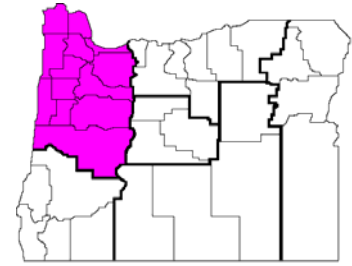


Enterprise Budget

Fine Fescue Seed, Establishment and Production by Open Field Burn and Non-burn Residue Management, Silverton Hills, Willamette Valley Region

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This enterprise budget estimates the typical costs of establishing and producing fine fescue grass seed production in the Silverton Hills area of the Willamette Valley in Oregon. Straw residue may be burned or baled and stacked in the field in this budget. While efforts were made to reflect common practices, this budget does not represent any particular farm and thus should be used only as a guide to estimating actual costs. Assistance provided by area producers is greatly appreciated.

Several Willamette Valley seed, grain and forage budgets were estimated as a group and are presented in a similar, consistent format. Table 1 shows the summary returns and cost information, with inputs grouped by various categories. For perennials, this is divided into two or more sub-tables, A for the establishment year, B for open field burn production, and C for non-burn full production years. Table 2, again divided into A, B and C sections shows itemized details about the cultural operations performed, and their costs in a chronological sequence. Table 3.B and C shows break-even prices and net returns around the assumed price and yield for the crop.

Land and Cropping Pattern

This budget is based on a farm with 1200 acres in continuous production of grass seeds or related, similar crops such as small grains, oil seeds and forage seeds. The budget estimates establishment costs on a per-acre basis. The established stand is assumed to have a life of five full production years with open field burn, and three full production years with non-burn production.

A land lease charge of \$120 per acre is included to represent the cost of leasing or owning land. Land cost varies depending on specific location and competition for production of alternate crops.

Labor and Capital

Hired labor typically costs approximately \$16 per hour including worker's compensation, FICA, and other payroll expenses. For this study, all labor is treated as owner/operator labor valued at \$16 per hour, and is assumed to be a cash cost. For mechanized operations, labor hours are calculated based on machinery hours. Opportunity costs of capital are charged at a rate of 10 percent for current and intermediate capital provided by the owner/operator.

Machinery and Equipment

The machinery complement is sufficient to farm 1200 production acres. Late 2010 replacement costs are used, assuming the machinery is half depreciated. Table 4 (subdivided into A, B, C and D sections) shows the cost of operating owned machinery in the cultural practices used in this and several related Willamette Valley seed, grain and forage budgets. Your machinery costs may differ.

Cultural Practices

The budget shows farming operations in the order they typically are performed. See Tables 2.A, B and C, respectively, for details of operations in the establishment year and full production years of open field burn and non-burn,

Establishment Cost

Fine fescue has no harvest during the establishment year, resulting in a large, negative net return. The net return from the establishment year is amortized, with interest included, as an annual fixed cost in the full production year budgets which are assumed to represent a stand life of five production years with open field burning or three years if non-burn residue management is used.

Results

Tables 1.A, B and C show the costs and returns for establishment, open field burn and non-burn production, respectively. The field operations and their costs are detailed in Tables 2.A, B and C. The break-even prices needed to cover the total cost of production are given in Tables 3.B and C. The break-even price of \$0.52 and \$0.74 per pound is given at the top of the middle columns, for open field burn and non-burn, respectively. Please note that at the break-even price, returns over total costs at the assumed (100%) budget yield are zero—by definition all costs would be covered. Tables 3. B and C also show the sensitivity of returns over variable (or operating costs) and returns over total costs (net profit) as either prices or crop yields are varied. The comparative advantages of open field burning residue management are readily apparent. However, there are limits to the number of acres that can be permitted for burning each year and weather conditions are not always favorable for burning, so producers should be aware of the potential for downside risk.

