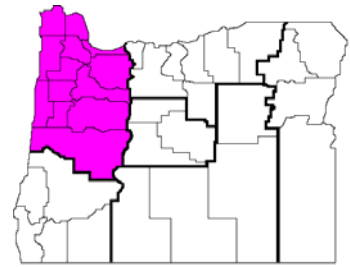


Enterprise Budget

Perennial Ryegrass Seed, Establishment and Production South Willamette Valley Region

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AEB 0007, November 2010

This enterprise budget estimates the typical costs of establishing and producing perennial ryegrass seed production in the southern portion of the Willamette Valley of Oregon. The bale and flail (B&F) residue management technique is shown. 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 sub-tables, A for the establishment year and B for all subsequent full production years. Table 2, again divided into A and B sections if the crop is perennial, shows itemized details about the cultural operations performed, and their costs, in a chronological sequence. Table 3, again divided into A and B sections, 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 3-year life including the establishment period.

A land lease charge of \$90 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 and 2.B, respectively, for details of operations in the establishment year and full production years,

Establishment Cost

Perennial ryegrass has a full harvest in the first or seedling year, but since the fertilizer and herbicide costs associated with this harvest are different than those in post-seedling production years, this first harvest was included in the establishment budget. The value of the seedling year harvest is credited against the costs. The net return from the establishment year is amortized, with interest included, as an annual fixed cost in the full production year budget which is assumed to represent a stand life of two years. In the event that net return in the establishment year is positive, the amortized net establishment cost would be a negative number in the production year budgets.

Results

Tables 1.A and 1.B show the costs and returns for establishment and production, respectively. The field operations and their costs are detailed in Tables 2.A and 2.B. The break-even price needed to cover the total cost of production is given in Table 3.A and B. The break-even price is given at the top of the middle column. 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. Since there is a harvest in the establishment year, this Table 3.B requires an assumption that yields and prices do not vary from the assumed budget price in the establishment year. The break even price shown in Table 3.A is the price that would cover all establishment costs during the first, or establishment year. Obviously, higher or lower prices or yields affect the establishment cost that must be amortized in full production years. Table 3 also shows the sensitivity of returns over variable (or operating costs) and returns over total costs (net profit) as either prices or crop yields are varied. If the assumed prices and yields are taken as given during the establishment year, then the break even price for the remaining two full production years is \$0.56 per pound. The price needed to break even during the first, or establishment, year is \$0.68 per pound.

Table 1.A Estimated costs and returns per acre
 Perennial Ryegrass Establishment
 South Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Per. Ryegrass Seed	lb	0.54	1350.0000	729.00	_____

TOTAL INCOME				729.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
Charcoal	acre	75.00	1.0000	75.00	_____
33-0-0-12 LB	lb	0.19	200.0000	38.00	_____
46-0-0 Urea LB	lb	0.22	160.0000	35.20	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.2500	5.63	_____
Palisade (PGR)	gal	220.00	0.1250	27.50	_____
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	_____
Seed Crop Inspection	acre	3.00	1.0000	3.00	_____
CUSTOM, FLAT RATE					
Soil Sampling	acre	0.50	1.0000	0.50	_____
Lime	ton	56.00	1.0000	56.00	_____
Rodent Control	acre	3.00	1.0000	3.00	_____
Rogue Weed Spot Sp	acre	7.50	1.0000	7.50	_____
Border Spray	acre	50.00	0.0200	1.00	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	0.2500	3.75	_____
Diuron	lb	4.50	3.0000	13.50	_____
Nortron (pt)	pt	10.75	3.0000	32.25	_____
2,4-D	gal	27.00	0.1250	3.38	_____
Banvel	gal	63.00	0.0625	3.94	_____
SEEDS & PLANTS					
Ryegrass Seed	lb	2.50	10.0000	25.00	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag(SV)	cwt	8.00	13.5000	108.00	_____
CHEM--FUNGICIDE					
Quilt/Fungicide	gal	128.00	0.1410	18.05	_____
CHEM--PESTICIDE					
Slug Bait	lb	1.48	10.0000	14.80	_____
FEES, PROPORTIONAL					
Commission Assess PR	cwt	0.12	13.5000	1.62	_____
Seed Test Pur/Ger PR	cwt	0.21	13.5000	2.84	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	1.1283	18.06	_____
Self-Propelled	hour	16.00	0.6984	11.20	_____
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	11.7206	35.17	_____
Self-Propelled	gal	3.00	5.2835	15.83	_____
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	9.19	1.0000	9.19	_____
Tractors	acre	15.71	1.0000	15.71	_____
Self-Propelled	acre	23.43	1.0000	23.43	_____
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	33.03	1.0000	33.03	_____

