2024 SMSU AG BOWL FARM BUSINESS MANAGEMENT CONTEST

Practicum for the K. Cousins Farm

COMPARATIVE BALANCE SHEETS (Market) and COMPARATIVE TREND – Page 15 - 17

1. Are Cousins' total acres farmed increasing, decreasing or remaining the same?
   a. Increasing
   b. Decreasing
   c. Remaining the same
   d. Cannot determine from the data provided.

2. The number of beef backgrounding head sold are:
   a. Increasing
   b. Decreasing
   c. Remaining the same
   d. Cannot determine from the data provided.

3. Based on your observation of acres farmed and cattle raised, you would expect gross farm income to be:
   a. Increasing
   b. Decreasing
   c. Remaining the same

4. Current Assets are:
   a. Increasing
   b. Decreasing
   c. Remaining the same
   d. Cannot determine from the data provided.

5. Current Liabilities are:
   a. Increasing
   b. Decreasing
   c. Remaining the same
   d. Cannot determine from the data provided.

6. Based on the Working Capital Trend, Current Assets compared to Current Liabilities are:
   a. Increasing faster
   b. Increasing slower
   c. Changing at the same rate
   d. Decreasing

7. Looking at the change in Machinery, Equipment, and Vehicles, you conclude the Cousins made a vehicle purchase in:
   a. 2020
   b. 2021
   c. 2022

8. Based on you answer in #7, and reviewing Liabilities, was the purchased vehicle:
   a. 100% financed

b. Partially financed
c. Paid for with cash
d. Cannot determine from the data provided.

9. Looking at the change in Land and Buildings, you conclude that Cousins made a Long-Term Asset purchase in:
    a. 2020
    b. 2021
    c. 2022

10. Based on you answer in #9, and reviewing Liabilities, was the Long-Term Asset was:
    a. 100% financed
    b. Partially financed
    c. Paid for with cash
    d. Cannot determine from the data provided.

11. Over the 3-year trend presented, Cousins Net Worth Trend is:
    a. Positive
    b. Static
    c. Negative
    d. Cannot determine from the data provided.

12. Over the 3-year trend presented, Cousins's Debt to Asset Ratio is:
    a. Increasing – Percent is getting larger
    b. Erratic
    c. Decreasing – Percentage is getting lower.
    d. Cannot determine from the data provided.

13. Based on your answer in #12, you conclude:
    a. Liabilities are increasing at a faster rate than assets
    b. Assets are increasing at a faster rate than liabilities.
    c. Liabilities and assets are increasing at the same rate
    d. Liabilities and assets are decreasing at the same rate

14. Over the 3-year trend presented, Cousins's Net farm income from operations is
    a. Positive with increasing net income per year.
    b. Positive with decreasing net income per year.
    c. Negative with decreasing net income per year.
    d. Cannot determine from the data provided.

15. Based on your analysis so far, you observe:
    a. The farm unit has been profitable with increasing working capital and net worth but the equity ratios were negatively impacted by the capital purchases.
    b. The farm unit has been profitable with increasing working capital and net worth with equity ratios showing positive trends
    c. The farm unit has been profitable with static working capital and net worth with equity ratios declining due to the capital purchases.
    d. The farm unit has not been profitable.

16. Cousins's records show he devotes what percentage of his time to the farm as determined by his personal income:
    a. 25%
    b. 50%
    c. 75%
    d. 100%

17. The Center for Fam Financial Management's FINBIN database reports the average net return after total direct and overhead expense and before family living for backgrounding beef for 2020, 2021, and 2022 to be $25.87 per head. They report $266.16 for cash rented corn per acre and $190.36 for cash rented soybeans per acre. Based on FINBIN data and ASSUME that Cousins's operation can generate net income before family living of $25 per head backgrounding 120 beef cattle and $225 per acre from 378 crop acres, how much net income will Cousinshave available for family living:
    a. $3,000
    b. $85,050
    c. $88,050
    d. Cannot determine from the data presented.

Side note: 10-year average (2013 to 2022) for corn was $74.72, beans were $90.47, backgrounding beef was $47.76. The 3 years presented in the trend have been very profitable for agriculture.

18. Assuming that Cousins's lender is targeting $300 per head working capital on 120 steers and $250 per acre working capital on 378 acres. This will allow the lender to finance 75% of the gross income on an operating loan. What is the Working Capital Target?
    a. $36,000
    b. $94,500
    c. $130,500
    d. Cannot determine from the data presented.

