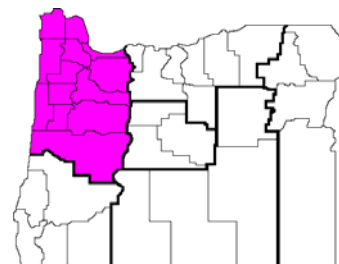


# Enterprise Budget

## Annual Ryegrass, Conventional Tillage, Volunteer Seeding and No-Till, Willamette Valley Region

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This enterprise budget estimates the typical costs of producing annual ryegrass seed in the Willamette Valley of Oregon. Since annual ryegrass may be grown with either conventional tillage or no-till practices (or the two may be alternated), budgets for both technologies are included. 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 annual rye, this is divided into three sub-tables, A for conventional tillage, B for volunteer seeding, and C for no-till or direct seeding. Table 2, similarly divided into A, B and C sections, shows itemized details about the cultural operations performed, and their costs, in a chronological sequence. Tables 3.A, B and C show 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 technology crops such as small grains, oil seeds and forage seeds. Historically, most of the acreage in the Willamette Valley has been in grass seeds, with wheat as a rotation crop. But with the declining grass seed prices and several recent years with strong grain prices, wheat and other grains have been much more widely planted. The budget estimates establishment costs on a per-acre basis.

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, 2.C, and 2.B, respectively, for details of operations in conventionally tilled, volunteer seeded and no-till/direct seeded annual ryegrass.

### Results

Tables 1.A, B and C show the costs and returns for conventional tillage, volunteer and no-till seeding, respectively. The negative net returns do not necessarily translate into a loss in the common interpretation of the word. These budgets include investment costs for all owned resources, such as land and machinery as well as the cost of owner labor. These may not be cash costs for many operators. The reader should note that different yields have been assumed in the three budgets. Typically volunteer seeding must follow conventional or no-till seeding and cannot be repeated for multiple years.

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.A, B and C. The break even prices needed to cover all costs are \$0.30, \$0.25 , and \$0.27 per pound , respectively for conventional, volunteer and no-till. Thus the reduction in input costs more than offsets the reduction in yields for volunteer and no-till seeding. 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. 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.

Table 1.A Estimated costs and returns per acre  
Annual Ryegrass, Conventional Tillage  
Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Annual Ryegrass Seed	lb	0.25	2000.0000	500.00	_____
Grazing	acre	1.50	1.0000	1.50	_____
				-----	
TOTAL INCOME				501.50	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
16-16-16 LB	lb	0.25	125.0000	31.25	_____
40-0-0-6 LB	lb	0.21	340.0000	71.40	_____
0-0-60 LB	lb	0.33	35.0000	11.55	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.0120	0.27	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
CUSTOM, FLAT RATE					
Lime	ton	56.00	0.4000	22.40	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	0.0500	0.75	_____
AxiomLB	lb	23.00	0.3000	6.90	_____
Nortron	gal	85.00	0.1250	10.63	_____
Banvel	gal	63.00	0.0195	1.23	_____
2,4-D	gal	27.00	0.0625	1.69	_____
SEEDS & PLANTS					
AR Seed	lb	0.28	15.0000	4.20	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag	lb	0.03	2000.0000	60.00	_____
FEES, PROPORTIONAL					
Commission Assess	AR cwt	0.12	20.0000	2.40	_____
Seed Test Pur/Ger	AR cwt	0.16	20.0000	3.20	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	1.1292	18.06	_____
Self-Propelled	hour	16.00	0.4046	6.48	_____
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	12.1380	36.42	_____
Self-Propelled	gal	3.00	3.7760	11.34	_____
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	5.22	1.0000	5.22	_____
Tractors	acre	14.43	1.0000	14.43	_____
Self-Propelled	acre	19.28	1.0000	19.28	_____
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	18.68	1.0000	18.68	_____
				-----	
TOTAL DIRECT EXPENSES				401.31	_____
RETURNS ABOVE DIRECT EXPENSES				100.19	_____