TOTAL DIRECT EXPENSES				685.62	_____
RETURNS ABOVE DIRECT EXPENSES				43.38	_____
FIXED EXPENSES					
Implements	acre	20.17	1.0000	20.17	_____
Tractors	acre	43.05	1.0000	43.05	_____
Self-Propelled	acre	64.53	1.0000	64.53	_____
Land Rent SV	each	90.00	1.0000	90.00	_____
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	_____

TOTAL FIXED EXPENSES				238.56	_____

TOTAL SPECIFIED EXPENSES				924.18	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-195.18	_____

Table 1.B Estimated costs and returns per acre
 Perennial Ryegrass Production
 South Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Per. Ryegrass Seed	lb	0.54	1350.0000	729.00	_____

TOTAL INCOME				729.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
16-16-16 LB	lb	0.25	250.0000	62.50	_____
33-0-0-12 LB	lb	0.19	200.0000	38.00	_____
46-0-0 Urea LB	lb	0.22	185.0000	40.70	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.2250	5.06	_____
Palisade (PGR)	gal	220.00	0.1250	27.50	_____
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					
Rogue Weed Spot Sp	acre	7.50	2.0000	15.00	_____
Border Spray	acre	50.00	0.0200	1.00	_____
CHEM--HERBICIDE					
Prowl H20	gal	32.00	0.6250	20.00	_____
AxiomOZ	oz	0.73	11.0000	8.03	_____
2,4-D	gal	27.00	0.1250	3.38	_____
Banvel	gal	63.00	0.0625	3.94	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag(SV)	cwt	8.00	13.5000	108.00	_____
CHEM--FUNGICIDE					
Quilt/Fungicide	gal	128.00	0.1175	15.04	_____
CHEM--PESTICIDE					
Slug Bait	lb	1.48	4.2000	6.22	_____
FEES, PROPORTIONAL					
Commission Assess PR	cwt	0.12	13.5000	1.62	_____
Seed Test Pur/Ger PR	cwt	0.21	13.5000	2.84	_____
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	0.6524	10.46	_____
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	5.0955	15.28	_____
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	22.47	1.0000	22.47	_____
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	15.61	1.0000	15.61	_____

TOTAL DIRECT EXPENSES				478.04	_____
RETURNS ABOVE DIRECT EXPENSES				250.96	_____
FIXED EXPENSES					
Implements	acre	1.37	1.0000	1.37	_____
Tractors	acre	4.33	1.0000	4.33	_____
Self-Propelled	acre	60.96	1.0000	60.96	_____
Land Rent SV	each	90.00	1.0000	90.00	_____
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	_____
AMORT. EST. COST	acre	112.46	1.0000	112.46	_____

