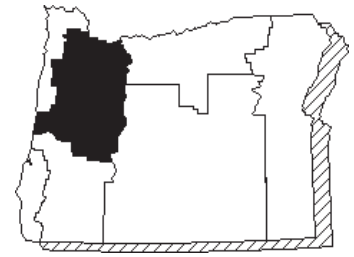




Enterprise Budget

Peppermint Establishment, Willamette Valley Region

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This enterprise budget estimates the typical costs of establishing peppermint in the Willamette Valley of Oregon. While efforts were made to reflect common practices, it is not representative of any particular farm and should thus be used only as a guide to estimating actual costs. The major assumptions used in constructing this budget are discussed below. Assistance provided by area producers is greatly appreciated.

For costs and returns associated with peppermint production, see *EM 8489, Enterprise Budget: Peppermint, Willamette Valley Region*.

Cropping Pattern

This budget is based on a 500-acre farm with 125 acres in production of peppermint in rotation with sweet corn or grass seed and wheat. The budget estimates establishment and first year production costs for 1 acre. The established stand is assumed to have a 5-year life, including the establishment year.

Land

A land-lease charge of \$120.00 per acre is included to represent the cost of leasing or owning land. This charge is based on the cost of leasing good quality, irrigated soils in the Mid-Willamette Valley. Irrigation costs are based upon side-roll systems with an estimated annual fixed cost of \$30.00 per acre. Operating costs are based on electricity, repair, and maintenance costs of \$1.61 per acre-inch of water applied.

Labor

All labor (including irrigation labor) is hired at a rate of \$7.00 per hour, which includes worker's compensation, unemployment insurance, and other labor overhead expenses. Owner/operator compensation is also assumed to be a cash expense of \$7.00 per hour. Labor hours for machinery operation are calculated by multiplying 1.21 times machine hours to allow

for machinery setup, movement, and adjustment. All repairs are estimated separately from operation labor hours.

Capital

Opportunity costs of capital are charged at a rate of 12% for current, intermediate, and long-term capital provided by the owner/operator.

Machinery and Equipment

The machinery complement is sufficient to farm 500 production acres. A detailed breakdown of machinery values used in this budget is shown in table 1. January 1991 replacement costs are used, assuming the machinery is half-depreciated.

Operations

The cultural operations are listed in the budget in the order they are typically performed. Land preparation takes place from late August until October, and planting in mid-October. Harvest and distilling is done in early August. A 100-hp tractor is used for all operations except spring and summer fertilizing, which is performed using a 60-hp tractor.

Establishment Cost

The total establishment cost of \$1,341.26 per acre is partially offset by a first-year harvest of 50 pounds of oil per acre. The remaining amount of \$591.26 must be recovered during the 4 additional production years. At 12% interest, an annual payment of \$164.01 will just repay this amount, with interest, in 4 years. This annual payment is included as a noncash fixed cost in *EM 8489, Enterprise Budget: Peppermint, Willamette Valley Region*.

Other

A general overhead charge of \$2.00 per acre is included to cover general insurance, tools, shop, utilities, accounting fees, office supplies, and other miscellaneous expenses.

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ECONOMIC COSTS and RETURNS WILLAMETTE VALLEY REGION PEPPERMINT ESTABLISHMENT, (\$/acre) 50 acres