19. Based on your answer to #18, does Cousins meet his lender's working capital target?
    a. Yes
    b. No
    c. Cannot determine from the data presented.

20. The data provided does not detail the purpose of the long-term investment. But you assume it was to purchase agriculture assets to increase the size of his operation. After the purchase and looking at a 2023 projection would you anticipate the working capital target would be:
    a. Higher
    b. Lower
    c. Same
    d. Cannot determine from the data presented.

2022 FINANCIAL ANALYSIS EXECUTIVE SUMMARY – Page 1

21. Cash and liability discrepancy is reported as "0". This means:
    a. On a scale of 0 to 10, with 10 being the best, the Information Accuracy is poor.
    b. Sources and Uses of cash are accounted for and the cash data is accurate.

c. Cannot determine from the data presented.

22. **Efficiency**: Operating expense ratio + depreciation expense ratio + interest expense ratio + net farm income ratio total 100%. This is:
    a. A coincidence
    b. An error as it does not include family living
    c. Accurate
    d. Cannot determine from the data provided.

STATEMENT OF CASH FLOWS – Page 3

23. Beginning cash balance (farm & personal) + Net change in cash = Ending cash balance (farm and personal). This indicates:
    a. Cash reconciles
    b. Sources of cash = uses of cash
    c. Cash data is accurate
    d. All of the above

24. The farm provided how much cash from operating activities:
    a. $671,374
    b. $35,543
    c. $128,864
    d. $141,845

25. The answer to #24
    a. Is equal to net earnings
    b. Does not equal net earnings because family living is not included.
    c. Does not equal net earnings because inventory changes are not included.
    d. Needs to be adjusted for family living, accrual changes, and depreciation to equal net income after family living.

26. Capital purchases less capital sales =
    a. $627,500
    b. $1,500
    c. -$636,749
    d. $636,749

27. He received how much in gifts and capital contributed?
    a. $127,500
    b. $35,000
    c. $162,500
    d. $730,070

28. He reports $0 income tax while showing $274,669 of Net farm income from operations. Which of the following are **<u>NOT</u>** tax deferral strategies?
    a. Increasing cattle on feed will bring more feed and operating costs into the current year without income.
    b. Accelerated depreciation on capital purchases.

c. Gifts and capital contributions are subtracted as an expense.
d. Cash based tax accounting does not recognize increasing crop inventories as income.

29. **Statement of Owner's Equity** shows Total change in net worth of $414,646. To arrive at earned net worth what should be subtracted:
    a. Nothing
    b. Total change in contributed capital
    c. Total change in market valuation
    d. Total change in contributed capital and market valuation.

30. **Repayment Capacity** – On a market basis, He has $305,150 to service $18,904 of principal and interest payments with a 16.14 replacement coverage ratio. The margin and ratio are:
    a. Very good
    b. Ok
    c. Poor
    d. Cannot determine with the data provided

	AMORTIZATION CHART					
	Annual Principal and Interest Payment per $1,000 of Loan					
		INTEREST RATES				
	YEARS	6%	7%	8%		
	10	135.87	142.38	149.03		
	15	102.96	109.80	116.83		
	20	87.19	94.39	101.85		

For Questions 31 – 36 assume the unit borrowed $350,000 to purchase capital in 2022.

31. If he borrowed the $350,000 at 7% interest with a 10-year amortization, what would the total principal and interest payment be per year?
    a. $47,555
    b. $49,833
    c. $38,430
    d. $52,160

32. If he borrowed $350,000 at 7% interest with a 10-year amortization, what would be the total amount paid over the life of the loan for principal and interest?
    a. $475,550
    b. $498,330
    c. $384,300
    d. $521,600

33. Through various federal programs, he was able to obtain the loan @ 6% with a 20-year amortization. What would the annual principal and interest payment be?
    a. $21,000
    b. $47,450

   c. $36,036
   d. $30,516

34. If he borrowed $350,000 @ 6% interest with a 20-year amortization, how much would he pay over the life of the loan?
   a. $420,000
   b. $949,000
   c. $720,720
   d. $610,320

35. Comparing your answers in #32 and #34, the annual payment with 6% interest with a 20-year amortization would be less per year then 7% interest with a 10-year amortization. Which loan plan would have more total interest paid and by how much?
   a. 7% plan by $79,135
   b. 7% plan by $7,000
   c. 6% plan by $111,990
   d. 6% plan by $70,000

