

## 2013 Pennsylvania Farm Business Management Resource Information

### Background information

Laura and Phil Stuff own and operate a swine finishing operation in partnership with their daughter Julie. They also grow crops on 650 acres, of which they own 450 acres and they rent the other 200. Julie has a part time side business as a farrier. Crops grown by the farm include corn, wheat, and soybeans. Currently Laura and Phil's other 2 children are grown and working in other careers. Julie's husband works as a mathematics teacher and their two children are elementary age.

They finish an average of 50,000 hogs per year under a contract with Hatfield which they have done for the past 11 years.

The partnership is currently structured with Laura and Phil owning 75% and Julie 25%. However, Laura and Phil are looking to start retiring and cutting back. They want to phase themselves completely out within the next 7 years.

Laura and Phil have farmed for their entire life. Before raising hogs, they had a dairy farm. The farm was in need of major upgrades and the decision was made to convert to crops and hogs.

Julie was a full-time farrier, but 3 years ago, she cut back her work hours to work on the farm. Her hours remain flexible so she can help on the farm during peak seasons of need.

For the farm, Laura serves as the business manager and tracks all accounts and makes purchases. She also operates equipment as needed. Phil is primarily in charge of the feeder pigs, though the others provide labor as needed. Julie is in charge of the crops and makes the decisions about planting, harvesting, fertilizing, etc.

The Stuff's provide all of the labor for the farm. A few times they have used custom labor, when they had a break or got behind.

Going forward, the farm has the opportunity to purchase the 200 acres that they are currently renting and they are also looking into using alternative energy sources to reduce the amount of the electricity that needs to be purchased.

**Stuff Farm  
Balance Sheet**

**December 31, 2012**

**Assets**

**Current Assets**

Bank Checking	\$	23,800
Bank Savings	\$	2,618
Bank Direct Deposit	\$	174
Accounts Receivable	\$	2,150
Inventories	\$	152,300
Feeder Pigs	\$	20,000

**Total Current Assets** \$ 201,042

**Non-current Assets**

Land	\$	876,200
Buildings	\$	200,000
Machinery and Equipment	\$	413,000

**Total Non-current Assets** \$ 1,489,200

**Total Assets** \$ 1,690,242

**Liabilities**

**Current Liabilities**

Feed Accounts Payable	\$	6,800
Wages/taxes payable	\$	18,129
Accrued interest	\$	32,000
Farm Credit Operating Loan	\$	56,000
Current Portion of long-term debt	\$	40,000

**Total Current Liabilities** \$ 152,929

**Non-current Liabilities**

Building Loan	\$	42,000
Land Mortgage	\$	150,000
Equipment Loans	\$	212,000

**Total Non-Current Liabilities** \$ 254,000

**Total Liabilities** \$ 406,929

**Net Worth** \$ 1,283,313

2011 Net Worth \$ 1,476,218

**2013 Projected Cash Flow**

**Stuff Dairy Farm**

Item	JAN	FEB	MAR	APR	MAY	JUN
<b>RECEIPTS</b>						
Feeder Pigs	0	0	0	240,000	0	0
Corn	0	0	50,000	0	0	0
Wheat	0	0	0	0	0	0
Soybeans	0	0	5,280	0	0	0
USDA payments	0	0	0	15,900	0	0
Other	0	1,154	0	0	1,154	0
<b>Total Farm Receipts</b>	<b>0</b>	<b>1,154</b>	<b>55,280</b>	<b>255,900</b>	<b>1,154</b>	<b>0</b>
Non-farm income	0	0	0	0	0	0
<b>TOTAL CASH INFLOWS</b>	<b>0</b>	<b>1,154</b>	<b>55,280</b>	<b>255,900</b>	<b>1,154</b>	<b>0</b>
<b>EXPENSES</b>						
Seed	32,357	0	0	0	0	0
Fertilizer and chemicals	0	0	0	16,636	27,893	11,256
Insurance (crop, farm, etc.)	0	0	0	0	0	8,500
Custom hire	0	0	0	0	500	0
Purchased feed	11,000	12,000	12,000	10,000	10,000	11,000
Veterinary	100	100	120	100	100	100
Supplies	400	0	400	0	400	0
Hauling	0	0	0	2,100	0	0
Bedding	300	300	300	300	300	300
Fuel and oil	200	200	400	800	800	500
Repairs	0	500	1,000	0	700	400
Labor	9,000	9,000	9,000	9,000	9,000	9,000
Land rent	0	0	15,000	0	0	0
Real estate taxes	0	0	0	0	5,500	0
Utilities	3,621	3,621	3,621	2,414	2,414	2,414
Dues and fees	0	0	1,300	0	1,300	0
Miscellaneous	1,000	1,000	1,000	1,000	1,000	1,000
<b>Operating Expenses Total</b>	<b>57,978</b>	<b>26,721</b>	<b>44,141</b>	<b>42,350</b>	<b>59,907</b>	<b>44,470</b>
Capital purchases	0	0	0	0	110,000	0
Principal payments	5,093	5,093	5,093	5,093	5,093	5,093
Interest payments	6,000	6,000	6,000	6,000	6,000	6,000
<b>Total Farm Expenses</b>	<b>69,071</b>	<b>37,814</b>	<b>55,234</b>	<b>53,443</b>	<b>181,000</b>	<b>55,563</b>
Non-farm expenses	0	0	0	0	0	0
<b>TOTAL CASH OUTFLOWS</b>	<b>69,071</b>	<b>37,814</b>	<b>55,234</b>	<b>53,443</b>	<b>181,000</b>	<b>55,563</b>
<b>SUMMARY OF PROJECTED CASH FLOW</b>						
Cash Difference for Month	(69,071)	(36,660)	46	202,457	(179,846)	(55,563)
Beginning Cash Balance	112,900	43,829	7,169	7,215	209,672	29,826
Cash Position	43,829	7,169	7,215	209,672	29,826	(25,737)
<b>ENDING CASH BALANCE</b>	<b>43,829</b>	<b>7,169</b>	<b>7,215</b>	<b>209,672</b>	<b>29,826</b>	<b>(25,737)</b>

