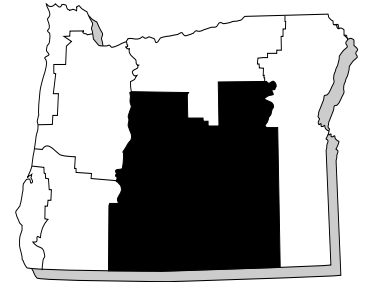




Enterprise Budget

Peppermint Establishment, South Central Region

Brenda Turner, graduate research assistant, and Marvin Butler, Extension agent, Jefferson County, Oregon State University



EM 8575, September 1994

This enterprise budget estimates the typical costs of establishing peppermint in the Madras area of South 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 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 8576, Enterprise Budget: Peppermint, South Central Region*.

Cropping Pattern

This budget is based on a 500-acre farm with 100 acres in establishment of peppermint following wheat. This budget estimates establishment costs and first-year production costs and returns for 1 acre. The peppermint stand is assumed to have a 4-year life, including the establishment year.

Land and Irrigation

A land lease charge of \$100/acre based on a long-term lease is included to represent the cost of leasing or owning land. This charge is based on the cost of leasing good quality, irrigated acreage, and includes irrigation canal maintenance costs. A water charge of \$0.96 per acre inch of water applied covers the cost of irrigation water. This is calculated based on the North Unit Irrigation District rate and the total water use by the 500-acre farm. The peppermint is flood irrigated.

Labor

Labor costs \$7 per hour, including worker's compensation, unemployment insurance, social security taxes, and other labor overhead expenses. Owner/operator compensation is assumed to be a cash expense of \$15 per hour. Owner labor is used for irrigation and cultivation activities, and half of a two-person planting operation. 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 8 percent 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. November 1993 replacement costs are used. Machinery costs in the budget are calculated based on current market values, assuming the machinery is half depreciated.

Operations

The cultural operations are listed in the order in which they typically are performed. 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. Certified rootstock is planted. All chemical applications are custom applied at \$5.50 per acre. Harvest occurs the following summer. A charge of \$2.85 per pound covers all expenses associated with custom mint harvest.

Establishment Cost

The total establishment cost of \$1,210.29 per acre is partially offset by a first-year harvest of 60 pounds of oil per acre. The remaining amount of \$250.29 must be recovered during the 3 additional production years. At 8 percent interest, an annual payment of \$97.11 will just repay this amount, with interest, in 3 years. This annual payment is included as a noncash fixed cost in *EM 8576, Enterprise Budget: Peppermint, South Central Region*.



OREGON STATE UNIVERSITY EXTENSION SERVICE

EM 8575 Enterprise Budget

ECONOMIC COSTS AND RETURNS SOUTH CENTRAL REGION Peppermint Establishment, \$/acre (25 acres)