FIXED EXPENSES					
Implements	acre	10.70	1.0000	10.70	_____
Tractors	acre	38.53	1.0000	38.53	_____
Self-Propelled	acre	51.19	1.0000	51.19	_____
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				211.23	_____
				-----	
TOTAL SPECIFIED EXPENSES				612.54	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-111.04	_____

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Table 1.B Estimated costs and returns per acre  
 Annual Ryegrass, Volunteer Seeding  
 Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Annual Ryegrass Seed	lb	0.25	1750.0000	437.50	_____
Grazing	acre	1.50	1.0000	1.50	_____
				-----	
TOTAL INCOME				439.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
40-0-0-6 LB	lb	0.21	340.0000	71.40	_____
0-0-60 LB	lb	0.33	35.0000	11.55	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.0300	0.68	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
CUSTOM, FLAT RATE					
Lime	ton	56.00	0.4000	22.40	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	0.0850	1.28	_____
Banvel	gal	63.00	0.0195	1.23	_____
2,4-D	gal	27.00	0.0625	1.69	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag	lb	0.03	1750.0000	52.50	_____
FEES, PROPORTIONAL					
Commission Assess AR	cwt	0.12	17.5000	2.10	_____
Seed Test Pur/Ger AR	cwt	0.16	17.5000	2.80	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	0.2382	3.81	_____
Self-Propelled	hour	16.00	0.4259	6.82	_____
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	1.8571	5.58	_____
Self-Propelled	gal	3.00	3.9056	11.72	_____
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	0.98	1.0000	0.98	_____
Tractors	acre	2.51	1.0000	2.51	_____
Self-Propelled	acre	19.19	1.0000	19.19	_____
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	8.34	1.0000	8.34	_____
				-----	
TOTAL DIRECT EXPENSES				270.11	_____
RETURNS ABOVE DIRECT EXPENSES				168.89	_____
FIXED EXPENSES					
Implements	acre	1.55	1.0000	1.55	_____
Tractors	acre	5.71	1.0000	5.71	_____

Self-Propelled	acre	50.92	1.0000	50.92	_____
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				168.99	_____
				-----	
TOTAL SPECIFIED EXPENSES				439.10	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-0.10	_____

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Table 1.C Estimated costs and returns per acre  
 Annual Ryegrass, No-Till Seeding  
 Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Annual Ryegrass Seed	lb	0.25	1850.0000	462.50	_____
Grazing	acre	1.50	1.0000	1.50	_____
				-----	
TOTAL INCOME				464.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
16-16-16 LB	lb	0.25	125.0000	31.25	_____
40-0-0-6 LB	lb	0.21	340.0000	71.40	_____
0-0-60 LB	lb	0.33	35.0000	11.55	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.0600	1.35	_____
MISC BUS EXP					
Misc. business exp	acre	30.00	1.0000	30.00	_____
CUSTOM, FLAT RATE					
Lime	ton	56.00	0.4000	22.40	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	0.2500	3.75	_____
Nortron	gal	85.00	0.0750	6.38	_____
Banvel	gal	63.00	0.0195	1.23	_____
2,4-D	gal	27.00	0.0625	1.69	_____
SEEDS & PLANTS					
AR Seed	lb	0.28	15.0000	4.20	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag	lb	0.03	1850.0000	55.50	_____
CHEM--PESTICIDE					
Slug Bait	lb	1.48	4.0000	5.92	_____
FEES, PROPORTIONAL					
Commission Assess AR	cwt	0.12	18.5000	2.22	_____
Seed Test Pur/Ger AR	cwt	0.16	18.5000	2.96	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	0.3532	5.65	_____
Self-Propelled	hour	16.00	0.4255	6.82	_____
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	2.9956	9.00	_____
Self-Propelled	gal	3.00	3.9029	11.71	_____
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	3.29	1.0000	3.29	_____
Tractors	acre	3.65	1.0000	3.65	_____
Self-Propelled	acre	19.63	1.0000	19.63	_____
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	13.40	1.0000	13.40	_____
				-----	
TOTAL DIRECT EXPENSES				338.48	_____

