

Utah Farm Business Management CDE 2012 Resource Information for Ben and Joe's Produce

Ben and Joe are the owners and operators of Ben and Joe's Produce. Ben grew up on a family crop farm and was very involved in all the farming activities. Joe grew up in town and worked at a local grocery store through high school. Ben and Joe were good friends growing up and are now both attending college. Ben is majoring in Agronomy with a minor in Ag Business and Joe is working on a degree in Agricultural Economics. Both Ben and Joe have half-tuition scholarships. Last year they had a class together and created a business plan for a small produce enterprise as a class assignment. They felt the business plan they had created had real potential and decided to put it into action that spring. With some input from one of their professors, Ben and Joe developed a partnership agreement and created Ben and Joe's Produce.

Ben was mainly responsible for organizing the input side of the operation. He arranged to lease 10 acres from his father to plant sweet corn and pumpkins. Since Ben's family was in the farming business, most of the equipment and machinery needed for production was rented or borrowed from them. Ben also utilized his father's knowledge and his own experience to acquire the other necessary inputs at relatively competitive costs. Ben and Joe did purchase an old flatbed truck last June for \$1200 that they then used to haul their produce.

Joe was mainly responsible for organizing the output side of the operation; that is, marketing and selling the finished products. Joe used his connections to the local grocery store he had worked for through high school to secure written contracts for selling most of the corn and pumpkins they planned to grow. Both Ben and Joe contributed their labor to all aspects of the operation and they agreed to keep track of hours spent toward the operation and final profits would be divided relative to total hours each had invested. Most of the work was done by Ben and Joe with the exception of several friends (including Ben's girlfriend) they hired and trained to help pick the corn and pumpkins at harvest time.

The corn produced really well and they had quite a bit more output than expected. They were unable, however, to change their contract with the supermarket to sell more corn to them, so they set up a produce stand and tried to sell the rest of the corn by word-of-mouth. They also ate a lot of corn that fall and had quite a bit of corn they were unable to sell that spoiled. The pumpkins also did well, and most of the excess they had above the grocery store contract they were able to sell by marketing heavily in October.

Ben and Joe's original goal was to generate enough profit to pay for school the next year for both partners. They had to take out a small operating loan to start up, but were able to pay it off and had enough profit to also pay for school and retain some earnings in the business. After the first year success, Ben and Joe are excited about the possibility of expanding the business and making it a more long-term endeavor. They are planning on producing corn and pumpkins again this year. They will have a contract with the grocery store again and are looking into selling the excess produce at a local farmer's market to avoid spoilage.

Ben would also like to expand by building a high tunnel and growing early strawberries. Ben attended a conference that introduced him to the idea and has obtained an enterprise budget from the extension service. He feels a high tunnel would be an excellent way to utilize the income retained in the business, and the labor requirements would coordinate well with the labor needs for the corn and pumpkin production. Strawberry planting would be done in September, between corn and pumpkin harvests, and strawberry harvest would begin in May, between planting and harvesting of the corn. Ben is really excited to try it, but Joe is a little worried about diversifying with another crop already. Both Ben and Joe are interested in purchasing a corn picker to reduce the labor required at corn harvest time, but are not sure it would be worth it for so few acres of corn.

Ben and Joe kept fairly good records for the past year, as represented in the financial statements, budgets, and analysis information to follow.

**Ben and Joe's Produce
Financial Records**

BALANCE SHEET

(cost-basis)

<u>ASSETS</u>	<u>December 31, 2011</u>	<u>December 31, 2012</u> <i>(Projected)</i>
<u>Current Assets</u>		
AG Bank Checking	\$6,786.79	\$11,232.08
Total Current Assets	\$6,786.79	\$11,232.08
<u>Non-Current Assets</u>		
Truck	\$1,200.00	\$1,200.00
Equipment		\$100.00
Accumulated Depreciaton	(\$116.67)	(\$334.17)
Total Non-Current Assets	\$1,083.33	\$965.83
Total Farm Assets	\$7,870.12	\$12,197.91
<u>LIABILITIES</u>		
<u>Current Liabilities</u>		
	\$0.00	\$0.00
Total Current Liabilities	\$0.00	\$0.00
<u>Non-Current Liabilities</u>		
Total Non-Current Liabilities	\$0.00	\$0.00
Total Farm Liabilities	\$0.00	\$0.00
Net Worth (Equity)	\$7,870.12	\$12,197.91

