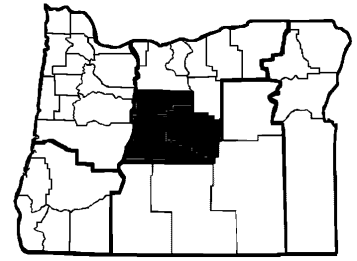


Enterprise Budget

Rough Bluegrass Production Years, Central Oregon Region

Marvin Butler, Extension Crop Scientist
Claudia Campbell, Research Assistant
Bart Eleveld, Extension Economist
Oregon State University



EM 8809, October 2002

This enterprise budget estimates the typical costs and returns of producing certified rough bluegrass seed 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. The stand is assumed to have a 3-year life, including the establishment year. For costs and returns associated with first-year production of rough bluegrass, see EM 8808, *Enterprise Budget: Rough Bluegrass Establishment Year, Central Oregon Region*.

Cropping Pattern

This budget is based on a typical 600-acre farm with 150 acres in production of certified rough bluegrass seed, with 50 of these acres as first-year fields. The budget includes production costs for 1 acre, with a yield of 950 pounds per acre. A summary of the estimated costs and returns per acre 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 land. 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. This budget assumes that the crop is flood irrigated.

Labor

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

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

The 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. Following harvest, the field is open burned, then harrowed and propane flamed. Fertilizer is applied and the field is irrigated using approximately 9 inches of water in three sets.

In the spring, cultural operations include another fertilizer application, one roguing operation (hoeing, spot spraying, or clipping weed grass heads), nine irrigation sets (for a total of 27 inches), and a couple of pesticide applications. Seed certification requires one field inspection in June.

The rough bluegrass is swathed with a self-propelled swather about 1 week prior to combining. Two 2-ton trucks (each holds about 8 tons) and one driver are required to haul the seed. Seed cleaning costs about \$0.12 per pound. Straw is sold in the swath to a custom baler for \$20 per acre.

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 rough bluegrass seed production.

Total variable cost is \$675, with a break-even price over variable costs of \$0.71 per pound. The total of all costs is \$968, with a break-even price over total costs of \$1.02 per pound.



OREGON STATE UNIVERSITY
EXTENSION SERVICE

EM 8809 Enterprise Budget

Table 1. Rough bluegrass production years: Summary of estimated costs and returns per acre.

Item	Unit	Price (\$)	Quantity	Amount (\$)	Your Farm
INCOME					
Grass Straw	Acre	20.00	1.00	20.00	_____
Rough Bluegrass Seed	Pound	1.10	950.00	1,045.00	_____
TOTAL INCOME				1,065.00	_____
DIRECT EXPENSES					
Herbicides	Acre	27.12	1.00	27.12	_____
Insecticides	Acre	6.74	1.00	6.74	_____
Fungicides	Acre	13.44	1.00	13.44	_____
Custom Applications	Acre	30.59	1.00	30.59	_____
Other	Acre	142.50	1.00	142.50	_____
Hand Labor	Acre	110.80	1.00	110.80	_____
Fertilizer	Acre	117.00	1.00	117.00	_____
Water	Acre	114.12	1.00	114.12	_____
Operator Labor	Hour	13.65	2.25	30.71	_____
Diesel Fuel	Gal	1.30	11.15	14.50	_____
Gasoline	Gal	1.55	0.05	0.07	_____
Repair & Maintenance	Acre	35.74	1.00	35.74	_____
Interest on Operating Capital	Acre	32.61	1.00	32.61	_____
TOTAL DIRECT EXPENSES				675.94	_____
RETURNS ABOVE DIRECT EXPENSES				389.06	_____
FIXED EXPENSES					
Implements	Acre	7.58	1.00	7.58	_____
Tractors	Acre	12.00	1.00	12.00	_____
Self-propelled Equipment	Acre	136.73	1.00	136.73	_____
Trucks	Acre	1.41	1.00	1.41	_____
TOTAL FIXED EXPENSES				157.72	_____
TOTAL SPECIFIED EXPENSES				833.66	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				231.34	_____
ALLOCATED COST ITEMS					
General Overhead	Acre	35.00	1.00	35.00	_____
Land Costs	Acre	100.00	1.00	100.00	_____
RESIDUAL RETURNS				96.34	_____

This publication replaces EM 8571, *Enterprise Budget: Bluegrass Production, South-Central Region*.

© 2002 Oregon State University. This publication may be photocopied or reprinted in its entirety for noncommercial purposes. 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 discrimination based on race, color, religion, sex, sexual orientation, national origin, age, marital status, disability, or disabled veteran or Vietnam-era veteran status*. Oregon State University Extension Service is an Equal Opportunity Employer.

Published October 2002.

EM 8809 Enterprise Budget

Table 2. Rough bluegrass production years: 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		
Harrow	0.08	1	Aug	1.24	1.69	0.02	0.08	0.10	1.32	----	4.35
Open Field Burn Previous Year's Crop		1	Aug	----	----	----	----	1.00	7.68	5.00	12.68
Harrow	0.08	1	Aug	1.37	1.85	0.16	0.79	0.11	1.45	----	5.62
Flame Field	0.16	1	Aug	2.49	3.38	1.00	3.04	0.19	2.64	21.00	33.55
Irrigate Labor	----	----	----	----	----	----	----	1.50	11.52	----	11.52
Water	----	3	Aug–Oct	----	----	----	----	----	----	28.53	28.53
Fertilize ¹	----	----	----	----	----	----	----	----	----	68.92	68.92
72# N, 72# P, 72# K	----	----	----	----	----	----	----	----	----	----	----
Row Spray	0.2	1	Nov	3.74	5.07	1.21	3.66	0.29	3.96	12.97	30.61
Insect Control	----	1	Jan	----	----	----	----	----	----	12.99	12.99
Seed Certification	----	1	Mar	----	----	----	----	----	----	2.50	2.50
Fertilize	----	1	Mar	----	----	----	----	----	----	59.92	59.92
180# N, 27# S	----	----	----	----	----	----	----	----	----	----	----
Broadleaf Weed Control	----	1	Apr	----	----	----	----	----	----	20.40	20.40
Irrigate Labor	----	9	Apr–June	----	----	----	----	4.50	34.56	----	34.56
Water	----	----	----	----	----	----	----	----	----	85.59	85.59
Roguing	----	1	Apr	----	----	----	----	6.50	49.92	----	49.92
Disease Control	----	1	May	----	----	----	----	----	----	19.69	19.69
Harvest	----	----	----	----	----	----	----	----	----	----	----
Swath	0.3	1	July	----	----	5.01	14.52	0.36	4.95	----	24.48
Combine w/ Pickup	1.0	1	July	----	----	33.75	122.07	1.20	16.38	----	172.20
Two 2-ton Trucks	----	----	July	----	----	0.12	1.30	0.50	6.82	----	8.24
Seed Cleaning	----	1	Oct	----	----	----	----	----	----	114.00	114.00
Total											800.27
Interest on Operating Capital											32.61
Total Specified Cost											832.88

¹Fertilizer and pesticide costs include cost of custom application.

EM 8809 Enterprise Budget

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	Size	Perf.	Useful	Annual	Purchase	Repair	Fuel Cons.	Direct Cost		Fixed Cost	
		Rate	Life	Use	Price	Cost	Rate				
		(Hr/acre)	(Years)	(Hours)	(\$)	Percent purchase price	(Gallons/ hour)	(\$/hour)	(\$/acre)	(\$/hour)	(\$/acre)
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
Disk	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