RETURNS ABOVE DIRECT EXPENSES				125.52	_____
FIXED EXPENSES					
Implements	acre	7.34	1.0000	7.34	_____
Tractors	acre	8.97	1.0000	8.97	_____
Self-Propelled	acre	52.35	1.0000	52.35	_____
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				179.47	_____
				-----	
TOTAL SPECIFIED EXPENSES				517.95	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-53.95	_____

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Table 2.A Estimated resource use and costs for field operations, per acre  
 Annual Ryegrass, Conventional Tillage  
 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-----			
FLAIL				1.00	Aug										
Flail	14 ft	140	0.157			6.50	4.33	0.95	1.44	0.18	2.89				16.11
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				2.00	Aug										
Harrow	20 ft	180	0.138			14.54	9.04	0.71	1.79	0.31	5.10				31.18
HARROW & ROLL				1.00	Aug										
Harrow	20 ft	180	0.138			7.27	4.52	0.36	0.89	0.15	2.55				15.59
Roller	20 ft		0.138					0.28	1.04						1.32
LAND LEVEL				0.20	Aug										
Land Leveler	24 ft	140	0.114			0.95	0.63	0.16	0.85	0.02	0.42				3.01
LIME				0.20	Sep										
Lime	ton											0.4000	56.00	22.40	22.40
SEEDLING WEED CNTRL.				0.20	Sep										
Spray Bug60 7 mph	60'		0.030			0.25	0.39			0.00	0.11				0.75
GlyphosateGAL1	gal											0.0500	15.00	0.75	0.75
Surfactant--Induce	gal											0.0120	22.50	0.27	0.27
PLANT				1.00	Oct										
Drill	13 ft	140	0.139			5.09	3.85	0.96	1.92	0.16	2.57				14.39
AR Seed	lb											15.0000	0.28	4.20	4.20
16-16-16 LB	lb											125.0000	0.25	31.25	31.25
AxiomLB	lb											0.3000	23.00	6.90	6.90
SEEDLING WEED CNTRL.				0.50	Oct										
Spray Bug60 7 mph	60'		0.030			0.62	0.96			0.01	0.28				1.86
Nortron	gal											0.1250	85.00	10.63	10.63
DITCHING				1.00	Oct										
Ditcher		140	0.050			1.59	1.38	0.03	0.11	0.05	0.92				4.03
FERTILIZE - SPRING				1.00	Apr										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
40-0-0-6 LB	lb											140.0000	0.21	29.40	29.40
0-0-60 LB	lb											35.0000	0.33	11.55	11.55
FERTILIZE - SPRING				1.00	Apr										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
40-0-0-6 LB	lb											200.0000	0.21	42.00	42.00
BROADLEAF WEED CNTRL				0.50	Apr										
Spray Bug60 7 mph	60'		0.030			0.62	0.96			0.01	0.28				1.86
Banvel	gal											0.0195	63.00	1.23	1.23
2,4-D	gal											0.0625	27.00	1.69	1.69
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
Seed Clean & Bag	lb											2000.0000	0.03	60.00	60.00
MISCELLANEOUS				1.00	Jul										
Misc. business exp	acre											1.0000	30.00	30.00	30.00
FEES, CERT/TEST/INSP				1.00	Jul										
Commission Assess AR cwt												20.0000	0.12	2.40	2.40
Seed Test Pur/Ger AR cwt												20.0000	0.16	3.20	3.20
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		
Mach/Equip Ins, Hi	each	1.00	Jul		6.95			1.0000	6.95		
Land Rent SV	each	1.00	Jul		90.00			1.0000	90.00		
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		
				-----	-----	-----	-----	-----	-----		
TOTALS				81.47	89.72	13.40	121.51	1.95	29.89	257.87	593.86
INTEREST ON OPERATING CAPITAL											18.68
UNALLOCATED LABOR											0.00
TOTAL SPECIFIED COST											612.54

