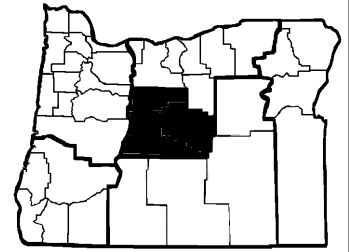


Enterprise Budget

Kentucky Bluegrass Production Years, Central Oregon Region

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This enterprise budget estimates the typical costs and returns of producing certified Kentucky 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 4-year life, including the establishment year. For costs and returns associated with first-year production of Kentucky bluegrass, see EM 8810, *Enterprise Budget: Kentucky 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 Kentucky bluegrass seed, with 50 acres of these as first-year fields. The budget includes production costs for 1 acre, with a yield of 1,250 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 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 bluegrass is open field burned. The field then is harrowed and propane burned. Fertilizer is applied, and the field is irrigated with approximately 12.5 inches of water in five sets. An herbicide combination is sprayed for cheatgrass and rattail fescue.

In the harvest year, cultural operations include roguing (spot spraying, clipping heads, and hoeing), irrigation, and a fungicide application. A seed certification inspection in June costs \$2.50 per acre.

The grass is swathed and combined by the owner/operator. Hired labor hauls the seed, utilizing two 2-ton trucks. Seed cleaning costs \$0.12 per pound. Straw is sold in the swath at \$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 Kentucky bluegrass seed production.

An annual non-cash allocated cost of \$37.78 is included to cover the expense of establishing the Kentucky bluegrass crop. This charge is calculated based on the costs and returns presented in EM 8810, *Enterprise Budget: Kentucky Bluegrass Establishment Year, Central Oregon Region*.

Total variable cost is \$648, and the break-even price over variable costs is \$0.52 per lb. The total of all costs is \$910, with a break-even price over total costs of \$0.73 per lb.



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Table 1. Kentucky 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	_____
Kentucky Bluegrass Seed	Pound	0.80	1250.00	1,000.00	_____
TOTAL INCOME				1,020.00	_____
DIRECT EXPENSES					
Herbicides	Acre	46.74	1.00	46.74	_____
Insecticides	Acre	6.02	1.00	6.02	_____
Fungicides	Acre	33.12	1.00	33.12	_____
Custom Applications	Acre	43.09	1.00	43.09	_____
Other	Acre	178.50	1.00	178.50	_____
Hand Labor	Acre	70.55	1.00	70.55	_____
Fertilizer	Acre	110.00	1.00	110.00	_____
Water	Acre	87.17	1.00	87.17	_____
Operator Labor	Hour	13.65	1.26	17.20	_____
Diesel Fuel	Gal	1.30	2.24	2.91	_____
Gasoline	Gal	1.55	4.30	6.67	_____
Repair & Maintenance	Acre	20.01	1.00	20.01	_____
Interest on Operating Capital	Acre	25.91	1.00	25.91	_____
TOTAL DIRECT EXPENSES				647.89	_____
RETURNS ABOVE DIRECT EXPENSES				372.11	_____
FIXED EXPENSES					
Implements	Acre	3.12	1.00	3.12	_____
Tractors	Acre	5.07	1.00	5.07	_____
Self-propelled Equipment	Acre	79.35	1.00	79.35	_____
Trucks	Acre	1.43	1.00	1.43	_____
TOTAL FIXED EXPENSES				88.97	_____
TOTAL SPECIFIED EXPENSES				736.86	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				283.14	_____
ALLOCATED COST ITEMS					
General Overhead	Acre	35.00	1.00	35.00	_____
Land Costs	Acre	100.00	1.00	100.00	_____
First-year Amortized Costs	Acre	37.78	1.00	37.78	_____
RESIDUAL RETURNS				110.36	_____

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

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Table 2. Kentucky bluegrass production years: Estimated per-acre resource use and costs for field operations.

Operation	Perf. Rate (Hr/ac)	Times Over	Month	Tractor Cost		Equipment Cost		Labor		Operating Input Cost	Total Cost
				Direct	Fixed	Direct	Fixed	Hours	Cost		
Open Field Burn Previous Year's Crop	----	1	Aug	----	----	0.01	0.11	0.36	2.75	5.00	7.87
Harrow Field	0.08	1	Aug	1.24	1.69	0.02	0.08	0.10	1.32	----	4.35
Flame Field	0.16	1	Aug	2.49	3.38	1.00	3.04	0.19	2.64	21.00	33.55
Fertilize ¹ 65# N, 65# P, 65# K	----	1	Aug	----	----	----	----	----	----	61.92	61.92
Irrigate—Labor Water	----	5	Aug—Oct	----	----	0.81	0.65	2.70	20.73	39.62	61.81
Cheatgrass Control	----	1	Sept	----	----	----	----	----	----	30.39	30.39
Fertilize 180#N, 0#P, 0#K, 27#S	----	1	Oct	----	----	----	----	----	----	59.92	59.92
Weed Control	----	1	Nov	----	----	----	----	----	----	28.50	28.50
Powdery Mildew Control	----	1	Apr	----	----	----	----	----	----	16.33	16.33
Broadleaf Weed Control	----	1	Apr	----	----	----	----	----	----	12.61	12.61
Irrigate—Labor Water	----	6	Apr	----	----	0.97	0.79	3.24	24.87	----	26.63
Seed Certification	----	1	Apr	----	----	----	----	----	----	47.55	47.55
Powdery Mildew Control	----	1	May	----	----	----	----	----	----	2.50	2.50
Roguing	----	----	----	----	----	----	----	2.00	15.36	29.29	29.29
Harvest	----	----	----	----	----	----	----	----	----	----	----
Swath	0.3	1	July	----	----	5.01	14.52	0.36	4.95	----	24.48
Combine w/ Pickup	0.5	1	July	----	----	17.88	63.38	0.61	8.25	----	89.51
Two 2-ton Trucks w/ Labor	----	----	----	----	----	0.12	1.30	----	6.82	----	8.24
Seed Cleaning	----	1	Aug	----	----	----	----	----	----	150.00	150.00
Total											710.81
Interest on Operating Capital											25.91
Total Specified Cost											736.72

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	Direct Cost		Fixed Cost	
		Rate	Life	Use	Price	Cost	Cons. Rate	(\$/hour)	(\$/acre)	(\$/hour)	(\$/acre)
		(Hr/acre)	(Years)	(Hours)	(\$)	(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
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