



Premium Cold Flow Biodiesel

1690 Elm Street | PO Box 666 | Cumberland, WI 54829
Phone: 715-822-3301 or 877-882-5313 Fax: 715-822-3258

**Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Development
Agricultural Development & Diversification Program (ADD)
Grant Project Final Report**

Contract Number: #23034

Grant Project Title: "Farming for Energy – Oil seed crop development for Northwest Wisconsin"

Amount of Funding Awarded: \$25,000

Name of Principal Contact Person: Duane Most or Ron Ruppel

Organization: SunPower BioDiesel LLC

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WEB Address: www.growsunpower.com

Report Submitted on:

1. Goals

- a. develop market opportunities for oil seed crop production in Northwestern Wisconsin
- b. increase DRM Farms oil seed crop inventory to 10,000-acres within 10 county area (via sustainable oil/meal market) -- 3,700 acres farmed in 4 counties (Barron, Douglas, Bayfield, Ashland) so far
- c. benefits
 - i. alternative crop for marginal cropland
 - ii. alternative option for crop rotation on productive lands
 - iii. economically superior crop to grass/hay currently grown on marginal ground
 1. Exhibit A – Landowner in Ashland, WI, was getting 5\$ total rent for 20 acres of hay ground and the farmer was putting nothing back into the ground. We are paying her currently \$35 rent per acre, performing soil testing, and building the soil quality accordingly to our crop needs. This results in better soil quality and a much higher rate of return for the landowner.
 2. Exhibit B – Landowner in Wentworth, WI, was getting paid \$5/bale of hay (approximately 1000 lb/bale). His 95-acres would



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typically yield 90 bales per year giving him a total landowner income of \$450 per year with no returns to the soil. We are set to pay this same landowner \$20 per acre in rent (4-year average), \$1,920 total per year, in addition to testing and improving soil quality. Sun Power expects to break even in its first year working this field because of added expenses associated with initial land acclimation, but projects returns of \$50-125 per acre in subsequent years based on current practices. This situation is real and is representative of what we have encountered in marginal cropland areas.

- iv. Input costs are a benefit to Northwest Wisconsin's economy
- v. would present an opportunity for in-state production of sustainable, environmentally friendly fuel

2. Obstacles

a. 2 primary obstacles

i. Convincing farmers to make the switch to oil seed crops

- 1. Growers' Meetings
- 2. 1-on-1 meetings w/ area farmers
- 3. Personnel scouting land
- 4. Newspaper Ads
- 5. Word of mouth (from existing farmers, prompted by growers' meetings, etc.)
 - a. Has been our most effective promotional tool, which speaks to the value for both parties
 - b. One landowner from Iron River, WI, was quoted as saying, "I have land that I do not have equipment or time to take care of. This company comes in and pays me a fair rent, works the land, builds up my soil, which in turn, increases my land value...where's the problem with this situation? I think that it is a win-win for everybody." This quote is from a single landowner, but it represents the sentiments of many others.

ii. Insurance for canola

- 1. Has been biggest impediment to expansion of canola acreage in WI, thus far
- 2. Insurance options



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- a. Written Agreement
 - i. Takes policy from different area where crop already exists (i.e. North Dakota) and adapts it to the new area
 - ii. Through RMA (work with crop insurance agent and RMA office in St. Paul)
 - iii. Need 3 years of crop history in canola
 - 1. Recently discovered 3 years of history in a “substitute crop” can be used to replace canola crop history requirement. Spring wheat is the most prevalent “substitute crop” for canola in this area. We are working with RMA to identify all other crops that substitute for canola.
 - iv. Best fit for majority of farmers, but also more work than other options
 - 1. Must be signed by March 15th
 - 2. Recommended that paperwork be started in November or December, and no later than January
 - v. DRM Farms is using this option
- b. AGR-lite
 - i. Blanket policy based on Schedule F income
 - ii. Need 5 years of continuous Schedule F income
 - iii. Policy rewards crop diversity
 - iv. Few policies have been written in the state, and most of those policies have been for fruit crops
 - v. Applicability seems limited for DRM/Sun Power purposes, but could be useful for certain farmers under the right circumstances
- c. NAP policy
 - i. Through USDA FSA
 - ii. Very cheap but provides very little protection (Requires complete loss to trigger minimal payment)