<u>GROSS INCOME Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Your Income</u>
Peppermint	50	lb	15.00	750.00	_____
Total GROSS Income				<u>750.00</u>	_____
<u>VARIABLE COST Description</u>	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
LAND PREP					
Flail (2X)	6.45	8.96	0.00	15.41	_____
Plow	4.16	7.04	0.00	11.20	_____
Dixon Harrow (2X)	4.84	4.86	0.00	9.70	_____
Preplant Fertilizer	0.00	0.00	23.50	23.50	_____
10-20-20	0.1 ton x 185.00 = 18.50				
Custom Application	1 acre x 5.00 = 5.00				
Lime	0.00	0.00	84.00	84.00	_____
Application	2.0 ton x 42.00 = 84.00				
Soil Insecticide (0.75x)	0.60	0.74	14.81	16.15	_____
Chemicals	0.375 gal x 39.50 = 14.81				
Field Cultivator (3X)	5.81	4.57	0.00	10.37	_____
Total LAND PREP				<u>170.34</u>	_____
DORMANT SEASON					
Plant Roots	0.00	0.00	330.00	330.00	_____
Mint Roots	1.0 acre x 250.00 = 250.00				
Custom planting	1.0 acre x 80.00 = 80.00				
Irrigation-Fall (2")	7.00	0.00	3.22	10.22	_____
Irrigation operation	2.0 inch x 1.61 = 3.22				
Weed Control	0.00	0.00	53.40	53.40	_____
Soil Residual Herb.	2.0 lb x 24.20 = 48.40				
Custom Spray	1.0 acre x 5.00 = 5.00				
Herbicide Spray 2	0.00	0.00	11.00	11.00	_____
Contact Herbicide	1.0 pint x 6.00 = 6.00				
Custom Spray	1.0 acre x 5.00 = 5.00				
Total DORMANT SEASON				<u>404.62</u>	_____
FIRST YEAR PRODUCTION					
Spring Weed Control	0.00	0.00	23.98	23.98	_____
Broadleaf Herbicide	2.0 pint x 9.49 = 18.98				
Custom Spray	1.0 acre x 5.00 = 5.00				
Spring Fertilize	0.00	0.00	37.38	37.38	_____
10-20-20	0.175 ton x 185.00 = 32.38				
Custom Application	1.0 acre x 5.00 = 5.00				
Summer Fertilize	7.74	4.82	30.00	42.56	_____
Nitrogen	120.0 lb x 0.25 = 30.00				
Irrigation (20")	70.00	0.00	57.20	127.20	_____
Irrigation	20.0 inch x 1.61 = 32.20				
Water-run nitrogen	100.0 lb x 0.25 = 25.00				
Insect Control	0.00	0.00	19.05	19.05	_____
Insecticide	1.33 lb x 9.79 = 13.05				
Custom Air Applic	1.0 acre x 6.00 = 6.00				
Hand Hoe	16.50	0.00	0.00	16.50	_____

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ECONOMIC COSTS and RETURNS
WILLAMETTE VALLEY REGION
 PEPPERMINT ESTABLISHMENT, (\$/acre) 50 acres (continued)

<u>VARIABLE COST Description</u>	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
MISCELLANEOUS					
Harvest & Distilling	0.00	0.00	137.50	137.50	_____
Custom 50.0 lb x 2.75 = 137.50					
Total FIRST YEAR PRODUCTION				404.17	_____
Pickup 4WD	32.00	10.17	0.00	42.17	_____
General Overhead	0.00	0.00	25.00	25.00	_____
Operating Capital Interest	0.00	0.00	68.67	68.67	_____
Total MISCELLANEOUS				135.84	_____
Total VARIABLE COST				1,114.97	_____
<u>FIXED COST Description</u>			<u>Unit</u>	<u>Total</u>	<u>Your Cost</u>
CASH Cost					
Land Lease			acre	120.00	_____
Machinery and Equipment Insurance			acre	5.81	_____
Total CASH Cost				125.81	_____
NONCASH Cost					
Irrigation System-Depreciation & Interest			acre	30.00	_____
Machinery & Equipment-Depreciation & Interest			acre	70.49	_____
Total NONCASH Cost				100.49	_____
Total FIXED Cost				226.30	_____
Total of ALL Cost				1341.26	_____
NET PROJECTED RETURNS				-591.26	_____

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Table 1. Machinery Cost Assumptions

Machine	Size	List Price	Current Market Value	Salvage Value	Useful Life	Remaining Life	Annual Use
Tractor	100 hp	\$45,000	\$29,250	13,500	6,000 hr	3,000 hr	302 hr
Tractor	60 hp	22,000	14,300	6,600	6,000 hr	3,000 hr	110 hr
Spray Buggy		40,000	24,000	8,000	5,000 hr	2,500 hr	9 hr
Dixon Harrow	12 ft	6,000	3,300	600	1,000 hr	500 hr	63 hr
Field Cultivator	15 ft	600	360	120	1,000 hr	500 hr	75 hr
Flail Chopper	12 ft	8,500	4,675	850	2,400 hr	1,200 hr	83 hr
Mold-Board Plow	4-18	12,000	6,600	1,200	2,025 hr	1,013 hr	54 hr
Spreader		1,000	600	200	2,000 hr	1,000 hr	100 hr
Pickup	4WD	15,000	9,000	3,000	50,000 mi	25,000 mi	12,500 mi

USE PESTICIDES SAFELY!

- **Wear protective clothing and safety devices as recommended on the label. Bathe or shower after each use.**
- **Read the pesticide label—even if you've used the pesticide before. Follow closely the instructions on the label (and any other directions you have).**
- **Be cautious when you apply pesticides. Know your legal responsibility as a pesticide applicator. You may be liable for injury or damage resulting from pesticide use.**



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