TOTAL FIXED EXPENSES				289.93	_____

TOTAL SPECIFIED EXPENSES				767.97	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-38.97	_____
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Table 2.A Estimated resource use and costs for field operations, per acre
 Perennial Ryegrass Establishment
 South 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	Aug										
Soil Sampling	acre											1.0000	0.50	0.50	0.50
DISK				1.00	Aug										
Disk	20	215	0.097			8.97	7.30	0.82	2.04	0.11	1.79				20.92
PLOW				1.00	Aug										
Moldboard Plow	6 bottom	215	0.196			14.91	14.78	1.77	2.66	0.22	3.61				37.73
HARROW & ROLL				3.00	Aug										
Rol-Har/Dix/Rol	21 ft	200	0.076			9.60	7.37	2.98	7.46	0.26	4.25				31.66
LAND LEVEL				0.50	Aug										
Land Leveler	24 ft	140	0.114			2.37	1.58	0.39	2.12	0.06	1.05				7.51
LIME				1.00	Aug										
Lime	ton											1.0000	56.00	56.00	56.00
HARROW & ROLL				1.00	Aug										
Rol-Har/Dix/Rol	21 ft	200	0.076			3.20	2.46	0.99	2.49	0.08	1.42				10.56
PLANT				1.00	Oct										
Drill	13 ft	140	0.139			5.09	3.85	0.96	1.92	0.16	2.57				14.39
Ryegrass Seed	lb											10.0000	2.50	25.00	25.00
Charcoal	acre											1.0000	75.00	75.00	75.00
SEEDLING WEED CNTRL.				1.00	Oct										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
GlyphosateGAL1	gal											0.2500	15.00	3.75	3.75
Surfactant--Induce	gal											0.0500	22.50	1.13	1.13
DITCHING				1.00	Oct										
Ditcher		140	0.050			1.59	1.38	0.03	0.11	0.05	0.92				4.03
SEEDLING WEED CNTRL.				1.00	Nov										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Diuron	lb											3.0000	4.50	13.50	13.50
SEEDLING WEED CNTRL.				1.00	Nov										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Nortron (pt)	pt											3.0000	10.75	32.25	32.25
SLUG CONTROL				1.00	Nov										
ATV	20 hp		0.050			0.35	0.21			0.05	0.92				1.48
Slug Bait	lb											10.0000	1.48	14.80	14.80
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
33-0-0-12 LB	lb											200.0000	0.19	38.00	38.00
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
46-0-0 Urea LB	lb											160.0000	0.22	35.20	35.20
RODENT CONTROL				1.00	Mar										
Rodent Control	acre											1.0000	3.00	3.00	3.00
BROADLEAF WEED CNTRL				1.00	Apr										
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											0.0625	63.00	3.94	3.94
Surfactant--Induce	gal											0.0500	22.50	1.13	1.13
ROGUE WEED CONTROL				1.00	Apr										
Rogue Weed Spot Sp	acre											1.0000	7.50	7.50	7.50

PLANT GROWTH REG.		1.00	May															
Spray Bug60	7 mph	60'	0.030		1.22	1.93		0.03	0.56									3.71
Palisade (PGR)		gal										0.1250	220.00	27.50				27.50
RUST CONTROL			3.00	Jun														
Spray Bug60	7 mph	60'	0.030		3.68	5.79		0.10	1.67									11.14
Quilt/Fungicide		gal										0.1410	128.00	18.05				18.05
Surfactant--Induce		gal										0.1500	22.50	3.38				3.38
SWATH			1.00	Jul														
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 & BAG SEED			1.00	Jul														
Seed Clean & Bag(SV)		cwt										13.5000	8.00	108.00				108.00
CUSTOM BALE			1.00	Jul														
Custom Bale No Chrg		acre										1.0000						
FLAIL			1.00	Jul														
Flail J Knife		15 ft	0.132		5.15	4.33	1.25	1.37	0.15	2.45								14.55
BORDER SPRAY			1.00	Jul														
Border Spray		acre										0.0200	50.00	1.00				1.00
MISCELLANEOUS			1.00	Jul														
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
Seed Crop Inspection		acre										1.0000	3.00	3.00				3.00
Commission Assess		PR cwt										13.5000	0.12	1.62				1.62
Seed Test Pur/Ger		PR cwt										13.5000	0.21	2.84				2.84
Land Rent SV		each	1.00	Jul				90.00				1.0000						90.00
Harvest Truck		each	1.00	Jul				3.75				0.0008						3.75
Application 1		mile					3.60		0.06	1.05		2.0000						4.65
Truck w/ Tank		each	1.00	Jul				4.51				0.0008						4.51
Application 1		mile					2.25		0.04	0.79		1.5000						3.04
Pickup		each	1.00	Jul				5.60				0.0008						5.60
Application 1		mile					2.33		0.11	1.84		5.0000						4.17
Mach/Equip Ins, Hi		each	1.00	Jul				6.95				1.0000						6.95
TOTALS					90.14	107.58	17.37	130.98	2.25	34.61				510.47				891.15
INTEREST ON OPERATING CAPITAL																		33.03
UNALLOCATED LABOR																		0.00
TOTAL SPECIFIED COST																		924.18

