



2019 Direct Seed Budgets for Northern Idaho:

Winter wheat, soft white spring wheat & dark northern spring (DNS) wheat Spring barley, dry peas, lentils, canola, garbanzos, and various cover crops

Assuming a 2500-acre farm

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Photo: Kate Painter

INSTRUCTIONS AND ASSUMPTIONS

General Instructions:

A color coding system is used to indicate the source of the data for each budget and to show which data can be adjusted. Numbers in red type can be changed without affecting the underlying equations in this cost calculator. Numbers in purple type cells are from the Summary sheet (click on yellow Summary tab). In the Summary sheet both crop price and yield are in red type, which means you are in the right place to make changes. Adjusting any of those numbers will automatically update calculations throughout the spreadsheet, which is very useful for sensitivity analyses. You can quickly compare price and yield changes by crop and rotation on net returns and land costs. You can also see rotational impacts. For example, if you know that a crop will have a higher yield in a particular sequence, adjust the crop yield in the upper table and see the rotational impact in the second table. You can save the file with this data, then create another scenario and save it as a different file. The graphical tab will illustrate the results of these changes automatically.

Input Prices:

By entering input prices on the Input Prices sheet (click on the green Input Prices tab), all of the cost calculations will be automatically updated. Input cost changes can also be made on individual crop price sheets, over-riding the input cost formulae on that particular crop budget. Fertilizer and chemical prices are based on an annual survey of input suppliers. These prices are subject to change, however, and will affect the profitability of different crops. A list of the average prices from each year's survey can be found on our Extension website, www.IdahoAgBiz.com, under Crop Budgets.

Crop Prices:

Crop prices can be adjusted on the Summary tab and the effects of this change will be reflected throughout all the budgets. (Yields can be adjusted similarly.) Grain prices are based on futures prices for July and August, as of January 2018, FOB Lind, Washington. (Source: Union Elevator, http://www.unionelevator.com). Canola cash prices are from northerncanola.com for Apr 2009.

Machinery Costs:

The machinery complement and associated hourly machinery cost data are in the last two sheets. The hourly machinery cost data are used to create the individualized machinery cost data for each budget, located in a separate tab for each crop. In the crop budget sheets, entries in blue cells are calculated by the machinery cost program and come from the associated Machinery Cost sheet for that crop. Machinery fixed costs include capital recovery costs, property taxes, insurance, and housing. For the overall farm operation, these costs do not vary by crop, given the ownership of a specific machinery complement, and are incurred whether or not crops are grown. Your per acre fixed costs will change if the farm size differs significantly from the size used in these budgets.

Land Costs:

Land costs, included either as real or as opportunity costs, are based on a typical share rental arrangement. We calculate net land rental cost as a cost share as follows:

1/3 Crop Value – (1/3 Fertilizer Cost + 1/3 Crop Insurance + Land Taxes)

A typical lease agreement in the areas surveyed is a one-third land owner and two-third tenant crop share, with the land owner paying land taxes, one-third of the fertilizer cost and one-third of the crop insurance. The tenant covers all other production expenses. **This crop-share percentage can be adjusted in the crop worksheets**. If the percentage is adjusted on the Summary tab, it is changed for all crops. If you want different crop-share percentages for different crops, adjust the percentage on the budget sheet for that crop. This valuable tool reveals how factors such as crop and input price increases as well as cropping choices affect revenue for landlords and operators differently.

While the owner-operator will not actually experience a land rental cost, this cost represents the minimum return owner-operators must realize to justify growing the crop themselves. To determine the profitability of crop production relative to other activities, the owner-operator may want to consider these forgone rental returns along with the usual production expenses.

General Assumptions:

Since farming is inherently variable and constantly changing, we hope that this spreadsheet format will be helpful in adjusting these budgets to reflect your particular operation. Enterprise costs and returns vary from one location to the next and over time for any particular farming operation. Variability stems from differences in the following:

- Capital, labor, and natural resources
- Type and size of machinery complement
- Cultural practices
- Size of farm enterprise
- Crop yields
- Input prices
- Commodity prices
- Management skill

Please examine closely the assumptions we have used and make adjustments to reflect your particular operation. Adjustments in the variable costs can easily be made without affecting the overall accuracy of the budget information. Machinery costs are more difficult to adjust, due to the underlying complexity of machinery cost calculations. A separate machinery cost calculator program is used to develop the costs used in these budgets, which are based on specific machinery widths, tractor horsepower, type of operation, etc. The machinery cost program and data sets specific to this budget are available upon request.

Acknowledgments:

I wish to thank everyone who helped gather all of the information needed to create these worksheets. First and foremost, I thank the farmers who were willing to take the time to share their enterprise information in order to create this worksheet. Without their assistance we would not be able to provide this critical information to others. However, I take responsibility for any errors in these budgets.

Budget spreadsheets are available at the following link:

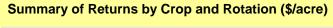
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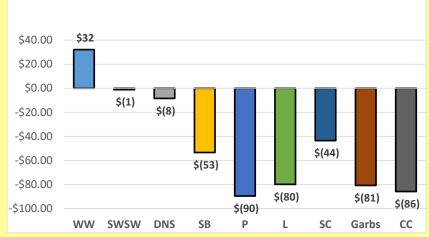
2019 Direct Seed Budgets for Northern Idaho

Summary of Returns by Crop and Rotation (\$/acre/yr)

Note: You may adjust yield, price, and crop-share % information in orange type.

All land cost (crop-share) and other dat	a will a	adjust auto	omatically throug	hout.					Crop & Cost	
			2019							
			Farmgate		Total	Returns	Total	Returns	Share**	
		Yield	Price Estimate		Cost of	over TC	Variable	over VC	Operator:	67% Operator
By Crop:		per acre	<u>per unit</u>		<u>Operation</u>	<u>(\$/acre)</u>	<u>Costs</u>	<u>(\$/acre)</u>	Owner:	33% Owner
Soft White Winter Wheat (SWW)	bu	90	\$5.50	\$495	\$463	\$32	\$251	\$244	\$130	
Soft White Spring Wheat (SWSW)	bu	65	\$5.50	\$358	\$359	-\$1	\$202	\$156	\$82	
Dark Northern Spring Wheat (DNSW)	bu	60	\$6.00	\$360	\$368	-\$8	\$211	\$149	\$77	
Spring Barley (SB)	ton	1.8	\$125.00	\$225	\$278	-\$53	\$160	\$65	\$50	
Peas (P)	lb 	2000	\$0.11	\$220	\$310	-\$90	\$ 5	\$215	\$15	
Lentils (L)	lb 	1200	\$0.11	\$132	\$212	-\$80	\$0	\$132	\$7	
Spring Canola (SC)	lb 	1800	\$0.16	\$288	\$332	-\$44	\$191	\$97	\$74	
Garbanzos (G)	lb	1400	\$0.18	\$252	\$333	-\$81	\$187	\$65	\$68	
Value blend cover crop mix	ac			\$0	\$86	-\$86	\$52	-\$52	\$0	
Soil builder cover crop mix	ac			\$0	\$97	-\$97	\$63	-\$63	\$0	
Grazing blend cover crop mix	ac			\$0	\$93	-\$93	\$59	-\$59	\$0	
Fall seeded N fixing cover crop mix	ac			\$0	\$100	-\$100	\$66	-\$66	\$0	
				_	Total	D . 4	Total	5.4		
				Revenue	Cost of	Returns	Variable	Returns	Crop & Cost	
By Potation:				per acre	Operation	over TC	Costs	over VC	Share**	
By Rotation:				per acre (\$/acre)	Operation (\$/acre)	over TC <u>(\$/acre)</u>	Costs (\$/acre)	over VC <u>(\$/acre)</u>	Share** (\$/acre)	
WW_SWSW_SC				per acre (\$/acre) \$380	Operation (\$/acre) \$384	over TC (\$/acre) -\$4	Costs (<u>\$/acre)</u> \$214	over VC (\$/acre) \$166	Share** (\$/acre) \$95	
WW_SWSW_SC WW_SWSW_P				per acre (\$/acre) \$380 \$358	Operation (\$/acre) \$384 \$377	over TC (<u>\$/acre)</u> -\$4 -\$20	Costs (\$/acre) \$214 \$152	over VC (\$/acre) \$166 \$205	\$hare** (\$/acre) \$95 \$75	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L				per acre (\$/acre) \$380 \$358 \$328	Operation (\$/acre) \$384 \$377 \$344	over TC (\$/acre) -\$4 -\$20 -\$16	Costs (\$/acre) \$214 \$152 \$151	over VC (\$/acre) \$166 \$205 \$177	Share** (\$/acre) \$95 \$75 \$73	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G				per acre (\$/acre) \$380 \$358 \$328 \$368	Operation (\$/acre) \$384 \$377 \$344 \$385	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17	Costs (\$/acre) \$214 \$152 \$151 \$213	over VC (\$/acre) \$166 \$205 \$177 \$155	\$hare** (\$/acre) \$95 \$75 \$73 \$93	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381 \$358	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381 \$358 \$329	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381 \$358 \$329 \$369	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153	Share** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G WW_DNSW_G WW_DNSW_G				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381 \$358 \$329 \$369 \$285	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388 \$388	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19 -\$19	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216 \$171	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153 \$114	Share** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92 \$69	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G WW_DNSW_G WW_DNSW_CC WW_SB_SC				per acre (\$/acre) \$380 \$358 \$328 \$368 \$284 \$381 \$358 \$329 \$369 \$285 \$336	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388 \$388 \$388 \$388 \$388 \$388	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19 -\$19 -\$21	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216 \$171 \$201	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153 \$114 \$135	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92 \$69 \$85	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G WW_DNSW_G WW_DNSW_CC WW_SB_SC WW_SB_P				\$380 \$358 \$328 \$368 \$328 \$368 \$284 \$381 \$358 \$329 \$369 \$285 \$336 \$313	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388 \$306 \$358 \$350	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19 -\$19 -\$21 -\$22 -\$37	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216 \$171 \$201 \$138	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153 \$114 \$135 \$175	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92 \$69 \$85 \$65	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G WW_DNSW_G WW_DNSW_CC WW_SB_SC WW_SB_P WW_SB_L				\$380 \$358 \$328 \$368 \$284 \$381 \$358 \$329 \$369 \$285 \$336 \$313 \$284	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388 \$350 \$318	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19 -\$19 -\$21 -\$22 -\$37 -\$34	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216 \$171 \$201 \$138 \$137	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153 \$114 \$135 \$175 \$147	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92 \$69 \$85 \$65 \$63	
WW_SWSW_SC WW_SWSW_P WW_SWSW_L WW_SWSW_G WW_SWSW_CC WW_DNSW_SC WW_DNSW_P WW_DNSW_L WW_DNSW_G WW_DNSW_G WW_DNSW_CC WW_SB_SC WW_SB_P				\$380 \$358 \$328 \$368 \$328 \$368 \$284 \$381 \$358 \$329 \$369 \$285 \$336 \$313	Operation (\$/acre) \$384 \$377 \$344 \$385 \$302 \$388 \$380 \$348 \$388 \$306 \$358 \$350	over TC (\$/acre) -\$4 -\$20 -\$16 -\$17 -\$18 -\$7 -\$22 -\$19 -\$19 -\$21 -\$22 -\$37	Costs (\$/acre) \$214 \$152 \$151 \$213 \$168 \$218 \$156 \$154 \$216 \$171 \$201 \$138	over VC (\$/acre) \$166 \$205 \$177 \$155 \$116 \$163 \$203 \$175 \$153 \$114 \$135 \$175	\$hare** (\$/acre) \$95 \$75 \$73 \$93 \$71 \$94 \$74 \$72 \$92 \$69 \$85 \$65	

