outlets depends on the locality and the kind of produce. Fresh markets in towns and the smaller cities are easily oversupplied. Packers and processing plants are not available in all localities and frequently handle only one or two crops.

Fruit growing

Under certain conditions, there is a place for fruit growing in the part-time farming program. It must be borne in mind, however,

that the fruit prices that have prevailed during the war period are not a criterion of what these prices are likely to be in normal times. In the case of fruit growing, there is a delicate balance between production and market outlook; and growers should be fairly certain that a market is in sight before the venture is undertaken.

Small fruits such as strawberries, raspberries, and blackberries have possibilities for the part-time farmer. Normally, however, the fresh or local demand for these fruits is soon filled, and growers usually have to find an outlet through processing. It is wise, therefore, to consult the processors in the locality before plantings are made. Their judgment is valuable as to market outlook and as to the kinds and types that should be planted.

Orchard fruits, as a rule, do not fit well into a part-time farming venture. Tree fruits require considerable outlay as to equipment and facilities, and these are necessary whether the planting is large or small. The overhead costs, therefore, are likely to be too great when orcharding is undertaken on a small scale. Expert care and constant attention are necessary with tree fruits, and the part-time farmer finds difficulty in meeting these requirements. Nut crops such as walnuts and filberts generally fall into the same category as the tree fruits.

Specialty horticultural crops

Some persons who farm on a part-time basis have found it to advantage to grow specialty crops such as holly, flowers, bulbs of various kinds, plants, plant novelties, and nursery stocks. These crops, however, require a high degree of specialization. The entrepreneur must consider them with the thought of becoming an authority on the specialty he chooses. He must give thought to the matter of market outlets. He should consult freely with those who are engaged in the marketing of these commodities, and he should be guided by their judgment as to kinds and amounts he attempts to grow. Some growers of these commodities have been very successful in developing their own sales outlets through local markets or by direct contacts with purchasers on the outside.

Crops that fit one's time

The final choice among the crops adapted to the locality and for which there are markets or marketing facilities will be based on comparison between labor requirements and labor resources.

If growing and marketing conditions permit, it is generally advisable to raise a smaller amount of several crops rather than to grow only one. A variety of crops will utilize labor better as the peak labor requirements for cultivation and harvesting of different crops usually come at different times. If one crop fails, there is still income from others.

MACHINERY AND POWER NEEDS

Equipment and power required depend, of course, on what is raised, the number of acres operated, and the possibility of having some operations done on a contract basis. Production for home use is about as much as one may expect with hand tools and even then it may be necessary to hire the land plowed. For a larger acreage of crops there is need of some kind of power for plowing, harrowing, disking, and cultivating. For 5 or 10 acres a small 2-wheel garden tractor is satisfactory. One can be bought, new, for about \$100 up to \$500. Because of their light weight, they are not entirely satisfactory for plowing; and it may still be necessary, especially on the heavier soils, to hire the plowing done. A horse could be purchased for less money, but would require so much feed that it would not be economical to own one on such a small acreage. It will require 4 or 5 acres of cropland to produce the feed needed for a horse. To keep a horse at least 15-20 acres of good cropland should be available.

In considering the other machinery needed, one should remember that in addition to plows, harrows, wagons, etc., that are used on all crops, there are groups of crops that are handled with a certain line of machinery. For example, most of the row crops can be planted and cultivated with one planter and cultivator; the hay crops require a mower, a rake and perhaps a stacker; and the grain crops require a drill and a binder or combine. If one is equipped to handle one of these groups of crops, one can add other crops in the same group without buying much more machinery. If the production of some crop from a different group is undertaken, however, it may be necessary to have considerable more equipment.

The difficulty of providing power and machinery at low cost is one of the disadvantages of small farms. With each machine, as the number of acres goes down the per acre cost of using the machinery goes up.

A part-time farmer must be careful to avoid investing too much in farm machinery. Hiring some of the work done that requires expensive and specialized machinery, such as spray rigs, combines, or binders is often possible. Since most equipment will be used only a few days each year, one does not need the most up-to-date models and often it is possible to keep the investment down by purchasing good secondhand machinery.

WHAT LIVESTOCK CAN BE RAISED?

Livestock care is highly skilled work requiring extensive knowledge and proficiency. All livestock requires considerable in the way of buildings and equipment and the risks are greater than with the

production of crops. If disease attacks a flock of chickens or other livestock, one may lose the entire investment.