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- iii. Should be last option as a primary plan on established fields, but makes sense for fields in first year of tillage when other policies aren't an option
- 3. Lessons learned
 - a. Growing requirements
 - i. Nutrients
 - 1. High phosphorus, nitrogen, and sulfur needs
 - a. 100-130 lb/ac of nitrogen
 - b. 50 lb/ac of phosphorus
 - c. 20-30 lb/ac of sulfur (sulfate form)
 - d. 100 lb/ac of potassium
 - 2. Soil tests on existing land have typically shown low phosphorus content
 - 3. 60-80-40 fertilizer being used to address nutrient needs base on typical soil test result
 - ii. Water
 - 1. Fairly low, (canola is fairly drought tolerant)
 - iii. Climate
 - 1. Full sun, but likes cooler climates
 - iv. Disease/pests
 - 1. Black Leg (*Leptosphaeria maculans* & *Leptosphaeria biglobosa*) – fungal pathogen
 - a. Monitoring closely, but no trouble as of yet
 - b. avoidance through crop rotations, limiting seed population (to maintain adequate air flow), and use of resistant seed varieties
 - c. chemical treatments are available if needed
 - 2. Sclerotinia (*Sclerotinia sclerotiorum*) - fungal pathogen
 - a. Monitoring closely, but haven't had problems yet
 - b. avoidance through crop rotations, limiting seed population (to maintain adequate air flow), and use of resistant seed varieties
 - c. chemical treatments are available if needed
 - 3. Hoppers –



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- a. Only insect or pest related problem that has been experienced so far
 - b. Observed and sprayed for in '08 because monitoring revealed populations in excess of threshold levels
 - b. Planting/harvesting/storage practices
 - i. Planting
 1. Planting density = 3-6 lbs/ac (4-5 seems to work best)
 2. Grain drill (1/4-1/2 inch depth)
 - ii. Monitor for disease/insect damage throughout growth period
 - iii. Harvesting
 1. Windrowing (approx. sept 1st)
 2. Seed moisture 10% or less before combining
 - iv. Storage
 1. Air tubes underneath (flat storage)
 2. Less than 15 foot depth for vertical bin storage (seed density prohibits air flow at greater depths)
 - c. Experience has taught us...
 - i. Field size and proximity are keys to efficiency (50+ acres desirable)
 - ii. Tillage needed to decrease disease pressure and to provide adequate soil-seed contact
 - iii. Tillage needed to break up root mass from years of being in sod (also incorporates organic matter tied up in root mass throughout soil profile)
 - iv. Incorporate crop residue for disease prevention
4. Meal & oil market
 - a. Meal
 - i. Tremendous nutritional value
 - ii. Sold to United Ag for distribution to local dairy and turkey farms
 - iii. It is expected that a consistently available source of meal would result in local dairy farmers becoming customers (increased oil seed inventory would make this a possibility)
 - b. Oil
 - i. Used for biodiesel production
 - ii. Sun Power makes a superior biodiesel product
 1. Superior cold flow properties (due in large part to the properties of the canola oil from which it is made)



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2. Meets Canadian standards (one of very few US producers able to make such a claim)
 - iii. Potential biodiesel mandates would cause substantial expansion of the market = more oil seed crops would be needed
 5. Enterprise budget for growing canola in NW Wisconsin (based on Sun Power's experience)
 - a. Results have improved every year as we've gained experience with canola
 - b. Last year, 2009, was our best year even though results were hampered by weather (rain prohibited harvest for 1 ½ months)
 - c. 2010 Budget
 - i. Highlight points
 1. Canola shows profitability in areas where "traditional" crops (corn, soybeans, etc) are not economically feasible, even at the low current canola price of \$0.16 per pound
 2. Proves Sun Power can remain profitable by buying seed on the local market at the current price of \$0.16 per pound, even without the recently discontinued biodiesel production credits many biodiesel plants rely upon for profitability