**Ben and Joe's Produce
Financial Records**

INCOME STATEMENT

	<u>2011</u>	(Projected) <u>2012</u>
REVENUE		
Cash Sales		
Corn Grocery Store Sales	\$24,000.00	\$24,000.00
Other Corn Sales	\$1,071.25	\$1,671.25
Pumpkin Grocery Store Sales	\$3,392.00	\$3,392.00
Other Pumpkin Sales	\$1,307.00	\$1,664.50
Total Income (cash basis)	\$29,770.25	\$30,727.75
Accrual Adjustments		
	\$0.00	\$0.00
Total Income (accrual basis)	\$29,770.25	\$30,727.75
EXPENSES		
Cash Expenses		
Seed	\$1,472.00	\$1,472.00
Fertilizer	\$594.50	\$594.50
Pesticides/Herbicides	\$3,986.40	\$3,986.40
Beehive Rental	\$50.00	\$50.00
Custom Hire	\$111.36	\$111.36
Harvesting Labor	\$1,900.00	\$1,900.00
Harvesting Supplies	\$5,100.00	\$5,100.00
Marketing Labor		\$280.00
Marketing Supplies		\$35.00
Fees		\$49.00
Land Rent	\$800.00	\$800.00
Irrigation	\$60.00	\$60.00
Machinery Costs	\$535.20	\$535.20
Truck Expenses	\$374.00	\$409.00
Interest Expense	\$800.00	\$800.00
Total Expenses (cash basis)	\$15,783.46	\$16,182.46
Accrual Adjustments		
Depreciaton	\$116.67	\$217.50
Total Expenses (accrual basis)	\$15,900.13	\$16,399.96
Net Farm Income (cash basis)	\$13,986.79	\$14,545.29
Net Farm Income (accrual basis)	\$13,870.12	\$14,327.79

**Ben and Joe's Produce
Financial Records**

STATEMENT OF OWNER EQUITY

	<u>2011</u>	<i>(Projected)</i> <u>2012</u>
OWNER EQUITY (Beginning)	\$0.00	\$7,870.12
Change in Retained Earnings		
Net Income	\$13,870.12	\$14,327.79
Partner 1 Withdrawals	(\$4,000.00)	(\$5,000.00)
Partner 2 Withdrawals	(\$4,000.00)	(\$5,000.00)
Total Change in Retained Earnings	<hr/> \$5,870.12	<hr/> \$4,327.79
Change in Contributed Capital		
Partner 1 Contributed Capital	\$1,000.00	\$0.00
Partner 2 Contributed Capital	\$1,000.00	\$0.00
Total Change in Contributed Capital	<hr/> \$2,000.00	<hr/> \$0.00
OWNER EQUITY (Ending)	<hr/> <hr/> \$7,870.12	<hr/> <hr/> \$12,197.91

**Ben and Joe's Produce
Financial Records**

STATEMENT OF CASH FLOWS

	<u>2011</u>	<u>2012</u> <i>(Projected)</i>
Cash at beginning of Period	\$0.00	\$6,786.79
OPERATING ACTIVITIES		
Net Income	\$13,986.79	\$14,545.29
Net Cash from Operating Activities	<u>\$13,986.79</u>	<u>\$14,545.29</u>
INVESTING ACTIVITIES		
Truck	(\$1,200.00)	
Equipment		(\$100.00)
Net Cash from Investing Activities	<u>(\$1,200.00)</u>	<u>(\$100.00)</u>
FINANCING ACTIVITIES		
Operating Loan	\$10,000.00	\$10,000.00
Operating Loan Principle Payments	(\$10,000.00)	(\$10,000.00)
Partner Contributions	\$2,000.00	\$0.00
Partner Withdrawals	(\$8,000.00)	(\$10,000.00)
Net Cash from Financing Activities	<u>(\$6,000.00)</u>	<u>(\$10,000.00)</u>
Net Cash Increase	<u>\$6,786.79</u>	<u>\$4,445.29</u>
Cash at end of Period	\$6,786.79	\$11,232.08

