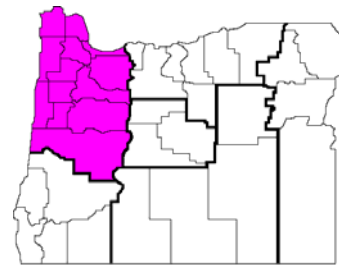


Enterprise Budget

Tall Fescue Seed, Establishment and Production North Willamette Valley Region

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This enterprise budget estimates the typical costs of establishing and producing tall fescue grass seed production in the northern portion of the Willamette Valley of Oregon. Straw residue is flailed twice and left 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 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 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 three production years.

A land lease charge of \$150 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

Tall 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 budget which is assumed to represent a stand life of three production years.

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. The break-even price of \$0.44 per pound 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. 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
Tall Fescue Establishment
North Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
TOTAL INCOME				0.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
16-16-16 LB	lb	0.25	250.0000	62.50	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.1200	2.70	_____
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	0.2000	0.04	_____
Lime	ton	56.00	0.4000	22.40	_____
Border Spray	acre	50.00	0.0200	1.00	_____
CHEM--HERBICIDE					
GlyphosateGAL1	gal	15.00	0.5000	7.50	_____
Bronate	gal	48.00	0.1250	6.00	_____
CHEM--INSECTICIDE					
Lorsban	gal	39.00	0.3750	14.63	_____
SEEDS & PLANTS					
TF Seed	lb	3.00	5.0000	15.00	_____
Machinery Labor					
Tractors	hour	16.00	0.9975	15.96	_____
Self-Propelled	hour	16.00	0.2200	3.54	_____
Pickup	hour	16.00	0.0460	0.74	_____
Truck w/ Tank	hour	16.00	0.0492	0.79	_____
DIESEL FUEL					
Tractors	gal	3.00	12.6175	37.85	_____
Self-Propelled	gal	3.00	1.2353	3.69	_____
Pickup	gal	3.00	0.2000	0.60	_____
Truck w/ Tank	gal	3.00	0.1499	0.45	_____
REPAIR & MAINTENANCE					
Implements	acre	5.78	1.0000	5.78	_____
Tractors	acre	18.66	1.0000	18.66	_____
Self-Propelled	acre	2.98	1.0000	2.98	_____
Pickup	mile	0.16	2.0000	0.33	_____
Truck w/ Tank	mile	1.20	1.5000	1.80	_____
INTEREST ON OP. CAP.	acre	14.03	1.0000	14.03	_____
TOTAL DIRECT EXPENSES				269.97	_____
RETURNS ABOVE DIRECT EXPENSES				-269.97	_____
FIXED EXPENSES					
Implements	acre	11.92	1.0000	11.92	_____
Tractors	acre	51.12	1.0000	51.12	_____
Self-Propelled	acre	9.13	1.0000	9.13	_____
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 NV PR	each	149.99	1.0000	150.00	_____
TOTAL FIXED EXPENSES				239.23	_____

TOTAL SPECIFIED EXPENSES	-----	509.20	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES		-509.20	_____
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Table 1.B Estimated costs and returns per acre
Tall Fescue Production
North Willamette Valley, 2010

ITEM	UNIT	PRICE	QUANTITY	AMOUNT	YOUR FARM
		dollars		dollars	
INCOME					
Tall Fescue Seed	lb	0.40	1700.0000	680.00	_____