		2009		2010		2010 Field										Total	Total										
Crop 09		Crop 10	Acres	Farmer	Rent/a	Rent	INS.	prep/a	Fert/a	Lime	Seed/l	Plant	Chem	App/l	Windr	Combi	Cost/a	Cost/Field	Cost#/bu	Yields	Price	Ins pmt	Income tot	Return	Return/a		
Ashland County		367.77																									
Joe Schraufnagel	SW	CLL	101.4 DS	25	30	20	12	80	40	18	8	8	12	25	\$253.00	\$25,654.20	\$0.13	2,000	\$0.17			\$34,476.00	\$8,821.80	\$87.00			
Wayne Wallace	SW	CLL	101 DS	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$26,058.00	\$0.13	2,000	\$0.17			\$34,340.00	\$8,282.00	\$82.00			
Arnie Macky	CLL	SW	39.18 DS	35	40	17	12	40	18	18	2.5	8	25	\$180.50	\$7,071.99	\$4.01	45	\$5.00			\$8,815.50	\$1,743.51	\$44.50				
Frank Verbes	CLL	SW	22.5 DS	30	35	17	12	40	18	18	2.5	8	25	\$175.50	\$3,948.75	\$3.90	45	\$5.00			\$5,062.50	\$1,113.75	\$49.50				
Curtis Blakeman	CLL	SW	49.26 DS	30	35	17	12	40	18	18	2.5	8	25	\$175.50	\$8,645.13	\$3.90	45	\$5.00			\$11,083.50	\$2,438.37	\$49.50				
Richard Provost 7-45-4V	CLL	SW	30.2 DS	30	35	17	12	40	18	18	2.5	8	25	\$175.50	\$5,300.10	\$3.90	45	\$5.00			\$6,795.00	\$1,494.90	\$49.50				
Thomas Hanninen	CLL	SW	13.1 DS	30	35	17	12	40	18	18	2.5	8	25	\$175.50	\$2,299.05	\$3.90	45	\$5.00			\$2,947.50	\$648.45	\$49.50				
Richard Provost 8-45-4V	CLL	SW	11.13 DS	30	35	17	12	40	18	18	2.5	8	25	\$175.50	\$1,953.32	\$3.90	45	\$5.00			\$2,504.25	\$550.94	\$49.50				
Bayfield County		807.86																									
Clyde Sukanen	SW	CLL	24.15 DS	25	30	20	12	80	40	18	8	8	12	25	\$253.00	\$6,109.95	\$0.13	2,000	\$0.17			\$8,211.00	\$2,101.05	\$87.00			
Mike Kinney	SW	CLL	19.4 DS	53	53	20	12	80	40	18	8	8	12	25	\$276.00	\$5,354.40	\$0.14	2,000	\$0.17			\$6,596.00	\$1,241.60	\$64.00			
Clark Olson 15acres	SW	CLL	13.58 DS	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$3,571.54	\$0.13	2,000	\$0.17			\$4,617.20	\$1,045.66	\$77.00			
Shawn Miller	SW	CLL	42.49 DS	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$10,962.42	\$0.13	2,000	\$0.17			\$14,446.60	\$3,484.18	\$82.00			
Joseph Lewandowski	SW	CLL	50.4 DS	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$13,255.20	\$0.13	2,000	\$0.17			\$17,136.00	\$3,880.80	\$77.00			
Don Kinney	SW	CLL	105.22 DS	53	53	20	12	80	40	18	8	8	12	25	\$276.00	\$29,040.72	\$0.14	2,000	\$0.17			\$35,774.80	\$6,734.08	\$64.00			
Bob Brevak	SW	CLL	31.33 DS	25	30	20	12	80	40	18	8	8	12	25	\$253.00	\$7,926.49	\$0.13	2,000	\$0.17			\$10,652.20	\$2,725.71	\$87.00			
Paul Amundson	SW	CLL	50.17 DS	25	30	20	12	80	40	18	8	8	12	25	\$253.00	\$12,693.01	\$0.13	2,000	\$0.17			\$16,957.80	\$4,364.79	\$87.00			