Table 1.A Estimated costs and returns per acre
 Fine Fescue Establishment
 Silverton Hills, Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
TOTAL INCOME				0.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
11-52-0	lb	0.24	150.0000	36.00	_____
21-0-0-24	lb	0.15	50.0000	7.50	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.1600	3.60	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
FEES, FLAT RATE					
Field Registration	acre	1.00	1.0000	1.00	_____
CUSTOM, FLAT RATE					
Soil Sample	acre	0.20	1.0000	0.20	_____
Lime	ton	56.00	1.0000	56.00	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	1.0000	15.00	_____
Poast	gal	78.00	0.2500	19.50	_____
2,4-D	gal	27.00	0.1250	3.38	_____
Banvel	gal	63.00	0.0620	3.91	_____
Express	oz	18.23	0.2500	4.56	_____
SEEDS & PLANTS					
Fine Fescue Seed	lb	2.50	7.0000	17.50	_____
Machinery Labor					
Tractors	hour	16.00	1.3979	22.37	_____
Self-Propelled	hour	16.00	0.1390	2.24	_____
Pickup	hour	16.00	0.1150	1.84	_____
Truck w/ Tank	hour	16.00	0.0492	0.79	_____
DIESEL FUEL					
Tractors	gal	3.00	16.1268	48.38	_____
Self-Propelled	gal	3.00	0.8461	2.52	_____
Pickup	gal	3.00	0.5000	1.50	_____
Truck w/ Tank	gal	3.00	0.1499	0.45	_____
REPAIR & MAINTENANCE					
Implements	acre	10.65	1.0000	10.65	_____
Tractors	acre	20.46	1.0000	20.46	_____
Self-Propelled	acre	2.36	1.0000	2.36	_____
Pickup	mile	0.16	5.0000	0.83	_____
Truck w/ Tank	mile	1.20	1.5000	1.80	_____
INTEREST ON OP. CAP.	acre	15.00	1.0000	15.00	_____
TOTAL DIRECT EXPENSES				329.35	_____
RETURNS ABOVE DIRECT EXPENSES				-329.35	_____
FIXED EXPENSES					
Implements	acre	28.89	1.0000	28.89	_____
Tractors	acre	55.50	1.0000	55.50	_____
Self-Propelled	acre	7.72	1.0000	7.72	_____
Pickup	each	6721.63	0.0008	5.60	_____
Truck w/ Tank	each	5407.06	0.0008	4.51	_____
Mach/Equip Ins, Hi	each	6.95	1.0000	6.95	_____
Land Rent WV Wheat	each	119.99	1.0000	120.00	_____

TOTAL FIXED EXPENSES	229.17	_____

TOTAL SPECIFIED EXPENSES	558.52	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES	-558.52	_____
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Table 1.B Estimated costs and returns per acre
 Fine Fescue Production, Open Field Burn
 Silverton Hills, Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Fine Fescue	lb	0.75	1100.0000	825.00	_____

TOTAL INCOME				825.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
11-52-0	lb	0.24	150.0000	36.00	_____
21-0-0-24	lb	0.15	50.0000	7.50	_____
12-0-0-26	lb	0.15	110.0000	16.50	_____
32 N	lb	0.14	210.0000	29.40	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.0875	1.97	_____
Apogee (PGR)	lb	52.60	0.5000	26.30	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
FEES, FLAT RATE					
Burn Fee	acre	10.00	1.0000	10.00	_____
Field Registration	acre	1.00	1.0000	1.00	_____
Seed Crop Inspection	acre	3.00	1.0000	3.00	_____
CUSTOM, FLAT RATE					
Burn Lbr & Equip OB	acre	7.50	1.0000	7.50	_____
CHEM--HERBICIDE					
Curtail	gal	47.00	0.3125	14.69	_____
Banvel	gal	63.00	0.0775	4.88	_____
AxiomOZ	oz	0.73	10.0000	7.30	_____
Goal	gal	82.75	0.0062	0.52	_____
Diuron	lb	4.50	0.3125	1.41	_____
Poast	gal	78.00	0.1875	14.63	_____
CUSTOM, YIELD PROP.					
Cleaning FF	cwt	6.30	11.0000	69.30	_____
CHEM--FUNGICIDE					
Quilt/Fungicide	gal	128.00	0.1560	19.97	_____
FEES, PROPORTIONAL					
Commission Assess FF	cwt	0.76	1.1000	0.84	_____
Seed Test Pur/Ger FF	cwt	0.19	1.1000	0.21	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Self-Propelled	hour	16.00	0.4990	8.01	_____
Pickup	hour	16.00	0.1150	1.84	_____
Truck w/ Tank	hour	16.00	0.0492	0.79	_____
Harvest Truck	hour	16.00	0.0657	1.05	_____
DIESEL FUEL					
Self-Propelled	gal	3.00	4.4551	13.35	_____
Pickup	gal	3.00	0.5000	1.50	_____
Truck w/ Tank	gal	3.00	0.1499	0.45	_____
Harvest Truck	gal	3.00	0.1999	0.60	_____
REPAIR & MAINTENANCE					
Self-Propelled	acre	21.63	1.0000	21.63	_____
Pickup	mile	0.16	5.0000	0.83	_____
Truck w/ Tank	mile	1.20	1.5000	1.80	_____
Harvest Truck	mile	1.50	2.0000	3.00	_____
INTEREST ON OP. CAP.	acre	14.77	1.0000	14.77	_____

TOTAL DIRECT EXPENSES				374.22	_____
RETURNS ABOVE DIRECT EXPENSES				450.78	_____
FIXED EXPENSES					
Self-Propelled	acre	59.53	1.0000	59.53	_____
Pickup	each	6721.63	0.0008	5.60	_____
Truck w/ Tank	each	5407.06	0.0008	4.51	_____
Harvest Truck	each	4505.88	0.0008	3.75	_____
Mach/Equip Ins, Hi	each	6.95	1.0000	6.95	_____
Land Rent WV Wheat	each	119.99	1.0000	120.00	_____
AMORT. EST. COST	acre	147.34	1.0000	147.34	_____
TOTAL FIXED EXPENSES				347.68	_____
TOTAL SPECIFIED EXPENSES				721.90	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				103.10	_____

