

Settlement and Development of Cut-Over Lands of Western Washington

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The settlement and development of cut-over lands in Western Washington poses many serious problems to settlers themselves, to governmental units, to credit agencies, and to other organizations. How much good agricultural land is not now cleared and where is it? Can it be cleared at a cost consistent with its productive capacity? How much capital resources, how many cleared acres, and how many livestock must a settler have to develop a farm that will provide a living from these stump-covered lands? These and similar questions are confronting many people in Western Washington today—not only those who are contemplating settlement, but also those who already have bought and started the development of a cut-over farm.

Under the best of conditions, clearing and developing a farm on cut-over lands is an extremely difficult, arduous, and time-consuming job. Full recognition of the problems involved and the rewards to be expected may prevent many disappointments and failures.

A recent study made in the summer of 1939 of settler experience in farm development, land clearing, and income production suggests the answers to many of the questions and problems faced by farmers in these cut-over areas. Although many people living on cut-over land are interested in clearing and developing a farm only if other job opportunities are not available, many others have as their primary objective and ambition the development and

operation of a full-time farm. It is with this latter group that this report is primarily concerned.

Five local areas were selected for study—one each in Clark, Lewis, and King counties, and two in Snohomish County.

More than half of the 1,051 families living in the five local areas studied had moved onto their farms since 1929. Many of these recent settlers moved to farms already developed. About 50 per cent of the recent settlers were from the State of Washington. Slightly less than one-half of those from outside Washington, or 22 per cent of all new settlers, came from the Great Plains.

SIZE OF FARM

Many farms were small in total area, and extremely small as measured by acres of land cleared. One-third of all occupied farms were less than 20 acres in total area, and an additional 43 per cent were from 20 to 45 acres in size. About three-fourths of all farms had less than 10 acres of cleared land in 1939, and about one-third of all farms had less than two acres cleared. Livestock numbers were generally related closely to the number of cleared acres.

Directly productive work in producing crops and caring for livestock on the farm took no more than one-third to one-half of the operator's time on many of the farms. This, however, does not include time spent in clearing land. Almost one-fifth of the farms were classed as undeveloped, with practically no cleared land or livestock, though this group averaged 30 acres of land in the farms.

FARM INCOME

Most undeveloped tracts and small farms returned no net cash income to the operator in 1938 because of the lack of cleared land and productive livestock. The farms did provide a place to live and contributed substantially to family food and fuel needs. As the cleared acreage and livestock numbers became larger, the income from the farm increased. Farms which were established before 1930 and which had more than 200 days of currently productive farm work produced family farm incomes of over \$350 in 1938, and in addition supplied a dwelling, food, and fuel worth more than \$300. Such farms averaged 31 acres of cleared cropland and 22 productive animal units.

More than 60 per cent of gross farm income on these cut-over farms came from the sale of livestock products, largely milk and eggs. Feed purchases comprised over 50 per cent of all farm expenses on most farms. Hay was about the only feed crop grown.

SOURCE OF FUNDS USED IN FAMILY LIVING

Families on undeveloped tracts and on farms with less than 100 days of productive farm work were dependent almost entirely upon off-farm employment and public relief assistance for income. They averaged approximately \$200 from public assistance and a like amount from off-farm employment. The families on the larger farms obtained practically no relief assistance and depended upon off-farm employment less than did the families on the smaller farms. Less than one-fifth of the families who settled before 1930 received public assistance, whereas more than half of the families on new farms relied to some extent on public assistance. About one-fourth of these relatively recent occupants received in excess of \$500 per family from public assistance from April 1938 to March 1939.

LIVING CONDITIONS

Total cash spent for family living averaged about \$475 per family. Small families had more cash to spend per person for family living than did large families.