Steve Olson	SW	CLL	20.3 DS	20	25	20	12	80	40	18	8	8	12	25	\$248.00	\$5,034.40	\$0.12	2,000	\$0.17			\$6,902.00	\$1,867.60	\$92.00			
Elmer Johnson	SW	CLL	69.61 DS	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$17,959.38	\$0.13	2,000	\$0.17			\$23,667.40	\$5,708.02	\$82.00			
Don Nelson 71	SW	CLL	70.08 DS	50	50	20	12	80	40	18	8	8	12	25	\$273.00	\$19,131.84	\$0.14	2,000	\$0.17			\$23,827.20	\$4,695.36	\$67.00			
Don Nelson 63	SW	CLL	61.8 DS	50	50	20	12	80	40	18	8	8	12	25	\$273.00	\$16,871.40	\$0.14	2,000	\$0.17			\$21,012.00	\$4,140.60	\$67.00			
Don Nelson 57	SW/CLL	CLL	58.64 DS	50	50	20	12	80	40	18	8	8	12	25	\$273.00	\$16,008.72	\$0.14	2,000	\$0.17			\$19,937.60	\$3,928.88	\$67.00			
George Setzke	SW	CLL	41.23 DS	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$10,843.49	\$0.13	2,000	\$0.17			\$14,018.20	\$3,174.71	\$77.00			
Gibbons	SW	CLL	129.56 DS	45	45	20	12	80	40	18	8	8	12	25	\$268.00	\$34,722.08	\$0.13	2,000	\$0.17			\$44,500.40	\$9,328.32	\$72.00			
Helen Jahneke	SW	CLL	19.9 DS	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$5,233.70	\$0.13	2,000	\$0.17			\$6,756.00	\$1,532.30	\$77.00			
DRM Bayfield		563.58																									
Sandra Pratt	SW	CLL	124.93 DRM	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$32,856.59	\$0.13	2,000	\$0.17			\$42,476.20	\$9,619.61	\$77.00			
Clark Olson	SW	CLL	74.42 DRM	25	30	20	12	80	40	18	8	8	12	25	\$253.00	\$18,828.26	\$0.13	2,000	\$0.17			\$25,302.80	\$6,474.54	\$87.00			
Clinton Harrison	SW	CLL	47.46 DRM	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$12,481.98	\$0.13	2,000	\$0.17			\$16,136.40	\$3,654.42	\$77.00			
James Beeksma	SW	CLL	22.1 DRM	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$5,701.80	\$0.13	2,000	\$0.17			\$7,514.00	\$1,812.20	\$82.00			
Dan Bourassa	SW	CLL	32.9 DRM	45	50	20	12	80	40	18	8	8	12	25	\$273.00	\$8,981.70	\$0.14	2,000	\$0.17			\$11,186.00	\$2,204.30	\$67.00			
Wayne Holly	WW	CLL	15.2 DRM	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$3,921.60	\$0.13	2,000	\$0.17			\$5,168.00	\$1,246.40	\$82.00			
Brouch estates	WW	CLL	95 DRM	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$24,510.00	\$0.13	2,000	\$0.17			\$32,300.00	\$7,790.00	\$82.00			
Tim Landgreen	WW	CLL	70.78 DRM	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$18,615.14	\$0.13	2,000	\$0.17			\$24,065.20	\$5,450.06	\$77.00			
Desomd Sipsas	WW	CLL	56.99 DRM	50	50	20	12	80	40	18	8	8	12	25	\$273.00	\$15,558.27	\$0.14	2,000	\$0.17			\$19,376.60	\$3,818.33	\$67.00			