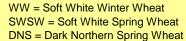




Farmgate Crop Prices:

WW	\$5.50
SWSW	\$5.50
DNS	\$6.00
SB	\$125.00
Р	\$0.11
L	\$0.11
SC	\$0.16
Garbs	\$0.18

Legend:



SB = Spring Barley

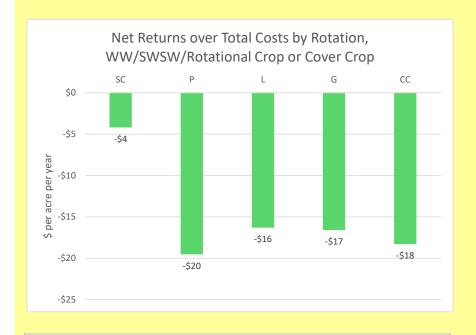
P = Peas

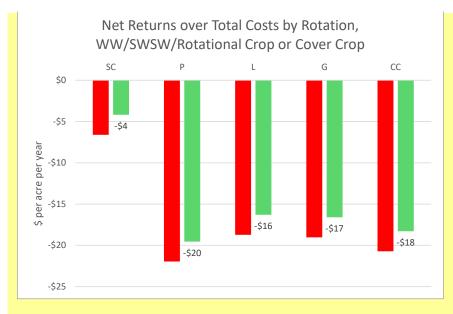
L = Lentils

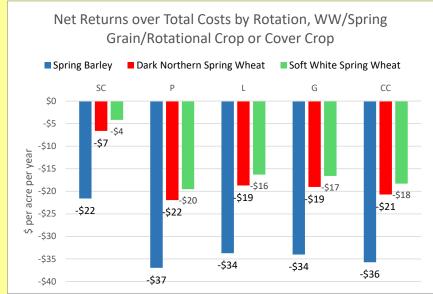
SC = Spring Canola

G = Garbanzos

CC = Cover Crop (Value Blend)







	Prices		
Note: Changing prices her sp	re will cha readshee		the
		2018	
	Unit	Price/unit	
Fuel:			
Diesel (gal)	gal	\$3.23	
Gas (gal)	gal	\$3.19	
Seed:			
Wheat Seed (lb)	lb	\$0.27	
Barley Seed (lb)	lb	\$0.23	
Dark Northern Spring Wheat	lb	\$0.30	
Spring Pea Seed	lb	\$0.38	
Lentil Seed	lb	\$0.41	
Garbanzo Seed	lb	\$0.60	
Canola Seed, Roundup Ready	lb	\$10.15	
Fertilizer:			
Nitrogen	lb	\$0.46	
Phosphorous	lb	\$0.43	
Sulfur	lb		
Potassium	lb	\$0.37 \$0.29	
Fotassium	ID	\$0.25	
Adjuvants:			
Ammonium Sulfate (liquid)	OZ	\$0.01	
Ammonium Sulfate (20-0-0-24)	lb	\$0.58	
Crop Oil Concentrate	pt	\$1.44	
In-Place	oz	\$0.31	
M90	oz	\$0.17	
Surfactant	oz	\$0.24	
Syltac Sticker	pt	\$6.25	
Custom Rental:			
26' Rental Shredder	acre	\$10.00	
36' Ripper Shooter	acre	\$2.50	
90' Rental Sprayer	acre	\$2.00	
Custom Aerial	acre	\$8.95	
Fertilizer Applicator	acre	\$2.00	
Pesticides:			
2,4-DB	oz	\$0.29	
2,4-DB Achieve SC	OZ OZ	\$1.17	

	Prices	
Affinity BS	OZ	\$10.67
Ally	oz	\$1.50
Assure II	oz	\$0.86
Axial Star	oz	\$1.15
Bronate	pt	\$6.88
Brox M	OZ	\$0.37
Capture	OZ	\$2.64
Dimethoate	pt	\$7.00
Discover	oz	\$1.47
FarGO	qt	\$16.66
Finesse	oz	\$17.34
Glyphosate	OZ	\$0.13
Huskie	OZ	\$0.96
Imidan 70	lb	\$15.04
Maverick	OZ	\$20.77
Osprey	oz	\$4.39
Poast	pt	\$16.77
Power Flex	oz	\$7.75
Priaxor	oz	\$4.97
Prowl	OZ	\$0.45
Pursuit	OZ	\$3.53
Quadris	OZ	\$0.98
Quilt	OZ	\$1.29
R-11	OZ	\$0.23
Starane	oz	\$0.67
Starane + Salvo	oz	\$0.67
Starane + Sword	OZ	\$0.67
Tilt	OZ	\$0.77
Wildcard	OZ	\$0.31
Crop Insurance ¹ :		
Soft white winter wheat	acre	\$20.00
Soft white spring wheat	acre	\$16.00
Dark Northern spring wheat	acre	\$17.00
Spring peas	acre	\$22.00
Spring lentils	acre	\$22.00
Garbanzos	acre	\$22.00
Canola	acre	\$18.00
Labor:		
Hourly machine labor*	acre	\$20.00

	Prices	
Cash Rent:		
Cash Rent	acre	\$0.00
Land Tax:		
Land Tax	acre	\$5.50
Overhead:	percent	5.00%
Interest:		
Operating Loan	percent	5.00%
Machinery Loan/investment	percent	5.75%

^{*}Includes all applicable state and federal taxes.

¹Crop insurance estimates include multi-peril crop insurance covering 85% of production for most crops (with the exception of 75% for pulses) plus fire and hail insurance.

Production Costs for Direct Seeded Soft White Winter Wheat, Northern Idaho

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Gross Returns Wheat	90	bu	\$5.50	\$495.00
Variable Costs				
Seed:				\$24.30
Wheat Seed	90.00	lb	\$0.27	\$24.30
Fertilizer:	00.00		\$0.40	\$64.70
Nitrogen (dry) Phosphorous (dry)	93.00 23.00	lb lb	\$0.46 \$0.43	\$42.78 \$9.89
Potassium	30.00	lb	\$0.29	\$8.70
Sulfur (dry)	9.00	lb	\$0.37	\$3.33
				\$0.00
Pesticides:			40.40	\$44.08
Roundup Ammonium Sulfate	36.00 3.40	oz Ib	\$0.13 \$0.58	\$4.68 \$1.97
M90	3.00	OZ	\$0.17	\$0.51
Osprey	4.75	oz	\$4.39	\$20.85
Starane+Salvo	22.00	oz	\$0.67	\$14.74
R-11	3.20	OZ	\$0.23	\$0.74
Brox M	1.60	OZ	\$0.37	\$0.59 \$0.00
Fungicides:				\$21.19
Quilt	14	oz	\$1.29	\$18.06
Syltac Sticker	0.5	pt	\$6.25	\$3.13
Machinery:				\$38.68
Fuel	3.28	gal	\$3.23	\$10.60
Lubricants Machinery Repairs	1	acre	\$1.60 \$10.37	\$1.60 \$10.37
Machinery Repairs Machinery Labor	0.81	acre hour	\$20.00	\$10.37 \$16.12
Machinery Labor	0.01	riodi	Ψ20:00	\$0.00
Custom & Consultants:				\$8.95
Custom Aerial	1	acre	\$8.95	\$8.95
				\$0.00
Other: Crop insurance	1	acre	20.00	\$20.00 \$20.00
Storage Facility & Equip. Repairs.	'	acie	20.00	\$0.00
Storage Facility & Equip. Repairs.				\$0.00
Operating Interest ¹				\$7.53
Total Variable Costs Variable Costs per Unit				\$250.61 \$2.78
Net Returns Above Variable Cos	ts			\$244.39

Production Costs for Direct Seeded Soft White Winter Wheat, Northern Idaho

Eivad Coata				
Fixed Costs:			\$18.95	\$18.95
Machinery depreciation				
Machinery interest			\$13.72	\$13.72
Machinery insurance, taxes, housing	ig, licenses		\$7.05	\$7.05
Land Cost*	1	acre	\$129.90	\$129.90
*Based on Share Rent Percentage:				
Landlord	33.00%			
Tenant	67.00%			
Overhead ²				\$11.10
Cash rent				\$0.00
Management fee ³				\$26.00
——————————————————————————————————————				
Land taxes				\$5.50
Total Fixed Costs				\$212.21
Fixed Costs per Unit				\$2.36
•				
Total Costs per Acre				\$462.82
Total Cost per Unit				\$5.14
Total Cost per offic				ψ0.14
Poturno to Dick				¢22.40
Returns to Risk				\$32.18

Notes:

Details on variable and fixed machinery costs, including fuel, repairs, and machine labor, are located in the

Winter Wheat Machinery Costs table.

Breakeven Analysis:	-	Base	+
	10%		10%
		Yield	
<u>Price</u>	81.00	90	99.00
Operating Cost Breakeven	\$3.09	\$2.78	\$2.53
Ownership Cost Breakeven	\$2.62	\$2.36	\$2.14
Total Cost Breakeven	\$5.71	\$5.14	\$4.67
		Price	
<u>Yield</u>	\$4.95	\$5.50	\$6.05
Operating Cost Breakeven	50.6	45.6	41.4
Ownership Cost Breakeven	42.9	38.6	35.1
Total Cost Breakeven	93.5	84.1	76.5

¹Calculated at 6.75% interest on operating capital for 9 months.

²Covers legal, accounting, and utility fees. Calculated as 5% of operating expenses.

³The management fee is calculated as a 5% of gross revenue.