Table 2.B Estimated resource use and costs for field operations, per acre
 Perennial Ryegrass Production
 South 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
16-16-16 LB	lb											250.0000	0.25	62.50	62.50
SEEDLING WEED CNTRL.				1.00	Oct										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Prowl H20	gal											0.6250	32.00	20.00	20.00
AxiomOZ	oz											11.0000	0.73	8.03	8.03
Surfactant--Induce	gal											0.0500	22.50	1.13	1.13
SLUG CONTROL				0.30	Dec										
ATV	20 hp		0.050			0.10	0.06			0.01	0.28				0.44
Slug Bait	lb											4.2000	1.48	6.22	6.22
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
33-0-0-12 LB	lb											200.0000	0.19	38.00	38.00
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
46-0-0 Urea LB	lb											185.0000	0.22	40.70	40.70
BROADLEAF WEED CNTRL				1.00	Apr										
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											0.0625	63.00	3.94	3.94
Surfactant--Induce	gal											0.0500	22.50	1.13	1.13
ROGUE WEED CONTROL				2.00	Apr										
Rogue Weed Spot Sp	acre											2.0000	7.50	15.00	15.00
PLANT GROWTH REG.				1.00	May										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Palisade (PGR)	gal											0.1250	220.00	27.50	27.50
RUST CONTROL				2.50	Jun										
Spray Bug60 7 mph	60'		0.030			3.07	4.82			0.08	1.39				9.28
Quilt/Fungicide	gal											0.1175	128.00	15.04	15.04
Surfactant--Induce	gal											0.1250	22.50	2.81	2.81
SWATH				1.00	Jul										
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 & BAG SEED				1.00	Jul										
Seed Clean & Bag(SV)	cwt											13.5000	8.00	108.00	108.00
BALE & STACK				1.00	Jul										
Custom Bale No Chrg	acre											1.0000			
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
BORDER SPRAY				1.00	Jul										
Border Spray	acre											0.0200	50.00	1.00	1.00
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 PR	cwt											13.5000	0.12	1.62	1.62

Seed Test Pur/Ger	PR	cwt							13.5000	0.21	2.84	2.84
Land Rent SV	each		1.00	Jul				90.00	1.0000			90.00
Harvest Truck	each		1.00	Jul				3.75	0.0008			3.75
Application 1	mile					3.60			2.0000			4.65
Truck w/ Tank	each		1.00	Jul				4.51	0.0008			4.51
Application 1	mile					2.25			1.5000			3.04
Pickup	each		1.00	Jul				5.60	0.0008			5.60
Application 1	mile					2.33			5.0000			4.17
Mach/Equip Ins, Hi	each		1.00	Jul				6.95	1.0000			6.95
AMORT. EST. COST	acre			Dec					1.0000			112.46
TOTALS						42.90	65.29	9.43	112.18	1.22	18.26	
INTEREST ON OPERATING CAPITAL												391.84
UNALLOCATED LABOR												752.36
TOTAL SPECIFIED COST												15.61
												0.00
												767.97