Keith Holly	WW	CLL	23.8 DRM	40	45	20	12	80	40	18	8	8	12	25	\$268.00	\$6,378.40	\$0.13	2,000	\$0.17			\$8,092.00	\$1,713.60	\$72.00			
Douglas County		660.5																									
Gladys Christiansen	CRR	SW	52.5 DRM	30	35	17	24	40	15	18	18	2.5	8	25	\$202.50	\$10,631.25	\$4.50	45	\$5.00			\$11,812.50	\$1,181.25	\$22.50			
Ron Askegaard	CRR	SW	39.5 DRM	30	35	17	24	40	15	18	18	2.5	8	25	\$202.50	\$7,998.75	\$4.50	45	\$5.00			\$8,887.50	\$888.75	\$22.50			
James Rogge	CRR	SW	59 DRM	30	35	17	24	40	18	18	2.5	8	25	\$187.50	\$11,062.50	\$4.17	45	\$5.00			\$13,275.00	\$2,212.50	\$37.50				
JoAnn Reuille	CRR	SW	69.4 DRM	30	35	17	24	40	18	18	2.5	8	25	\$187.50	\$13,012.50	\$4.17	45	\$5.00			\$15,615.00	\$2,602.50	\$37.50				
James Bolin	CRR	SW	53.1 DRM	30	35	17	24	40	15	18	18	2.5	8	25	\$202.50	\$10,752.75	\$4.50	45	\$5.00			\$11,947.50	\$1,194.75	\$22.50			
Richard Johnson	CRR	SW	35.6 DRM	40	45	17	24	40	15	18	18	2.5	8	25	\$212.50	\$7,565.00	\$4.72	45	\$5.00			\$8,010.00	\$445.00	\$12.50			
Bill Goddard	CRR	SW	38 DRM	30	35	17	24	40	15	18	18	2.5	8	25	\$202.50	\$7,695.00	\$4.50	45	\$5.00			\$8,550.00	\$855.00	\$22.50			
Gary Kane	WW	CLL	31.5 DRM	40	45	20	12	80	40	18	8	8	12	25	\$268.00	\$8,442.00	\$0.13	2,000	\$0.17			\$10,710.00	\$2,268.00	\$72.00			
Deb Lumberg	WW	CLL	16.9 DRM	30	35	20	12	80	40	18	8	8	12	25	\$258.00	\$4,360.20	\$0.13	2,000	\$0.17			\$5,746.00	\$1,385.80	\$82.00			
Joseph Hursh	WW	CLL	14.9 DRM	40	45	20	12	80	40	18	8	8	12	25	\$268.00	\$3,993.20	\$0.13	2,000	\$0.17			\$5,066.00	\$1,072.80	\$72.00			
Shayne Bergstrom	WW	CLL	16.2 DRM	40	45	20	12	80	40	18	8	8	12	25	\$268.00	\$4,341.60	\$0.13	2,000	\$0.17			\$5,508.00	\$1,166.40	\$72.00			
Nancy Savage	WW	CLL	64.5 DRM	40	45	20	12	80	40	18	8	8	12	25	\$268.00	\$17,286.00	\$0.13	2,000	\$0.17			\$21,930.00	\$4,644.00	\$72.00			
Don Anderson	SW	CLL	74.4 DRM	35	40	20	12	80	40	18	8	8	12	25	\$263.00	\$19,567.20	\$0.13	2,000	\$0.17			\$25,296.00	\$5,728.80	\$77.00			
Joe Richards	CLL	CLL	95 DRM	0	15	20	24	80	15	40	18	8	12	25	\$265.00	\$25,175.00	\$0.13	2,000	\$0.17			\$32,300.00	\$7,125.00	\$75.00			
Barron County		408.25																									
Donna Olson	Flax	CLL	37.79 DRM	35	35	20	12	80	40	18	8	8	12	25	\$258.00	\$9,749.82	\$0.13	2,000	\$0.17			\$12,848.60	\$3,098.78	\$82.00			
Mark Ruppel	SW	CLL	40.7 Mark	35	35	20	12	80	40	18	8	8	12	25	\$258.00	\$10,500.60	\$0.13	2,000	\$0.17			\$13,838.00	\$3,337.40	\$82.00			
Ted Morley	SW	CLL	25.3 Mark	35	35	20	12	80	40	18																	



