

**Utah Farm Business Management CDE
Resource Information for Petersen Farms
2011**

Robert and Jill Petersen are the owners and main operators of a crop operation known as Petersen Farms. Robert and Jill have three children; Jenny-age 14; Jeff-age 12; and Amy-age 9. Robert graduated with a degree in Agribusiness Management and Crop Science in 1990. Jill finished a degree in Accounting in 1992 and worked full-time at a tax-consulting firm for a few years but then quit so she could help out more on the farm. Jill maintains excellent financial records for the farm.

The Petersen's started farming in 1992 when they purchased 300 acres which they planted in alfalfa. Since that time, they have acquired 422 more acres and have grown alfalfa, barley, and oats. In addition to their crop enterprises, three years ago the Petersen's bought a lamb for their daughter Amy. They liked the lamb so much they purchased 50 feeder lambs the following year and started a feeder lamb enterprise. At the beginning of 2011, the Petersen's had 300 acres in alfalfa, 422 acres in barley, and 63 feeder lambs they plan to sell in 2011.

The farm business is organized as a sole proprietorship, but Robert and Jill are considering converting to an LLC to reduce their personal risk. The Petersens hope to continuing farming as long as they can and would like the farm to continue to be operated by the family.

The Petersen's financial records yield the following information from **31 December 2009**:

Total Farm Assets:	\$1,311,756
Total Farm Liabilities:	\$625,524
2009 Net Farm Income (accrual basis):	\$78,322
Current Ratio:	0.82
Debt to Equity Ratio:	0.91
Debt to Asset Ratio:	0.48
Working Capital:	-\$4,947

The attached enterprise budgets are either current enterprise budgets for Petersen Farms created by Jill or budgets reflective of typical operations in the area.

**Petersen Farms
Enterprise Budget
Feeder Lambs**

	Unit	Price or Cost/Unit	Number of Units/Lamb	Value or Cost/Lamb	Your Operation
Receipts					
Market Lambs Sold	Cwt	\$112.00	1.20	\$134.40	_____
Wool	Lbs	\$1.20	4.50	\$5.40	_____
Total Receipts				\$139.80	_____
Operating Expenses					
Feeder Lambs	Cwt.	\$108.00	0.60	\$64.80	
Death Loss	Cwt.	\$102.00	0.04	\$3.67	
Feed					
Hay	Ton	\$135.00	0.03	\$3.44	_____
Corn	Bu.	\$3.86	4.02	\$15.51	_____
Protein Vit/Minerals	Lbs.	\$0.68	24.00	\$16.32	_____
Total Feed				\$35.27	_____
Veterinary and Medicine	Head	\$0.45	1.00	\$0.45	_____
Supplies	Head	\$4.75	1.00	\$4.75	_____
Fuel and Oil	Head	\$3.15	1.00	\$3.15	_____
Repairs	Head	\$2.50	1.00	\$2.50	_____
Hauling	Head	\$0.28	1.00	\$0.28	_____
Marketing	Head	\$0.75	1.00	\$0.75	_____
Shearing	Head	\$1.50	1.00	\$1.50	_____
Hired Labor	Hour	\$7.25	1.00	\$7.25	_____
Operating Interest	Head	\$5.18	1.00	\$5.18	_____
Misc.	Head	\$1.25	1.00	\$1.25	_____
Total Operating Expenses				\$130.80	_____
Ownership Expenses					
Interest	Head	\$3.40	1.00	\$3.40	_____
Depreciation (mach and bldgs)	Head	\$3.73	1.00	\$3.73	_____
Insurance and taxes	Head	\$1.70	1.00	\$1.70	_____
Total Ownership Expenses				\$8.83	_____
Total Expenses				\$139.63	_____
Income Above Operating Expenses				\$9.00	_____
Returns to Operator Labor, Management and Equity				\$0.17	_____