Beginning Bank Account Balance                   \$ 349,695  
 Minimum Monthly Bank Balance                   \$ 2,000  
 Beginning Operating Loan Amount                 \$ 0

2013 Projected Cash Flow (continued)

Stuff Dairy Farm

Item	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
<b>RECEIPTS</b>							
Feeder Pigs	0	0	0	225,000	0	0	465,000
Corn	0	0	0	10,000	85,000	72,000	217,000
Wheat	40,000	0	0	0	0	0	40,000
Soybeans	0	0	0	0	20,000	0	25,280
USDA payments	4,000	0	0	17,500	0	0	37,400
Other	0	0	15,800	0	11,538	0	29,646
<b>Total Farm Receipts</b>	<b>44,000</b>	<b>0</b>	<b>15,800</b>	<b>252,500</b>	<b>116,538</b>	<b>72,000</b>	<b>814,326</b>
Non-farm income	0	0	0	0	0	0	0
<b>TOTAL CASH INFLOWS</b>	<b>44,000</b>	<b>0</b>	<b>15,800</b>	<b>252,500</b>	<b>116,538</b>	<b>72,000</b>	<b>814,326</b>
<b>EXPENSES</b>							
Seed	0	9,000	0	0	0	0	41,357
Fertilizer and chemicals	0	0	0	0	0	0	55,785
Insurance (crop, farm, etc.)	0	0	3,600	0	6,090	8,500	26,690
Custom hire	0	0	0	0	0	0	500
Purchased feed	10,000	11,000	12,000	13,000	10,000	10,000	132,000
Veterinary	100	240	100	100	100	100	1,360
Supplies	400	0	400	0	400	0	2,400
Hauling	0	0	0	2,300	0	0	4,400
Bedding	200	200	200	200	200	200	3,000
Fuel and oil	900	1,000	800	800	500	300	7,200
Repairs	1,000	1,000	500	400	200	0	5,700
Labor	9,000	9,000	9,000	9,000	9,000	9,000	108,000
Land rent	0	0	0	20,000	0	0	35,000
Real estate taxes	0	0	0	5,500	0	0	11,000
Utilities	2,414	2,414	2,414	2,414	3,621	3,618	35,000
Dues and fees	1,300	0	1,300	0	1,300	0	6,500
Miscellaneous	1,000	1,000	1,000	1,000	1,000	1,000	12,000
<b>Operating Expenses Total</b>	<b>26,314</b>	<b>34,854</b>	<b>31,314</b>	<b>54,714</b>	<b>32,411</b>	<b>32,718</b>	<b>487,892</b>
Capital purchases	0	0	0	0	0	0	110,000
Principal payments	5,093	5,093	5,093	12,900	5,093	5,093	68,923
Interest payments	6,000	6,000	6,000	6,000	6,000	6,000	72,000
<b>Total Farm Expenses</b>	<b>37,407</b>	<b>45,947</b>	<b>42,407</b>	<b>73,614</b>	<b>43,504</b>	<b>43,811</b>	<b>738,815</b>
Non-farm expense	0	0	0	0	0	0	0
<b>TOTAL CASH OUTFLOWS</b>	<b>37,407</b>	<b>45,947</b>	<b>42,407</b>	<b>73,614</b>	<b>43,504</b>	<b>43,811</b>	<b>738,815</b>
<b>SUMMARY OF PROJECTED CASH FLOW</b>							
Cash Difference for Month	6,593	(45,947)	(26,607)	178,886	73,034	28,189	75,511
Beginning Cash Balance	278,504	297,214	315,115	308,323	312,551	292,235	
Cash Position	285,097	251,267	288,508	487,209	385,585	320,424	
<b>ENDING CASH BALANCE</b>	<b>285,097</b>	<b>251,267</b>	<b>288,508</b>	<b>487,209</b>	<b>385,585</b>	<b>320,424</b>	<b>75,511</b>