Chickens and rabbits lend themselves quite well to part-time farming. With chickens for example, one may obtain good returns from a small amount of space. The cost of the flock, buildings, and equipment is not high in relation to the returns, the birds respond well to good care, and there are facilities almost everywhere for marketing eggs as well as live or dressed chickens. The returns one can expect from chickens vary with the cost of feed, the care, and prices. If egg prices are unfavorable one can eat or sell some of the hens, and rebuild the enterprise when conditions are more favorable.

Milk cows, hogs, and sheep are not so well adapted to commercial production on very small part-time farms but may offer attractive possibilities on larger farms. All require a fairly large amount of capital. Milk cows and sheep require considerable acreage. Milk cows need elaborate buildings and equipment for themselves and for handling the milk. Their feed must include roughage, which is usually uneconomical to buy and requires a large amount of land. Cheap land suitable for pasture is necessary for low-cost production.

Milking goats are well-adapted to part-time farming. They do not require as much space as milk cows and can be fed more cheaply. They are a good source of milk for the family, and kids provide meat. It is difficult to find a satisfactory market for goat's milk.

FEED FOR LIVESTOCK

Part-time farmers generally find it more profitable to buy a large part of their grain feed, especially those on small units and on high-priced land near cities. Raising feed takes a good deal of land and is adapted to mechanized farming. This is, of course, only a general principle. One must make decisions in the light of all the factors in the individual case, particularly the amount and quality of land available and the price at which one can buy feed.

WHAT KIND OF EMPLOYMENT BLENDS WELL

If one desires to use spare time on the part-time farm, one will have enough time to raise a garden and enough chickens to supply nearly all family needs for vegetables, fruits, eggs, and fryers with almost any kind of employment except heavy manual labor. With some help from the family it might be possible to care for a cow. But if one wants to produce on a larger scale and get a cash income from the farm, some type of employment that will either provide considerable spare time every day or that has seasonal slack periods at a time when the farm requires attention will be necessary.

Rural mail carriers, for example, frequently have considerable

extra time to work on a farm. Driving a school bus or milk route may leave the worker with fairly long hours for farming.

Many types of industry give only seasonal employment. Some of these have their slack seasons during the time when one can profitably work on the farm. Forestry also provides work in the winter as do trapping and some types of fishing. Some of the agricultural processing plants provide seasonal work and leave the person employed in them enough time for profitable part-time farming.

Part-time farming offers a good opportunity for persons having a small pension or annuity. If one is partly disabled, farm work may be planned at the level permitted by health and ability.

LOCATIONS OF PART-TIME FARMS

Many people have been disappointed in part-time farming because they located in communities where there were insufficient employment opportunities. Unless one plans to make almost all of the income from farming, one should locate in a community in which there are ample opportunities for work that fit in with the desired farming program.

If a man plans to produce for sale, he should select a farm that is near good markets. If he plans to sell fresh vegetables or whole milk, for example, he should be close to a city or town.

Transportation is of vital importance to the part-time farmer. Time spent in travel to and from other work and the market will be taken from the farm work and, of course, is a cost item. If the farm is too far from other work, cost of transportation may be so high as to offset the earnings from the farm. Location on an all-weather road is important.

ITEMS TO BE CONSIDERED BEFORE BUYING

Having found a suitable area for part-time farming, a man should exercise great care in selecting a farm. It will be a home as well as a source of income. Since it will not be the only source of income, however, he should take every precaution to see that operation of the farm will not interfere with his other work. He must consider many things before selecting a part-time farm.

Size

Is it large enough to provide the amount of income expected and not too large for the family and owner to operate along with other work?

Adaptation for specific use

Is the soil fertile and adapted to the produce it is planned to raise? One should get expert advice on this because many crops are

exceedingly particular about their environment. The soil type, drainage, or even slope may be responsible for the difference between profitable production and mediocre crops. Frequently small areas unadapted to a certain crop may be immediately adjacent to areas well suited to the same crop. Land speculators have made fortunes selling unadapted land to hopeful farmers. The county agent, or other local disinterested officials, can help in making the right selection.

Reasonably priced

If buying, it is important to pay only what the farm is worth. Because its value will depend partly on what can be raised on it, and partly on its value as a place to live, one can expect it to cost more per acre than the going value of agricultural land of similar quality farther from town. First point is to decide what the place is worth as a home in comparison with the cost of living in town, taking into account differences between town and county tax, insurance and utility rates, and the added costs of travel to work. In some areas, the schools in the country are not as good as in the city. Some facilities like fire protection, gas, and sewage systems may not be available. These things must be taken into account in placing a value on the county residence.