**Petersen Farms
Enterprise Budget
Alfalfa Hay**

	Quantity per acre	Unit	Price/cost per unit	Value/cost per acre	Your Value
Receipts					
Alfalfa hay	6.0	tons	\$87.00	\$522.00	_____
Subtotal				\$522.00	_____
Operating costs					
Fertilizer	1	acre	\$24.96	\$24.96	_____
Pesticides/Herbicides	1	acre	\$43.50	\$43.50	_____
Fuel and Oil	1	acre	\$56.96	\$56.96	_____
Custom Hire	1	acre	\$15.64	\$15.64	_____
Hired Labor	1	acre	\$23.33	\$23.33	_____
Utilities	1	acre	\$1.26	\$1.26	_____
Crop Insurance	1	acre	\$24.22	\$24.22	_____
Repairs and Maintenance	1	acre	\$68.72	\$68.72	_____
Dues	1	acre	\$0.58	\$0.58	_____
Miscellaneous	1	acre	\$12.86	\$30.88	_____
Operating Interest	1	acre	\$3.46	\$3.46	_____
Subtotal				\$293.51	_____
Ownership costs (excludes cost of land)					
Farm insurance	1	acre	\$4.14	\$4.14	_____
Depreciation	1	acre	\$36.45	\$36.45	_____
Taxes	1	acre	\$12.86	\$12.86	_____
Interest	1	acre	\$45.82	\$45.82	_____
Subtotal				\$99.27	_____
Total Expenses				\$392.78	_____
Returns Above Operating Expenses				\$228.49	_____
Returns Above Total Expenses				\$129.22	_____

**Petersen Farms
Enterprise Budget
Barley**

Receipts	Quantity per acre	Unit	Price/cost per unit	Value/cost per acre	Your Value
Barley	95.0	bushels	\$4.09	\$388.55	_____
Straw	0.65	tons	\$38.00	\$24.70	_____
Subtotal				\$413.25	_____
Operating costs					
Seed	1	acre	\$18.70	\$18.70	_____
Fertilizer	1	acre	\$63.55	\$63.55	_____
Pesticides/Herbicides	1	acre	\$3.44	\$3.44	_____
Fuel and Oil	1	acre	\$32.18	\$32.18	_____
Custom Hire	1	acre	\$47.21	\$47.21	_____
Hired Labor	1	acre	\$18.00	\$18.00	_____
Utilities	1	acre	\$1.26	\$1.26	_____
Crop Insurance	1	acre	\$21.84	\$21.84	_____
Repairs and Maintenance	1	acre	\$36.22	\$36.22	_____
Dues	1	acre	\$0.58	\$0.58	_____
Miscellaneous	1	acre	\$8.27	\$8.27	_____
Operating Interest	1	acre	\$2.58	\$2.58	_____
Subtotal				\$253.83	_____
Ownership costs (excludes cost of land)					
Farm insurance	1	acre	\$4.14	\$4.14	_____
Depreciation	1	acre	\$18.46	\$18.46	_____
Taxes	1	acre	\$12.86	\$12.86	_____
Interest	1	acre	\$38.22	\$38.22	_____
Subtotal				\$73.68	_____
Total Expenses				\$327.51	_____
Returns Above Operating Expenses				\$159.42	_____
Returns Above Total Expenses				\$85.74	_____

**Petersen Farms
Enterprise Budget
Oats**

Receipts	Quantity	Unit	Price/cost	Value/cost	Your Value
	per acre		per unit	per acre	
Oats	100.0	bushels	\$2.13	\$213.00	_____
Straw	0.60	tons	\$43.00	\$25.80	_____
Subtotal				\$238.80	_____
Operating costs					
Seed	1	acre	\$11.90	\$11.90	_____
Fertilizer	1	acre	\$52.98	\$52.98	_____
Pesticides/Herbicides	1	acre	\$11.26	\$11.26	_____
Fuel and Oil	1	acre	\$32.18	\$32.18	_____
Custom Hire	1	acre	\$26.00	\$26.00	_____
Hired Labor	1	acre	\$18.00	\$18.00	_____
Utilities	1	acre	\$1.48	\$1.48	_____
Crop Insurance	1	acre	\$18.65	\$18.65	_____
Repairs and Maintenance	1	acre	\$34.22	\$34.22	_____
Dues	1	acre	\$0.43	\$0.43	_____
Miscellaneous	1	acre	\$12.52	\$12.52	_____
Operating Interest	1	acre	\$1.98	\$1.98	_____
Subtotal				\$221.60	_____
Ownership costs (excludes cost of land)					
Farm insurance	1	acre	\$5.25	\$5.25	_____
Depreciation	1	acre	\$16.95	\$16.95	_____
Taxes	1	acre	\$13.46	\$13.46	_____
Interest	1	acre	\$35.87	\$35.87	_____
Subtotal				\$71.53	_____
Total Expenses				\$293.13	_____
Returns Above Operating Expenses				\$17.20	_____
Returns Above Total Expenses				-\$54.33	_____