Schedule of	of Operations for Direct	ct Seeded Winter Wheat, North	ern Idaho
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 1.5 oz M90
September	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs AMS
		450HP-WT, 36' Direct Seed Drill,	
September	Drill	Fertilizer Tanks & Pumps	90 lb seed, 110 lb N, 5 lb P, 15 lb S
April	Crop Insurance		
7 фтп	Crop insurance		4.75 oz Osprey, 22 oz
April	Spray Weeds	200HP-WT, 100' Sprayer	Starane+Salvo, 3.2 oz R-11, 1.6 oz Brox M
June	Aerial Spray	Airplane	Custom Aerial, 14 oz Quilt, .5 pt Syltac Sticker
August	Harvest	36' Combine	

Production Costs for Direct Seeded Soft White Spring Wheat, Northern Idaho

Phosphorous (dry)		Quantity		Price or	Value or
Soft White Wheat 65 bu \$5.50 \$357 Variable Costs Seed: \$27.00 Soft White Wheat Seed 100 ib \$0.27 \$27.00 Fertilizer: \$55.55 Whitegen (dry) 100 ib \$0.46 \$46 Phosphorous (dry) 5 ib \$0.43 \$25 Potassium (dry) 0 ib \$0.29 \$0 Suffer (dry) 20 ib \$0.37 \$27.98 Pesticides: \$27.98 \$27.98 \$27.98 Roundup 36 02 \$0.13 \$4 Meyo 3 02 \$0.17 \$0 Ammonium Sulfate 3.4 ib \$0.58 \$1 Arial 8.2 02 \$0.37 \$4 Starane 8 02 \$0.67 \$5 InPlace 5 02 \$0.31 \$1 Strace Sticker 0.5 pt \$6.25 \$3 Machin	Item	Per Acre	Unit	Cost/Unit	Cost/Acre
Variable Costs Seed: \$27.00 Seed: \$28.00 Seed		0.5	h	AF FO	\$057.5 (
Seed:		65	bu	\$5.50	JC.1CC¢
Soft White Wheat Seed 100 lb \$0.27 \$27 Fertilizer: \$55.55 \$55.55 Nitrogen (dry) 100 lb \$0.46 \$46 Phosphorous (dry) 0 lb \$0.43 \$2 Potassium (dry) 0 lb \$0.29 \$30 Sulfur (dry) 20 lb \$0.37 \$30 Pesticides: \$27.98 \$30 \$32 Roundup 36 02 \$0.13 \$4 M90 3 02 \$0.17 \$30 Ammonium Sulfate 3.4 lb \$0.58 \$1 Axial 8.2 02 \$1.15 \$3 Brox M 12 02 \$0.37 \$4 Starane 8 02 \$0.67 \$5 InPlace 5 02 \$0.31 \$1 Ammonium Sulfate 3.2 02 \$0.07 \$5 Fungicles: \$20.07 \$3 \$1					
Fertilizer: Nitrogen (dry) 100 1b \$0.46 \$46		400		#0.07	
Nitrogen (dry)		100	ID	\$0.27	
Phosphorous (dry)		100	lh	\$0.46	\$55.55
Potassium (dry)				* * * *	\$2.15
Pesticides:				\$0.29	\$0.00
Pesticides:	Sulfur (dry)	20	lb	\$0.37	\$7.40
Roundup 36					\$0.00
M90		26		¢0.42	
Ammonium Sulfate				•	\$4.68 \$0.51
Axial 8.2 oz \$1.15 \$9 Brox M 12 oz \$0.37 \$4 Starane 8 oz \$0.67 \$5 InPlace 5 oz \$0.31 \$1 Ammonium Sulfate 3.2 oz \$0.01 \$0 Funglicides: \$21.19 Quilt 14 oz \$1.29 \$18 Syltac Sticker 0.5 pt \$6.25 \$3 Machinery: \$39.96 Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Repairs 1 acre \$10.83 \$10 Other Labor \$8.95 \$8 Custom & Consultants: \$8.95 \$8 Rental Sprayer 0 acre \$2.00 \$6 Custom Aerial 1 acre \$16.00 \$6 Other: \$1 acre \$16.00 \$16 Crop insurance 1 acre \$16.00 \$6 Storage Facility & Equip. Repairs \$3 Variable Costs \$3					\$1.97
Starane 8 oz \$0.67 \$5 InPlace 5 oz \$0.31 \$1 Ammonium Sulfate 3.2 oz \$0.01 \$0 Fungicides: \$21.19 \$1 Quilt 14 oz \$1.29 \$18 Syltac Sticker 0.5 pt \$6.25 \$3 Machinery: \$39.96 \$30.00 \$39.96 Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$1.65 \$1 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$0 acre \$2.00 \$0 Custom & Consultants: \$8.95 \$8 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$0				•	\$9.43
InPlace 5 oz \$0.31 \$1 Ammonium Sulfate 3.2 oz \$0.01 \$0 Funglicides: \$21.19 \$18 Quilt 14 oz \$1.29 \$18 Sytac Sticker 0.5 pt \$6.25 \$3 Machinery: \$39.96 \$10 \$3.23 \$10 Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$0 \$0 \$0 Custom & Consultants: \$8.95 \$8 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Storage Facility & Equip. Repairs \$0 \$16.00 Other: \$16.00 \$16 \$0 Crop insurance 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$4 \$4 Total Variable Costs \$3 \$3 Net Returns Above Variable Costs \$15 \$15 Fixed			oz		\$4.44
Ammonium Sulfate 3.2 oz \$0.01 \$0.01 \$0.00					\$5.36
Fungicides: Quilt					\$1.55 \$0.04
Quilt 14 oz \$1.29 \$18 Syltac Sticker 0.5 pt \$6.25 \$3 Machinery: \$39.96 Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$8.95 \$8 Custom & Consultants: \$8.95 \$8 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16.00 Operating Interest of total Variable Costs \$201 \$3 Variable Costs per Unit \$3 \$3 Net Returns Above Variable Costs \$155 Machinery depreciation \$19.56 \$19 Machinery interest \$14.23 \$14		5.2	0Z	ψ0.01	
Syltac Sticker 0.5 pt \$6.25 \$33 Machinery: \$39.96 \$39.96 Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Custom & Consultants: \$8.95 \$8 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16 \$16 Storage Facility & Equip. Repairs 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$4 \$3 \$0 Operating Interest ¹ \$4 \$4 \$3 Variable Costs per Unit \$3 \$3 \$4 \$3 Net Returns Above Variable Costs \$15 \$15 Machinery interest \$19.56 \$19 Machinery interest		14	07	\$1.29	\$18.06
Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$8.95 Custom & Consultants: \$8.95 Rental Sprayer 0 acre \$2.00 \$8 Custom Aerial 1 acre \$8.95 Other: \$16.00 Other: \$16.00 Other: \$16.00 Custom & Consultants: \$8.95 Rental Sprayer 0 acre \$2.00 \$8 So Other: \$16.00 Other: \$16.00 Torop insurance 1 acre \$16.00 Storage Facility & Equip. Repairs \$1 Total Variable Costs Variable Costs Fixed Costs: \$155 Fixed Costs: \$19.56 Machinery interest \$14.23					\$3.13
Fuel 3.39 gal \$3.23 \$10 Lubricants 1 acre \$1.65 \$1 Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$8.95 \$8 \$0 Custom & Consultants: \$8.95 \$0 \$0 Custom Aerial 1 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16.00 \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16.00 \$16 Storage Facility & Equip. Repairs \$0 \$0 \$16 \$16 \$10 Operating Interest ¹ \$4 \$4 \$1	Machinery:				\$39.96
Machinery Repairs 1 acre \$10.83 \$10 Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$0 acre \$2.00 \$0 Custom & Consultants: \$8.95 \$0 \$0 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$0 Other: \$16.00 \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16.00 Storage Facility & Equip. Repairs \$0 \$0 Operating Interest ¹ \$4 \$4 Total Variable Costs \$200 \$3 Variable Costs per Unit \$3 \$3 Net Returns Above Variable Costs \$155 Fixed Costs: \$19.56 \$19 Machinery depreciation \$14.23 \$14		3.39	gal		\$10.94
Machinery Labor 0.83 hour \$20.00 \$16 Other Labor \$0 \$0 \$0 Custom & Consultants: \$8.95 \$0 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16 \$16 Crop insurance 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$0 \$16 \$0 Operating Interest ¹ \$4 \$4 \$4 \$4 Total Variable Costs \$201 \$3 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$4 \$5 \$6					\$1.65
Other Labor \$0 Custom & Consultants: \$8.95 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16.00 \$16 Crop insurance 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$0 \$0 \$0 Operating Interest ¹ \$4 \$4 \$4 Total Variable Costs \$201 \$3 Variable Costs per Unit \$3 \$15 Fixed Costs: \$155 \$155 Machinery depreciation \$19.56 \$19 Machinery interest \$14.23 \$14					\$10.83
Custom & Consultants: \$8.95 Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$0 \$0 Operating Interest ¹ \$4 \$4 Total Variable Costs \$201 \$3 Variable Costs per Unit \$3 \$3 Net Returns Above Variable Costs \$155 Fixed Costs: \$19.56 \$19 Machinery depreciation \$14.23 \$14	,	0.63	riour	\$20.00	\$0.00
Rental Sprayer 0 acre \$2.00 \$0 Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 \$16.00 \$16.00 Crop insurance 1 acre \$16.00 \$16 Storage Facility & Equip. Repairs \$0 \$0 Operating Interest ¹ \$4 \$1 \$1 Total Variable Costs \$201 \$1 \$1 \$1 Variable Costs per Unit \$3 \$1	Custom & Consultants:				
Custom Aerial 1 acre \$8.95 \$8 Other: \$16.00 Crop insurance 1 acre \$16.00 Storage Facility & Equip. Repairs \$0 Operating Interest 1 \$4 Total Variable Costs Variable Costs \$155 Net Returns Above Variable Costs \$155 Fixed Costs: \$19.56 \$19 Machinery interest \$14.23		0	acre	\$2.00	\$0.00
Other: Crop insurance Storage Facility & Equip. Repairs Operating Interest Total Variable Costs Variable Costs per Unit Net Returns Above Variable Costs Machinery depreciation Machinery interest \$16.00 \$16.00 \$16.00 \$16.00 \$16.00 \$16.00 \$16.00 \$10.00		1	acre	\$8.95	\$8.95
Crop insurance \$1 acre \$16.00 \$16.00 Storage Facility & Equip. Repairs \$0 Operating Interest \$1 Total Variable Costs Variable Costs per Unit \$3 Net Returns Above Variable Costs Fixed Costs: Machinery depreciation \$19.56 Machinery interest \$14.23					\$0.00
Storage Facility & Equip. Repairs Operating Interest Total Variable Costs Variable Costs per Unit Net Returns Above Variable Costs Fixed Costs: Machinery depreciation Machinery interest \$0 \$0 \$0 \$19.56 \$19.56 \$19.56 \$19.56 \$19.56 \$19.56				* 40.00	
Operating Interest ¹ \$4 Total Variable Costs \$201 Variable Costs per Unit \$3 Net Returns Above Variable Costs \$155 Fixed Costs: Machinery depreciation \$19.56 \$19 Machinery interest \$14.23	•	1	acre	\$16.00	\$16.00 \$0.00
Operating Interest ¹ Total Variable Costs Variable Costs per Unit Net Returns Above Variable Costs Fixed Costs: Machinery depreciation Machinery interest \$19.56 \$19.56 \$19.56 \$19.56 \$19.56	Storage Facility & Equip. Repairs				\$0.00
Total Variable Costs\$201Variable Costs per Unit\$3Net Returns Above Variable Costs\$155Fixed Costs:\$19.56Machinery depreciation\$19.56Machinery interest\$14.23	Operating Interest ¹				\$4.92
Variable Costs per Unit Net Returns Above Variable Costs Fixed Costs: Machinery depreciation Machinery interest \$19.56 \$19.56 \$14.23					
Net Returns Above Variable Costs Fixed Costs: Machinery depreciation Machinery interest \$19.56 \$19.56 \$14.23					\$3.10
Fixed Costs: Machinery depreciation \$19.56 \$19 Machinery interest \$14.23 \$14	•	ts			\$155.96
Machinery depreciation \$19.56 \$19.56 Machinery interest \$14.23					,
Machinery interest \$14.23				£40 FC	\$40.50
					\$19.56 \$14.23
Machinery insurance, taxes, housing, licenses \$7.13		ng, licenses		\$7.13	\$7.13
Land Cost* 1 acre \$81.87 \$81	Land Cost*	1	acre		\$81.87
*Based on Share Rent Percentage:					
Landlord 33.00% Tenant 67.00%					
Teriant	i Gridiil	07.00%			
Overhead ² \$9	Overhead ²				\$9.83
Management fee ³ \$19	Management fee ³				\$19.00