What one is willing to pay, in addition to the value of the place as a home, depends on the earnings expected from the farm. A way of estimating the value is to set up a plan for operating the farm, listing the kinds and quantities of the different things one expects to produce in an average year both for home use and for sale, and estimate the value of these at normal prices. This will be the gross income from farming. Subtract the total of the estimated annual farming expenditures, including an allowance for depreciation of buildings and equipment, and a charge for labor of owner and family. (A man may have difficulty in deciding what his time is worth, but he should charge something for it or he will pay too much for the farm and as a result, get nothing for his labor.) The difference that is left after subtracting all expenses is net farm income. Capitalizing this at about 5 per cent will give the approximate value of the farm. Thus, if the net farm income is \$100, the farm value is approximately $\$100 \div .05$ or \$2,000. In other words, if a man invests \$2,000 in such a farm he can expect a return of \$100 or about 5 per cent on the money invested. The farm value, arrived at in this manner, added to the home value, gives the total value of the part-time farm.

If a man is not well acquainted with the area or is not sufficiently experienced in farming to make a calculation of this sort, he should rent for a year or two before buying a place.

Facilities

Are water and other facilities available? The part-time farm probably will be outside the town. Water mains, sewers, gas lines, and perhaps even electric lines may not be right at the door. Getting these facilities may involve large and unexpected expenditures. It may be necessary to provide these facilities and perhaps at considerable expense.

MISTAKES TO BE AVOIDED

From a study of part-time farms and farmers in this State a few years ago,* it was determined that the following mistakes are some of the things to be avoided:

1. Buying the property instead of first renting for a few years to determine suitability both of the family and the property for this way of living.
2. Buying logged-off land.
3. Buying along a poor road or lane.
4. Buying too close to town where taxes are prohibitive.
5. Locating too far from town or employment, making transportation costly.
6. Failure to get a clear title to property.
7. Incurring a debt, and neglecting to pay it off when money was available.
8. Assuming too-high monthly installments, and too-high interest rate.
9. Building too expensively before paying off the mortgage.
10. Buying a place with poor or no drinking water, or no irrigation water.
11. Lack of gardening experience.
12. Too much livestock on small acreage.
13. Lack of a definite management plan.
14. Selecting enterprises for whose products there was no market.
15. Locating permanently without regard for assured employment.
16. Beginning this project when too old and listening to poor advice.

THE PROBLEMS OF PART-TIME FARMING IN OREGON

Part-time farming in Oregon means squarely facing many personalized social and economic problems.

* Oregon Agricultural Experiment Station Bulletin 340.

Number of part-time farms

It is difficult to determine how many part-time farms there are in Oregon. Judging by one indication (farms reporting in the 1940 census less than \$600 total value of products sold, traded, or used by the farm household), there were 29,041 part-time farms in Oregon in 1939. This represents 47 per cent of all farms in the State. In other words almost one-half of our 61,829 farms in Oregon, as shown by the 1940 census, are not farms at all in the usual "full-time" sense of the term. Forty-five per cent of the farmers of Oregon in 1939 reported supplemental "off-farm" employment averaging 153 days per farm. Thirty-six per cent of the farms in Oregon in 1939 were under 30 acres in size and averaged only 11.4 acres per farm.

Part-time farms are increasing

The period from 1929 to 1939 shows a substantial increase. Recent indications suggest still further increases. There seems to be no possibility of providing full-time farms for all the people who have migrated to the Pacific Northwest during the war and are now determined to buy farm land in this State and make Oregon their home.

Part-time farms are not economic units

As indicated in Table 3, the average value of farm products sold, traded, or used by the farm household on the 29,041 "part-time" farms in Oregon in 1939 was \$254 per year. In other words 47 per cent of the farms of Oregon in this prewar year were producing a *gross* value of products of only 70¢ per day including Sundays and holidays. The *net* figure would be considerably less. These units certainly can not be called "full-time" farms or economic farm units. Without supplemental income of some sort, these "farms" can not possibly supply a decent standard of living for the farm family.

Responsibility for their welfare

The people living on these twenty-nine thousand "part-time" farms are citizens of Oregon, and they are living in the country. If these families are "disowned" by industry and "disowned" by agriculture, then to whom can they look for association and assistance in tackling their problems?

The agricultural problems of part-time farmers in Oregon are just as real to them as though they were full-time farmers. Agriculture will do well, therefore, to recognize them as an important part of the farm economy.