Enterprise Budget
Wheat

	Quantity		Price/cost	Value/cost	Your Value
Receipts	per acre	Unit	per unit	per acre	
Wheat	92.3	bushels	\$4.28	\$395.35	_____
Straw	0.70	tons	\$48.00	\$33.60	_____
	Subtotal			\$428.95	_____
Operating costs					
Seed	1	acre	\$17.00	\$17.00	_____
Fertilizer	1	acre	\$71.37	\$71.37	_____
Pesticides/Herbicides	1	acre	\$42.57	\$12.28	_____
Fuel and Oil	1	acre	\$28.97	\$17.47	_____
Custom Hire	1	acre	\$26.82	\$41.64	_____
Hired Labor	1	acre	\$24.46	\$13.33	_____
Utilities	1	acre	\$1.26	\$3.68	_____
Crop Insurance	1	acre	\$25.82	\$13.64	_____
Repairs and Maintenance	1	acre	\$46.35	\$2.30	_____
Dues	1	acre	\$0.58	\$0.43	_____
Miscellaneous	1	acre	\$18.57	\$4.83	_____
Operating Interest	1	acre	\$4.82	\$7.18	_____
	Subtotal			\$188.15	_____
Ownership costs (excludes cost of land)					
Farm insurance	1	acre	\$5.25	\$5.25	_____
Depreciation	1	acre	\$16.95	\$16.95	_____
Taxes	1	acre	\$12.48	\$12.48	_____
Interest	1	acre	\$28.47	\$28.47	_____
	Subtotal			\$63.15	_____
	Total Expenses			\$251.30	_____
Returns Above Operating Expenses				\$240.80	_____
Returns Above Total Expenses				\$177.65	

Contestant Number: _____
Chapter: _____

Score: _____

Utah Farm Business Management CDE
Multiple Choice Section
2011

Multiple Choice. (60 points) Circle the correct answer and place the letter of the correct answer on the answer sheet provided.

1. Use the following information to determine the net gains or losses of changing from a grain farm to a grain/beef farm. Crop receipts will be reduced by \$9,000 and crop expenses are reduced by \$6,000. Livestock receipts due to the change will be \$18,000 and the associated expenses would be \$15,500.
 - a. loss of \$2,500
 - b. gain of \$2,500
 - c. loss of \$500
 - d. gain of \$500

2. Mark has a leverage ratio of 2 to 1. His current liabilities total \$50,000 and his long-term notes due total \$100,000. What is the value of his equity?
 - a. \$75,000
 - b. \$50,000
 - c. \$100,000
 - d. \$300,000

3. Who is the current U.S. Secretary of Agriculture?
 - a. Norman Coleman
 - b. Tom Vilsack
 - c. Mike Leavitt
 - d. Hillary Clinton

4. The difference between the local cash market price and the futures price is called:
 - a. profit margin
 - b. storage factor
 - c. premium
 - d. basis

5. Principle payments on debt:
 - a. are not considered an expense on the income statement
 - b. decrease the net worth of the farm
 - c. affect income statements but not cash flow
 - d. decrease the equity of the farm

6. Which of the following is an advantage of a corporation?
 - a. very few regulations
 - b. limited liability
 - c. easy to make quick decisions
 - d. all of the above