Table 1.C Estimated costs and returns per acre
 Fine Fescue Production, Non-Burn
 Silverton Hills, Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Fine Fescue	lb	0.75	825.0000	618.75	_____

TOTAL INCOME				618.75	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
11-52-0	lb	0.24	150.0000	36.00	_____
0-0-60 LB	lb	0.33	100.0000	33.00	_____
21-0-0-24	lb	0.15	50.0000	7.50	_____
12-0-0-26	lb	0.15	110.0000	16.50	_____
32 N	lb	0.14	210.0000	29.40	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.0875	1.97	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
FEES, FLAT RATE					
Seed Crop Inspection	acre	3.00	1.0000	3.00	_____
CUSTOM, FLAT RATE					
Bale & Stack OB	ton	17.00	1.7500	29.75	_____
CHEM--HERBICIDE					
Curtail	gal	47.00	0.3125	14.69	_____
Banvel	gal	63.00	0.0775	4.88	_____
Dual OB	gal	66.00	0.1870	12.34	_____
Goal	gal	82.75	0.0390	3.23	_____
SencorLB	lb	13.75	0.5000	6.88	_____
Poast	gal	78.00	0.1875	14.63	_____
CUSTOM, YIELD PROP.					
Cleaning FF	cwt	6.30	6.7500	42.53	_____
Reclean FF	cwt	1.60	6.7500	10.80	_____
CHEM--FUNGICIDE					
Quilt/Fungicide	gal	128.00	0.1560	19.97	_____
FEES, PROPORTIONAL					
Commission Assess FF	cwt	0.76	6.7500	5.13	_____
Seed Test Pur/Ger FF	cwt	0.19	6.7500	1.28	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	0.1529	2.45	_____
Self-Propelled	hour	16.00	0.4903	7.87	_____
Pickup	hour	16.00	0.1150	1.84	_____
Truck w/ Tank	hour	16.00	0.0492	0.79	_____
Harvest Truck	hour	16.00	0.0657	1.05	_____
DIESEL FUEL					
Tractors	gal	3.00	1.2111	3.63	_____
Self-Propelled	gal	3.00	4.4022	13.19	_____
Pickup	gal	3.00	0.5000	1.50	_____
Truck w/ Tank	gal	3.00	0.1499	0.45	_____
Harvest Truck	gal	3.00	0.1999	0.60	_____
REPAIR & MAINTENANCE					
Implements	acre	1.25	1.0000	1.25	_____
Tractors	acre	1.52	1.0000	1.52	_____
Self-Propelled	acre	21.48	1.0000	21.48	_____
Pickup	mile	0.16	5.0000	0.83	_____
Truck w/ Tank	mile	1.20	1.5000	1.80	_____

Harvest Truck	mile	1.50	2.0000	3.00	_____
INTEREST ON OP. CAP.	acre	18.24	1.0000	18.24	_____

TOTAL DIRECT EXPENSES				406.65	_____
RETURNS ABOVE DIRECT EXPENSES				212.10	_____
FIXED EXPENSES					
Implements	acre	1.37	1.0000	1.37	_____
Tractors	acre	4.33	1.0000	4.33	_____
Self-Propelled	acre	59.05	1.0000	59.05	_____
Pickup	each	6721.63	0.0008	5.60	_____
Truck w/ Tank	each	5407.06	0.0008	4.51	_____
Harvest Truck	each	4505.88	0.0008	3.75	_____
Mach/Equip Ins, Hi	each	6.95	1.0000	6.95	_____
Land Rent WV Wheat	each	119.99	1.0000	120.00	_____
AMORT. EST. COST	acre	224.59	1.0000	224.59	_____

TOTAL FIXED EXPENSES				430.15	_____

TOTAL SPECIFIED EXPENSES				836.80	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-218.05	_____

Table 2.A Estimated resource use and costs for field operations, per acre
 Fine Fescue Establishment
 Silverton Hills, Willamette Valley, 2010