**Ben and Joe's Produce
Financial Records**

CASH FLOW

	<u>2011</u>				<u>2012</u> (Projected)			
	<u>Ag Bank Balance</u>	<u>Operating Activities</u>	<u>Investing Activities</u>	<u>Financing Activities</u>	<u>Ag Bank Balance</u>	<u>Operating Activities</u>	<u>Investing Activities</u>	<u>Financing Activities</u>
January					\$6,786.79			
February	\$12,000.00			\$12,000.00	\$16,786.79			\$10,000.00
March	\$10,528.00	(\$1,472.00)			\$15,314.79	(\$1,472.00)		
April	\$10,332.00	(\$196.00)			\$15,118.79	(\$196.00)		
May	\$6,882.00	(\$3,450.00)			\$11,668.79	(\$3,450.00)		
June	\$10,176.70	\$4,494.70	(\$1,200.00)		\$16,096.49	\$4,527.70	(\$100.00)	
July	\$16,474.25	\$6,297.55			\$22,550.04	\$6,453.55		
August	\$16,367.37	\$3,226.46		(\$3,333.34)	\$21,569.16	\$2,352.46		(\$3,333.34)
September	\$13,346.19	\$312.16		(\$3,333.34)	\$18,547.98	\$312.16		(\$3,333.34)
October	\$11,896.66	\$1,883.79		(\$3,333.32)	\$17,341.95	\$2,127.29		(\$3,333.32)
November	\$10,786.79	(\$1,109.87)			\$16,232.08	(\$1,109.87)		
December	\$6,786.79	(\$4,000.00)			\$11,232.08	(\$5,000.00)		
Year Total	\$6,786.79	\$5,986.79	(\$1,200.00)	\$2,000.00	\$11,232.08	\$4,545.29	(\$100.00)	\$0.00

**Ben and Joe's Produce
Financial Records****Depreciation Schedules**

<u>Asset</u>	<u>Cost</u>	<u>Salvage Value</u>	<u>Useful Life</u>	<u>Depreciation per year</u>	<u>1st Year Depreciation</u>
Truck	\$1,200.00	\$200.00	5 years	\$200.00	\$116.67
Corn Harvester	\$15,000.00	\$3,000.00	10 years	\$1,200.00	\$700.00
Farmer's Market Equipment	\$100.00	\$10.00	3 years	\$30.00	\$17.50
High Tunnel	\$1,680.00	\$250.00	8 years	\$178.75	\$44.69

**Ben and Joe's Produce
Financial Records**

ENTERPRISE BUDGET-SWEET CORN

Receipts	Quantity per acre	Unit	Price/cost per unit	Value/cost per acre	Your Value
Sweet Corn (grocery store sales)	1200	dozen ears	\$2.50	\$3,000.00	_____
Sweet Corn (other sales)	50	dozen ears	\$3.50	\$175.00	_____
Subtotal				\$3,175.00	_____
Operating costs					
Sweet Corn Seed	12	pounds	\$12.00	\$144.00	_____
Fertilizer					
Nitrogen	150	pounds	\$0.07	\$10.50	_____
Phosphate	75	pounds	\$0.45	\$33.75	_____
Potash	50	pounds	\$0.38	\$19.00	_____
Pesticides					
Herbicides	8	pounds	\$2.00	\$16.00	_____
Insecticides	1	acre	\$368.00	\$368.00	_____
Custom Application	1	acre	\$7.67	\$7.67	_____
Land Rental	1	acre	\$80.00	\$80.00	_____
Irrigation	1	acre	\$5.00	\$5.00	_____
Machinery Costs				\$0.00	_____
Fuel	10	gallons	\$3.50	\$35.00	_____
Rental	1	acre	\$24.00	\$24.00	_____
Operating Labor	12	hours	\$10.00	\$120.00	_____
Harvesting					
Hand Picking	20	hours	\$10.00	\$200.00	_____
Packing and Grading	8	hours	\$10.00	\$80.00	_____
Crates/Bags	250	each	\$1.25	\$312.50	_____
Ice	250	each	\$1.00	\$250.00	_____
Hauling	20	miles	\$1.87	\$37.40	_____
Interest on operating capital	1	acre	\$80.00	\$80.00	_____
Subtotal				\$1,822.82	_____
Ownership costs					
Machinery and Equipment Depreciation	1	acre	\$20.00	\$20.00	_____
Subtotal				\$20.00	_____
Total Expenses				\$1,842.82	_____
Returns Above Operating Expenses				\$1,352.18	_____
Returns Above Total Expenses				\$1,332.18	_____