7. Ray Little's records show that his large tractor uses six gallons of fuel/hour and can harrow 20 acres/hour pulling a set of 35 foot wide finishing harrows. His smaller tractor requires five gallons of fuel/hour but can only harrow 18 acres/hour. Which tractor would you suggest he use if fuel costs \$3.25 per gallon and labor costs \$10 per hour?
- He should use the bigger tractor because he gets more acres done in an hour
 - He should use the smaller tractor because it uses less fuel per hour
 - It does not matter which tractor is used
 - He should use the smaller tractor because the total cost is less
8. If egg supplies were stable and the cross-price elasticity of demand for bacon and eggs was negative, if the price of bacon increased, the price of eggs would be expected to:
- increase
 - remain the same
 - decrease
 - unknown
9. Specialization in the production of crops and/or livestock generally tends to:
- increased returns and decreased risk
 - decreased returns and decreased risk
 - decreased returns and increased risk
 - increased returns and increased risk
10. Which of the following would not be included on an accrual income statement?
- current principle payments on long term debt
 - cash paid interest on operating loans
 - receipts for livestock sales
 - depreciation on machinery
11. Agricultural producers that experience changes in demand and changes in price that are beyond their control are referred to as:
- price-neutral
 - price-takers
 - price-makers
 - price-challenged
12. Given the following supply and demand schedule for corn, what is the equilibrium price of corn?

Price (per bushel)	Quantity Demanded (millions of bu)	Quantity Supplied (millions of bu)
\$4.32	24,000	9,500
\$4.94	20,500	11,000
\$5.34	18,000	14,750
\$5.86	16,000	16,000
\$6.48	14,750	18,000

- \$5.34
- \$5.86
- \$4.94
- more than \$6.48

13. A firm that is insolvent will have a debt-to-asset ratio that is:
- less than one
 - greater than one
 - equal to one
 - equal to zero
14. Dave Brownman has a new (1 January 2011) farm loan. The total amount of the loan is \$ 150,000. His yearly payment is \$35,000 with an interest rate of 10% on the outstanding balance with the first payment due on 31 December 2011. How should this loan be listed on his balance sheet on 1 January 2011?
- \$ 150,000 fixed liabilities and \$15,000 interest payable
 - \$ 150,000 fixed liabilities and \$35,000 current liabilities
 - \$ 130,000 fixed liabilities, \$15,000 interest payable and \$20,000 other current liabilities
 - \$115,000 current liabilities and \$35,000 fixed term liabilities
15. As output increases, average fixed costs will:
- remain constant
 - increase
 - decrease
 - decrease then increase
16. Which of the following is a measure of the amount of cash available after the sale of current farm assets and payment of all current farm liabilities?
- current ratio
 - debt structure
 - operating profit margin ratio
 - working capital
17. Which of the following financial statements shows a business' assets, liabilities, and owner's equity at a given point in time?
- statement of owner's equity
 - balance sheet
 - income statement
 - cash flow statement
18. Which of the following could reduce production risk?
- genetically modified crops
 - crop insurance
 - crop diversification
 - all of the above
19. Jim Franks grows corn on 50 acres and is thinking of using a new, genetically modified corn seed this year. The new seed will cost \$200 more than the regular seed and is expected to increase yields by one bushel per acre. Assuming all other costs remain the same and the Jim can sell the corn for \$5.46 per bushel, should he purchase the new seed?
- yes, he will increase his net income per acre by \$5.46
 - no, he will lose money if he uses the new seed
 - yes, he will increase his total net income by \$73.00
 - it doesn't matter, he will get the same return either way