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
SOIL SAMPLE				1.00	Sep										
Soil Sample	acre											1.0000	0.20	0.20	0.20
WEED CONTROL				1.00	Sep										
Spray Bug60	7 mph	60'	0.030			1.22	1.93			0.03	0.56				3.71
Glyphosate	GAL	gal										0.5000	15.00	7.50	7.50
Surfactant--	Induce	gal										0.0500	22.50	1.13	1.13
DISK				3.00	Sep										
Disk	20	215	0.097			26.91	21.90	2.45	6.12	0.33	5.36				62.74
CHISEL PLOW				2.00	Sep										
Chisel Plow	21 ft	310	0.143			18.75	15.07	2.15	6.52	0.32	5.26				47.75
LIME				0.50	Feb										
Lime	ton											1.0000	56.00	56.00	56.00
WEED CONTROL				1.00	Mar										
Spray Bug60	7 mph	60'	0.030			1.22	1.93			0.03	0.56				3.71
Glyphosate	GAL	gal										0.5000	15.00	7.50	7.50
Surfactant--	Induce	gal										0.0500	22.50	1.13	1.13
CULTIVATE				4.00	Apr										
Field Cultivator	45 ft	130	0.066			8.49	7.31	2.11	6.87	0.30	4.93				29.71
HARROW & ROLL				3.00	Apr										
Rol-Har/Dix/Rol	21 ft	200	0.076			9.60	7.37	2.98	7.46	0.26	4.25				31.66
PLANT				1.00	Jun										
Drill	13 ft	140	0.139			5.09	3.85	0.96	1.92	0.16	2.57				14.39
Fine Fescue Seed	lb											7.0000	2.50	17.50	17.50
11-52-0	lb											150.0000	0.24	36.00	36.00
21-0-0-24	lb											50.0000	0.15	7.50	7.50
GRASS CONTROL				1.00	Jul										
Spray Bug60	7 mph	60'	0.030			1.22	1.93			0.03	0.56				3.71
Poast	gal											0.2500	78.00	19.50	19.50
Surfactant--	Induce	gal										0.0600	22.50	1.35	1.35
BROADLEAF WEED CNTRL				1.00	Jul										
Spray Bug60	7 mph	60'	0.030			1.22	1.93			0.03	0.56				3.71
2,4-D	gal											0.1250	27.00	3.38	3.38
Banvel	gal											0.0620	63.00	3.91	3.91
Express	oz											0.2500	18.23	4.56	4.56
MISCELLANEOUS				1.00	Aug										
Misc. business exp	acre											1.0000	30.00	30.00	30.00
FEES, CERT/TEST/INSP				1.00	Jul										
Field Registration	acre											1.0000	1.00	1.00	1.00
Land Rent WV Wheat	each			1.00	Aug				120.00			1.0000			120.00
Pickup	each			1.00	Aug				5.60			0.0008			5.60
MILEAGE PU	mile								2.33	0.11	1.84	5.0000			4.17
Truck w/ Tank	each			1.00	Aug				4.51			0.0008			4.51
MILEAGE TRK w TANK	mile								2.25	0.04	0.79	1.5000			3.04
Mach/Equip Ins, Hi	each			1.00	Jul				6.95			1.0000			6.95
TOTALS						73.72	63.22	15.23	165.95	1.70	27.24			198.16	543.52
INTEREST ON OPERATING CAPITAL															15.00
UNALLOCATED LABOR															0.00
TOTAL SPECIFIED COST															558.52

Table 2.B Estimated resource use and costs for field operations, per acre
 Fine Fescue Production, Open Field Burn
 Silverton Hills, Willamette Valley, 2010

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST	
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST		
						-----dollars-----				dollars		-----dollars-----				
FALL FERTILIZER				1.00	Oct											
Fertilizer Buggy	20		0.070				1.79	1.41			0.08	1.30			4.50	
11-52-0	lb												150.0000	0.24	36.00	36.00
21-0-0-24	lb												50.0000	0.15	7.50	7.50
FALL HERBICIDE				1.00	Oct											
Spray Bug60 7 mph	60'		0.030				1.22	1.93			0.03	0.56			3.71	
Curtail	gal												0.2500	47.00	11.75	11.75
Banvel	gal												0.0620	63.00	3.91	3.91
SEEDLING WEED CNTRL.				1.00	Nov											
Spray Bug60 7 mph	60'		0.030				1.22	1.93			0.03	0.56			3.71	
AxiomOZ	oz												10.0000	0.73	7.30	7.30
SEEDLING WEED CNTRL.				0.25	Nov											
Spray Bug60 7 mph	60'		0.030				0.31	0.48			0.00	0.14			0.93	
Goal	gal												0.0062	82.75	0.52	0.52
Diuron	lb												0.3125	4.50	1.41	1.41
SPRING FERTILIZER				1.00	Mar											
Spray Bug60 7 mph	60'		0.030				1.22	1.93			0.03	0.56			3.71	
12-0-0-26	lb												110.0000	0.15	16.50	16.50
32 N	lb												210.0000	0.14	29.40	29.40
SPRING BROADLEAF CTL				0.75	Mar											
Spray Bug60 7 mph	60'		0.030				0.92	1.45			0.02	0.42			2.79	
Poast	gal												0.1875	78.00	14.63	14.63
Surfactant--Induce	gal												0.0375	22.50	0.84	0.84
SPRING BROADLEAF CTL				0.25	Mar											
Spray Bug60 7 mph	60'		0.030				0.31	0.48			0.00	0.14			0.93	
Curtail	gal												0.0625	47.00	2.94	2.94
Banvel	gal												0.0155	63.00	0.98	0.98
PLANT GROWTH REG.				1.00	May											
Spray Bug60 7 mph	60'		0.030				1.22	1.93			0.03	0.56			3.71	
Apogee (PGR)	lb												0.5000	52.60	26.30	26.30
RUST CONTROL				1.00	May											
Spray Bug60 7 mph	60'		0.030				1.22	1.93			0.03	0.56			3.71	
Quilt/Fungicide	gal												0.1560	128.00	19.97	19.97
Surfactant--Induce	gal												0.0500	22.50	1.13	1.13
SWATH				1.00	Jun											
Swather	15'		0.174				6.36	8.13			0.20	3.21			17.70	
COMBINE				1.00	Jul											
Combine 300	300 hp		0.168				19.19	37.93			0.19	1.67			58.79	
CLEAN SEED				1.00	Jul											
Cleaning FF	cwt												11.0000	6.30	69.30	69.30
BURN				1.00	Jul											
Burn Fee	acre												1.0000	10.00	10.00	10.00
Field Registration	acre												1.0000	1.00	1.00	1.00
Burn Lbr & Equip OB	acre												1.0000	7.50	7.50	7.50
MISCELLANEOUS				1.00	Jul											
Misc. business exp	acre												1.0000	30.00	30.00	30.00
FEES, CERT/TEST/INSP				1.00	Jul											
Seed Crop Inspection	acre												1.0000	3.00	3.00	3.00
Commission Assess FF	cwt												1.1000	0.76	0.84	0.84