TOTAL INCOME				680.00	_____
DIRECT EXPENSES					
CHEM--FERTILIZER					
16-16-16 LB	lb	0.25	200.0000	50.00	_____
40-0-0-6 LB	lb	0.21	355.0000	74.55	_____
0-0-60 LB	lb	0.33	60.0000	19.80	_____
CHEMI--OTHER					
Surfactant--Induce	gal	22.50	0.1200	2.70	_____
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					
Seed Crop Inspection	acre	3.00	1.0000	3.00	_____
CUSTOM, FLAT RATE					
Border Spray	acre	50.00	0.0200	1.00	_____
CHEM--HERBICIDE					
AxiomLB	lb	23.00	0.7500	17.25	_____
Goal	gal	82.75	0.0500	4.14	_____
Diuron	lb	4.50	2.0000	9.00	_____
2,4-D	gal	27.00	0.2000	5.40	_____
Banvel	gal	63.00	0.1250	7.88	_____
CUSTOM, YIELD PROP.					
Seed Clean & Bag(SV)	cwt	8.00	17.0000	136.00	_____
CHEM--FUNGICIDE					
Quilt/Fungicide	gal	128.00	0.1560	19.97	_____
FEES, PROPORTIONAL					
Commission Assess TF	cwt	0.15	13.5000	2.13	_____
Purity and Germ TF	cwt	0.13	13.5000	1.76	_____
Operator Labor					
Self-Propelled	hour	8.65	0.1936	1.67	_____
Machinery Labor					
Tractors	hour	16.00	0.3614	5.78	_____
Self-Propelled	hour	16.00	0.6178	9.91	_____
Pickup	hour	16.00	0.1150	1.84	_____
Truck w/ Tank	hour	16.00	0.1314	2.10	_____
Harvest Truck	hour	16.00	0.0492	0.79	_____
DIESEL FUEL					
Tractors	gal	3.00	3.0642	9.19	_____
Self-Propelled	gal	3.00	4.9691	14.89	_____
Pickup	gal	3.00	0.5000	1.50	_____
Truck w/ Tank	gal	3.00	0.3999	1.20	_____
Harvest Truck	gal	3.00	0.1499	0.45	_____
REPAIR & MAINTENANCE					
Implements	acre	1.90	1.0000	1.90	_____
Tractors	acre	3.80	1.0000	3.80	_____
Self-Propelled	acre	22.13	1.0000	22.13	_____
Pickup	mile	0.16	5.0000	0.83	_____
Truck w/ Tank	mile	1.20	4.0000	4.80	_____
Harvest Truck	mile	1.50	1.5000	2.25	_____
INTEREST ON OP. CAP.	acre	14.94	1.0000	14.94	_____

TOTAL DIRECT EXPENSES				510.85	_____
RETURNS ABOVE DIRECT EXPENSES				169.15	_____
FIXED EXPENSES					
Implements	acre	2.89	1.0000	2.89	_____
Tractors	acre	8.67	1.0000	8.67	_____
Self-Propelled	acre	59.94	1.0000	59.94	_____
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 NV PR	each	149.99	1.0000	150.00	_____
AMORT. EST. COST	acre	204.76	1.0000	204.76	_____
TOTAL FIXED EXPENSES				447.07	_____
TOTAL SPECIFIED EXPENSES				957.92	_____
RETURNS ABOVE TOTAL SPECIFIED EXPENSES				-277.92	_____

Table 2.A Estimated resource use and costs for field operations, per acre
 Tall Fescue Establishment
 North 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 Sample	acre											0.2000	0.20	0.04	0.04
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
DISK				1.00	Aug										
Disk	20	215	0.097			8.97	7.30	0.82	2.04	0.11	1.79				20.92
HARROW & ROLL				1.00	Aug										
Harrow	20 ft	215	0.138			10.52	10.43	0.36	0.89	0.15	2.55				24.75
Roller	20 ft		0.138					0.28	1.04						1.32
LIME				0.20	Aug										
Lime	ton											0.4000	56.00	22.40	22.40
HARROW & ROLL				1.00	Aug										
Harrow	20 ft	215	0.138			10.52	10.43	0.36	0.89	0.15	2.55				24.75
Roller	20 ft		0.138					0.28	1.04						1.32
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											0.0600	22.50	1.35	1.35
SEEDLING WEED CNTRL.				1.00	Feb										
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	Mar										
Drill	13 ft	140	0.139			5.09	3.85	0.96	1.92	0.16	2.57				14.39
TF Seed	lb											5.0000	3.00	15.00	15.00
FERTILIZE - SPRING				1.00	Mar										
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
BROADLEAF WEED CNTRL				1.00	Apr										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Bronate	gal											0.1250	48.00	6.00	6.00
INSECT CONTROL				1.00	Apr										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Lorsban	gal											0.3750	39.00	14.63	14.63
BORDER SPRAY				1.00	Jun										
Border Spray	acre											0.0200	50.00	1.00	1.00
FLAIL				1.00	Jul										
Flail	14 ft	140	0.157			6.50	4.33	0.95	1.44	0.18	2.89				16.11
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
Land Rent NV PR	each								150.00			1.0000			150.00
Truck w/ Tank	each								4.51			0.0008			4.51
Application 1	mile							2.25		0.04	0.79	1.5000			3.04
Pickup	each								5.60			0.0008			5.60
Application 1	mile							0.93		0.04	0.74	2.0000			1.67
Mach/Equip Ins, Hi	each								6.95			1.0000			6.95

TOTALS	63.18	60.25	8.96	178.98	1.31	21.03	162.77	495.17
INTEREST ON OPERATING CAPITAL								14.03
UNALLOCATED LABOR								0.00
TOTAL SPECIFIED COST								509.20