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Enterprise Budget for 2009 Canola Production

Enter your farm values in the yellow boxes.

2009 Production - Typical Existing Farm

	Unit	Quantity	Price \$	Amount \$/acre
Products				
Canola	#/acre	2000	\$0.17	\$340.00
Government payments	#/acre	1	\$0.00	\$0.00
Total				\$340.00

Operating Costs

Input Expenses

Fertility				
Urea	#of product	100	\$0.21	\$21.00
Potash	#of product	40	\$0.23	\$9.20
AMS	#of product	50	\$0.12	\$6.00
DAP	#of product	30	\$0.21	\$6.30
Seed Plants				
Canola seed	pounds	5	\$7.40	\$37.00
Miscellaneous				
RMA Crop Insurance	acre	1	\$0.00	\$0.00
Nap Insurance	County			\$0.00
Hail Insurance	acre	0		\$0.00
Pest Scouting	acre	1	\$1.00	\$1.00
Weed Control				
Roundup for RR	acre	1	\$2.50	\$2.50
Ignite for Liberty Link	acre	0	\$10.31	\$0.00
Class Act (surfactant)	acre	1	\$2.50	\$2.50
Application	acre	1	\$5.00	\$5.00
Helicopter	acre	0	\$11.00	\$0.00
Disease Control				
	acre	0		\$0.00
Insect control				
	acre	0		\$0.00

Your Farm

	Unit	Quantity	Price \$	Amount \$	Field or Farm size(acres)	Field/Farm
Products						
Canola	#/acre			\$0.00		\$0.00
Government payments	acre	1		\$0.00		\$0.00
Total				\$0.00		\$0.00

Operating Costs

Input Expenses

Fertility						
Urea	#of product			\$0.00		\$0.00
Potash	#of product			\$0.00		\$0.00
AMS	#of product			\$0.00		\$0.00
DAP	#of product			\$0.00		\$0.00
Seed Plants						
Canola seed	pounds			\$0.00		\$0.00
Miscellaneous						
RMA Crop Insurance	acre	1		\$0.00		\$0.00
Nap Insurance	County	1		\$0.00		\$0.00
Hail Insurance	acre	1		\$0.00		\$0.00
Pest Scouting	acre	1		\$0.00		\$0.00
Weed Control						
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
Disease Control						
	acre	1		\$0.00		\$0.00
Insect control						
	acre	1		\$0.00		\$0.00

Part-time Labor	Part-time Labor acre	0.8	\$12.00	\$9.60
Energy Expenses	Diesel Fuel gal	6	\$2.44	\$14.64
	Gasoline gal	0.5	\$2.74	\$1.37
	Electricity KW/h	0	\$0.00	\$0.00
	Engine Lubrication acre	1	\$1.92	\$1.92
Repairs and Maintenance	Power units acre	1	\$3.00	\$3.00
	Implements acre	1	\$3.00	\$3.00
Sub totals				\$124.03
Interest on Capital -12months%rate acre		\$124.03	6.25%	\$7.75
Total operating costs per acre				\$131.78
Total operating costs per pound				\$0.07

Part-time Labor	Part-time Labor acre		\$0.00	\$0.00
Energy Expenses	Diesel Fuel gal		\$0.00	\$0.00
	Gasoline gal		\$0.00	\$0.00
	Electricity KW/h		\$0.00	\$0.00
	Engine Lubrication acre	1	\$0.00	\$0.00
Repairs and Maintenance	Power units acre	1	\$0.00	\$0.00
	Implements acre	1	\$0.00	\$0.00
Sub totals				\$0.00
Interest on Capital -12 months%rate acre		\$0.00		\$0.00
Total operating costs per acre				\$0.00
Total operating costs per pound				#DIV/0!

<i>Fixed Expenses</i>	Unit	Quantity	Price	Amount \$/acre
Management charge	acre	0	\$0.00	\$0.00
Land ownership costs/rent	acre	1	\$30.00	\$30.00
Labor expenses		1.44	\$12.00	\$17.28
Interest and Insurance Expenses				
	Power units acre	1	\$8.95	\$8.95
	Implements acre	1	\$5.61	\$5.61
Depreciation Expenses		1	\$16.68	\$16.68
Total Fixed Expenses per acre				\$78.52
Total Costs per Acre				\$210.30

<i>Fixed Expenses</i>	Unit	Quantity	Price	Amount \$/acre	Field/Farm
Management charge	acre	1		\$0.00	\$0.00
Land ownership costs/rent	acre	1		\$0.00	\$0.00
Labor expenses	acre			\$0.00	\$0.00
Interest and Insurance Expenses					
	Power units acre	1		\$0.00	\$0.00
	Implements acre	1		\$0.00	\$0.00
Depreciation Expenses		1		\$0.00	\$0.00
Total Fixed Expenses				\$0.00	\$0.00
Total Costs				\$0.00	\$0.00

Return to Operator	acre	1		\$129.70
Total cost per pound				\$0.11

Return to Operator			\$0.00	\$0.00
Total cost per pound			#DIV/0!	