Seed Test Pur/Ger FF cwt								1.1000	0.19	0.21	0.21
Truck w/ Tank each	1.00	Jul		4.51				0.0008			4.51
MILEAGE TRK w TANK mile			2.25		0.04	0.79		1.5000			3.04
Harvest Truck each	1.00	Jul		3.75				0.0008			3.75
MILEAGE HARV TRUCK mile			3.60		0.06	1.05		2.0000			4.65
Land Rent WV Wheat each	1.00	Aug		120.00				1.0000			120.00
Mach/Equip Ins, Hi each	1.00	Aug		6.95				1.0000			6.95
Pickup each	1.00	Aug		5.60				0.0008			5.60
MILEAGE PU mile			2.33		0.11	1.84		5.0000			4.17
AMORT. EST. COST acre		Aug						1.0000			147.34
TOTALS			34.98	59.53	8.18	140.81	0.92	13.36		302.93	707.13
INTEREST ON OPERATING CAPITAL											14.77
UNALLOCATED LABOR											0.00
TOTAL SPECIFIED COST											721.90

Table 3.C Estimated resource use and costs for field operations, per acre
 Fine Fescue Production, Non-Burn
 Silverton Hills, Willamette Valley, 2010

OPERATION/ OPERATING INPUT	SIZE/ UNIT	POWER UNIT SIZE	PERF RATE	TIMES OVER	MTH	POWER UNIT COST		EQUIPMENT COST		ALLOC LABOR		OPERATING/DURABLE INPUT			TOTAL COST
						DIRECT	FIXED	DIRECT	FIXED	HOURS	COST	AMOUNT	PRICE	COST	
						-----dollars-----				dollars		-----dollars-----			
FALL FERTILIZER				1.00	Oct										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
11-52-0	lb											150.0000	0.24	36.00	36.00
0-0-60 LB	lb											100.0000	0.33	33.00	33.00
21-0-0-24	lb											50.0000	0.15	7.50	7.50
FALL HERBICIDE				1.00	Oct										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Curtail	gal											0.2500	47.00	11.75	11.75
Banvel	gal											0.0620	63.00	3.91	3.91
SEEDLING WEED CNTRL.				1.00	Nov										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Dual OB	gal											0.1870	66.00	12.34	12.34
SEEDLING WEED CNTRL.				1.00	Nov										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Goal	gal											0.0390	82.75	3.23	3.23
SencorLB	lb											0.5000	13.75	6.88	6.88
SPRING FERTILIZER				1.00	Mar										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
12-0-0-26	lb											110.0000	0.15	16.50	16.50
32 N	lb											210.0000	0.14	29.40	29.40
SPRING BROADLEAF CTL				0.75	Mar										
Spray Bug60 7 mph	60'		0.030			0.92	1.45			0.02	0.42				2.79
Poast	gal											0.1875	78.00	14.63	14.63
Surfactant--Induce	gal											0.0375	22.50	0.84	0.84
SPRING BROADLEAF CTL				0.25	Mar										
Spray Bug60 7 mph	60'		0.030			0.31	0.48			0.00	0.14				0.93
Curtail	gal											0.0625	47.00	2.94	2.94
Banvel	gal											0.0155	63.00	0.98	0.98
RUST CONTROL				1.00	May										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Quilt/Fungicide	gal											0.1560	128.00	19.97	19.97
Surfactant--Induce	gal											0.0500	22.50	1.13	1.13
SWATH				1.00	Jun										
Swather	15'		0.174			6.36	8.13			0.20	3.21				17.70
COMBINE				1.00	Jul										
Combine 300	300 hp		0.168			19.19	37.93			0.19	1.67				58.79
CLEAN SEED				1.00	Jul										
Cleaning FF	cwt											6.7500	6.30	42.53	42.53
RECLEAN SEED				1.00	Jul										
Reclean FF	cwt											6.7500	1.60	10.80	10.80
BALE & STACK				1.00	Jul										
Bale & Stack OB	ton											1.7500	17.00	29.75	29.75
FLAIL				1.00	Jul										
Flail J Knife	15 ft	180	0.132			5.15	4.33	1.25	1.37	0.15	2.45				14.55
MISCELLANEOUS				1.00	Jul										
Misc. business exp	acre											1.0000	30.00	30.00	30.00
FEES, CERT/TEST/INSP				1.00	Jul										
Seed Crop Inspection	acre											1.0000	3.00	3.00	3.00
Commission Assess FF	cwt											6.7500	0.76	5.13	5.13
Seed Test Pur/Ger FF	cwt											6.7500	0.19	1.28	1.28

