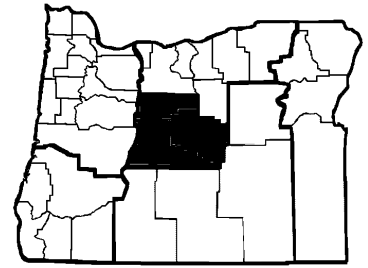


Enterprise Budget

Peppermint Leaf Establishment Year, Central Oregon Region

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This enterprise budget estimates the typical costs and returns of producing peppermint in the Madras area of central Oregon. While efforts were made to reflect common practices, it is not representative of any particular farm and should be used only as a guide to estimate 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 production year of peppermint leaf, see EM 8814, *Enterprise Budget: Peppermint Leaf Production Years, Central Oregon Region*.

Cropping Pattern

This budget is based on a typical 600-acre farm with 60 acres in production of peppermint leaf, 20 of which are in the first production year. This budget estimates per-acre costs and returns of a typical production year. The budget includes production costs for 1 acre, with a yield of 1,850 pounds per acre. The peppermint stand is assumed to have a 4-year life, including the first production year. A summary of the estimated costs and returns is shown in Table 1.

Land and Irrigation

A land lease charge of \$100 per acre is included to represent the cost of leasing or owning the land. The charge is based on the cost of a long-term lease for good-quality irrigated farmland.

The field is sprinkler irrigated using a 7-foot wheel line. A water charge of \$3.17 per acre-inch covers the cost of irrigation water and canal maintenance. Calculations are based on the North Unit Irrigation District rates for Deschutes River water rights. A charge of \$55 per acre covers electricity, repair, and maintenance costs for the sprinkler system. Irrigation fixed costs include \$42 for wheel line interest and depreciation.

Labor

Hand labor costs \$7.68 per hour, including worker's compensation, social security taxes, and other labor overhead expenses. Operator labor costs \$13.65 per hour and includes worker's compensation, social security taxes, and other labor overhead expenses. Labor hours for machinery operation are calculated by multiplying 1.21 times machine hours to allow for machinery setup, movement, and adjustments. Hand labor is used for sprinkler irrigation.

Capital

Opportunity costs of capital are charged at a rate of 9 percent for current, intermediate, and long-term capital provided by the owner.

Operations

Cultural operations are listed in the budget in the approximate order in which they typically are performed. Table 2 shows the cost of field operations with owned machinery.

Land preparation and planting takes place in the fall. An application of lime may be necessary on some fields but is not included in this budget. Land preparation includes disking and chisel plowing the field two times. Certified rootstock is planted in late fall. A semi load of roots typically plants between 5 and 8 acres. The cost of the roots is amortized over the 10-year average life of the plants.

Fertilizer is applied in the early spring. There are five independent pest control measures done throughout the spring. There are nine irrigations for a total of 13.5 inches of water. Harvest typically occurs in early August.

Machinery and Equipment

The machinery complement is sufficient to farm 600 production acres. A detailed breakdown of machinery values and costs used in this budget is shown in Table 3. January 1998 replacement costs are used. The machinery costs per hour are estimated based on the total farm use of the machinery. Fixed costs for machinery and equipment include the cost of interest and depreciation.

Other

A miscellaneous charge of \$10 per acre is included to cover general insurance, tools, office supplies, and other expenses. A pickup and ATV are utilized for hauling supplies, checking irrigation, and other activities related to peppermint leaf production.

The total establishment cost of \$1,073.21 per acre is partially offset by a first-year harvest of 1,850 lb of leaf per acre. The remaining amount of \$74.21 must be recovered during the 3 additional production years. At 9 percent interest, an annual payment of \$29.32 will just repay this amount, with interest, in 3 years. This annual payment is included as a noncash allocated cost in EM 8814, *Enterprise Budget: Peppermint Leaf Production Years, Central Oregon Region*.

Total variable cost is \$688, and the break-even price over variable costs is \$0.37 per lb. The total of all costs is \$1,073, with a break-even price over total costs of \$0.58 per lb.



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Table 1. Peppermint leaf establishment year: Summary of estimated costs and returns per acre.