Table 11.A Estimated resource use and costs for field operations, per acre  
 Annual Ryegrass, Volunteer Seeding  
 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-----				
FLAIL				1.00	Aug											
Flail	14 ft	140	0.157			6.50	4.33	0.95	1.44	0.18	2.89				16.11	
LIME				0.20	Sep											
Lime	ton											0.4000	56.00	22.40	22.40	
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.				0.50	Oct											
Spray Bug40 4mph	40'		0.079			1.16	1.08			0.04	0.73				2.97	
GlyphosateGAL1	gal											0.0850	15.00	1.28	1.28	
Surfactant--Induce	gal											0.0300	22.50	0.68	0.68	
FERTILIZE - SPRING				1.00	Apr											
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50	
40-0-0-6 LB	lb											140.0000	0.21	29.40	29.40	
0-0-60 LB	lb											35.0000	0.33	11.55	11.55	
FERTILIZE - SPRING				1.00	Apr											
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50	
40-0-0-6 LB	lb											200.0000	0.21	42.00	42.00	
BROADLEAF WEED CNTRL				0.50	Apr											
Spray Bug60 7 mph	60'		0.030			0.62	0.96			0.01	0.28				1.86	
Banvel	gal											0.0195	63.00	1.23	1.23	
2,4-D	gal											0.0625	27.00	1.69	1.69	
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	
Seed Clean & Bag	lb											1750.0000	0.03	52.50	52.50	
MISCELLANEOUS				1.00	Jul											
Misc. business exp	acre											1.0000	30.00	30.00	30.00	
FEEES, CERT/TEST/INSP				1.00	Jul											
Commission Assess AR	cwt											17.5000	0.12	2.10	2.10	
Seed Test Pur/Ger AR	cwt											17.5000	0.16	2.80	2.80	
Land Rent SV	each			1.00	May										90.00	
Harvest Truck	each			1.00	Jul										3.75	
Application 1	mile														0.0008	
Mach/Equip Ins, Hi	each			1.00	Jul										2.0000	
Pickup	each			1.00	Jul										6.95	
Application 1	mile														5.60	
Truck w/ Tank	each			1.00	Jul										0.0008	
Application 1	mile														5.0000	
															4.17	
															0.0008	
															4.51	
															1.5000	
															3.04	
TOTALS						39.00	56.63	9.16	112.36	1.08	15.98				197.63	430.76
INTEREST ON OPERATING CAPITAL																8.34
UNALLOCATED LABOR																0.00
TOTAL SPECIFIED COST																439.10



Table 12.A Estimated resource use and costs for field operations, per acre  
 Annual Ryegrass, No-Till Seeding  
 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-----				
FLAIL				1.00	Aug											
Flail	14 ft	140	0.157			6.50	4.33	0.95	1.44	0.18	2.89					16.11
LIME				0.20	Sep											
Lime	ton											0.4000	56.00	22.40		22.40
SEEDLING WEED CNTRL.				1.00	Sep											
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											0.0600	22.50	1.35		1.35
PLANT				1.00	Oct											
No-Till Drill	15 ft	180	0.100			4.56	3.26	2.31	5.79	0.11	1.84					17.76
AR Seed	lb											15.0000	0.28	4.20		4.20
16-16-16 LB	lb											125.0000	0.25	31.25		31.25
Slug Bait	lb											4.0000	1.48	5.92		5.92
SEEDLING WEED CNTRL.				0.30	Oct											
Spray Bug60 7 mph	60'		0.030			0.37	0.58			0.01	0.17					1.12
Nortron	gal											0.0750	85.00	6.38		6.38
DITCHING				1.00	Oct											
Ditcher		140	0.050			1.59	1.38	0.03	0.11	0.05	0.92					4.03
FERTILIZE - SPRING				1.00	Apr											
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30					4.50
40-0-0-6 LB	lb											140.0000	0.21	29.40		29.40
0-0-60 LB	lb											35.0000	0.33	11.55		11.55
FERTILIZE - SPRING				1.00	Apr											
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30					4.50
40-0-0-6 LB	lb											200.0000	0.21	42.00		42.00
BROADLEAF WEED CNTRL				0.50	Apr											
Spray Bug60 7 mph	60'		0.030			0.62	0.96			0.01	0.28					1.86
Banvel	gal											0.0195	63.00	1.23		1.23
2,4-D	gal											0.0625	27.00	1.69		1.69
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
Seed Clean & Bag	lb											1850.0000	0.03	55.50		55.50
MISCELLANEOUS				1.00	Jul											
Misc. business exp	acre											1.0000	30.00	30.00		30.00
FEES, CERT/TEST/INSP				1.00	Jul											
Commission Assess AR cwt												18.5000	0.12	2.22		2.22
Seed Test Pur/Ger AR cwt												18.5000	0.16	2.96		2.96
Land Rent SV	each			1.00	May				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
Mach/Equip Ins, Hi	each			1.00	Jul				6.95					1.0000		6.95
Pickup	each			1.00	Jul				5.60					0.0008		5.60
Application 1	mile							2.33		0.11	1.84			5.0000		4.17
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
TOTALS						43.99	61.32	11.47	118.15	1.20	17.82			251.80		504.55