Table 2.B Estimated resource use and costs for field operations, per acre
 Tall Fescue Production
 North 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 WEED CONTROL				1.00	Oct										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
AxiomLB	lb											0.7500	23.00	17.25	17.25
FALL WEED CONTROL				1.00	Nov										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
Goal	gal											0.0500	82.75	4.14	4.14
Diuron	lb											2.0000	4.50	9.00	9.00
FALL FERTILIZER				1.00	Nov										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
16-16-16 LB	lb											200.0000	0.25	50.00	50.00
BROADLEAF WEED CNTRL				1.00	Jan										
Spray Bug60 7 mph	60'		0.030			1.22	1.93			0.03	0.56				3.71
2,4-D	gal											0.2000	27.00	5.40	5.40
Banvel	gal											0.1250	63.00	7.88	7.88
Surfactant--Induce	gal											0.0600	22.50	1.35	1.35
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
40-0-0-6 LB	lb											240.0000	0.21	50.40	50.40
0-0-60 LB	lb											60.0000	0.33	19.80	19.80
FERTILIZE - SPRING				1.00	Mar										
Fertilizer Buggy	20		0.070			1.79	1.41			0.08	1.30				4.50
40-0-0-6 LB	lb											115.0000	0.21	24.15	24.15
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
FUNGICIDE				1.00	Jun										
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											0.0600	22.50	1.35	1.35
BORDER SPRAY				1.00	Jun										
Border Spray	acre											0.0200	50.00	1.00	1.00
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
FLAIL				2.00	Jul										
Flail	14 ft	140	0.157			12.99	8.67	1.90	2.89	0.36	5.78				32.23
CLEAN & BAG SEED				1.00	Jul										
Seed Clean & Bag(SV)	cwt											17.0000	8.00	136.00	136.00
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 TF	cwt											13.5000	0.15	2.13	2.13
Purity and Germ TF	cwt											13.5000	0.13	1.76	1.76
Land Rent NV PR	each			1.00	Jul				150.00			1.0000			150.00
Truck w/ Tank	each			1.00	Jul				4.51			0.0008			4.51
Application 1	mile							6.00		0.13	2.10	4.0000			8.10

Harvest Truck	each	1.00	Jul			3.75			0.0008	3.75	
Application 1	mile			2.70			0.04	0.79	1.5000	3.49	
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	
AMORT. EST. COST	acre		Jul						1.0000	204.76	
				-----				-----			
TOTALS				50.01	68.61	12.93	173.70	1.46	22.09	410.88	942.98
INTEREST ON OPERATING CAPITAL											14.94
UNALLOCATED LABOR											0.00
TOTAL SPECIFIED COST											957.92

Table 3 Breakeven price above total expenses and net returns for price/yield combinations, per acre
 Tall Fescue Production
 North Willamette Valley, 2010

			-----BREAKEVEN PRICE-----										
Tall Fescue Seed			0.32	0.34	0.35	0.38	0.41	0.44 ³	0.48	0.53	0.59	0.68	0.80
PERCENT	YIELD	UNIT	-----dollars-----										
50	850.00	lb	-165 ¹ -408 ²	-151 -393	-134 -376	-114 -357	-91 -333	-63 -306	-29 -272	12 -229	67 -174	140 -102	242 0
60	1020.00	lb	-124 -367	-107 -349	-87 -329	-63 -306	-35 -278	-2 -244	38 -204	89 -153	154 -87	242 0	364 122
70	1190.00	lb	-84 -326	-63 -306	-40 -282	-12 -255	19 -222	58 -183	106 -136	165 -76	242 0	344 102	487 244
80	1360.00	lb	-43 -285	-20 -262	6 -235	38 -204	75 -166	119 -122	174 -68	242 0	329 87	446 204	609 367
90	1530.00	lb	-2 -244	23 -218	53 -188	89 -153	131 -111	181 -61	242 0	318 76	417 174	548 306	731 489
100	1700.00	lb	38 -204	67 -174	101 -141	140 -102	186 -55	242 0	310 68	395 153	504 262	650 408	854 612
110	1870.00	lb	79 -163	111 -131	148 -94	191 -51	242 0	303 61	378 136	471 229	592 349	752 510	976 734
120	2040.00	lb	119 -122	154 -87	195 -47	242 0	297 55	364 122	446 204	548 306	679 437	854 612	1099 856
130	2210.00	lb	160 -81	198 -43	242 0	293 51	353 111	425 183	514 272	624 382	766 524	956 714	1221 979
140	2380.00	lb	201 -40	242 0	289 47	344 102	409 166	487 244	582 340	701 459	854 612	1058 816	1344 1101
150	2550.00	lb	242 0	286 43	336 94	395 153	464 222	548 306	650 408	777 535	941 699	1160 918	1466 1224

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
									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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