Item	Unit	Price (\$)	Quantity	Amount (\$)	Your Farm
INCOME					
Peppermint Leaf	Pound	0.54	1850.00	999.00	_____
TOTAL INCOME				999.00	_____
DIRECT EXPENSES					
Herbicides	Acre	134.54	1.00	134.54	_____
Insecticides	Acre	11.75	1.00	11.75	_____
Custom Applications	Acre	32.67	1.00	32.67	_____
Mint Roots	Acre	46.68	1.00	46.68	_____
Hand Labor	Acre	166.16	1.00	166.16	_____
Fertilizer	Acre	108.80	1.00	108.80	_____
Water	Acre	42.79	1.00	42.79	_____
Operator Labor	Hour	13.62	3.19	43.45	_____
Diesel Fuel	Gal	1.30	16.50	21.45	_____
Gasoline	Gal	1.55	0.04	0.64	_____
Repair & Maintenance	Acre	46.71	1.00	46.71	_____
Interest on Operating Capital	Acre	32.21	1.00	32.21	_____
TOTAL DIRECT EXPENSES				687.84	_____
RETURNS ABOVE DIRECT EXPENSES				311.16	_____
FIXED EXPENSES					
Implements	Acre	33.12	1.00	33.12	_____
Tractors	Acre	34.48	1.00	34.48	_____
Self-propelled Equipment	Acre	127.13	1.00	127.13	_____
Trucks	Acre	0.65	1.00	0.65	_____
TOTAL FIXED EXPENSES				195.38	_____
TOTAL SPECIFIED EXPENSES				883.22	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				115.78	_____
ALLOCATED COST ITEMS					
General Overhead	Acre	35.00	1.00	35.00	_____
Land Costs	Acre	100.00	1.00	100.00	_____
Irrigation Costs	Acre	55.00	1.00	55.00	_____
RESIDUAL RETURNS				-74.22	_____

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Table 2. Peppermint leaf establishment year: Estimated per-acre resource use and costs for field operations.

Operation	Perf. Rate	Times Over	Month	Tractor Cost		Equipment Cost		Labor		Operating Input Cost	Total Cost
	(Hr/ac)			Direct	Fixed	Direct	Fixed	Hours	Cost		
Disk	0.1	2	Oct	4.80	5.81	2.04	7.18	0.242	3.30	----	23.13
Chisel	0.2	2	Oct	8.54	10.10	1.25	5.28	0.532	7.26	----	32.43
Plant Certified Mint Roots	0.5	1	Nov	9.35	12.73	1.56	18.70	2.79	26.09	46.68	115.11
Broad-spectrum Weed Control ¹	----	1	Nov	----	----	----	----	----	----	74.17	74.17
Flex Harrow	0.08	2	Apr	2.74	3.71	0.32	1.59	0.212	2.90	----	11.26
Fertilizer 240# N, 64# P, 64# K, 26# S	----	----	----	----	----	----	----	----	----	114.72	114.72
Roll Mint	0.1	1	Apr	1.55	2.11	0.06	0.35	0.121	1.65	----	5.72
Broad-spectrum Weed Control	----	1	Apr	----	----	----	----	----	----	46.53	46.53
Grass Control	----	1	Apr	----	----	----	----	----	----	24.63	24.63
Irrigation Labor Water	----	9	Apr–July	----	----	1.46	1.18	4.857	37.30	----	39.94
Broadleaf Weed Control	----	1	May	----	----	----	----	----	----	42.78	42.78
Insect Control	----	1	June	----	----	----	----	----	----	7.96	7.96
Weed Control—Hand Labor	----	1	June	----	----	----	----	13.0	99.84	19.75	19.75
Swather	0.08	1	July	----	----	1.33	3.87	0.096	1.31	----	99.84
Combine w/ Pickup	1	1	Aug	----	----	33.75	122.07	1.2	16.38	----	6.51
Two 2-ton Trucks	----	----	----	----	----	0.06	0.65	1.0	13.65	----	172.20
Total											851.04
Interest on Operating Capital											32.21
Total Specified Cost											\$ 883.25

¹Fertilizer and pesticide costs include cost of custom application.