More than \$200 worth of food for use by the farm family was produced on most farms, but many families neglected this possibility of improving their diets. Each family should produce as much as possible of the family living on the farm. Cold storage locker plants conveniently located to the rural areas might improve the possibilities in many cases. Housing was inadequate on many farms, particularly among the recent settlers, one-fourth of whom were living in inexpensive "shacks." Most families on cut-over land lived in houses of frame construction, with no basement. Nearness to lumber producing centers makes housing a less expensive problem than in most areas of the country.

PROGRESS

Financial progress was generally slow. Liquid assets at time of settlement were invested in the farm, and in 1939 most of the

assets were embodied in the cut-over farm itself. Purchases of cut-over stumpland were made at an average price of \$15 per acre, usually with a small down payment and the balance in installments over 5 to 10 years.

LAND CLEARING

Most farms, even the older ones, have had only small acreages cleared by the present occupants. Less than two acres had been cleared by 1939 on over one-half of the farms settled from 1932 to 1935, and on over three-fourths of those settled from 1936 to 1938. The most usual rate of clearing was one-half acre per year. A large percentage of occupants cleared no land whatever. Few of the present occupants will see their farms fully developed unless more rapid means of clearing are employed.

Land clearing by the "bulldozer" method of machine clearing apparently has reduced costs of clearing by one-half or more, if labor is considered as a cost. Two-thirds of the clearing jobs done in 1939 by the bulldozer method were accomplished at a cash cost to the farmer of \$30 to \$75 per acre, not including the burning of stumps and debris.

FINANCING OF CLEARING

Lack of cash prevents most settlers from taking advantage of the machine method. Provision of credit is necessary if most settlers are to be expected to provide themselves with sufficient cleared land for a minimum adequate farm unit. The absence of dependence on public assistance of those farms with reasonably large cleared acreages is evidence that credit for clearing good land is desirable.

ASSISTANCE ALTERNATIVES

Among the alternatives that might be used for advancing assistance for land clearing are the following:

(a) Establishment of cooperative clearing associations with the cost of the equipment advanced in whole or in part by a public credit agency such as the Farm Security Administration. One or two such cooperatives are now in operation. Supplementary long-time loans to individuals would be necessary in many cases to pay for the use of equipment for clearing on individual farms.

(b) Public or privately-owned clearing machinery with individual farm clearing jobs done on a contract or hourly rate basis, and with individuals receiving public or private credit for payment of machine hire.

(c) Clearing of large blocks of land by a public agency, with individual farmers purchasing such cleared land on a long-term contract basis at low interest rates. This plan is similar to that followed in the development of irrigation reclamation projects.

The first two methods mentioned are already in operation in certain areas and offer the most immediate possibilities for settlers in need of credit financing. Local representatives such as the county agent or the county supervisor of the Farm Security Administration can supply the interested settlers with information regarding the availability of credit for such purposes.

LAND SELECTION IMPORTANT

Because of the variable quality of soils in Western Washington, it is highly important that only the land containing the better soils be cleared. Much upland gravelly soil is unfit for farming even after the land has been cleared. The prospective settler should give careful consideration to soil quality of any unit of land he is considering for purchase or for clearing. The local county agent should be consulted and soil survey maps carefully inspected. Recommended land use maps that have been prepared by county agricultural planning committees are also helpful.

If credit is advanced by any agency for land clearing, either directly or indirectly, the agency advancing such credit should assume responsibility for seeing that clearing is done only on the better lands; otherwise the effort may be foredoomed to failure. Each individual area must be considered separately and carefully by competent authorities before loans are made.

PROBABLE NEEDS FOR DEVELOPMENT

Dairy and poultry production offer the major possibilities for farm income in Western Washington. Consideration of the market structure, natural adaptabilities of the area, and managerial and financial requirements indicates that dairying as the major enterprise will provide the largest number of opportunities.

A minimum full-time family-type dairy farm on cut-over land should have at least 12 milking cows, with 30 acres of cleared land for hay and grain production and an additional 30 acres of stump-land for seeded pasture. These are **minimums** for most soil types available—a larger unit would be preferable.