**Ben and Joe's Produce
Financial Records**

ENTERPRISE BUDGET-PUMPKINS

	Quantity per acre	Unit	Price/cost per unit	Value/cost per acre	Your Value
Receipts					
Pumpkins (grocery store sales)	8	tons	\$212.00	\$1,696.00	_____
Pumpkins (other sales-large)	30	each	\$7.00	\$210.00	_____
Pumpkins (other sales-medium)	125	each	\$4.00	\$500.00	_____
Pumpkins (other sales-small)	55	each	\$2.00	\$110.00	_____
Subtotal				\$2,516.00	_____
Operating costs					
Pumpkin Seed	2.5	pounds	\$64.00	\$160.00	_____
Beehive Rental	1.0	acre	\$25.00	\$25.00	_____
Fertilizer					
Nitrogen	150	pounds	\$0.07	\$10.50	_____
Phosphate	75	pounds	\$0.45	\$33.75	_____
Pesticides					
Herbicides	0.3	gallons	\$110.00	\$33.00	_____
Fungicides	3.7	gallons	\$54.00	\$199.80	_____
Insecticides	0.4	gallons	\$561.00	\$224.40	_____
Custom Application	1	acre	\$25.00	\$25.00	_____
Land Rental	1	acre	\$80.00	\$80.00	_____
Irrigation	1	acre	\$10.00	\$10.00	_____
Machinery Costs				\$0.00	_____
Fuel	8	gallons	\$3.50	\$28.00	_____
Rental	1	acre	\$6.00	\$6.00	_____
Operating Labor	12	hours	\$10.00	\$120.00	_____
Harvesting				\$0.00	_____
Hand Picking	15	hours	\$10.00	\$150.00	_____
Sorting and Packing	6	hours	\$10.00	\$60.00	_____
Bins and Pallets	30	each	\$10.00	\$300.00	_____
Hauling	20	miles	\$1.87	\$37.40	_____
Interest on operating capital	1	acre	\$80.00	\$80.00	_____
Subtotal				\$1,582.85	_____
Ownership costs					
Machinery and Equipment Depreciation	1	acre	\$20.00	\$20.00	_____
Subtotal				\$20.00	_____
Total Expenses				\$1,602.85	_____
Returns Above Operating Expenses				\$933.15	_____
Returns Above Total Expenses				\$913.15	_____

University Extension

**High Tunnel June-bearing Strawberry Budget 2010
Based on a 14' x 96' High Tunnel**

	Units	Number of Units	Price or Cost/Unit	Total	Your Operation
Receipts					
Early Out-of Season Strawberries	1 lb clamshell	837	\$4.50	\$3,766.50	_____
In-Season Strawberries	1 lb clamshell	196	\$3.00	\$588.00	_____
Total Receipts				\$4,354.50	_____
Preplant and Preparation					
Supply Expenses					
Soil Test	each	1.00	\$14.00	\$14.00	_____
Fuel	gal	0.38	\$2.50	\$0.95	_____
Fertilizer and soil ammendments	lbs	2.25	\$15.00	\$33.75	_____
Plastic mulch	ft	281.00	\$0.05	\$14.05	_____
Drip tape	ft	563.00	\$0.05	\$28.15	_____
Labor Expenses					
Soil tests	hours	0.50	\$10.00	\$5.00	_____
Apply fertilizer	hours	0.75	\$10.00	\$7.50	_____
Tillage	hours	7.50	\$10.00	\$75.00	_____
Form raised beds	hours	21.00	\$10.00	\$210.00	_____
Cover with plastic mulch	hours	3.75	\$10.00	\$37.50	_____
Install drip tape	hours	0.75	\$10.00	\$7.50	_____
Total Preplant and Preparation Expenses				\$433.40	_____
Strawberry Establishment and Growth					
Supply Expenses					
Plug plants	each	743.00	\$0.26	\$193.18	_____
20-20-20 fertilizer mix	lbs	11.34	\$1.23	\$13.95	_____
10-30-20 fertilizer mix	lbs	2.84	\$1.49	\$4.23	_____
Captan	lbs	0.43	\$9.82	\$4.22	_____
Thionex 50W	lbs	0.03	\$7.51	\$0.23	_____
Labor Expenses					
Planting	hours	6.00	\$10.00	\$60.00	_____
Fertigation	hours	2.00	\$10.00	\$20.00	_____
Pesticide application	hours	4.50	\$10.00	\$45.00	_____
Hand weeding	hours	4.00	\$10.00	\$40.00	_____
Plastic and shade cloth	hours	12.00	\$10.00	\$120.00	_____
Monitoring and ventilation	hours	30.00	\$10.00	\$300.00	_____
Total Strawberry Establishment and Growth Expenses				\$800.81	_____
Strawberry Harvest and Post-Harvest					
Supply Expenses					
1 lb clamshells	each	1033.00	\$0.21	\$216.93	_____
Hand harvest	hours	86.00	\$10.00	\$860.00	_____
House clean out	hours	4.50	\$10.00	\$45.00	_____
Total Strawberry Harvest and Post-Harvest Expenses				\$1,121.93	_____
Total Operating Expenses				\$2,356.14	_____
Ownership Expenses					
High Tunnel Depreciation				\$178.75	_____
Total Ownership Expenses				\$299.99	_____
Total Expenses				\$2,656.13	_____
Net Return Above Operating Expenses				\$1,998.36	_____
Net Return Above Total Expenses				\$1,698.37	_____

Contestant Number: _____
Chapter: _____

Score: _____

**Utah Farm Business Management CDE
Individual Event
2012**

MULTIPLE CHOICE SECTION. (80 points)

Circle the correct answer and place the letter of the correct answer on the answer sheet provided.