Truck w/ Tank	each	1.00	Jul		4.51			0.0008	4.51		
MILEAGE TRK w TANK	mile			2.25		0.04	0.79	1.5000	3.04		
Harvest Truck	each	1.00	Jul		3.75			0.0008	3.75		
MILEAGE HARV TRUCK	mile			3.60		0.06	1.05	2.0000	4.65		
Land Rent WV Wheat	each	1.00	Aug		120.00			1.0000	120.00		
Mach/Equip Ins, Hi	each	1.00	Aug		6.95			1.0000	6.95		
Pickup	each	1.00	Aug		5.60			0.0008	5.60		
MILEAGE PU	mile			2.33		0.11	1.84	5.0000	4.17		
AMORT. EST. COST	acre		Aug					1.0000	224.59		
				-----	-----	-----	-----	-----	-----		
TOTALS				39.82	63.38	9.43	142.18	1.06	15.67	323.49	818.56
INTEREST ON OPERATING CAPITAL											18.24
UNALLOCATED LABOR											0.00
TOTAL SPECIFIED COST											836.80

Table 3.B Breakeven price above total expenses and net returns for price/yield combinations, per acre
 Fine Fescue Production, Open Field Burn
 Silverton Hills, Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Fine Fescue			0.36	0.39	0.41	0.44	0.48	0.52 ³	0.57	0.63	0.71	0.82	0.97
PERCENT	YIELD	UNIT	-----dollars-----										
50	550.00	lb	-135 ¹	-123	-109	-93	-74	-51	-23	11	56	116	200
			-335 ²	-323	-309	-293	-274	-251	-223	-188	-143	-83	0
60	660.00	lb	-101	-87	-70	-51	-28	-0	32	74	128	200	300
			-301	-287	-270	-251	-228	-201	-167	-125	-71	0	100
70	770.00	lb	-67	-51	-31	-9	17	49	88	137	200	284	401
			-268	-251	-232	-209	-182	-150	-111	-62	0	83	201
80	880.00	lb	-34	-15	6	32	63	99	144	200	272	368	502
			-234	-215	-193	-167	-137	-100	-55	0	71	167	301
90	990.00	lb	-0	20	45	74	108	150	200	263	344	451	602
			-201	-179	-154	-125	-91	-50	0	62	143	251	402
100	1100.00	lb	32	56	84	116	154	200	256	326	415	535	703
			-167	-143	-116	-83	-45	0	55	125	215	335	503
110	1210.00	lb	66	92	122	158	200	250	312	388	487	619	804
			-134	-107	-77	-41	0	50	111	188	287	419	603
120	1320.00	lb	99	128	161	200	246	300	368	451	559	703	904
			-100	-71	-38	0	45	100	167	251	359	503	704
130	1430.00	lb	133	164	200	242	291	351	423	514	631	787	1005
			-67	-35	0	41	91	150	223	314	431	586	804
140	1540.00	lb	166	200	239	284	337	401	479	577	703	871	1105
			-33	0	38	83	137	201	279	377	503	670	905
150	1650.00	lb	200	236	277	326	383	451	535	640	775	954	1206
			0	35	77	125	182	251	335	440	574	754	1006

¹The top number in each cell is Returns Above Direct Expenses.

²The bottom number in each cell is Returns Above Total Specified Expenses.

³ For the production years, the break even price is what is needed to recover costs during a normal number of production years. Only the product listed has been varied to calculate net returns.