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Enterprise Budget for 2010 Canola Production

Enter your farm values in the yellow boxes.

Example Farm - First Year (from old sod)

	Unit	Quantity	Price \$	Amount \$/acre
Products				
Canola	#/acre	1600	\$0.17	\$272.00
Government payments	#/acre	1	\$0.00	\$0.00
Total				\$272.00
Operating Costs				
Input Expenses				
Fertility				
Urea	#of product	200	\$0.21	\$42.00
Potash	#of product	83	\$0.23	\$19.09
AMS	#of product	100	\$0.12	\$12.00
DAP	#of product	65	\$0.21	\$13.65
Seed Plants				
Canola seed	pounds	5	\$7.40	\$37.00
Miscellaneous				
RMA Crop Insurance	acre	0	\$17.00	\$0.00
Nap Insurance	County			\$0.00
Hail Insurance	acre	0	\$0.00	\$0.00
Pest Scouting	acre	1	\$1.00	\$1.00
Weed Control				
Roundup for RR	acre	1	\$2.50	\$2.50
Ignite for Liberty Link	acre	0	\$10.31	\$0.00
Class Act (surfactant)	acre	1	\$2.50	\$2.50
Application	acre	1	\$8.00	\$8.00
Helicopter	acre	0	\$11.00	\$0.00
Disease Control				
Headline (for white mold)	acre	0	\$10.31	\$0.00
Insect control				
Brigade (hoppers)	acre	0	\$2.00	\$0.00
Part-time Labor				
Part-time Labor	acre	0.8	\$12.00	\$9.60
Energy Expenses				
Diesel Fuel	gal	6	\$2.44	\$14.64
Gasoline	gal	0.5	\$2.74	\$1.37

Your Farm					Field or Farm size(acres)	
	Unit	Quantity	Price \$	Amount \$		Field/Farm
Products						
Canola	#/acre			\$0.00		\$0.00
Government payments	acre	1		\$0.00		\$0.00
Total				\$0.00		\$0.00
Operating Costs						
Input Expenses						
Fertility						
Urea	#of product			\$0.00		\$0.00
Potash	#of product			\$0.00		\$0.00
AMS	#of product			\$0.00		\$0.00
DAP	#of product			\$0.00		\$0.00
Seed Plants						
Canola seed	pounds			\$0.00		\$0.00
Miscellaneous						
RMA Crop Insurance	acre	1		\$0.00		\$0.00
Nap Insurance	County	1		\$0.00		\$0.00
Hail Insurance	acre	1		\$0.00		\$0.00
Pest Scouting	acre	1		\$0.00		\$0.00
Weed Control						
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
	acre	1		\$0.00		\$0.00
Disease Control						
	acre	1		\$0.00		\$0.00
Insect control						
	acre	1		\$0.00		\$0.00
Part-time Labor						
Part-time Labor	acre			\$0.00		\$0.00
Energy Expenses						
Diesel Fuel	gal			\$0.00		\$0.00
Gasoline	gal			\$0.00		\$0.00

Electricity kW/h	0	\$0.00	\$0.00
Engine Lubrication acre	1	\$1.92	\$1.92
Repairs and Maintenance			
Power units acre	1	\$3.00	\$3.00
Implements acre	1	\$3.00	\$3.00
Sub totals			\$171.27
Interest on Capital -12 months%rate acre	\$171.27	6.25%	\$10.70
Total operating costs per acre			\$181.97
Total operating costs per pound			\$0.11
Fixed Expenses			
Unit	Quantity	Price	Amount \$/acre
Management charge acre	0	\$0.00	\$0.00
Land ownership costs/rent acre	1	\$15.00	\$15.00
Labor expenses	1.44	\$12.00	\$17.28
Interest and Insurance Expenses			
Power units acre	1	\$8.95	\$8.95
Implements acre	1	\$5.61	\$5.61
Depreciation Expenses	1	\$16.68	\$16.68
Total Fixed Expenses per acre			\$63.52
Total Costs per Acre			\$245.49
Return to Operator acre	1		\$26.51
Total cost per pound			\$0.15