1. In agricultural markets, prices are affected by:
 - a. supply and demand
 - b. changes in consumer confidence
 - c. government policies
 - d. all of the above

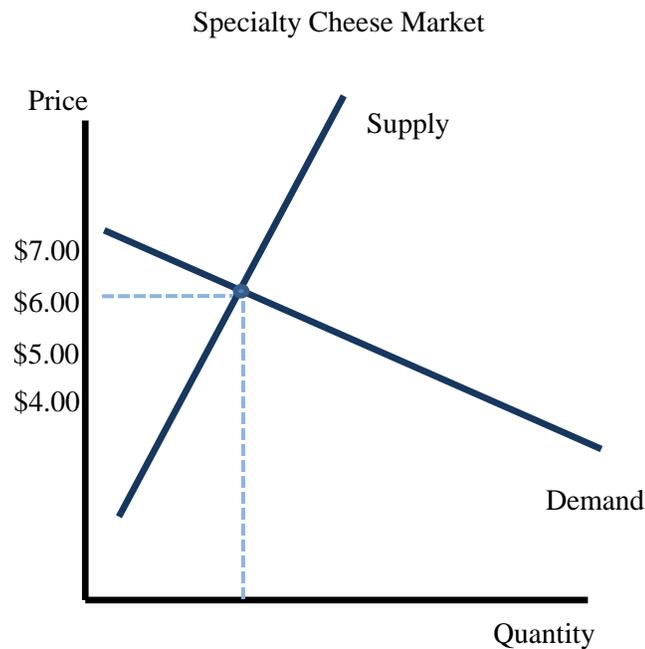
2. If Ben and Joe irrigate their corn field they will increase their corn yield. At some point, continuing to add more water will continue to increase their yield, but at a decreasing rate. If they keep adding water they will eventually reach a point where adding any more water will actually decrease their corn yield. This is an example of what economic concept?
 - a. diminishing returns
 - b. opportunity costs
 - c. amortization
 - d. business liquidity

3. On the Statement of Owner Equity, the calculation of net worth includes:
 - a. Adding net income
 - b. Subtracting owner withdrawals
 - c. Subtracting liabilities from assets
 - d. Both a and b

4. According to the law of supply and law of demand, which of the following statements is true?
 - a. As price increases, quantity demanded decreases and quantity supplied decreases
 - b. As price decreases, quantity demanded decreases and quantity supplied increases
 - c. As price increases, quantity demanded decreases and quantity supplied increases
 - d. As price decreases, quantity demanded increases and quantity supplied increases

5. 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. If he wants to minimize costs, which tractor would you suggest he use if fuel costs \$3.25 per gallon and labor costs \$10 per hour?
 - a. He should use the bigger tractor because he gets more acres done in an hour
 - b. He should use the smaller tractor because the total cost per acre is less
 - c. He should use the smaller tractor because it uses less fuel per hour
 - d. It does not matter which tractor is used

Use the following graph to answer questions 6-8.



6. What is the equilibrium price for specialty cheese?
 - a. \$4.00
 - b. \$5.00
 - c. \$6.00
 - d. \$7.00

7. The supply of specialty cheese is:
 - a. Relatively elastic
 - b. Relatively inelastic
 - c. Upward sloping
 - d. Both b and c

8. Which of the following will occur at a market price of \$7.00?
 - a. A surplus
 - b. Equilibrium conditions
 - c. A shortage
 - d. More demand than supply

9. If summer sausage and specialty cheese are complementary goods, a decrease in the price of summer sausage will cause:
 - a. The demand for specialty cheese to increase and the equilibrium price to decrease
 - b. The demand for specialty cheese to decrease and the equilibrium price to decrease
 - c. The demand for specialty cheese to decrease and the equilibrium price to increase
 - d. The demand for specialty cheese to increase and the equilibrium price to increase

10. Principle payments on debt would be included on which financial statements?
 - a. Balance Sheet
 - b. Accrual Income Statement
 - c. Statement of Cash Flows
 - d. None of the above