<u>GROSS INCOME</u> Description	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Your Income</u>
Peppermint Oil	60.00	lb	16.00	960.00	_____
Total GROSS Income				960.00	_____
<u>VARIABLE COST</u> Description	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
LAND PREPARATION					
Irrigate (6" x 1)	3.75	0.00	5.76	9.51	_____
Water	6 in x 0.96 = 5.76				
Burn Wheat Stubble	0.70	0.00	1.00	1.70	_____
Burn Permit	1 ac x 1.00 = 1.00				
Rip/Chisel	6.05	7.75	0.00	13.80	_____
Land Plane	4.54	5.40	0.00	9.94	_____
Fertilize	0.00	0.00	61.00	61.00	_____
16-16-16	500 lb x 0.111 = 55.50				
Custom Application	1 ac x 5.50 = 5.50				
Rip/Harrow	6.05	6.21	0.00	12.26	_____
Total LAND PREPARATION				108.21	_____
DORMANT SEASON					
Plant Roots	12.58	10.78	300.00	323.35	_____
Certified Roots	1 ac x 300.00 = 300.00				
Roll	3.63	1.70	0.00	5.33	_____
Weed Control	0.00	0.00	34.37	34.37	_____
Pre-emerge Herbicide	1 lb x 26.00 = 26.00				
Sticker	0.25 gal x 11.46 = 2.86				
Custom Application	1 ac x 5.50 = 5.50				
Total DORMANT SEASON				363.05	_____
FIRST-YEAR PRODUCTION					
Harrow	7.26	2.30	0.00	9.56	_____
Corrugate	6.05	4.58	0.00	10.63	_____
Roll	3.63	1.70	0.00	5.33	_____
Weed Control	0.00	0.00	21.37	21.37	_____
Pre-emerge Herbicide	0.5 lb x 26.00 = 13.00				
Sticker	0.25 gal x 11.46 = 2.86				
Custom Application	1 ac x 5.50 = 5.50				
Fertilize	0.00	0.00	48.63	48.63	_____
40-0-0-6	375 lb x 0.115 = 43.12				
Custom Application	1 ac x 5.50 = 5.50				
Irrigate (3" x 11 sets)	41.25	0.00	31.68	72.93	_____
Water	33 in x 0.96 = 31.68				
Mite Control (2x)	0.00	0.00	62.83	62.83	_____
Sticker	0.5 pint x 3.36 = 1.68				
Insecticide	5 pint x 10.03 = 50.15				
Custom Application	2 ac x 5.50 = 11.00				
Hoeing	70.00	0.00	0.00	70.00	_____
Harvest	0.00	0.00	171.00	171.00	_____
Custom Harvest	60 lb x 2.85 = 171.00				
Total FIRST-YEAR PRODUCTION				472.28	_____
MISCELLANEOUS					
Oregon Mint Commission Fee	0.00	0.00	3.60	3.60	_____
Fee	60 lb x 0.06 = 3.60				
Operating Capital Interest	0.00	0.00	35.22	35.22	_____
General Overhead	0.00	0.00	10.00	10.00	_____
Pickup	10.71	3.10	0.00	13.81	_____
ATV	7.50	.13	0.00	7.63	_____
Total MISCELLANEOUS				70.26	_____
Total VARIABLE COST				1,013.80	_____
GROSS INCOME minus VARIABLE COST				-53.80	_____

EM 8575 Enterprise Budget

ECONOMIC COSTS AND RETURNS SOUTH CENTRAL REGION Peppermint Establishment, \$/acre (25 acres)

<u>FIXED COST Description</u>	<u>Unit</u>	<u>Total</u>	<u>Your Cost</u>
CASH Cost			
Machinery & Equipment Insurance	acre	7.25	_____
Land	acre	100.00	_____
Total CASH Cost		107.25	_____
NONCASH Cost			
Machinery & Equipment - Interest & Depreciation	acre	87.08	_____
SiphonTube - Interest & Depreciation	acre	2.16	_____
Total NONCASH Cost		89.24	_____
Total FIXED Cost		196.49	_____
Total of ALL Cost		1,210.29	_____
NET PROJECTED RETURNS		-250.29	_____

Table 1. Machinery Cost Assumptions

<u>Item</u>	<u>Size</u>	<u>List Price</u>	<u>Current Market Value</u>	<u>Salvage Value</u>	<u>Useful Life</u>	<u>Remaining Life</u>	<u>Annual Use</u>
Tractor	50 hp	\$21,500	\$13,975	\$6,450	10,000 hr	5,000 hr	22 hr
Tractor	80 hp	34,000	22,100	10,200	10,000 hr	5,000 hr	10 hr
Tractor	125 hp	65,000	42,250	19,500	10,000 hr	5,000 hr	40 hr
Chisel Plow	12 ft	8,000	4,800	1,600	25,000 hr	12,500 hr	7 hr
Corrugator	5 row	9,500	5,700	1,900	2,000 hr	1,000 hr	9 hr
Dixon Harrow	12 ft	800	480	160	2,000 hr	1,000 hr	7 hr
Land Plane	12 ft	3,000	1,800	600	2,000 hr	1,000 hr	10 hr
Mint Planter	16 ft	7,500	4,500	1,500	2,000 hr	1,000 hr	7 hr
Ripper	12 ft	4,500	2,700	900	2,000 hr	1,000 hr	13 hr
Roller	12 ft	2,500	1,500	500	2,000 hr	1,000 hr	17 hr
ATV		3,500	2,100	700	1,500 mi	750 mi	50 mi
Pickup	1/2 ton	15,000	9,000	3,000	100,000 mi	50,000 mi	625 mi



Extension Service, Oregon State University, Corvallis, O.E. Smith, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties.

Oregon State University Extension Service offers educational programs, activities, and materials—without regard to race, color, national origin, sex, age, or disability—as required by Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973. Oregon State University is an Equal Opportunity Employer.