Ending Bank Account Balance

\$ 75,511

## Statement of Income for the year ended December 31, 2012

	Total	
<b>Revenue</b>		
Feeder Pigs	\$ 450,000	
Corn	\$ 124,000	
Wheat	\$ 37,090	
Soybeans	\$ 21,672	
USDA payments	\$ 19,366	
Other	\$ 14,184	
	<b>Gross Revenue</b>	\$ 666,312
<b>Operating Expenses</b>		
Seed	\$ 89,000	
Feed	\$ 223,000	
Fertilizer	\$ 31,000	
Pesticides	\$ 8,100	
Interest	\$ 72,000	
Equipment Rental	\$ 638	
Depreciation	\$ 15,671	
Labor	\$ 110,000	
Supplies	\$ 23,000	
Repairs and Maintenance	\$ 7,890	
Utilities	\$ 2,690	
Taxes	\$ 2,700	
Insurance	\$ 12,980	
Fuel and Oil	\$ 15,678	
Legal and accounting	\$ 4,500	
Employee benefits	\$ 11,093	
Vet	\$ 3,500	
Miscellaneous	\$ 1,780	
	<b>Total Operating Expenses</b>	\$ 635,220
	<b>Net Farm Income from Operations</b>	\$ 31,092

# Corn Enterprise Budget

per acre

	UNITS	QUANTITY	PRICE	VALUE	YOUR VALUE
<b>OPERATING COSTS</b>					
Seed				\$ 97.00	_____
Fertilizer				\$ 89.00	_____
Crop Chemicals				\$ 39.80	_____
Crop Insurance				\$ 10.91	_____
Equipment				\$ 105.00	_____
Labor				\$ 45.00	_____
Land				\$ 250.00	_____
Miscellaneous				\$ 6.82	_____
Fuel and Oil				\$ 28.70	_____
Repairs				\$ 14.06	_____
Interest on Operating Capital				\$ 0.41	_____
<b>TOTAL OPERATING COSTS</b>				\$ 686.70	_____
<b>FIXED COSTS</b>					
General Overhead				\$ 1.80	_____
Insurance				\$ 2.82	_____
Depreciation				\$ 15.64	_____
Operator Labor and Management Charge				\$ 27.00	_____
<b>TOTAL FIXED COSTS</b>				\$ 47.26	_____
<b>PRODUCTION</b>					
Corn	bu.	148	\$ 5.70	\$ 843.60	_____
<b>TOTAL RECEIPTS</b>				\$ 843.60	_____
<b>TOTAL RECEIPTS</b>				\$ 843.60	_____
<b>TOTAL OPERATING COSTS</b>				\$ 686.70	_____
<b>RETURNS ABOVE TOTAL OPERATING COSTS</b>				\$ 156.90	_____
<b>TOTAL FIXED COSTS</b>				\$ 47.26	_____
<b>RETURNS ABOVE ALL SPECIFIED COSTS</b>				\$ 109.64	_____