Table 3.C Breakeven price above total expenses and net returns for price/yield combinations, per acre
 Fine Fescue Production, Non-Burn
 Silverton Hills, Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Fine Fescue			0.51	0.55	0.58	0.63	0.68	0.74 ³	0.81	0.90	1.02	1.18	1.41
PERCENT	YIELD	UNIT	-----dollars-----										
50	412.50	lb	-162 ¹	-148	-133	-116	-95	-70	-39	-1	47	113	205
			-367 ²	-354	-339	-321	-300	-275	-245	-206	-157	-91	0
60	495.00	lb	-125	-109	-91	-70	-45	-15	21	67	126	205	315
			-330	-315	-296	-275	-250	-220	-183	-137	-78	0	110
70	577.50	lb	-88	-70	-48	-24	5	40	83	136	205	297	426
			-294	-275	-254	-229	-200	-165	-122	-68	0	91	220
80	660.00	lb	-51	-30	-6	21	55	95	144	205	284	389	536
			-257	-236	-212	-183	-150	-110	-61	0	78	183	330
90	742.50	lb	-15	8	35	67	105	150	205	274	363	481	646
			-220	-196	-169	-137	-100	-55	0	68	157	275	441
100	825.00	lb	21	47	78	113	155	205	266	343	441	573	757
			-183	-157	-127	-91	-50	0	61	137	236	367	551
110	907.50	lb	58	87	120	159	205	260	328	412	520	665	867
			-147	-118	-84	-45	0	55	122	206	315	459	661
120	990.00	lb	95	126	163	205	255	315	389	481	599	757	977
			-110	-78	-42	0	50	110	183	275	393	551	772
130	1072.50	lb	132	166	205	251	305	371	450	550	678	848	1087
			-73	-39	0	45	100	165	245	344	472	643	882
140	1155.00	lb	168	205	247	297	355	426	511	619	757	940	1198
			-36	0	42	91	150	220	306	413	551	735	992
150	1237.50	lb	205	244	290	343	406	481	573	688	835	1032	1308
			0	39	84	137	200	275	367	482	630	827	1102

¹The top number in each cell is Returns Above Direct Expenses.

²The bottom number in each cell is Returns Above Total Specified Expenses.

³ For the production years, the break even price is what is needed to recover costs during a normal number of production years. Only the product listed has been varied to calculate net returns.

Table 4.A Tractors/Harvesters: estimated purchase price, annual use, useful life, fuel use, and direct and fixed cost per hour, 2010

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	-----\$/hour-----					
Tractor 130	130	95,700	400	20	6.57	16.00	19.73	11.96	47.69	27.26	74.96
Tractor 140	140	121,000	500	20	6.50	16.00	19.50	12.10	47.60	27.58	75.18
Tractor 160	160	113,000	470	20	11.00	16.00	33.00	9.61	58.61	27.40	86.01
Tractor 180 Oper.	180	143,000	500	20	9.10	16.00	27.32	11.44	54.76	32.59	87.35
Tractor 200	200	154,000	550	20	10.12	16.00	30.36	11.20	57.56	31.91	89.47
Tractor 215	215	165,000	250	20	11.00	16.00	33.00	26.40	75.40	75.21	150.61
Tractor 250	250	220,000	250	20	11.00	16.00	33.00	35.20	84.20	100.29	184.49
Tractor 310	310	231,000	500	20	15.68	16.00	47.05	18.48	81.53	52.65	134.19

Notes:

Labor: Includes allocated labor from power unit.

Total Direct: Does not include interest on operating capital.

Table 4.B Self-propelled machines: estimated purchase price, annual use, useful life, fuel use, performance rate, and direct and fixed cost per acre, 2010

Item Name	Size	Purchase Price	Annual Use	Useful Life	Fuel Use	Perf Rate	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	hours	years	gal/hr	hr/ac	-----\$/acre-----					
ATV	20 hp	5,600	200	10	1.38	0.050	0.92	0.20	0.14	1.26	0.21	1.47
Combine 300	300 hp	300,000	200	10	8.00	0.168	1.67	4.04	15.15	20.86	37.93	58.80
Combine 300 slow	300 hp	300,000	200	10	8.00	0.210	1.82	5.05	18.94	25.81	47.41	73.22
Fertilizer Buggy	20	35,000	200	20	5.52	0.070	1.29	1.16	0.61	3.08	1.40	4.48
Fertilizer Buggy	30	44,000	200	20	6.50	0.047	0.86	0.91	0.51	2.29	1.17	3.47
Fertilizer Buggy OB	80	35,000	200	20	5.52	0.056	1.03	0.92	0.49	2.44	1.11	3.56
Spray Bug100 7mph	100'	190,000	300	20	8.00	0.014	0.14	0.35	0.32	0.82	1.06	1.88
Spray Bug40 4mph	40'	60,000	250	20	7.00	0.079	1.45	1.66	0.66	3.79	2.16	5.96
Spray Bug60 10mph	60'	140,000	250	20	7.00	0.021	0.38	0.44	0.41	1.24	1.34	2.59
Spray Bug60 7 mph	60'	140,000	250	20	7.00	0.030	0.55	0.63	0.59	1.78	1.92	3.71
Spray Bug80 7 mph	80'	163,000	300	20	5.52	0.021	0.38	0.34	0.40	1.13	1.30	2.43
Swather	15'	62,000	200	10	8.00	0.174	3.21	4.19	2.16	9.56	8.12	17.69

Notes:

Labor: includes allocated labor plus any additional labor from self-propelled machine.

Direct: Does not include interest on operating capital.