11. Buddy Deimler bought 100 head of steers that weighed 550 pounds each at a price of \$110 per cwt last fall. He projects his cost per pound of gain to be \$0.85 cents. If he sells them for \$100 per cwt, when they weigh 850 pounds, what is his total profit or loss?
 - a. Loss of \$1,050
 - b. Gain of \$1,050
 - c. Loss of \$1,000
 - d. Gain of \$1,000

12. Which of the following are examples of variable costs?
 - a. feed
 - b. labor
 - c. fuel
 - d. all of the above

13. If Ben and Joe wanted to maximize profits they should:
 - a. produce where marginal revenue is equal to marginal cost
 - b. produce where total revenue is greater than total cost
 - c. produce where costs are minimized
 - d. produce at the maximum production point

14. Who is the current U.S. Secretary of Agriculture?
 - a. Kathleen Merrigan
 - b. Daniel Glickman
 - c. Tom Vilsack
 - d. Jon Huntsman

15. Joe feels that the demand for sweet corn at the farmer's market is fairly elastic. This means that an increase in the price of sweet corn will:
 - a. only decrease the quantity of corn demanded a little
 - b. increase the quantity of corn demanded a little
 - c. decrease the quantity of corn demanded a lot
 - d. not change the quantity of corn demanded

16. Which of the following could reduce production risk?
 - a. genetically modified crops
 - b. crop insurance
 - c. crop diversification
 - d. all of the above

17. Which of the following is used to evaluate financial efficiency?
 - a. current ratio
 - b. labor productivity ratio
 - c. debt/asset ratio
 - d. return on equity

18. Which of the following would be included on an accrual income statement but not on a cash income statement?
 - a. fertilizer expenses
 - b. cash paid interest on operating loans
 - c. receipts for livestock sales
 - d. depreciation on machinery

19. If Alice Dooseday wanted to know whether she should replace her corn enterprise with a wheat enterprise, she should complete a:
 - a. whole farm budget
 - b. enterprise budget
 - c. partial budget
 - d. family living budget

20. Renting land on shares of production rather than for cash results in:
 - a. less risk for both the landlord and the tenant
 - b. more risk for both the landlord and the tenant
 - c. less risk for the landlord and more risk for the tenant
 - d. more risk for the landlord and less risk for the tenant

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.

Note: Some answers will be used more than once.

- | | | |
|-----------|--|-------------------------------------|
| 21. _____ | A market structure characterized by one seller that sells a specific product with no good substitute. | a. Perfect Competition Markets |
| 22. _____ | Goods that are consumed instead of other goods. An increase in the price of one will cause a decrease in the demand for the other. | b. Monopolistic Competition Markets |
| 23. _____ | A market structure characterized by many sellers that sell differentiated products. | c. Oligopoly Markets |
| 24. _____ | A producer's ability to produce a good at a lower opportunity cost than other producers. | d. Monopoly Markets |
| 25. _____ | A market structure with low barriers to entry and where the sellers set their own price, but face downward sloping demand curves. | e. Substitute goods |
| 26. _____ | A market structure where the sellers are price-takers. | f. Complementary goods |
| 27. _____ | Goods that are generally consumed together. An increase in the price of one will cause an increase in the demand for the other. | g. Comparative advantage |
| 28. _____ | A market structure characterized by many sellers that sell homogeneous products. | h. Opportunity cost |
| 29. _____ | The cost of using a resource based upon what it could have earned in the next best alternative. | |
| 30. _____ | A market structure characterized by a small number of sellers that sell homogeneous or differentiated products. | |

PROBLEM SECTION. (180 points)

Use the *Resource Information for Ben and Joe's Produce* provided and the additional information given in this section to answer the questions. Please read all questions carefully and answer them completely.

1. Given the enterprise budgets provided with the *Resource Information*, what are the net returns above operating costs and above total costs per acre for Ben and Joe's Produce for their sweet corn and pumpkin enterprises? (16 points)

	<u>Net Returns Above Operating Costs</u>	<u>Net Returns Above Total Costs</u>
a. Sweet Corn:	\$ _____ per acre	\$ _____ per acre
b. Pumpkins:	\$ _____ per acre	\$ _____ per acre

2. Prices are always changing in agricultural markets. If national corn prices increase, Joe thinks he can secure a contract with the grocery store this year for \$2.75/dozen ears and they can sell the rest of the corn for \$3.75/dozen ears. However, he thinks he will only be able to secure a contract for pumpkins at \$200.00/ton. Similarly, he believes other pumpkins sale prices would drop to \$1.50, \$3.50, and \$6.00 for small, medium, and large pumpkins, respectively. If these prices change as Joe expects and *everything else remains the same*, what would the new net returns be for the two enterprises of Ben and Joe's Produce? (24 points)