Production Costs for Direct Seeded Soft White Spring Wheat, Northern Idal	ho
Cash rent Land taxes	\$0.00 \$5.50
Total Fixed Costs Fixed Costs per Unit	\$157.12 \$2.42
Total Costs per Acre Total Cost per Unit	\$358.66 \$5.52
Returns to Risk	-\$1.16

Notes:

²Covers legal, accounting, and utility fees. Calculated as 5% of operating expenses.

Details on variable and fixed machinery costs, including fuel, repairs, and machine labor, are located in the

Breakeven Analysis:	-	Base	+
	10%		10%
		Yield	
<u>Price</u>	58.50	65	71.50
Operating Cost Breakeven	\$3.45	\$3.10	\$2.82
Ownership Cost Breakeven	\$2.69	\$2.42	\$2.20
Total Cost Breakeven	\$6.13	\$5.52	\$5.02
		Price	
<u>Yield</u>	\$4.95	\$5.50	\$6.05
Operating Cost Breakeven	40.7	36.6	33.3
Ownership Cost Breakeven	31.7	28.6	26.0
Total Cost Breakeven	72.5	65.2	59.3

¹Calculated at 6.75% interest on operating capital for 6 months.

³The management fee is calculated as a 5% of gross revenue. Soft White Spring Wheat Machinery Costs table.

Schedule (of Operations for	Direct Seeded Soft White Spring W	heat, Northern Idaho
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 1.5 oz M90
March	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	100 lb seed, 100 lb N, 5 lb P, 20 lb S
N4	Cran Incomen		
May	Crop Insurance		8.2 oz Axial, 8 oz Starane, 12 oz
May	Spray Weeds	200HP-WT, 100' Sprayer	Brox M, 5 oz InPlace, 3.2 oz Ammonium Sulfate
June	Aerial Spray	Airplane	Custom Aerial, 14 oz Quilt, .5 pt Syltac Sticker
Julie	Aeriai Spray	Allplane	Custoff Aerial, 14 02 Quilt, .5 pt Syllac Sticker
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90
September	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate

Legend: Follow directions below to preserve equations in this spreadsheet.

Purple: Data are from Summary page (purple tab).

Orange Type: You may adjust data in orange type. All other data will adjust automatically to

Green: Data are from Input Costs page (green tab). Blue: Data are from the Machinery page (blue tab).

Production Costs for Direct Seeded Dark Northern Spring Wheat, Northern Idaho

	Quantity		Price or	Value or
Item	Per Acre	Unit	Cost/Unit	Cost/Acre
Gross Returns				
Dark Northern Spring Wheat	60	bu	\$6.00	\$360.00
Variable Costs				
Seed:				\$30.00
Dark Northern Wheat Seed	100	lb	\$0.30	\$30.00
Fertilizer:				\$71.20
Nitrogen (dry)	130	lb	\$0.46	\$59.80
Phosphorous (dry)	5	lb	\$0.43	\$2.15
Potassium (dry)	0	lb	\$0.29	\$0.00
Sulfur (dry)	25	lb	\$0.37	\$9.25 \$0.00
Pesticides:				\$26.99
Roundup	36	oz	\$0.13	\$4.68
M90	3	oz	\$0.17	\$0.51
Ammonium Sulfate	1.7	lb	\$0.58	\$0.99
Axial	8.2	oz	\$1.15	\$9.43
Brox M	12	oz	\$0.37	\$4.44
Starane InPlace	8 5	OZ	\$0.67 \$0.31	\$5.36 \$1.55
Ammonium Sulfate	3.2	OZ OZ	\$0.01	\$1.33
Fungicides:		V=	V0.0.	\$21.19
Quilt	14	oz	\$1.29	\$18.06
Syltac Sticker	0.5	pt	\$6.25	\$3.13
Machinery:				\$39.96
Fuel	3.39	gal	\$3.23	\$10.94
Lubricants	1	acre	\$1.65	\$1.65
Machinery Repairs	1	acre	\$10.83	\$10.83
Machinery Labor	0.83	hour	\$20.00	\$16.55 \$0.00
Custom & Consultanto				
Custom & Consultants: Rental Sprayer Applicator	0	acre	\$2.00	\$0.00 \$0.00
Custom Aerial	Ö	acre	\$8.95	\$0.00
		5.5.5	, , , , ,	\$0.00
Other:				\$17.00
Crop insurance	1	acre	\$17.00	\$17.00
Storage Facility & Equip. Repairs				\$0.00
				\$0.00
Operating Interest ¹				\$5.16
Total Variable Costs				\$211.50
Variable Costs per Unit				\$3.52
Net Returns Above Variable Cos	sts			\$148.50

Production Costs for Direct Seeded Dark Northern Spring Wheat, Northern Idaho

Fixed Costs:				•
Machinery depreciation			\$19.56	\$19.56
Machinery interest			\$14.23	\$14.23
Machinery insurance, taxes, hous	ing, licenses		\$7.13	\$7.13
Land Cost*	1	acre	\$77.20	\$77.20
*Based on Share Rent Percentage	e:			
Landlord	33.00%			
Tenant	67.00%			
Overhead ²				\$10.32
Management fee ³				\$23.00
Cash rent				\$0.00
Land taxes				\$5.50
Land taxes				
Total Fixed Costs				\$156.94
Fixed Costs per Unit				\$2.62
Total Costs per Acre				\$368.44
Total Cost per Unit				\$6.14
Returns to Risk				-\$8.44

Notes:

Details on variable and fixed machinery costs, including fuel, repairs, and machine labor, are located in the

Breakeven Analysis:	-	Base	+
	10%		10%
		Yield	
<u>Price</u>	54.00	60	66.00
Operating Cost Breakeven	\$3.92	\$3.52	\$3.20
Ownership Cost Breakeven	\$2.91	\$2.62	\$2.38
Total Cost Breakeven	\$6.82	\$6.14	\$5.58
		Price	
<u>Yield</u>	\$5.40	\$6.00	\$6.60
Operating Cost Breakeven	39.2	35.2	32.0
Ownership Cost Breakeven	29.1	26.2	23.8
Total Cost Breakeven	68.2	61.4	55.8

¹Calculated at 6.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 5% of operating expenses.

³The management fee is calculated as a 5% of gross revenue. <u>Hard Red Spring Wheat Machinery Costs table.</u>

Schedule d	of Operations for Direc	t Seeded Dark Northern Spring	y Wheat, Northern Idaho
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 1.5 oz M90
March	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	100 lb seed, 130 lb N, 5 lb P, 25 lb S
May	Crop Insurance		
			8.2 oz Axial, 8 oz Starane, 12 oz
May	Spray Weeds	200HP-WT, 100' Sprayer	Brox M, 5 oz InPlace, 3.2 oz Ammonium Sulfate
June	Aerial Spray	Airplane	Custom Aerial, 14 oz Quilt, .5 pt Syltac Sticker
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90
September	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate

Production Costs for Direct Seeded Spring Barley, Northern Idaho
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Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Gross Returns				
Barley	1.80	ton	\$125.00	\$225.00
Variable Costs				
Seed:				\$18.40
Barley Seed	80	lb	\$0.23	\$18.40
Fertilizer:				\$44.50
Nitrogen (dry)	80	lb	\$0.46	\$36.80
Phosphorous (dry)	5	lb 	\$0.43	\$2.15
Sulfur (dry)	15	lb	\$0.37	\$5.55 \$0.00
B 0.00				
Pesticides: Roundup	36	ΟZ	\$0.13	\$31.02 \$4.68
Ammonium Sulfate	6.25	pt	\$0.01	\$0.07
M90	4.5	OZ	\$0.17	\$0.77
Achieve SC	9.2	oz	\$1.17	\$10.76
Starane+Sword	22	oz	\$0.67	\$14.74
				\$0.00
Machinery:	0.00		#0.00	\$39.96
Fuel	3.39	gal	\$3.23	\$10.94 \$1.65
Lubricants Machinery Repairs	1	acre acre	\$1.65 \$10.83	\$10.83
Machinery Labor	0.83	hour	\$20.00	\$16.55
,				\$0.00
Custom & Consultants:				\$0.00
Rental Sprayer	0	acre	\$2.00	\$0.00
				\$0.00
Other:				\$22.00
Crop insurance	1	acre	\$22.00	\$22.00
Storage Facility & Equip. Repairs				\$0.00 \$0.00
				ψ0.00
Operating Interest ¹				\$3.90
Total Variable Costs				\$159.78
Variable Costs per Unit				\$88.77
Net Returns Above Variable Cos	sts			\$65.22
Fixed Coots:				
Fixed Costs: Machinery depreciation			\$19.56	\$19.56
Machinery interest			\$14.23	\$19.30 \$14.23
Machinery insurance, taxes, hous	ing, licenses		\$7.13	\$7.13
Land Cost*	1	acre	\$50.44	\$50.44
*Based on Share Rent Percentage				
Landlord Tenant	33.00% 67.00%			
Tonant	07.0070			

Production Costs for Direct Seeded Spring Barley, Northern Idaho Overhead² \$7.79 Management fee³ \$14.00 Cash rent \$0.00 Land taxes \$5.50 **Total Fixed Costs** \$118.65 Fixed Costs per Unit \$65.91 \$278.43 **Total Costs per Acre** Total Cost per Unit \$154.68 **Returns to Risk** -\$53.43

Notes:

Details on variable and fixed machinery costs, including fuel, repairs, and machine labor, are located in the

³The management fee is calculated as a 5% of gross revenue. Spring Barley Machinery Costs table.