20. Which of the following is *not* an advantage of a sole proprietorship?
- owner has limited liability
 - farmer directly receives all rewards of good management and labor
 - easily formed
 - relatively few government regulations and restrictions
21. In agricultural markets, prices are affected by:
- supply and demand
 - changes in consumer confidence
 - government policies
 - all of the above
22. Assuming that beef and pork are substitute goods, an increase in the price of pork will have what effect in the beef market?
- the demand for beef will increase
 - the demand for pork will increase
 - the demand for beef will decrease
 - the beef market will not be affected
23. A SWOT analysis helps evaluate an operation's:
- strengths, weaknesses, organization, and time management
 - stability, worries, organization, and training
 - stability, work ethic, openness and trust
 - strengths, weaknesses, opportunities, and threats
24. A dairy farmer is afraid that cash market prices for milk will fall so he decides to take a short position in the futures market for October delivery at a price of \$15.39/cwt. Before the October settlement date, the farmer offsets his position by purchasing an October contract at a price of \$14.90/cwt. If the cash price in October is \$14.86, the farmer's basis is \$0.50, and trading costs were \$0.05, what is the result of the hedge?
- the farmer lost \$0.53/cwt on the futures trade
 - the farmer gained \$0.49/cwt on the futures trade
 - the farmer gained \$0.44/cwt on the futures trade
 - the farmer lost \$0.09/cwt on the futures trade
25. Which of the following would be listed as current assets on a balance sheet?
- Positive balances in a checking account
 - Feeder livestock and poultry
 - Dairy cows
 - Both a and b
26. Which of the following is an advantage of purchasing a put option?
- eliminate the risk of price decrease
 - can still capture gains from a price increase
 - delivery is not required
 - all of the above

27. The cost of using a resource based upon what it could have earned in the next best alternative is:
- an opportunity cost
 - always a variable cost
 - never a consideration in enterprise analysis
 - always a fixed cost
28. If the price of cheese changes from \$1.75 to \$2.00 and the quantity demanded changes from 500 to 550, then:
- the demand curve for cheese is relatively flat
 - the demand for cheese is elastic
 - the demand for cheese is relatively inelastic
 - there is no demand for cheese
29. Andrew Bywater raises corn and sells it to local grain elevators. One of his 50-acre fields did not produce as well this year, and he expects he will only get 60 bushels per acre at harvest. Andrew has already spent \$2,250 on seed, \$4,853 on fertilizer and pesticides, and \$1,266 on irrigation and other expenses for this field. If he harvests the crop, he will incur expenses of \$192.18 per acre. At what minimum price will it be worth harvesting the crop rather than leaving it in the field?
- \$3.21/bushel
 - \$6.00/bushel
 - \$2.79/bushel
 - \$4.52/bushel
30. If a farmer wants to maximize profits, he should produce where:
- average total costs is equal to average total revenue
 - marginal cost is equal to marginal revenue
 - marginal cost is equal to average total cost
 - marginal revenue is equal to average variable cost

MATCHING. (40 Points) Match the terms on the right with the correct definitions and statements on the left. Write your answers in the blanks provided and on the answer sheet provided.

A. Note: Each answer will be used only once.

- | | | |
|-----------|--|------------------------------------|
| 31. _____ | A business entity created when two or more persons join together to conduct a business and to share in its profits and losses. | a. corporation |
| 32. _____ | Determines the ability of the business to meet short-term debt and other obligations from available cash. Is a measure of liquidity. | b. owner's equity ratio |
| 33. _____ | Represents the interest rate being earned in the farm business. | c. debt/equity ratio |
| 34. _____ | A legal entity that can own property and conduct business. The entity is separate and distinct from its owners and managers. Shareholders own the business. Officers manage the business. | d. sole proprietorship |
| 35. _____ | Shows the relationship between owned and borrowed capital. Is a measure of solvency. | e. current ratio |
| 36. _____ | A type of business organization that achieves the favorable tax attributes of a partnership, the limited liability of a corporation, and a high degree of flexibility to fit business needs. | f. debt/asset ratio |
| 37. _____ | Compares total dollars of debt to total dollars of assets. | g. limited liability company (LLC) |
| 38. _____ | A business where an individual owns, manages, assumes all the risk, and derives all the profits from a business. | h. return on equity |
| 39. _____ | Shows the portion of a firm's total assets belonging to the firm's owners. | i. partnership |
| 40. _____ | A measure of the amount of cash available to purchase input, and inventory items after the sale of current farm assets and payment of all current farm liabilities. | j. working capital |