	<u>Net Returns Above Operating Costs</u>	<u>Net Returns Above Total Costs</u>
a. Sweet Corn	\$ _____ per acre	\$ _____ per acre
b. Pumpkins:	\$ _____ per acre	\$ _____ per acre

3. Using the enterprise budgets and your calculations in question 2, answer the following questions about Ben and Joe's Produce:
- a. Which Ben and Joe's Produce enterprise was the most profitable per acre in 2011? (5 points)

 - b. Given the price changes in question 2, what would be the returns above total expenses for the 8-acre sweet corn enterprise? (5 points) _____
 - c. Given the price changes in question 2, what would be the returns above total expenses for the 2-acre pumpkin enterprise? (5 points) _____
 - d. Given the price changes in question 2, would the returns above total expenses for both enterprises for 2012 be greater or less than that for 2011? (5 points)

4. Ben would like to diversify by adding a strawberry high tunnel, but Joe would rather specialize and focus on the corn. What are some benefits to each of these options? (15 points)

5. Ben and Joe had a fairly large amount of produce they were unable to sell last year. This year they plan to sell their extra produce at the local farmer’s market to capture more returns. It will cost them \$100 to purchase initial equipment to set up a booth and that equipment would depreciate according to the depreciation schedule provided in the resource information. They plan to sell produce at the farmers market seven times and estimate the following additional revenue and costs:

Date	Additional Produce Sales	Price	Market Booth Fee	Additional Costs (Labor, booth supplies, fuel, etc.)
June 30	15 doz. ears corn	\$6.00/doz.	\$7	\$50
July 14	20 doz. ears corn	\$6.00/doz.	\$7	\$50
July 28	25 doz. ears corn	\$6.00/doz.	\$7	\$50
Aug. 11	25 doz. ears corn	\$6.00/doz.	\$7	\$50
Aug. 25	15 doz. ears corn	\$6.00/doz.	\$7	\$50
Oct. 13	25 pumpkins	\$6.50/ea.	\$7	\$50
Oct. 20	30 pumpkins	\$6.50/ea.	\$7	\$50

Note: These additional revenues and costs have already been factored into the projected financial statements for 2012. Relative to the depreciation expense, remember that the truck depreciation has also increased to the annual amount compared to only the first year portion in 2011.

Based on this information and assuming all other revenues and costs remained the same, how will selling at the farmer’s market affect Ben and Joe’s accrual income statement (be specific) and what will be the effect on their net income? (15 points)

6. Ben was able to find a one-row corn harvester they could purchase for \$15,000. Two financing options are available:
1. They could get a loan to purchase the corn harvester. The loan would require \$1,000 paid up front and then monthly payments of \$255 for 5 years.
 2. They could lease the corn harvester for \$300 a month and have the option to buy the harvester for \$6,000 after 3 years.

If Ben and Joe purchase or lease the harvester, they will acquire it June 1st. If they decide not to get the harvester, they will hire individuals to hand pick the corn like last year. Based on these options, answer the following questions.

- a. According to the Projected Cash Flow for Ben and Joe's Produce for 2012 provided in the resource information, will they have enough cash to make the monthly payments for the loan? For the lease? (10 points)
- b. How would acquiring the loan and purchasing the harvester affect the balance sheet and income statement at the end of 2012? (15 points)
- c. Would you recommend they purchase the corn harvester and, if so, which financing option should they choose? Explain and support your answer with specific reasons. (15 points)

7. List one *specific* way Ben and Joe have managed each of the following types of risk and one *additional* thing Ben and Joe could do to manage each type of risk. (50 points)

Have Done

Could Do

a. Production Risk:

b. Price/Marketing Risk:

c. Financial Risk:

d. Human Risk:

e. Legal/Institutional Risk:

ANSWER SHEET:

Score: _____/120

1. _____
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30. _____

**Utah Farm Business Management CDE
Team Section
2012**

Use the templates and space provided on the subsequent pages to answer the following questions. Please read each question carefully and answer them completely. (200 points)