Table 4.C Implements: estimated purchase price, annual use, useful life, performance rate, and direct and fixed cost per acre, 2010

Item Name	Size	Power Unit	Purchase Price	Annual Use	Useful Life	Perf Rate	Labor	Fuel	---R&M---	Total Direct	--Fixed--	Total Cost		
			dollars	hours	years	hr/ac			Imp.	P.U.	Imp.	P.U.		
												-----\$/acre-----		
3-Point Blade	10 ft	140	3,500	100	20	0.050	0.80	0.97	0.00	0.60	2.38	0.19	1.37	3.96
Chisel Plow	21 ft	310	20,000	100	20	0.143	2.28	6.73	1.07	2.64	12.73	3.26	7.53	23.53
Cultimulcher	12 ft	140	7,000	150	10	0.140	2.24	2.73	0.13	1.69	6.79	0.98	3.86	11.63
Cultipacker	20 ft.	180	10,000	200	10	0.097	1.55	2.65	0.38	1.11	5.70	0.72	3.16	9.59
Disk	20	215	28,000	200	10	0.097	1.55	3.20	0.81	2.56	8.13	2.04	7.30	17.47
Disk	27	310	35,000	200	10	0.071	1.15	3.38	0.75	1.32	6.61	1.88	3.78	12.29
Ditcher		140	2,000	100	20	0.050	0.80	0.97	0.02	0.60	2.40	0.11	1.37	3.89
Dixon Harrow MF	16 ft	180	3,000	350	10	0.350	5.60	9.45	0.18	3.53	18.76	0.45	10.06	29.27
Drill	13 ft	140	11,000	120	10	0.139	2.23	2.71	0.95	1.68	7.59	1.92	3.84	13.36
Field Cultivator	45 ft	130	27,000	120	20	0.066	1.07	1.32	0.52	0.80	3.72	1.71	1.82	7.26
Flail	14 ft	140	14,500	180	20	0.157	2.51	3.06	0.94	1.90	8.42	1.44	4.33	14.20
Flail J Knife	15 ft	180	13,500	180	12	0.132	2.12	3.63	1.24	1.52	8.52	1.37	4.33	14.23
Harrow	20 ft	180	15,000	350	10	0.138	2.21	3.74	0.35	1.39	7.71	0.89	3.98	12.59
Harrow/Cultipacker	16ft	160	15,000	200	10	0.125	2.00	4.12	0.56	1.20	7.88	1.40	3.42	12.72
Land Leveler	24 ft	140	12,000	35	25	0.114	1.83	2.23	0.78	1.38	6.23	4.24	3.16	13.64
Land Leveler MF	16 ft	140	8,000	35	10	0.040	0.64	0.78	0.18	0.48	2.08	1.37	1.10	4.56
Moldboard Plow	6 bottom	215	18,000	200	10	0.196	3.14	6.48	1.76	5.18	16.57	2.65	14.77	34.00
No-Till Drill	15 ft	160	37,000	80	15	0.100	1.60	3.30	2.31	0.96	8.17	5.78	2.74	16.70
Ripper	12 ft	180	12,000	200	10	0.207	3.32	5.68	0.93	2.37	12.32	1.87	6.77	20.97
Rol-Har/Dix/Rol	21 ft	200	43,000	200	10	0.076	1.23	2.33	0.99	0.86	5.42	2.48	2.45	10.36
Roller	20 ft	180	10,000	200	10	0.114	1.83	3.09	0.22	1.15	6.31	0.86	3.29	10.46
Roller MF	18 ft	180	8,500	200	10	0.200	3.20	5.40	0.34	2.01	10.95	1.27	5.75	17.98
Roller-Harrow	21 ft	200	21,000	200	10	0.076	1.23	2.33	0.48	0.86	4.91	1.21	2.45	8.58

Notes:

Labor: Includes labor from Power unit plus additional labor from the implement.

Total Direct: Does not include interest on operating capital.

Table 4.D Single durable inputs: estimated purchase price, annual use, useful life, fuel consumption rate, labor, fuel, R&M, total direct, fixed and total cost per year, , 2010

Item Name	Unit of Measure	Purchase Price	Annual Use	Useful Life	Fuel Use	Operation Time	Labor	Fuel	R&M	Total Direct	Fixed	Total Cost
		dollars	miles	years	gal/hr	hr/mile	\$/yr	\$/yr	\$/yr	\$/yr	\$/yr	\$/yr
ATV	mi	4,500	2000	10	1.00	0.0333	663.10	189.98	225.00	1078.08	675.88	1753.96
Harvest Truck	mile	30,000	1000	10	3.50	0.0285	525.68	299.98	1500.00	2325.67	4505.88	6831.56
Pickup	mile	33,000	10000	6	5.00	0.0200	3680.00	3000.00	1650.00	8330.00	6721.63	15051.63
Truck w/ Tank	mile	36,000	1500	10	3.50	0.0285	788.53	449.97	1800.00	3038.50	5407.06	8445.57

Notes:

Labor: Includes allocated labor from the durable input.

Total Direct: Does not include interest on operating capital.

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