B. Note: Each answer will be used only once.

- | | | |
|-----------|---|----------------------|
| 41. _____ | The right, but not the obligation, to buy an underlying futures contract at a specific price before a certain date. | a. call option |
| 42. _____ | The output required for revenue to equal the total of fixed and variable costs. | b. variable costs |
| 43. _____ | Shows the projected costs and returns associated with one production process, usually for one production period. | c. whole farm budget |
| 44. _____ | The selling of a commodity futures contract to protect a producer from price fluctuations in the marketplace at the time the product is sold. | d. put option |
| 45. _____ | Shows the physical and financial plan for the entire farm or ranch business for a specific period of time. It is the total of all production processes. | e. break-even |
| 46. _____ | A written agreement that specifies that a certain commodity will be delivered at a particular location at a future time for an exact price. | f. fixed costs |
| 47. _____ | Costs incurred by the farm that do not vary with the level of production. | g. enterprise budget |
| 48. _____ | Shows projected costs and returns associated with some change in the farm business. | h. forward contract |
| 49. _____ | The right to sell an underlying futures contract. | i. partial budget |
| 50. _____ | Costs which change directly with the level of production. | j. hedging |

ANSWER SHEET:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

16. _____

17. _____

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28. _____

29. _____

30. _____

31. _____

32. _____

33. _____

34. _____

35. _____

36. _____

37. _____

38. _____

39. _____

40. _____

41. _____

42. _____

43. _____

44. _____

45. _____

46. _____

47. _____

48. _____

49. _____

50. _____

Contestant Number: _____

Score: _____

Chapter: _____

**Utah Farm Business Management CDE
Problem Section
2011**

Use the *Resource Information for Petersen Farms* provided and the additional information given in this section to answer the questions. Please read all questions carefully.

Part I. Financial Statements Analysis (98 Points)

1. Balance Sheet: Using the following information, enter the items and their values into the form to create a balance sheet for Petersen Farms for 31 December 2010. (40 points)

<u>Balance Sheet Information</u>	<u>31 Dec 2010</u>
Cash and Checking Account Balances	\$5,753
Accrued Interest on Loans	\$132
Equipment and Machinery	\$138,500
Accounts Payable	\$1,520
Machinery Loan (total amount)	\$27,590
Machinery Loan portion due within 12 months	\$6,830
Feeder Lambs (to be sold this year)	\$4,082
Buildings	\$36,750
Accounts Receivable	\$4,625
Land	\$1,083,000
Prepaid Expenses	\$3,675
Crops and Feed on hand	\$8,750
Land Mortgage (total amount)	\$570,923
Mortgage portion due within 12 months	\$19,777

<u>ASSETS</u>		<u>LIABILITIES</u>	
Current Assets	2010	Current Liabilities	2010
Total Current Assets		Total Current Liabilities	
Non-Current Assets		Non-Current Liabilities	
Total Non-Current Assets		Total Non-Current Liabilities	
Total Farm Assets		Total Farm Liabilities	
		Net Worth (Equity)	
		Total Liabilities + Net Worth	

2. **Income Statement:** Using the following information, enter the items and their values into the form to create an income statement for Petersen Farms for 2010. (32 points)

<u>Income Statement Information</u>	<u>2010</u>
Lambs Sold	\$7,711
Seed	\$7,891
Fertilizer	\$34,306
Change in Accrued Interest Payable	-\$16
Crop Sales	\$330,991
Pesticides/Herbicides	\$14,500
Change in Livestock Inventory	-\$2,011
Government Payments	\$200
Insurance	\$16,482
Feed purchased	\$2,222
Veterinary	\$64
Depreciation	\$31,442
Change in Accounts Payable	\$1,264
Supplies	\$299
Change in Crop Inventory	\$7,465
Fuel, Oil, Lubricants	\$30,866
Repairs and Maintenance	\$36,058
Change in Accounts Receivable	-\$2,686
Hired Labor	\$15,051
Miscellaneous Costs	\$12,832
Utilities	\$909
Interest Paid	\$29,874
Dues and Fees	\$418
Taxes	\$9,284
Other Farm Income	\$1,450
Custom Hire	\$24,614

3. Financial Statements Analysis: Use the *Resource Information for Petersen Farms* and the financial statements you created for Petersen Farms in questions 1 and 2 to answer the following questions: (26 points)