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Table 3. Self-propelled machines, tractors, and implements: Estimated performance rating, useful life, annual use, purchase price, repair cost, fuel consumption rating, and direct and fixed cost per hour and acre.

Item Name	Size	Perf.	Useful	Annual	Purchase	Repair	Fuel Cons.	Direct Cost		Fixed Cost	
		Rate	Life	Use	Price	Cost	Rate	\$/hour	\$/acre	\$/hour	\$/acre
		Hrs/acre	Years	Hours	Dollars	Percent purchase price	Gallons/ hour				
Combine w/ pickup	14 ft	0.50	20	100	120,000.00	40	7.59	35.76	17.88	126.76	63.38
Swather	12 ft	0.30	20	120	55,000.00	50	4.04	16.71	5.01	48.41	14.52
Combine w/ pickup	14 ft	1.00	20	100	120,000.00	40	7.50	33.75	33.75	122.07	122.07
Swather	12 ft	0.08	20	120	55,000.00	50	4.04	16.71	1.33	48.41	3.87
ATV	20 hp	0.03	10	200	5,600.00	100	1.38	4.93	0.16	3.99	0.13
2wd Cab tractor	130 hp	----	20	400	87,000.00	100	6.57	19.41	----	22.97	----
2wd Cab tractor	180 hp	----	20	500	125,000.00	80	9.10	21.83	----	26.40	----
2wd tractor	50 hp	----	20	200	21,500.00	80	2.70	7.81	----	11.14	----
2wd tractor	80 hp	----	20	300	60,000.00	100	4.30	15.59	----	21.12	----
Tractor w/ loader	80 hp	----	25	100	60,000.00	50	1.00	13.30	----	59.66	----
Bedder bar	12 ft	0.20	10	100	2,000.00	20	----	0.40	0.08	2.85	0.57
Carrot roller	4 row	0.16	20	20	2,000.00	20	----	1.00	0.16	10.56	1.69
Chisel	10 ft	0.20	20	100	12,500.00	50	----	3.12	0.62	13.20	2.64
Cultimulcher	12 ft	0.10	20	100	12,000.00	40	----	2.40	0.24	12.67	1.26
Disk0	15 ft	0.10	20	50	17,000.00	60	----	10.20	1.02	35.91	3.59
Electric thinner	4 row	1.00	10	20	900.00	10	----	0.45	0.45	6.41	6.41
Flail mower	15 ft	0.10	20	100	13,500.00	50	----	3.37	0.33	14.26	1.42
Flamer	30 ft	0.16	20	50	9,000.00	70	----	6.30	1.00	19.01	3.04
Flex harrow	20 ft	0.08	25	100	10,000.00	50	----	2.00	0.16	9.94	0.79
Land leveler	12 ft	0.16	20	25	10,000.00	50	----	10.00	1.60	42.25	6.76
Mint planter	16 ft	0.50	25	20	7,500.00	20	----	3.00	1.50	36.71	18.35
Mint rake	12 ft	0.01	20	20	5,000.00	25	----	3.12	0.03	26.40	0.26
Paper roller	10 ft	0.50	20	20	2,000.00	20	----	1.00	0.50	10.56	5.28
Pasture harrow	12 ft	0.08	20	100	1,000.00	50	----	0.25	0.02	1.05	0.08
Precision planter	12.5 ft	0.20	20	75	5,000.00	50	----	1.66	0.33	7.04	1.40
Roller	12 ft	0.10	10	200	5,000.00	25	----	0.62	0.06	3.56	0.35
Rolling cultivator	12 ft	0.25	20	50	2,000.00	20	----	0.40	0.10	4.22	1.05
Rototiller	10 ft	1.00	20	50	4,200.00	80	----	3.36	3.36	8.87	8.87
Row sprayer	12.5 ft	0.20	20	75	13,000.00	70	----	6.06	1.21	18.31	3.66
Tool bar w/shovels	12.5 ft	0.20	25	25	3,000.00	75	----	1.80	0.36	5.96	1.19