A sample farm plan, together with expected operation expenses and farm income under normal cost and price conditions and with good farm management practices, has been prepared. This plan, shown in the accompanying table, indicates in summary form what the probable needs are for a minimum-sized farm in much of the Western Washington upland cut-over areas and what can normally be expected in the way of farm income from such an operation. Some farmers would make better incomes than those indicated; others probably would not do as well. During periods of high prices for milk and eggs, such as exist during the present emergency war period, incomes would be higher than those indicated; but such relatively high prices probably cannot be counted on to continue under more normal conditions.

Expected net cash farm income on such a farm normally would be about \$650. Of this amount about \$160 would be needed for a depreciation reserve in order to replace buildings and fences as they wear out. On a long-time basis a farmer could not expect to be able to have more than \$150 per year for payment of interest and repayment of principal of any loans that were acquired in order to provide such a farm business.

Most settlers now on undeveloped upland cut-over areas in Western Washington probably would need at least \$3,750 of additional financing to provide such a farm business, distributed about as follows: \$1,500 to clear 30 acres of stumpland by the "bulldozer" method at an average cash cost of \$50 per acre; \$1,500 for additional buildings, machinery, and equipment; and \$750 for livestock, principally dairy cows. A long-term, low interest rate loan would be necessary, with little or no repayments to be made during the first few years.

A farm business and a loan to finance it, such as outlined, require a well-qualified farmer as a basis for success.

**Suggested Farm Plan for a Minimum Family-type Dairy Farm on
Upland Cut-over Areas of Western Washington**

LAND USE		FARM INVESTMENT VALUES	
	Acres		Dollars
Cropland	30	Land (cropland @ \$100,	
Cut-over pasture	30	other land @ \$10	3,500
Woodlot	18	Dwelling	1,250
Farmstead and roads	2	Other buildings	1,100
Total	80	Fences, water supply, etc. ..	400
		Machinery and equipment ..	700
		Livestock	1,300
		Total	8,250
ORGANIZATION		FARM RECEIPTS AND EXPENSES	
	Acres		Dollars
Hay	22.5	Farm receipts:	
Grain	5.0	Milk sales (5,500 lbs. per	
Garden and miscellaneous	2.5	cow @ \$1.40 per cwt.)	924
Total cropland	30.0	Veal (7 @ \$7.50 per head)	52
		Cull cows (2, 1,000 lbs.	
	Number	ea., @ \$4 per cwt.)	80
Dairy cows	12	Miscellaneous (eggs,	
Heifers and calves	8	hogs, and garden)	200
Hens	100	Total receipts	1,256
Hogs	5	Farm expenses:	
Horses	2	Hired labor	30
		Custom hire	15
		Gas and oil (farm use)	40
		Seed and fertilizer	15
		Feed purchases	300
		Breeding and veterinary	
		fees	50
		Repairs (bldgs., mach.,	
		& equip.)	50
		Taxes, insurance, and	
		licenses	80
		Miscellaneous	30
		Total cash expenses	610
		Depreciation	160
		Total expenses	770
INCOME SUMMARY			
	Dollars		
Family cash farm income	646		
Family farm income			
(after depreciation)	486		
Production for family use:			
Value farm-raised food	250		
Value farm-raised fuel	40		
Rental value of dwelling	125		
Total non-cash contribution	415		
Family farm earnings			
(\$486+\$415)	901		

This circular is a brief summary of a more complete, detailed report entitled "Settlement Experience and Opportunities on Cut-Over Lands of Western Washington" by Carl P. Heisig, published as Washington Agricultural Experiment Station Bulletin 399. The study was made by the Bureau of Agricultural Economics of the United States Department of Agriculture with the cooperation of the Washington Agricultural Experiment Station. A copy of the detailed report may be obtained upon request to the Director of the Washington Agricultural Experiment Station, or to the Director of the Washington Agricultural Extension Service, Pullman, Washington.

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