Electricity kW/h		\$0.00	\$0.00
Engine Lubrication acre	1		\$0.00
Repairs and Maintenance			
Power units acre	1		\$0.00
Implements acre	1		\$0.00
Sub totals			\$0.00
Interest on Capital -12 months%rate acre	\$0.00		\$0.00
Total operating costs per acre			\$0.00
Total operating costs per pound			#DIV/0!
Fixed Expenses			
Unit	Quantity	Price	Amount \$/acre
Management charge acre	1		\$0.00
Land ownership costs/rent acre	1		\$0.00
Labor expenses			\$0.00
Interest and Insurance Expenses			
Power units acre	1		\$0.00
Implements acre	1		\$0.00
Depreciation Expenses	1		\$0.00
Total Fixed Expenses			\$0.00
Total Costs			\$0.00
Return to Operator			\$0.00
Total cost per pound			#DIV/0!

Annual machinery expenses

Power Unit	Main Implement	Depreciation	Interest	Labor	Energy	Repair	Times Over	Cost Per Acre
Tractor 200 HP MFWD	Plow, disc-chisel 16.3 ft	\$3.49	\$2.53	\$1.31	\$2.27	\$1.01	1.00	\$10.61
Tractor 160 HP MFWD	Disk, finisher 21 ft	\$2.74	\$1.76	\$0.99	\$1.37	\$0.66	1.00	\$7.52
Tractor 100 HP Used	Drill, double disk 10 ft	\$3.66	\$2.28	\$4.13	\$3.25	\$2.81	1.00	\$16.13
Combine, 265 HP	Head, grain 20 ft/pickup	\$6.06	\$5.85	\$1.94	\$4.06	\$5.57	1.00	\$23.48
Tractor 60 HP	Sprayer 45 ft	\$0.73	\$0.49	\$0.55	\$0.26	\$0.33	1.00	\$2.36
Engine Lubrication					\$1.68			
Totals		\$16.68	\$12.91	\$8.92	\$12.89	\$10.38		\$61.78

Canola Budget for 2010

Example Farm

Risk Analyses
(Value of Production less Total Costs as Price and Yield Vary)

		-20%	-10%	Price	+10%	+20%
		\$0.14	\$0.15	\$0.17	\$0.19	\$0.20
-20%	1280.00	\$179.20	\$192.00	\$217.60	\$243.20	\$256.00
-10%	1440.00	\$201.60	\$216.00	\$244.80	\$273.60	\$288.00
Yield	1600.00	\$224.00	\$240.00	\$272.00	\$304.00	\$320.00
+10%	1760.00	\$246.40	\$264.00	\$299.20	\$334.40	\$352.00
+20%	1920.00	\$268.80	\$288.00	\$326.40	\$364.80	\$384.00

Sensitivity Analysis
(Break-Even Yields as Price and Total Costs Vary)

		-20%	-10%	Price	+10%	+20%
		\$0.14	\$0.15	\$0.17	\$0.19	\$0.20
-20%	\$196.40	1402.83	1309.30	1155.27	1033.66	981.98
-10%	\$220.94	1578.18	1472.97	1299.68	1162.87	1104.72
Total Costs	\$245.49	1753.53	1636.63	1444.08	1292.08	1227.47
+10%	\$270.04	1928.88	1800.29	1588.49	1421.28	1350.22
+20%	\$294.59	2104.24	1963.96	1732.90	1550.49	1472.97

Your Farm

Risk Analyses
(Value of Production less Total Costs as Price and Yield Vary)

		-20%	-10%	Price	+10%	+20%
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-20%	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-10%	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Yield	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
+10%	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
+20%	0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Sensitivity Analysis
(Break-Even Yields as Price and Total Costs Vary)

		-20%	-10%	Price	+10%	+20%
		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
-20%	\$0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
-10%	\$0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total Costs	\$0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
+10%	\$0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
+20%	\$0.00	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

This sheet is tied to the Budget 2010 spreadsheet.