1. Ben and Joe are considering constructing a high tunnel and growing June-bearing strawberries. Ben's father won't require additional land rental for the land on which the high tunnel will be built in exchange for a few strawberries now and then. Joe estimates they can build one 14' × 96' high tunnel for a total cost of \$1,680. They then expect costs and returns to be the same as those listed on the enterprise budget for strawberries. No loans would be obtained for this enterprise; all expenses would be paid out of the positive Ag State Checking account balance. Assuming Ben and Joe decide to go ahead with this plan and all other production costs, revenues, and withdrawals for their other enterprises remain as projected, answer the following:
 - a. Adjust the projected income statement for 2012 to include the new strawberry enterprise. The high tunnel and strawberry planting will occur in the fall of 2012 for harvest in early spring of 2013. Thus, make your adjustments according to the following (30 points):
 - No **Receipts** would be included in the 2012 projections since harvest would not take place until 2013
 - No **Strawberry Harvest and Post-Harvest** expenses would be included since they also would take place in 2013
 - Only include 50% of the **Total Strawberry Establishment and Growth: Labor Expenses** in the 2012 projection since some of the labor will be expended in 2012 and some in 2013
 - Only include 25% of the annual **High Tunnel Depreciation** expense since the high tunnel will not be built until fall and begin to be depreciated until October. Thus, only three months of depreciation expense would be allocated to 2012.
 - All other expenses would be included as outlined on the Strawberry budget
 - b. Adjust the projected balance sheet for Dec. 31, 2012 to include the new strawberry enterprise. (The same constraints used in part **a** are also relevant for the balance sheet). (30 points)
 - c. What other considerations should Ben and Joe make before deciding whether or not to build a high tunnel and grow strawberries? What would you recommend they do? **Why?** (40 points)
2. Based on the reference material, financial information, and budgets for Ben and Joe's Produce, analyze the strengths and weaknesses of Ben and Joe's small produce farm. List at least four strengths and four weaknesses and comment on how each of the weaknesses could be overcome. (100 points)

a. Projected Income Statement

	<u>2011</u>	Projected <u>2012</u>
REVENUE		
Cash Sales		
Corn Grocery Store Sales	\$24,000.00	
Other Corn Sales	\$1,071.25	
Pumpkin Grocery Store Sales	\$3,392.00	
Other Pumpkin Sales	\$1,307.00	
<i>Strawberry Sales</i>		
Total Income (cash basis)	\$29,770.25	
Accrual Adjustments		
	\$0.00	
Total Income (accrual basis)	\$29,770.25	
EXPENSES		
Cash Expenses		
Seed	\$1,472.00	
Fertilizer	\$594.50	
Pesticides/Herbicides	\$3,986.40	
Beehive Rental	\$50.00	
Custom Hire	\$111.36	
Harvesting Labor	\$1,900.00	
Harvesting Supplies	\$5,100.00	
Marketing Labor		
Marketing Supplies		
Fees		
Land Rent	\$800.00	
Irrigation	\$60.00	
Machinery Costs	\$535.20	
Truck Expenses	\$374.00	
Interest Expense	\$800.00	
<i>Strawberry Preplant and Prep Supplies</i>		
<i>Strawberry Preplant and Prep Labor</i>		
<i>Straw. Establishment and Growth Supplies</i>		
<i>Straw. Establishment and Growth Labor</i>		
<i>Strawberry Harvest and Post-Harvest</i>		
Total Expenses (cash basis)	\$15,783.46	
Accrual Adjustments		
Depreciaton	\$116.67	
<i>High Tunnel Depreciation</i>		
Total Expenses (accrual basis)	\$15,900.13	
Net Farm Income (cash basis)	\$13,986.79	
Net Farm Income (accrual basis)	\$13,870.12	

b. Projected Balance Sheet

<u>ASSETS</u>	<u>December 31, 2011</u>	<u>December 31, 2012</u> <i>(Projected)</i>
<u>Current Assets</u>		
AG Bank Checking	\$6,786.79	
Total Current Assets	\$6,786.79	
<u>Non-Current Assets</u>		
Truck	\$1,200.00	
Equipment		
Accumulated Depreciaton	-\$116.67	
Total Non-Current Assets	\$1,083.33	
Total Farm Assets	\$7,870.12	
<u>LIABILITIES</u>		
<u>Current Liabilities</u>		
	\$0.00	
Total Current Liabilities	\$0.00	
<u>Non-Current Liabilities</u>		
	\$0.00	
Total Non-Current Liabilities	\$0.00	
Total Farm Liabilities	\$0.00	
Net Worth (Equity)	\$7,870.12	

- c. What other considerations should Ben and Joe make before deciding whether or not to build a high tunnel and grow strawberries? What would you recommend they do? *Why?*

2. Based on the reference material, financial information, and budgets for Ben and Joe's Produce, analyze the strengths and weaknesses of Ben and Joe's small produce farm. List at least four strengths and four weaknesses and comment on how each of the weaknesses could be overcome.