Breakeven Analysis:	-	Base	+
· · ·	10%		10%
		Yield	
<u>Price</u>	1.80	2	2.20
Operating Cost Breakeven	\$92.61	\$83.35	\$79.38
Ownership Cost Breakeven	\$79.01	\$71.11	\$67.72
Total Cost Breakeven	\$171.61	\$154.45	\$147.10
		Price	
<u>Yield</u>	\$202.50	\$225.00	\$247.50
Operating Cost Breakeven	0.8	0.7	0.7
Ownership Cost Breakeven	0.7	0.6	0.6
Total Cost Breakeven	1.5	1.4	1.2

¹Calculated at 6.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 5% of operating expenses.

Schedule	of Operations for D	irect Seeded Spring Barley, North	ern Idaho
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 1.5 oz M90
April	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	80 lb Seed, 60 lb N, 12 lb P, 15 lb S
	0 1		
May	Crop Insurance		
			9.2 oz Achieve SC, 22 oz Starane+
May	Spray Weeds	200HP-WT, 100' Sprayer	Sword, 1.5 oz M90
August	Harvest	36' Combine	

Production Costs for Direct Seeded Spring Peas, Annual Cropping Region

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
	1 01 71010	Offic	003001111	003(/1010
<u>Gross Returns</u> Peas	2000	lb	\$0.11	\$220.00
Variable Costs	2000	ID	ψ0.11	Ψ220.00
Seed:				\$76.00
Pea Seed	200	lb	\$0.38	\$76.00
Fertilizer:				\$0.00
Base your rate on your soil test re				
A typical recommendation might in	nclude the following.			
				*
Pesticides:	the peets in very s			\$44.21
Rates & chemicals will depend on Consult a certified pesticide applic	•	•	agament Guides	
The following cost estimates are t		st Control Man	agement Guides.	
Roundup	36	oz	\$0.13	\$4.68
Pursuit	3	oz	\$3.53	\$10.59
Prowl	24	oz	\$0.45	\$10.80
Ammonium Sulfate	6.25	pt	\$0.01	\$0.07
Surfactant	3.0	oz	\$0.24	\$0.72
Imidan 70	1.0	lb	\$15.04	\$15.04
Dimethoate	0.33	pt	\$7.00	\$2.31
Machinery:				\$40.51
Fuel	3.45	gal	\$3.23	\$11.14
Lubricants	1	acre	\$1.68	\$1.68
Machinery Repairs	1	acre	\$11.09	\$11.09
Machinery Labor	0.83	hour	\$20.00	\$16.60
Custom & Consultants:				\$8.95
Rental Sprayer	0	acre	\$2.00	\$0.00
Custom Aerial Spray	1	acre	\$8.95	\$8.95
				\$0.00
Other:				\$18.00
Crop insurance	1	acre	\$18.00	\$18.00
Storage Facility & Equip. Repairs				\$0.00
Other Labor				
Operating Interest ¹				\$4.69
Total Variable Costs				\$192.37
Variable Costs per Unit				\$0.10
Net Returns Above Variable Cos	rte.			\$27.63
Net Returns Above Variable Cos	515			\$21.03
Ownership Costs:				
Depreciation		acre	20.66	\$20.66
Interest		acre	14.70	\$14.70
Taxes, insurance, housing, license	es	acre	7.49	\$7.49
Land Cost*		acre	\$51.00	\$51.00

*Based on Share Rent Percentage: Landlord Tenant	25.00% 75.00%	
Overhead ² Management fee ³		\$ \$1
Total Fixed Costs Fixed Costs per Unit		\$11 \$
Total Costs per Acre Total Cost per Unit		\$30 \$
Returns to Risk		-\$8

Notes:

³The management fee is calculated as a 5% of gross revenue.

Breakeven Analysis:	-		+
	10%	Base	10%
		Yield	
<u>Price</u>	1800	2000	2200
Operating Cost Breakeven	\$0.11	\$0.10	\$0.09
Ownership Cost Breakeven	\$0.07	\$0.06	\$0.05
Total Cost Breakeven	\$0.17	\$0.15	\$0.14
	10%	Base	10%
		Price	
<u>Yield</u>	\$0.10	\$0.11	\$0.12
Operating Cost Breakeven	1943.1	1748.8	1589.8
Ownership Cost Breakeven	1184.4	1066.0	969.1
Total Cost Breakeven	3127.5	2814.8	2558.9

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

Schedule (of Operations for D	irect Seeded Spring Peas, Northe	rn Idaho
N.4	0 "	-	M (0
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 3 oz Pursuit, 24 oz
April	Spray Weeds	200HP-WT, 100' Sprayer	Prowl, 50 oz Ammonium Sulfate, 1.5 oz M90
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	200 lb Seed
May	Crop Insurance		
June	Aerial Spray	Custom	Custom Aerial, 1 lb Imidan 70, 0.33 pt Dimethoate
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90,
September	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate

Production Costs for Spring Lentils, Annual Cropping Region

ltem	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
	rei Acie	Offic	COSTOTIIL	COSI/ACIE
Gross Returns	4000		#0.40	Ф000 00
Lentils	1800	lb	\$0.16	\$288.00
<u>Variable Costs</u>				
Seed:				\$14.40
Lentils	45	lb	\$0.32	\$14.40
Fertilizer:				\$0.00
Base your rate on your soil test re	sults.			*****
A typical recommendation might ir	nclude the following	:		
Pesticides:				\$29.17
Rates & chemicals will depend on			. 0	
Consult a certified pesticide applic		est Control Man	agement Guides.	
The following cost estimates are ty Roundup	/picai: 36	07	\$0.13	\$4.68
Pursuit	3	OZ OZ	\$3.53	\$4.00 \$10.59
Prowl	24	OZ OZ	\$0.45	\$10.80 \$10.80
Ammonium Sulfate	6.25		\$0.43	\$0.07
Surfactant	3.0	pt	\$0.01	\$0.72
Dimethoate	0.33	OZ pt	\$7.00	\$2.3
Diffettioate	0.33	pt	\$7.00	Φ 2.3
Machinery:				\$27.33
Fuel	2.18	gal	\$3.23	\$7.04
Lubricants	1	acre	\$1.07	\$1.07
Machinery Repairs	1	acre	\$6.79	\$6.79
Machinery Labor	0.62	hour	\$20.00	\$12.43
Custom & Consultants:	5.52	nou.	V =0.00	\$8.95
Rental Sprayer	0	acre	\$2.00	\$0.00
Custom Aerial Spray	1	acre	\$8.95	\$8.95
Custom Aenai Opray		acie	ψ0.33	\$0.00
Other:				\$18.00
Crop insurance	1	acre	\$18.00	\$18.00
Storage Facility & Equip. Repairs		dore	Ψ10.00	\$0.00
Other Labor				φ0.00
Operating Interest ¹				\$2.45
Total Variable Costs				\$100.29
Variable Costs per Unit				\$0.06
Net Returns Above Variable Cos	sts			\$187.71
Ownership Costs:			40.05	# 40.01
Depreciation		acre	10.65	\$10.65
Interest		acre	8.53	\$8.53
Taxes, insurance, housing, license	es	acre	5.03	\$5.03
Land Cost* *Paged on Share Bent Bargentogs	.	acre	\$68.00	\$68.00
*Based on Share Rent Percentage) :			

Landlord Tenant	25.00% 75.00%	
Overhead ² Management fee ³		\$5.00 \$14.40
Total Fixed Costs Fixed Costs per Unit		\$111.62 \$0.06
Total Costs per Acre Total Cost per Unit		\$211.91 \$0.12
Returns to Risk		\$76.09

Notes:

³The management fee is calculated as a 5% of gross revenue.

Breakeven Analysis:	-		+
	10%	Base	10%
		Yield	
<u>Price</u>	1620	1800	1980
Operating Cost Breakeven	\$0.06	\$0.06	\$0.05
Ownership Cost Breakeven	\$0.07	\$0.06	\$0.06
Total Cost Breakeven	\$0.13	\$0.12	\$0.11
	10%	Base	10%
		Price	
<u>Yield</u>	\$0.14	\$0.16	\$0.18
Operating Cost Breakeven	696.5	626.8	569.8
Ownership Cost Breakeven	775.1	697.6	634.2
Total Cost Breakeven	1471.6	1324.4	1204.0

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

Schedule	of Operations for Di	rect Seeded Spring Lentils, North	ern Idaho
	.	-	
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 3 oz Pursuit, 24 oz
April	Spray Weeds	200HP-WT, 100' Sprayer	Prowl, 50 oz Ammonium Sulfate, 1.5 oz M90
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	45 lb Seed
May	Crop Insurance		
		_	
June	Aerial Spray	Custom	Custom Aerial, 1 pt Dimethoate
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90,
September	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate

