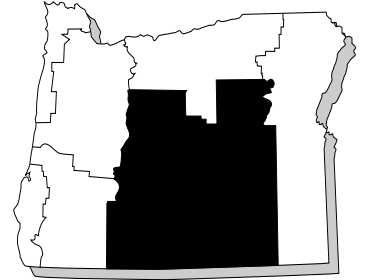




# Enterprise Budget

## Bluegrass Establishment, South Central Region



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**EM 8572, September 1994**

This enterprise budget estimates the typical costs and returns of establishing certified bluegrass 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 bluegrass production, see *EM 8571, Enterprise Budget: Bluegrass, South Central Region*.

### Cropping Pattern

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

### Land and Irrigation

A land lease charge of \$100 per acre is included to represent the cost of leasing or owning land. This charge is based on a long-term lease of good quality, irrigated land and includes 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 rates and the total water use by the 500-acre farm. This budget assumes the bluegrass is flood irrigated.

### Labor

Labor is hired at a rate of \$7 per hour, which includes worker's compensation, unemployment insurance, social security taxes, and other payroll expenses. Hired labor is used for roguing and hauling seed. Owner/operator labor is assumed to be a cash expense of \$15 per hour. Labor hours for machinery operations are calculated by multiplying 1.21 times machinery hours to allow for 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. December 1993 replacement costs are used. Machinery costs in the budget are calculated based on current market values, assuming the machinery is half depreciated. Five percent of the total pickup and ATV miles driven annually are allocated to bluegrass establishment.

### Operations

A fertilizer application and cultimulch operation prepare the ground for planting. Following the midsummer planting, eight irrigation sets (1 @ 6" followed by 7 @ 3"), several herbicide applications, and a second fertilizer application are completed.

In the spring, cultural operations include two roguing operations (hoeing, spot spraying, or clipping weed grass heads), four irrigation sets (1 @ 8" and 3 @ 6"), and several chemical applications. Certification of the bluegrass seed requires two seed inspections, one in April and a second in June.

The bluegrass is swathed with a self-propelled swather about 1 week prior to combining. Two 2-ton grain trucks (each holds 8 tons) and one driver are required to haul the seed. Seed cleaning costs \$0.10 per pound. Straw is sold in the swath to a custom baler at \$10 per acre.

### Other

A miscellaneous charge of \$10 per acre is included to cover general insurance, tools, office supplies, and other miscellaneous expenses.

The total establishment and production costs are \$801 per acre, comprised of \$625 variable cost and \$177 fixed cost. These costs are offset by a first-year harvest of 800 lbs of seed per acre and straw sales. Net returns total \$9 per acre. The break-even price for bluegrass seed is \$0.78 over total variable costs and \$1 over total cost.



OREGON STATE UNIVERSITY EXTENSION SERVICE

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

<u>GROSS INCOME Description</u>	<u>Quantity</u>	<u>Unit</u>	<u>\$/Unit</u>	<u>Total</u>	<u>Your Income</u>
Bluegrass Seed	800.00	lb	1.00	800.00	_____
Bluegrass Straw	1.00	acre	10.00	10.00	_____
Total GROSS Income				810.00	_____
<u>VARIABLE COST Description</u>	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
<b>PREPLANT</b>					
Fertilize	0.00	0.00	49.90	49.90	_____
16-16-16			400 lb x 0.111 = 44.40		
Custom Application			1 ac x 5.50 = 5.50		
Cultimulch	1.69	2.73	0.00	4.42	_____
Total PREPLANT				54.32	_____
<b>PLANT</b>					
Plant Bluegrass	6.05	2.82	15.75	24.62	_____
Bluegrass Seed			4.5 lb x 3.50 = 15.75		
Total PLANT				24.62	_____
<b>POSTPLANT</b>					
Irrigate	30.00	0.00	25.92	55.92	_____
Water			27 in x 0.96 = 25.92		
Weed Control (1/2 x)	0.00	0.00	7.25	7.25	_____
Herbicide			0.75 pint x 6.00 = 4.50		
Custom Application			0.5 ac x 5.50 = 2.75		
Weed Control	0.00	0.00	22.60	22.60	_____
Broadleaf Herbicide			0.25 gal x 65.00 = 16.25		
Sticker			6.4 oz x 0.13 = 0.85		
Custom Application			1 ac x 5.50 = 5.50		
Weed Control	6.05	6.16	9.75	21.96	_____
Sticker			6.4 oz x 0.10 = 0.63		
Contact Herbicide			2 pint x 4.56 = 9.12		
Fertilize	0.00	0.00	49.26	49.26	_____
30-0-0-7			450 lb x 0.097 = 43.76		
Custom Application			1 ac x 5.50 = 5.50		
Total POSTPLANT				156.99	_____
<b>PRODUCTION YEAR</b>					
Roguing	35.00	0.00	0.00	35.00	_____
Seed Certification - April	0.00	0.00	1.00	1.00	_____
Weed Control	2.59	1.84	5.13	9.56	_____
Broadleaf Herbicide			3 oz x 0.71 = 2.11		
Broadleaf Herbicide			1.5 pint x 1.59 = 2.38		
Sticker			6.4 oz x 0.10 = 0.63		
Irrigate	15.00	0.00	24.96	39.96	_____
Water			26 in x 0.96 = 24.96		
Powdery Mildew/Rust Control	2.59	1.83	3.07	7.49	_____
Fungicide			5 oz x 0.61 = 3.07		
Rust/Powdery Mildew Control	0.00	0.00	18.50	18.50	_____
Fungicide			4 oz x 3.00 = 12.00		
Aerial Application			1 ac x 6.50 = 6.50		
Roguing	49.00	0.00	0.00	49.00	_____
Seed Certification - June	0.00	0.00	2.00	2.00	_____
Total PRODUCTION YEAR				162.51	_____