- a. What was the change in net worth from 2009 to 2010? (2 points) _____
- b. What was the change in net farm income (accrual basis) from 2009 to 2010? (2 points) _____
- c. Fill in the formulas for calculating the ratios given in the table and calculate the figures for Petersen Farms for 31 December 2010. (12 points)

	Formula	31 December 2010
Current Ratio		
Leverage Ratio		
Debt to Asset Ratio		
Working Capital		

d. What assessment can you make about Petersen Farms' Liquidity? (5 points)

e. What assessment can you make about Petersen Farms' Solvency? (5 points)

Part II. Budgeting (72 Points)

1. Given the enterprise budgets provided, what are the net returns above operating costs and above total costs for Petersen Farms for their feeder lamb enterprise and crop enterprises? (12 points)

	<u>Net Returns Above Operating Costs</u>	<u>Net Returns Above Total Costs</u>
a. Lambs:	\$ _____ per lamb	\$ _____ per lamb
b. Barley:	\$ _____ per acre	\$ _____ per acre
c. Alfalfa:	\$ _____ per acre	\$ _____ per acre

2. The enterprise budgets are given on a per-lamb or per-acre basis. Based on the feeder lamb numbers and acres in barley and alfalfa production given in the *Resource Information for Petersen Farms*, calculate total returns for each enterprise of Petersen Farms. (12 points)

	<u>Net Returns Above Operating Costs</u>	<u>Net Returns Above Total Costs</u>
a. Lambs:	\$ _____ total	\$ _____ total
b. Barley:	\$ _____ total	\$ _____ total
c. Alfalfa:	\$ _____ total	\$ _____ total

3. Prices are always changing in agricultural markets. If sales prices changed from those given in the enterprise budgets to the following and everything else remained constant, what would the new net returns be for the various enterprises of Petersen Farms? (36 points)

Lambs: \$118.00/cwt
 Barley: \$3.74/bushel
 Alfalfa: \$92.00/ton

	<u>Net Returns Above Operating Costs</u>	<u>Net Returns Above Total Costs</u>
a. Lambs:	\$ _____ per lamb	\$ _____ per lamb
b. Lambs:	\$ _____ total	\$ _____ total
c. Barley:	\$ _____ per acre	\$ _____ per acre
d. Barley:	\$ _____ total	\$ _____ total
e. Alfalfa:	\$ _____ per acre	\$ _____ per acre
f. Alfalfa:	\$ _____ total	\$ _____ total

4. Answer the following questions about Petersen Farms:

- Which Petersen Farms enterprise is the most profitable? (4 points) _____
- Which Petersen Farms enterprise is the least profitable? (4 points) _____
- Given the price changes in question 2, which crop enterprise had the greatest percent change in net returns above total costs per acre? (4 points) _____

Part III. Farm Management (30 Points)

1. Using the *Resource Information for Petersen Farms* and your answers in Parts I and II, perform a SWOT analysis for Petersen Farms.

Strengths: 1. 2. 3.	Weaknesses: 1. 2. 3.
Opportunities: 1. 2.	Threats: 1. 2.

**Utah Farm Business Management CDE
Team Section
2011**

1. The Petersens are considering shifting 200 of the acres they currently have in hay production to wheat production. Using the enterprise budgets provided in the *Resource Information for Petersen Farms*, create a partial budget for the Petersens. (50 points)

PARTIAL BUDGET TO CHANGE FROM ALFALFA HAY TO WHEAT							
Additional Returns				Reduced Returns			
	Quantity	Price	Value		Quantity	Price	Value
Total AR:				Total RR:			
Reduced Costs				Additional Costs			
	Quantity	Price	Value		Quantity	Price	Value
Total RC:				Total AC:			
Total AR + RC				Total RR + AC			
Net Change:							

2. Would you recommend the Petersens shift 200 of their acres of alfalfa to wheat production? ***Why or why not?*** (25 points)

3. List one *specific* way the Petersens can manage each of the following types of risk and one advantage and disadvantage for each. (75 points)

a. Production Risk:

Advantage

Disadvantage

1.

b. Price/Marketing Risk:

1.

c. Financial Risk:

1.

d. Human Risk:

1.

e. Legal/Institutional Risk:

1.