Production Costs for Roundup Ready Spring Canola, Annual Cropping Region

Item Per Acre Unit Cost/Unit Cost/Acre Gross Returns Canola 1800 lb \$0.16 \$288. Variable Costs Seed: Canola Seed, Roundup Ready 5 lb \$10.15 \$50.75 Fertilizer: Base your rate on your soil test results.
Canola 1800 lb \$0.16 \$288. Variable Costs \$50.75 \$50.75 Canola Seed, Roundup Ready 5 lb \$10.15 \$50. Fertilizer: \$46.53
Variable CostsSeed:\$50.75Canola Seed, Roundup Ready5Ib\$10.15\$50.Fertilizer:\$46.53
Seed: Canola Seed, Roundup Ready 5 Ib \$10.15 \$50.75 \$50. \$46.53
Canola Seed, Roundup Ready 5 lb \$10.15 \$50. Fertilizer: \$46.53
Fertilizer: \$46.53
· ·
A typical recommendation might include the following:
Nitrogen 80 lb \$0.46 \$36. Phosphorous 8 lb \$0.43 \$3.
Phosphorous 8 lb \$0.43 \$3. Sulfur 17 lb \$0.37 \$6.
Pesticides: \$21.88
Rates & chemicals will depend on the pests in your crop.
Consult a certified pesticide applicator or the PNW Pest Control Management Guides.
The following cost estimates are typical:
Roundup 58 oz \$0.13 \$7. Ammonium Sulfate 150 oz \$0.0007 \$0.0007
Ammonium Sulfate 150 oz \$0.0007 \$0. Surfactant 4.5 oz \$0.23 \$1.
Capture 5 oz \$2.64 \$13.
Machinery: \$40.51
Fuel 3.45 gal \$3.23 \$11.
Lubricants 1 acre \$1.68 \$1.
Machinery Repairs 1 acre \$11.09 \$11.
Machinery Labor 0.83 hour \$20.00 \$16.
Custom & Consultants: \$8.95
Rental Sprayer 0 acre \$2.00 \$0. Custom Aerial Spray 1 acre \$8.95 \$8.
\$0.50
Other: \$18.00
Crop insurance 1 acre \$18.00 \$18.
Storage Facility & Equip. Repairs \$0.
Other Labor
Operating Interest ¹ \$4.
Total Variable Costs \$191.
Variable Costs per Unit \$0.
Net Returns Above Variable Costs \$96.
Ownership Costs:
Depreciation acre 20.66 \$20.
Interest acre 14.70 \$14.
Taxes, insurance, housing, licenses acre 7.49 \$7.
Land Cost* acre \$74.00 \$74. *Based on Share Rent Percentage:
Landlord 33.00%
Tenant 67.00%

Overhead ² Management fee ³	\$9.00 \$14.40
Total Fixed Costs Fixed Costs per Unit	\$140.26 \$0.08
Total Costs per Acre Total Cost per Unit	\$331.5 5 \$0.18
Returns to Risk	-\$43.55

Notes:

³The management fee is calculated as a 5% of gross revenue.

Breakeven Analysis:	-		+
	10%	Base	10%
		Yield	
<u>Price</u>	1620	1800	1980
Operating Cost Breakeven	\$0.12	\$0.11	\$0.10
Ownership Cost Breakeven	\$0.09	\$0.08	\$0.07
Total Cost Breakeven	\$0.20	\$0.18	\$0.17
	10%	Base	10%
		Price	
<u>Yield</u>	\$0.14	\$0.16	\$0.18
Operating Cost Breakeven	1328.4	1195.6	1086.9
Ownership Cost Breakeven	974.0	876.6	796.9
Total Cost Breakeven	2302.4	2072.2	1883.8

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

Schedule	Schedule of Operations for Direct Seeded Spring Canola, Northern Idaho		
Month	Operation	Tooling	Materials/Service
MOHIT	Operation	Tooling	24 oz Roundup, 1.5 oz M90
April	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	5 lb seed, 80 lb N, 8 lb P, 17 lb S
May	Crop Insurance		
			16 oz Roundup, 1.5 oz M90,
May	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate
June	Aerial Spray	Custom aerial	Capture, 5 oz per acre
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90
September	Spray Weeds	200HP-WT, 100' Sprayer	1.7 lbs Ammonium Sulfate

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Gross Returns	1 01 7 1010	Offic		000071010
Garbanzos	1400	lb	\$0.18	\$252.00
			73113	,
Variable Costs				
Seed:				\$78.00
Garbanzo Seed	130	lb	\$0.60	\$78.00
Fertilizer:				\$0.00
reitilizer.				\$0.00
				\$0.00
Pesticides:				\$26.65
Roundup	36	oz	\$0.13	\$4.68
Pursuit	3	oz	\$3.53	\$10.59
Prowl	24	oz	\$0.45	\$10.80
Ammonium Sulfate	6.25	pt	\$0.01	\$0.07
M90	3	OZ	\$0.17	\$0.51
				\$0.00
Fungicide:				\$7.84
Quadris	8	OZ	\$0.98	\$7.84
				\$0.00
Machinery:				\$38.68
Fuel	3.28	gal	\$3.23	\$10.60
Lubricants	1	acre	\$1.60	\$1.60
Machinery Repairs	1	acre	\$10.37	\$10.37
Machinery Labor	0.81	hour	\$20.00	\$16.12
				\$0.00
Custom & Consultants:			40.00	\$8.95
Rental Sprayer	0	acre	\$2.00	\$0.00
Custom Aerial Spray	1	acre	\$8.95	\$8.95
				\$0.00
Other:			400.00	\$22.00
Crop insurance	1	acre	\$22.00	\$22.00
Storage Facility & Equip. Repairs				\$0.00 \$0.00
				ψ0.00
Operating Interest ¹				\$4.55
Total Variable Costs Variable Costs per Unit				\$186.68 \$0.13
Net Returns Above Variable Co	sts			\$65.32
Fixed Costs:			640.05	M40.05
Machinery depreciation			\$18.95 \$43.73	\$18.95
Machinery interest	ing licenses		\$13.72 \$7.05	\$13.72
Machinery insurance, taxes, hous Land Cost*		00"0	\$7.05 \$67.91	\$7.05 \$67.81
*Based on Share Rent Percentag	۵۰	acre	\$67.81	\$67.81
Dadda on Chart Rolle i Croentag	.			

Production Costs for Direct Seeded Garbanzos, Northern Idaho

Landlord Tenant	33.00% 67.00%	
Overhead ²		
Management fee ³		
Cash rent		
Land taxes		
Total Fixed Costs		
Fixed Costs per Unit		
Total Costs per Acre		
Total Cost per Unit		
•		
Returns to Risk		

Notes:

Details on variable and fixed machinery costs, including fuel, repairs, and machine labor, are located in the

³The management fee is calculated as a 5% of gross revenue. Garbanzos Machinery Costs table.

Breakeven Analysis:	-	Base	+
	10%		10%
		Yield	
<u>Price</u>	1260	1400	1540
Operating Cost Breakeven	\$0.15	\$0.13	\$0.12
Ownership Cost Breakeven	\$0.12	\$0.10	\$0.09
Total Cost Breakeven	\$0.26	\$0.24	\$0.22
		Price	
<u>Yield</u>	\$0.16	\$0.18	\$0.20
Operating Cost Breakeven	1152.3	1037.1	942.8
Ownership Cost Breakeven	902.1	811.9	738.1
Total Cost Breakeven	2054.4	1849.0	1680.9

¹Calculated at 6.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 5% of operating expenses.

Schedule (of Operations for I	Direct Seeded Garbanzos, Northeri	n Idaho
Month	Operation	Tooling	Materials/Service
			18 oz Roundup, 3 oz Pursuit, 24 oz
March	Spray Weeds	200HP-WT, 100' Sprayer	Prowl, 50 oz Ammonium Sulfate, 1.5 oz M90
		450HP-WT, 36' Direct Seed Drill,	
April	Drill	Fertilizer Tanks & Pumps	130 lb Seed
May	Crop Insurance		
June	Aerial Spray	Custom	Custom Aerial, 8 oz Quadris Fungicide
August	Harvest	36' Combine	
			18 oz Roundup, 1.5 oz M90,
September	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Variable Costs				
Cover Crop Seed:				\$11.84
Smart Value Blend, 12 lb seed/ac**	1	lb	\$11.84	\$11.84
Fertilizer:				\$0.00
Base your rate on your soil test results				V
A typical recommendation might include				
Nitrogen	0	lb	\$0.46	\$0.00
Phosphorous	0	lb 	\$0.43	\$0.00
Sulfur	0	lb	\$0.37	\$0.00
Pesticides:				\$11.55
Rates & chemicals will depend on the			man mt Ovida	
Consult a certified pesticide applicator The following cost estimates are typical		t Control Manage	ement Guides.	
Roundup	24	oz	\$0.13	\$3.12
Surfactant	6.4	oz	\$0.23	\$1.47
2-4,D	24	oz	\$0.29	\$6.96
Machinery:				\$27.25
Fuel	2.20	gal	\$3.23	\$7.10
Lubricants	1	acre	\$1.08	\$1.08
Machinery Repairs	1	acre	\$6.56	\$6.56
Machinery Labor	0.63	hour	\$20.00	\$12.51
Custom & Consultants:			40.00	\$0.00
Rental Sprayer	0	acre	\$2.00 \$2.50	\$0.00 \$0.00
Rental Ripper Shooter	U	acre	Φ2.50	
Other:	4		#0.00	\$0.00
Crop insurance Storage Facility & Equip. Repairs	1	acre	\$0.00	\$0.00 \$0.00
Other Labor				ψ0.00
				04.07
Operating Interest ¹				\$1.27
Total Variable Costs				\$51.90
Ownership Costs:				
Ownership Costs: Machinery depreciation		acre	\$10.52	\$10.52
Machinery interest on investment		acre	\$8.43	\$8.43
Machinery taxes, insurance, housing, I	icenses	acre	\$5.02	\$5.02
Land Cost*		acre		\$0.00
*Based on Share Rent Percentage:				
Landlord	33.00%			
Tenant	67.00%			
Overhead ²				\$3.00
Management fee ³				\$3.00 \$7.00
Total Fixed Costs				\$33.98
Total Costs per Acre				\$85.88
Returns to Risk				-\$85.88
Notes:				

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

³The management fee is calculated as a 5% of gross revenue.

^{**}Smart value cover crop blend consists of 1 lb purple top turnips, 2 lb spring triticale, 2 lb buckwheat cereal grain, 2 lb forage peas (Journey), 2 lb Otana oats, 2 lb annual ryegrass (Gulf), and 1 lb of white Proso millet.