## Wheat Enterprise Budget

per acre

	UNITS	QUANTITY	PRICE	VALUE	YOUR VALUE
<b>OPERATING COSTS</b>					
Seed				\$ 34.00	_____
Fertilizer				\$ 37.00	_____
Crop Chemicals				\$ 12.00	_____
Crop Insurance				\$ 8.42	_____
Equipment				\$ 179.47	_____
Miscellaneous				\$ 32.57	_____
Fuel and Oil				\$ 27.60	_____
Repairs				\$ 15.33	_____
Interest on Operating Capital				\$ 0.45	_____
<b>TOTAL OPERATING COSTS</b>				\$ 346.84	_____
<b>FIXED COSTS</b>					
General Overhead				\$ 1.97	_____
Insurance				\$ 3.08	_____
Depreciation				\$ 17.07	_____
Operator Labor and Management Charge				\$ 21.54	_____
Land				\$ 150.00	_____
<b>TOTAL FIXED COSTS</b>				\$ 193.66	_____
<b>PRODUCTION</b>					
Wheat	Bushels	60	\$ 11.50	\$ 690.00	_____
<b>TOTAL RECEIPTS</b>				\$ 690.00	_____
<b>TOTAL RECEIPTS</b>				\$ 690.00	_____
<b>TOTAL OPERATING COSTS</b>				\$ 346.84	_____
<b>RETURNS ABOVE TOTAL OPERATING COSTS</b>				\$ 343.16	_____
<b>TOTAL FIXED COSTS</b>				\$ 193.66	_____
<b>RETURNS ABOVE ALL SPECIFIED COSTS</b>				\$ 149.50	_____

# Soybean Enterprise Budget

per acre

	UNITS	QUANTITY	PRICE	VALUE	YOUR VALUE
<b>OPERATING COSTS</b>					
Seed				\$ 65.00	_____
Fertilizer				\$ 12.00	_____
Crop Chemicals				\$ 32.00	_____
Crop Insurance				\$ 7.00	_____
Custom Hire				\$ 81.55	_____
Miscellaneous				\$ 32.57	_____
Fuel and Oil				\$ 45.30	_____
Repairs				\$ 17.60	_____
Interest on Operating Capital				\$ 0.45	_____
<b>TOTAL OPERATING COSTS</b>				\$ 293.47	_____
<b>FIXED COSTS</b>					
General Overhead				\$ 1.97	_____
Insurance				\$ 3.08	_____
Depreciation				\$ 17.07	_____
Operation Labor and Management Charge				\$ 32.10	_____
Land				\$ 190.00	_____
<b>TOTAL FIXED COSTS</b>				\$ 244.22	_____
<b>PRODUCTION</b>					
Soybeans	Bushels	57	\$ 11.60	\$ 661.20	_____
<b>TOTAL RECEIPTS</b>				\$ 661.20	_____
<b>TOTAL RECEIPTS</b>				\$ 661.20	_____
<b>TOTAL OPERATING COSTS</b>				\$ 293.47	_____
<b>RETURNS ABOVE TOTAL OPERATING COSTS</b>				\$ 367.73	_____
<b>TOTAL FIXED COSTS</b>				\$ 244.22	_____
<b>RETURNS ABOVE ALL SPECIFIED COSTS</b>				\$ 123.51	_____



## Finishing Feeder Pigs - One Pig

Income	Price	Unit	Quantity	Unit	Total
Market hog	\$0.80	per lb	x 260	lbs	= \$208.00

Variable Costs	Price	Unit	Quantity	Unit	Total
Feeder pig	\$55.00	head	x 1	head	= \$55.00
Interest	9%		x 5	months	= \$2.06

Feed Costs	Price	Unit	Quantity	Unit	Total
Corn	\$6.25	per bu	x 9.0	bu	= \$56.25
Soybean meal	\$0.30	per lb	x 82	lbs	= 24.60
Dried distiller grain	\$0.12	per lb	x 32	lbs	= 3.84
Vitamin & minerals	\$0.50	per lb	x 14.4	lbs	= 7.20
Feed processing & delivery	\$10.00	per ton	x 0.3	tons	= 3.00
Feed Additives					3.00
Other					0.00
<b>Total Feed Costs</b>					<b>\$97.89</b>

Veterinary and medical					\$4.00
Fuel, repairs, utilities					3.50
Marketing, miscellaneous					4.00
Other					0.00
Manure application cost	\$0.01	per gal	x 190	gal	= 1.90
Interest on variable costs	5%		x 2.5	months	= 1.14
Death loss	0.02	hd			= 1.10
Labor	\$14.00	per hour	x 0.2	hours	= 2.80