## EM 8572 Enterprise Budget

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

<u>VARIABLE COST Description</u>	<u>Labor</u>	<u>Machinery</u>	<u>Materials</u>	<u>Total</u>	<u>Your Cost</u>
<b>HARVEST</b>					
Swath	6.05	6.64	0.00	12.69	_____
Combine	18.15	55.81	0.00	73.96	_____
Seed Cleaning	0.00	0.00	80.00	80.00	_____
Seed Cleaning					
Haul				2.49	_____
800 lb x 0.10 = 80.00					
Total HARVEST				169.14	_____
<b>MISCELLANEOUS</b>					
General Overhead	0.00	0.00	10.00	10.00	_____
Pickup	10.71	3.10	0.00	13.81	_____
ATV	7.50	0.13	0.00	7.63	_____
Operating Capital Interest	0.00	0.00	25.72	25.72	_____
Total MISCELLANEOUS				57.16	_____
Total VARIABLE COST				624.74	_____
GROSS INCOME minus VARIABLE COST				185.26	_____
<b>FIXED COST Description</b>					
		<u>Unit</u>		<u>Total</u>	<u>Your Cost</u>
<b>CASH Cost</b>					
Machinery & Equipment Insurance		acre		6.08	_____
Land		acre		100.00	_____
Total CASH Cost				106.08	_____
<b>NONCASH Cost</b>					
Machinery & Equipment - Interest & Depreciation		acre		68.32	_____
Siphon Tube Depreciation & Interest		acre		2.16	_____
Total NONCASH Cost				70.48	_____
Total FIXED Cost				176.56	_____
Total of ALL Cost				801.32	_____
NET PROJECTED RETURNS				8.68	_____
Break-even Price, Total Variable Cost				\$0.78 per lb	_____
Break-even Price, Total Cost				\$1.00 per lb	_____

## EM 8572 Enterprise Budget

Table 1. Machinery Cost Assumptions

Item	Size	List Price	Current Market Value	Salvage Value	Useful Life	Remaining Life	Annual Use
Tractor	50 hp	\$21,500	\$13,975	\$6,450	10,000 hr	5,000 hr	10 hr
Tractor	80 hp	34,000	22,100	10,200	10,000 hr	5,000 hr	23 hr
Combine		60,000	36,000	12,000	4,000 hr	2,000 hr	25 hr
Swather	12 ft	45,000	27,000	9,000	2,000 hr	1,000 hr	9 hr
Cultimulch	12 ft	9,000	5,400	1,800	2,000 hr	1,000 hr	5 hr
Planter		1,750	1,050	350	1,200 hr	600 hr	9 hr
Sprayer	200 gal	5,686	3,412	1,138	1,500 hr	750 hr	8 hr
Sprayer with Row Shields		5,000	3,000	1,000	4,000 hr	2,000 hr	9 hr
ATV		3,500	2,100	700	4,000 mi	2,000 mi	13 mi
Farm Truck (2)	2 ton	6,000	3,600	1,200	90,000 mi	45,000 mi	60 mi
Pickup	1/2 ton	15,000	9,000	3,000	100,000 mi	50,000 mi	625 mi



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