Floudction Costs for Direct C	Quantity		Price or	Value or
Item	Per Acre	Unit	Cost/Unit	Cost/Acre
17				
Variable Costs				
Cover Crop Seed:				\$23.15
Soil Builder Blend, 25 lb seed/ac**	1	lb	\$23.15	\$23.15
		ID	φ23.13	· ·
Fertilizer:	14-			\$0.00
Base your rate on your soil test result A typical recommendation might include:				
Nitrogen	0	lb	\$0.46	\$0.00
Phosphorous	0	lb	\$0.43	\$0.00
Sulfur	0	lb	\$0.37	\$0.00
Pesticides:				\$11.55
Rates & chemicals will depend on the	e pests in vour cro	nn.		φ11.55
Consult a certified pesticide applicate			ement Guides.	
The following cost estimates are typi		ŭ		
Roundup	24	oz	\$0.13	\$3.12
Surfactant	6.4	OZ	\$0.23	\$1.47
2-4,D	24	oz	\$0.29	\$6.96
Machinery:				\$27.25
Fuel	2.20	gal	\$3.23	\$7.10
Lubricants	1	acre	\$1.08	\$1.08
Machinery Repairs	1	acre	\$6.56	\$6.56
Machinery Labor	0.63	hour	\$20.00	\$12.51
Custom & Consultants:				\$0.00
Rental Sprayer	0	acre	\$2.00	\$0.00
Rental Ripper Shooter	0	acre	\$2.50	\$0.00
Other:				\$0.00
Crop insurance	1	acre	\$0.00	\$0.00
Storage Facility & Equip. Repairs				\$0.00
Other Labor				
Operating Interest ¹				\$1.55
Total Variable Costs				\$63.50
Total Valiable Costs				ψ03.30
Ownership Costs:				
Machinery depreciation		acre	\$10.52	\$10.52
Machinery interest on investment		acre	\$8.43	\$8.43
Machinery taxes, insurance, housing	, licenses	acre	\$5.02	\$5.02
Land Cost*		acre		\$0.00
*Based on Share Rent Percentage:	22.000/			
Landlord Tenant	33.00% 67.00%			
renam	07.00%			
Overhead ²				\$3.00
Management fee ³				\$7.00
Total Fixed Costs				\$33.98
Total Costs per Acre				\$97.47
Returns to Risk				-\$97.47
Notes:				

Notes:

¹Calculated as 5.75% interest on operating capital for 6 months.

 $^{^2\}mbox{Covers}$ legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

 $^{^{3}\}mbox{The}$ management fee is calculated as a 5% of gross revenue.

^{**}Soil Builder blend consists of 4 lb Daikon radish, 3 lb common vetch, 1 lb crimson clover, 8 lb Monida oats, 8 lb forage peas (Flex), and 1 lb sun hemp.

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
V				
Variable Costs				A40.00
Cover Crop Seed:	1	lb	\$18.30	\$18.30 \$18.30
Grazing Blend, 20 lb seed/ac**	•	ID	\$10.30	·
Fertilizer:	(-			\$0.00
Base your rate on your soil test result A typical recommendation might inclu				
Nitrogen	0	lb	\$0.46	\$0.00
Phosphorous	o 0	lb	\$0.43	\$0.00
Sulfur	0	lb	\$0.37	\$0.00
Pesticides:				\$11.55
Rates & chemicals will depend on the	e pests in vour cro	D.		ψ11.55
Consult a certified pesticide applicato			ement Guides.	
The following cost estimates are typic		ŭ		
Roundup	24	oz	\$0.13	\$3.12
Surfactant	6.4	oz	\$0.23	\$1.47
2-4,D	24	oz	\$0.29	\$6.96
Machinery:				\$27.25
Fuel	2.20	gal	\$3.23	\$7.10
Lubricants Machinery Panaira	1	acre	\$1.08 \$6.56	\$1.08 \$6.56
Machinery Repairs Machinery Labor	0.63	acre hour	\$6.56 \$20.00	\$6.56 \$12.51
,	0.03	Hour	φ20.00	
Custom & Consultants:			40.00	\$0.00
Rental Sprayer	0	acre	\$2.00 \$2.50	\$0.00 \$0.00
Rental Ripper Shooter	U	acre	\$2.50	
Other:	4		60.00	\$0.00
Crop insurance	1	acre	\$0.00	\$0.00 \$0.00
Storage Facility & Equip. Repairs Other Labor				φυ.υυ
Operating Interest ¹				\$1.43
Total Variable Costs				\$58.53
Ownership Costs:			640.50	# 40.50
Machinery depreciation		acre	\$10.52 \$8.43	\$10.52 \$8.43
Machinery interest on investment Machinery taxes, insurance, housing,	licanses	acre acre	\$5.02	\$6.43 \$5.02
Land Cost*	110011303	acre	ψ3.02	\$0.00
*Based on Share Rent Percentage:		40.0		40.00
Landlord	33.00%			
Tenant	67.00%			
2				
Overhead ²				\$3.00
Management fee ³				\$7.00
Total Fixed Costs				\$33.98
Total Costs per Acre				\$92.50
Returns to Risk				-\$92.50
Notes:				

Notes

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

³The management fee is calculated as a 5% of gross revenue.

^{**}Grazing cover crop blend consists of 6 lb Monida oats, 2 lb crimson clover, 10 lb spring forage oats, 0.5 lb rapeseed, 0.5 lb purple top turnips, and 1 lb hairy vetch.

Item	Quantity Per Acre	Unit	Price or Cost/Unit	Value or Cost/Acre
Variable Costs				
Cover Crop Seed: Fall Nitrogen Fixing Blend, 45 lb/ac**	1	lb	\$25.84	\$25.84 \$25.84
		ID	\$23.04	·
Fertilizer: Base your rate on your soil test result.	6			\$0.00
A typical recommendation might include				
Nitrogen	0	lb	\$0.46	\$0.00
Phosphorous	0	lb	\$0.43	\$0.00
Sulfur	0	lb	\$0.37	\$0.00
Pesticides:				\$11.55
Rates & chemicals will depend on the				
Consult a certified pesticide applicator		Control Manage	ement Guides.	
The following cost estimates are typic			CO 40	#0.40
Roundup Surfactant	24 6.4	OZ OZ	\$0.13 \$0.23	\$3.12 \$1.47
2-4,D	24	OZ OZ	\$0.23 \$0.29	\$6.96
2-4,0	24	02	\$0.23	ψ0.90
Machinery:				\$27.25
Fuel	2.20	gal	\$3.23	\$7.10
Lubricants Machinery Repairs	1 1	acre	\$1.08 \$6.56	\$1.08 \$6.56
Machinery Repairs Machinery Labor	0.63	acre hour	\$6.56 \$20.00	\$0.50 \$12.51
	0.03	Hour	Ψ20.00	
Custom & Consultants:	0		#2.00	\$0.00
Rental Sprayer Rental Ripper Shooter	0	acre acre	\$2.00 \$2.50	\$0.00 \$0.00
	•	acie	Ψ2.50	
Other: Crop insurance	1	coro	\$0.00	\$0.00 \$0.00
Storage Facility & Equip. Repairs	'	acre	φυ.υυ	\$0.00
Other Labor				ψ0.00
Operating Interest ¹				\$1.62
Total Variable Costs				\$66.25
Total Valiable Costs				ψ00.23
Ownership Costs:				
Machinery depreciation		acre	\$10.52	\$10.52
Machinery interest on investment	U	acre	\$8.43	\$8.43
Machinery taxes, insurance, housing, Land Cost*	licenses	acre	\$5.02	\$5.02 \$0.00
*Based on Share Rent Percentage:		acre		φυ.υυ
Landlord	33.00%			
Tenant	67.00%			
Overhead ²				\$3.00
Management fee ³				\$3.00 \$7.00
Total Fixed Costs				\$7.00 \$33.98
Total Costs per Acre				\$100.23
Returns to Risk				-\$100.23
Notes:				

¹Calculated as 5.75% interest on operating capital for 6 months.

²Covers legal, accounting, and utility fees. Calculated as 2.5% of operating expenses.

³The management fee is calculated as a 5% of gross revenue.

^{**}Nitrogen enhancing fall seeded blend consists of 21 lb of Monida oats, 3 lb of hairy vetch, 19.5 lb of Austrian winter peas, and 1.5 lb of purple top turnips for a total of 45 lb of seed per acre.

Schedule of Operations for Direct Seeded Spring Cover Crop Blends, Northern Idaho

Month	Operation	Tooling	Materials/Service
April	Harrow	200HP-WT, 60' Harrow	
			18 oz Roundup,
April	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate, 1.5 oz M90
		450HP-WT, 36' Direct Seed Drill,	
April	Drill*	Fertilizer Tanks & Pumps	Cover crop mix
			18 oz Roundup, 1.5 oz M90,
September	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate

^{*}Cover crop should be planted as soon as possible after terminating the weeds.

Schedule of Operations for Direct Seeded Fall Cover Crop Blends, Northern Idaho

Month	Operation	Tooling	Materials/Service
			18 oz Roundup,
October	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate, 1.5 oz M90
		450HP-WT, 36' Direct Seed Drill,	
October	Drill*	Fertilizer Tanks & Pumps	Cover crop mix
			18 oz Roundup, 1.5 oz M90,
September	Spray Weeds	200HP-WT, 100' Sprayer	50 oz Ammonium Sulfate

^{*}Cover crop should be planted as soon as possible after terminating the weeds.

Machinery Costs (\$/acre) from the University of Idaho Machinery Cost Calculator

Note: Per hour machinery costs can be changed in this master table and they will update throughout. Per acre costs are calcUlated in the Machine Cost program using the values listed in the Machinery Complement tab. You can also delete or insert lines in the individual crop machinery cost tables and the budget amounts will be recalculated.

	Fixed Costs (\$/acre):					Variable C	osts (\$/acre):		Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97
200HP Trac+60'Harrow	\$0.48	\$0.41	\$0.07	\$0.96	\$0.23	\$0.40	\$0.06	\$0.69	\$0.51	0.03	0.12	\$2.16
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	0.00	0.23	\$3.39
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	0.18	0.31	\$7.96
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	0.18	0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	0.01	0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	0.07	0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	0.07	0.08	\$2.32
Total:	\$18.82	\$13.62	\$7.04	\$39.48	\$10.14	\$10.75	\$1.61	\$22.49	\$16.20	0.81	3.30	\$78.17

Note: Farm size is assumed to be 2500 acres for the purposes of machinery cost calculations.