**Total Variable Costs** \$173.39

**Income over Variable Costs** \$34.61

<b>Fixed Costs</b>					
Machinery, facilities					\$8.63

**Total All Costs** \$182.02

**Income over All Costs** \$25.98

Break-even selling price for variable costs \$66.69 per cwt

Break-even selling price for all costs \$70.01 per cwt

**Financial Coefficients for the Time Value of Money**

**Interest Rate = 6%**

<b>Year</b>	<b>Present Value of 1</b>	<b>Future Value of 1</b>	<b>Present Value/Ordinary Annuity</b>	<b>Future Value of Ordinary Annuity</b>	<b>Amortization Factors</b>
<b>1</b>	0.9434	1.0600	0.9434	1.0000	1.0600
<b>2</b>	0.8900	1.1236	1.8334	2.0600	0.5454
<b>3</b>	0.8396	1.1910	2.6730	3.1836	0.3741
<b>4</b>	0.7921	1.2625	3.4651	4.3746	0.2886
<b>5</b>	0.7473	1.3382	4.2124	5.6371	0.2374
<b>6</b>	0.7050	1.4185	4.9173	6.9753	0.2034
<b>7</b>	0.6651	1.5036	5.5824	8.3938	0.1791
<b>8</b>	0.6274	1.5938	6.2098	9.8975	0.1610
<b>9</b>	0.5919	1.6895	6.8017	11.4913	0.1470
<b>10</b>	0.5584	1.7908	7.3601	13.1808	0.1359
<b>11</b>	0.5268	1.8983	7.8869	14.9716	0.1268
<b>12</b>	0.4970	2.0122	8.3838	16.8699	0.1193
<b>13</b>	0.4688	2.1329	8.8527	18.8821	0.1130
<b>14</b>	0.4423	2.2609	9.2950	21.0151	0.1076
<b>15</b>	0.4173	2.3966	9.7122	23.2760	0.1030
<b>16</b>	0.3936	2.5404	10.1059	25.6725	0.0990
<b>17</b>	0.3714	2.6928	10.4773	28.2129	0.0954
<b>18</b>	0.3503	2.8543	10.8276	30.9057	0.0924
<b>19</b>	0.3305	3.0256	11.1581	33.7600	0.0896
<b>20</b>	0.3118	3.2071	11.4699	36.7856	0.0872
<b>21</b>	0.2942	3.3996	11.7641	39.9927	0.0850
<b>22</b>	0.2775	3.6035	12.0416	43.3923	0.0830
<b>23</b>	0.2618	3.8197	12.3034	46.9958	0.0813
<b>24</b>	0.2470	4.0489	12.5504	50.8156	0.0797
<b>25</b>	0.2330	4.2919	12.7834	54.8645	0.0782

## Financial Coefficients for the Time Value of Money

**Interest Rate                      8%**

<b>Year</b>	<b>Present Value of 1</b>	<b>Future Value of 1</b>	<b>Present Value/Ordinary Annuity</b>	<b>Future Value of Ordinary Annuity</b>	<b>Amortization Factors</b>
<b>1</b>	0.9259	1.0800	0.9259	1.0000	1.0800
<b>2</b>	0.8573	1.1664	1.7833	2.0800	0.5608
<b>3</b>	0.7938	1.2597	2.5771	3.2464	0.3880
<b>4</b>	0.7350	1.3605	3.3121	4.5061	0.3019
<b>5</b>	0.6806	1.4693	3.9927	5.8666	0.2505
<b>6</b>	0.6302	1.5869	4.6229	7.3359	0.2163
<b>7</b>	0.5835	1.7138	5.2064	8.9228	0.1921
<b>8</b>	0.5403	1.8509	5.7466	10.6366	0.1740
<b>9</b>	0.5002	1.9990	6.2469	12.4876	0.1601
<b>10</b>	0.4632	2.1589	6.7101	14.4866	0.1490
<b>11</b>	0.4289	2.3316	7.1390	16.6455	0.1401
<b>12</b>	0.3971	2.5182	7.5361	18.9771	0.1327
<b>13</b>	0.3677	2.7196	7.9038	21.4953	0.1265
<b>14</b>	0.3405	2.9372	8.2442	24.2149	0.1213
<b>15</b>	0.3152	3.1722	8.5595	27.1521	0.1168
<b>16</b>	0.2919	3.4259	8.8514	30.3243	0.1130
<b>17</b>	0.2703	3.7000	9.1216	33.7502	0.1096
<b>18</b>	0.2502	3.9960	9.3719	37.4502	0.1067
<b>19</b>	0.2317	4.3157	9.6036	41.4463	0.1041
<b>20</b>	0.2145	4.6610	9.8181	45.7620	0.1019
<b>21</b>	0.1987	5.0338	10.0168	50.4229	0.0998
<b>22</b>	0.1839	5.4365	10.2007	55.4568	0.0980
<b>23</b>	0.1703	5.8715	10.3711	60.8933	0.0964
<b>24</b>	0.1577	6.3412	10.5288	66.7648	0.0950
<b>25</b>	0.1460	6.8485	10.6748	73.1059	0.0937