INTEREST ON OPERATING CAPITAL	13.40
UNALLOCATED LABOR	0.00
TOTAL SPECIFIED COST	517.95

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Table 3.A Breakeven price above total expenses and net returns for price/yield combinations, per acre  
 Annual Ryegrass, Conventional Tillage  
 Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Annual Ryegrass Seed			0.21	0.22	0.24	0.26	0.28	0.30 <sup>3</sup>	0.33	0.37	0.42	0.48	0.57
PERCENT	YIELD	UNIT	-----dollars-----										
50	1000.00	lb	-152 <sup>1</sup> -363 <sup>2</sup>	-139 -350	-124 -335	-106 -317	-85 -297	-61 -272	-30 -242	6 -204	55 -155	120 -90	211 0
60	1200.00	lb	-115 -326	-100 -311	-82 -293	-61 -272	-36 -247	-6 -217	29 -181	75 -136	133 -77	211 0	320 108
70	1400.00	lb	-79 -290	-61 -272	-40 -251	-15 -227	13 -198	47 -163	90 -121	143 -68	211 0	302 90	429 217
80	1600.00	lb	-43 -254	-22 -233	1 -209	29 -181	62 -148	102 -108	150 -60	211 0	289 77	392 181	538 326
90	1800.00	lb	-6 -217	16 -194	43 -167	75 -136	112 -99	156 -54	211 0	279 68	366 155	483 272	647 435
100	2000.00	lb	29 -181	55 -155	85 -125	120 -90	161 -49	211 0	271 60	347 136	444 233	574 363	756 544
110	2200.00	lb	65 -145	94 -116	127 -83	165 -45	211 0	265 54	332 121	415 204	522 311	665 454	865 653
120	2400.00	lb	102 -108	133 -77	169 -41	211 0	260 49	320 108	392 181	483 272	600 389	756 544	974 762
130	2600.00	lb	138 -72	172 -38	211 0	256 45	310 99	374 163	453 242	551 340	678 467	846 635	1083 871
140	2800.00	lb	174 -36	211 0	253 41	302 90	359 148	429 217	513 302	619 408	756 544	937 726	1192 980
150	3000.00	lb	211 0	250 38	295 83	347 136	409 198	483 272	574 363	688 476	833 622	1028 817	1301 1089

<sup>1</sup>The top number in each cell is Returns Above Direct Expenses.

<sup>2</sup>The bottom number in each cell is Returns Above Total Specified Expenses.

<sup>3</sup> This is the breakeven price at the assumed (100%) budget yield. Prices to the left and right are for higher and lower yield levels.