Costs By Crop:
Click on crop to see machinery costs by crop.
Soft White Winter Wheat
Soft White Spring Wheat
Hard Red Spring Wheat
Spring Barley
Spring Peas
Spring Lentils
Garbanzos

Machinery Costs for No-T	Machinery Costs for No-Till Soft White Winter Wheat (\$/acre) from the University of Idaho Machinery Cost Calculator													
-		Fixed Costs	s (\$/acre):			Variable C	costs (\$/acre):		La	bor	Fuel Use			
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)		
Annual costs:														
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	0.00	0.23	\$3.39		
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	0.18	0.31	\$7.96		
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	0.18	0.46	\$8.67		
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	0.01	0.01	\$1.59		
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	0.07	0.05	\$1.96		
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	0.07	0.08	\$2.32		
Seasonal operations:														
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48		
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43		
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35		
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48		
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89		
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97		
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48		
Total:	\$18.95	\$13.72	\$7.05	\$39.72	\$10.37	\$10.69	\$1.60	\$22.65	\$16.12	0.81	3.28	\$80.97		

Back to Costs by Crop

	Fixed Costs (\$/acre):				Variable C	Costs (\$/acre):		Labor		Fuel Use		
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:												
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	0.00	0.23	\$3.39
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	0.18	0.31	\$7.96
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	0.18	0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	0.01	0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	0.07	0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	0.07	0.08	\$2.32
Seasonal operations:												
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$19.56	\$14.23	\$7.13	\$40.92	\$10.83	\$11.03	\$1.65	\$23.50	\$16.55	0.83	3.39	\$80.97

Back to Costs by Crop

Machinery Costs for No-Till Hard Red Spring Wheat (\$/acre) from the University of Idaho Machinery Cost Calculator													
,		Fixed Costs			Variable Costs (\$/acre):				Labor		Fuel Use		
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)	
Annual costs:													
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	0.00	0.23	\$3.39	
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	0.18	0.31	\$7.96	
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	0.18	0.46	\$8.67	
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	0.01	0.01	\$1.59	
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	0.07	0.05	\$1.96	
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	0.07	0.08	\$2.32	
Seasonal operations:													
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48	
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43	
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35	
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48	
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89	
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97	
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48	
Total:	\$19.56	\$14.23	\$7.13	\$40.92	\$10.83	\$11.03	\$1.65	\$23.50	\$16.55	0.83	3.39	\$80.97	

Back to Costs by Crop

Machinery Costs for No-Till Spring Barley (\$/acre) from the University of Idaho Machinery Cost Calculator												
<u> </u>		Fixed Costs		Í			Costs (\$/acre):		Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:												
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	0.00	0.23	\$3.39
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	0.18	0.31	\$7.96
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	0.18	0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	0.01	0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	0.07	0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	0.07	0.08	\$2.32
Seasonal operations:												
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$19.56	\$14.23	\$7.13	\$40.92	\$10.83	\$11.03	\$1.65	\$23.50	\$16.55	0.83	3.39	\$80.97

Back to Costs by Crop

Duck to Coole by Crop													
Machinery Costs for No-Till Spring Peas (\$/acre) from the University of Idaho Machinery Cost Calculator													
_		Fixed Costs	s (\$/acre):	·		Variable 0	Costs (\$/acre):		Labor		Fuel Use		
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)	
Annual costs:													
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	\$0.00	\$0.23	\$3.39	
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	\$0.18	\$0.31	\$7.96	
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	\$0.18	\$0.46	\$8.67	
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	\$0.01	\$0.01	\$1.59	
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	\$0.07	\$0.05	\$1.96	
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	\$0.07	\$0.08	\$2.32	
Seasonal operations:													
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48	
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43	
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35	
Combine + 36' Header	\$8.56	\$4.93	\$2.23	\$15.71	\$3.64	\$2.70	\$0.40	\$6.74	\$2.41	\$0.12	\$0.84	\$24.86	
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97	
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48	
Total:	\$20.66	\$14.70	\$7.49	\$42.86	\$11.09	\$11.23	\$1.68	\$24.00	\$16.60	0.83	3.45	\$83.46	

Back to Costs by Crop

Dack to Costs by Crop												
Machinery Costs for No-Till Spring Lentils (\$/acre) from the University of Idaho Machinery Cost Calculator												
	Fixed Costs (\$/acre):				Variable Costs (\$/acre):				Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:	•	•	-						•	·	•	
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	\$0.00	\$0.23	\$3.39
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	\$0.18	\$0.31	\$7.96
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	\$0.18	\$0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	\$0.01	\$0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	\$0.07	\$0.05	\$1.96

50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	\$0.07	\$0.08	\$2.32
Seasonal operations:												
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$10.65	\$8.53	\$5.03	\$24.22	\$6.79	\$7.13	\$1.07	\$14.99	\$12.43	0.62	2.18	\$51.63

Machinery Costs for No-Till Spring Canola (\$/acre) from the University of Idaho Machinery Cost Calculator												
<u> </u>		Fixed Costs	•		Variable Costs (\$/acre):				Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:												
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	\$0.00	\$0.23	\$3.39
Tandem Axle Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	\$0.18	\$0.31	\$7.96
Tandem Axle Truck	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	\$0.18	\$0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	\$0.01	\$0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	\$0.07	\$0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	\$0.07	\$0.08	\$2.32
Seasonal operations:												
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
Combine + 36' Header	\$8.56	\$4.93	\$2.23	\$15.71	\$3.64	\$2.70	\$0.40	\$6.74	\$2.41	\$0.12	\$0.84	\$24.86
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$20.66	\$14.70	\$7.49	\$42.86	\$11.09	\$11.23	\$1.68	\$24.00	\$16.60	0.83	3.45	\$83.46

Back to Costs by Crop

Machinery Costs for No-Till Garbanzos (\$/acre) from the University of Idaho Machinery Cost Calculator												
<u> </u>		Fixed Costs		j			Costs (\$/acre)		Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:									•			
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	\$0.00	\$0.23	\$3.39
2-Ton Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	\$0.18	\$0.31	\$7.96
40' Grain Trailer+Tractor	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	\$0.18	\$0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	\$0.01	\$0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	\$0.07	\$0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	\$0.07	\$0.08	\$2.32
Seasonal operations:												
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
Combine + 36' Header	\$6.85	\$3.94	\$1.78	\$12.57	\$2.91	\$2.16	\$0.32	\$5.39	\$1.93	0.10	0.67	\$19.89
200HP Trac+Bankout Wagon	\$1.45	\$1.24	\$0.23	\$2.93	\$0.67	\$1.40	\$0.21	\$2.28	\$1.76	0.09	0.43	\$6.97
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$18.95	\$13.72	\$7.05	\$39.72	\$10.37	\$10.69	\$1.60	\$22.65	\$16.12	0.81	3.28	\$78.49

Back to Costs by Crop

Machinery Costs for No-Till Cover Crop (\$/acre) from the University of Idaho Machinery Cost Calculator												
·		Fixed Cost	s (\$/acre):	,	Variable Costs (\$/acre):				Labor		Fuel Use	
	Depreciation	Interest	Housing, Insurance, License	Total Fixed Costs	Repairs	Fuel	Lubricants	Total	(\$/acre)	(hr/acre)	(gal/acre)	Total Cost (\$/acre)
Annual costs:												
Pickup 3/4 ton 4WD	\$0.88	\$0.62	\$0.73	\$2.23	\$0.24	\$0.80	\$0.12	\$1.16	\$0.00	\$0.00	\$0.23	\$3.39
2-Ton Truck	\$0.64	\$0.64	\$1.13	\$2.41	\$0.80	\$1.00	\$0.15	\$1.95	\$3.60	\$0.18	\$0.31	\$7.96
40' Grain Trailer+Tractor	\$0.64	\$0.78	\$1.13	\$2.55	\$0.80	\$1.50	\$0.22	\$2.52	\$3.60	\$0.18	\$0.46	\$8.67
Trap Wagon	\$0.48	\$0.25	\$0.17	\$0.90	\$0.40	\$0.04	\$0.01	\$0.45	\$0.24	\$0.01	\$0.01	\$1.59
4WD-ATV	\$0.20	\$0.14	\$0.03	\$0.37	\$0.08	\$0.17	\$0.03	\$0.27	\$1.32	\$0.07	\$0.05	\$1.96
50HP Wheel Tractor	\$0.30	\$0.27	\$0.06	\$0.62	\$0.08	\$0.26	\$0.04	\$0.38	\$1.32	\$0.07	\$0.08	\$2.32
Seasonal operations:												
200HP Trac+60'Harrow	\$0.48	\$0.41	\$0.07	\$0.96	\$0.23	\$0.40	\$0.06	\$0.69	\$0.51	0.03	0.12	\$2.16
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
450HP Tractor+NT Drill, 36'	\$5.27	\$4.23	\$1.57	\$11.07	\$2.79	\$2.68	\$0.40	\$5.87	\$1.49	0.07	0.83	\$18.43
Fertilizer Tanks+Pumps	\$1.02	\$0.59	\$0.06	\$1.67	\$0.68	\$0.00	\$0.00	\$0.68	\$0.00	0.00	0.00	\$2.35
200HP Trac+100'Sprayer	\$0.61	\$0.51	\$0.08	\$1.20	\$0.46	\$0.34	\$0.05	\$0.85	\$0.43	0.02	0.11	\$2.48
Total:	\$10.52	\$8.43	\$5.02	\$23.98	\$6.56	\$7.19	\$1.08	\$14.83	\$12.51	0.63	2.20	\$51.31

Machinery Complement for Direct Seed Planting, Over 18" Precipitation, Northern Idaho												
Type of Machine	Replacement Value \$	Age When Purchased	Years of Life	Annual Hours of Use	Salvage Value \$	Annual Repairs (Materials & Labor)	Gallons of Fuel/Hr.	Taxes, Housing, Insur., Licenses %	Labor Multiplier	Acres per Hour		
Tractors, ATVs:			•		•							
4WD-ATV	8,500	0	10	150	3,500	200	1.2	1.2	1.1			
50HP-WT w/Bucket	16,000	5	20	150	3,500	300	3	1.2	1.1			
200HP FWA Tractor	95,000	5	15	300	35,000	1000	9	1.2	1.1			
450HP 4WD Tractor	180,000	10	10	250	80,000	4,000	20	1.2	1.25			
Equipment:												
Bankout Wagon	18,000	0	15	200	3,500	1000	9	0.6	1.1	-		
100' Pull Sprayer	42,000	0	20	200	6,000	2000	9	0.6	1.2	51		
60' Harrow	12,000	5	15	75	1,000	500	9	0.6	1.1	37		
30' Shredder	30,000	0	10	115	5,500	2000	9	2.5	1.2	16		
Fertilizer Tanks & Pump	30,000	0	20	-	-	1000	-	-	-	-		
36' NT Drill	150,000	6	10	200	75,000	5,000	20	3	1.25	15		
36' Combine	300,000	2	10	225	100,000	8,500	14	2.6	1.25	13		
Trucks:				Miles/year:			MPG:					
Tandem Axle Truck	40,000	10	15	7,500	16,000	2,000	6	10.1	1.2			
Tandem Axle Truck	40,000	10	15	7,500	16,000	2,000	6	10.1	1.2			
Trap Wagon	17,000	10	10	500	5,000	1000	12	3.8	1.2			
3/4T 4WD Pickup	38,000	0	10	15,000	16,000	600	12	6.8	1.2	_		

Note: Farm size is assumed to be 2500 acres for the purposes of machinery cost calculations.