Table 3.A Breakeven price above total expenses and net returns for price/yield combinations, per acre
 Perennial Ryegrass Establishment
 South Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Per. Ryegrass Seed			0.48	0.51	0.54	0.58	0.62	0.68 ³	0.75	0.83	0.94	1.08	1.28
PERCENT	YIELD	UNIT	-----dollars-----										
50	675.00	lb	-303 ¹ -542 ²	-284 -523	-262 -500	-236 -474	-205 -443	-168 -406	-123 -361	-66 -305	6 -232	102 -135	238 0
60	810.00	lb	-249 -488	-226 -464	-199 -438	-168 -406	-131 -369	-86 -325	-32 -271	35 -203	122 -116	238 0	401 162
70	945.00	lb	-195 -433	-168 -406	-136 -375	-100 -339	-57 -295	-5 -244	57 -180	136 -101	238 0	374 135	564 325
80	1080.00	lb	-141 -379	-110 -348	-74 -312	-32 -271	16 -221	75 -162	148 -90	238 0	354 116	509 271	726 488
90	1215.00	lb	-86 -325	-52 -290	-11 -250	35 -203	90 -147	157 -81	238 0	340 101	471 232	645 406	889 650
100	1350.00	lb	-32 -271	6 -232	50 -187	102 -135	164 -73	238 0	328 90	441 203	587 348	780 542	1052 813
110	1485.00	lb	21 -216	64 -174	113 -125	170 -67	238 0	319 81	419 180	543 305	703 464	916 678	1214 976
120	1620.00	lb	75 -162	122 -116	175 -62	238 0	312 73	401 162	509 271	645 406	819 581	1052 813	1377 1139
130	1755.00	lb	130 -108	180 -58	238 0	306 67	386 147	482 244	600 361	747 508	935 697	1187 949	1540 1301
140	1890.00	lb	184 -54	238 0	301 62	374 135	460 221	564 325	690 452	848 610	1052 813	1323 1084	1703 1464
150	2025.00	lb	238 0	296 58	363 125	441 203	534 295	645 406	780 542	950 711	1168 929	1459 1220	1865 1627

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 establishment year, the break even price is what is needed to recover costs during the establishment year. Only the product listed has been varied to calculate net returns.

Table 3.B Breakeven price above total expenses and net returns for price/yield combinations, per acre
 Perennial Ryegrass Production
 South Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Per. Ryegrass Seed			0.40	0.42	0.45	0.48	0.52	0.56 ³	0.62	0.69	0.77	0.89	1.05
PERCENT	YIELD	UNIT	-----dollars-----										
50	675.00	lb	-148 ¹	-132	-114	-93	-68	-38	-2	43	102	180	289
			-438 ²	-422	-404	-383	-358	-328	-292	-246	-187	-109	0
60	810.00	lb	-104	-85	-64	-38	-8	26	70	125	196	289	421
			-394	-375	-354	-328	-298	-262	-219	-164	-93	0	131
70	945.00	lb	-60	-38	-13	15	50	92	143	207	289	399	552
			-350	-328	-303	-273	-239	-197	-146	-82	0	109	262
80	1080.00	lb	-16	8	37	70	110	158	216	289	383	509	684
			-306	-281	-252	-219	-179	-131	-73	0	93	219	394
90	1215.00	lb	26	55	87	125	170	224	289	372	477	618	815
			-262	-234	-202	-164	-119	-65	0	82	187	328	525
100	1350.00	lb	70	102	138	180	230	289	362	454	571	728	947
			-219	-187	-151	-109	-59	0	73	164	281	438	657
110	1485.00	lb	114	149	188	235	289	355	436	536	665	837	1078
			-175	-140	-101	-54	0	65	146	246	375	547	788
120	1620.00	lb	158	196	239	289	349	421	509	618	759	947	1210
			-131	-93	-50	0	59	131	219	328	469	657	920
130	1755.00	lb	202	242	289	344	409	487	582	700	853	1056	1341
			-87	-46	0	54	119	197	292	410	563	767	1051
140	1890.00	lb	246	289	340	399	469	552	655	783	947	1166	1473
			-43	0	50	109	179	262	365	493	657	876	1183
150	2025.00	lb	289	336	391	454	528	618	728	865	1041	1276	1604
			0	46	101	164	239	328	438	575	751	986	1314

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

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

³For the production years, the break even price is what is needed to recover costs during a normal number of production years, with the price during the establishment year being what was assumed in the base budgets.
 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
									Imp.	P.U.		Imp.	P.U.	
			dollars	hours	years	hr/ac	-----\$/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
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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