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  
 Annual Ryegrass, Volunteer Seeding  
 Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Annual Ryegrass Seed			0.17	0.18	0.19	0.21	0.23	0.25 <sup>3</sup>	0.27	0.30	0.34	0.39	0.46
PERCENT	YIELD	UNIT	-----dollars-----										
50	875.00	lb	-84 <sup>1</sup>	-75	-64	-52	-38	-20	0	26	60	105	168
			-253 <sup>2</sup>	-244	-233	-221	-207	-189	-168	-142	-108	-63	0
60	1050.00	lb	-58	-47	-35	-20	-3	17	42	74	114	168	244
			-227	-216	-204	-189	-172	-151	-126	-94	-54	0	75
70	1225.00	lb	-33	-20	-6	10	30	55	84	121	168	232	320
			-202	-189	-175	-158	-138	-113	-84	-47	0	63	151
80	1400.00	lb	-8	6	22	42	65	93	126	168	223	295	396
			-177	-162	-146	-126	-103	-75	-42	0	54	126	227
90	1575.00	lb	17	33	52	74	99	131	168	216	277	358	472
			-151	-135	-116	-94	-69	-37	0	47	108	189	303
100	1750.00	lb	42	60	81	105	134	168	211	263	331	422	548
			-126	-108	-87	-63	-34	0	42	94	162	253	379
110	1925.00	lb	67	87	110	137	168	206	253	311	385	485	624
			-101	-81	-58	-31	0	37	84	142	216	316	455
120	2100.00	lb	93	114	139	168	203	244	295	358	440	548	700
			-75	-54	-29	0	34	75	126	189	271	379	531
130	2275.00	lb	118	141	168	200	238	282	337	406	494	611	776
			-50	-27	0	31	69	113	168	237	325	443	607
140	2450.00	lb	143	168	198	232	272	320	379	453	548	675	852
			-25	0	29	63	103	151	210	284	379	506	683
150	2625.00	lb	168	196	227	263	307	358	422	501	602	738	928
			0	27	58	94	138	189	253	332	433	569	759

<sup>1</sup>The top number in each cell is Returns Above Direct Expenses.

<sup>2</sup>The bottom number in each cell is Returns Above Total Specified Expenses.

<sup>3</sup>This is the breakeven price at the assumed (100%) budget yield. Prices to the left and right are for higher and lower yield levels.

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  
 Annual Ryegrass, No-Till Seeding  
 Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Annual Ryegrass Seed			0.19	0.20	0.22	0.23	0.25	0.27 <sup>3</sup>	0.30	0.34	0.38	0.44	0.52
PERCENT	YIELD	UNIT	-----dollars-----										
50	925.00	lb	-124 <sup>1</sup>	-113	-100	-86	-68	-48	-22	8	49	103	179
			-303 <sup>2</sup>	-292	-280	-265	-248	-227	-202	-170	-130	-75	0
60	1110.00	lb	-93	-80	-65	-48	-27	-2	27	65	114	179	270
			-273	-260	-245	-227	-206	-182	-151	-113	-65	0	91
70	1295.00	lb	-63	-48	-30	-10	13	42	78	122	179	255	361
			-242	-227	-210	-189	-165	-136	-101	-56	0	75	182
80	1480.00	lb	-32	-15	4	27	55	88	128	179	244	331	452
			-212	-195	-175	-151	-124	-91	-50	0	65	151	273
90	1665.00	lb	-2	16	39	65	96	133	179	236	309	407	543
			-182	-162	-140	-113	-82	-45	0	56	130	227	364
100	1850.00	lb	27	49	74	103	138	179	230	293	374	482	634
			-151	-130	-105	-75	-41	0	50	113	195	303	455
110	2035.00	lb	58	81	109	141	179	224	280	350	439	558	725
			-121	-97	-70	-37	0	45	101	170	260	379	546
120	2220.00	lb	88	114	144	179	220	270	331	407	504	634	816
			-91	-65	-35	0	41	91	151	227	325	455	637
130	2405.00	lb	118	146	179	217	262	316	381	464	569	710	907
			-60	-32	0	37	82	136	202	284	390	531	728
140	2590.00	lb	149	179	214	255	303	361	432	520	634	786	998
			-30	0	35	75	124	182	252	341	455	607	819
150	2775.00	lb	179	211	249	293	345	407	482	577	699	862	1090
			0	32	70	113	165	227	303	398	520	682	910

<sup>1</sup>The top number in each cell is Returns Above Direct Expenses.

<sup>2</sup>The bottom number in each cell is Returns Above Total Specified Expenses.

<sup>3</sup>This is the breakeven price at the assumed (100%) budget yield. Prices to the left and right are for higher and lower yield levels.

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.	
-----\$/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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