36. Assume he can generate $100 per head for debt service. Assume the payment is $42,500 per year (not the correct number). How many additional cattle must he feed to service the debt and maintain the same debt service margin?
   a. 350
   b. 420
   c. 425
   d. 725

INCOME STATEMENT – Page 2

37. What percentage of his gross cash income came from backgrounding beef?
   a. 16.5%
   b. 68.3%
   c. 33.8%
   d. 32.0%

38. What percentage of his gross farm income came from government program payments?
   a. 34.1%
   b. 70.7%
   c. 72.8%
   d. 15.5%

39. Background beef income + market livestock inventory change – feeder livestock purchases – purchased feed = ?
   a. -$163,374
   b. -$201,033
   c. $38,247
   d. $36,444

40. He reports 378 cash rented acres. What is his average cash rent per acre?

a. $152
b. $167
c. $188
d. $195

41. What is his average chemical cost per acre?
    a. $42
    b. $32
    c. $52
    d. $62

42. What is his average seed and fertilizer cash cost per acre?
    a. $57
    b. $67
    c. $77
    d. $87

43. Based on rent, seed, fertilizer, and chemical cash costs, how would you rate his grain operating expenses?
    a. High
    b. Average
    c. Low

44. Cousins paid $7,155 in interest. Assuming his average interest rate was 7% in 2022 and he expects it to increase to 8.5% next year. What will he estimate his interest paid to be? Assume the same loan amounts and disregard the new capital purchases.
    a. $7,262
    b. $8,688
    c. $7.763
    d. $8,500

45. Total inventory change accounted for what percentage of his net farm income?
    a. 42.9%
    b. 8.1%
    c. 89.1%
    d. 91.5%

46. Based on your analysis in question #45, what level of exposure does Cousins have for price risk on his inventory?
    a. Low
    b. Medium
    c. High

ENTERPRISE ANALYSIS – Page 5-7

47. Oats, corn and alfalfa report fertilizer expenses. The income statement showed no cash expense for fertilizer. How can this be?
    a. Error in cost allocation

b. He did not buy any fertilizer
c. The fertilizer was included in a different category on the income statement.
d. The fertilizer was part of the decrease in prepaid expenses.

48. Cousins Practices risk management as evidenced by:
    a. Cash rent vs. owning land.
    b. Custom hire for crop production
    c. Using cover crops
    d. Crop Insurance.

ENTERPRISE ANALYSIS – Page 5-7

For questions 49-54 compare Soybeans, Oats, Mixed Hay, Corn, Corn Silage – the first 5 columns

49. Which crop offered the highest net return over labor and management?
    a. Soybeans
    b. Oats
    c. Mixed Hay
    d. Corn

50. Which crop offered the lowest net return over labor and management?
    a. Soybeans
    b. Oats
    c. Mixed Hay
    d. Corn

51. Which crop had the highest labor and management charge?
    a. Soybeans
    b. Oats
    c. Mixed Hay
    d. Corn Silage

52. Typically, you would want to maximize the net return. Which of the following are **NOT** a reason to plant more than one crop?
    a. Diversification
    b. Weed and Disease pressure
    c. Feed and bedding
    d. Dad always planted both corn and beans.

53. What is the simple (not weighted) average machinery cost per soybean and corn (not including silage)?
    a. $114.65
    b. $147.75
    c. $131.20
    d. $167.61

54. Iowa State University Custom Rate Survey reports that the average median charge for Custom Farming Corn and soybeans is $125 per acre. Considering this includes the operator, what would be the primary reason for Cousins to own and operate his own equipment?
    a. Timeliness

b. Tax planning
c. Pride of ownership
d. You are not a farmer if you do not operate the tractor and combine.

University of Minnesota FINBIN reports the following data elements for Beef Backgrounding averages of 2018-2022.

Percentage Death Loss – 1.0%
Average Daily Gain - 1.45
Feed Cost per cwt of gain - $67.51
Net return over labor & management - $39.98 (2022 only) per head
Average purchase weight – 508
Average weight sold – 778

55. Cousins is showing an advantage over the FINBIN Database in the following area:
    a. Percent Death Loss
    b. Average Daily Gain
    c. Fed cost per cwt of gain
    d. Net return over labor & management

56. Which of the following would **NOT** impact the production performance (average daily gain) of the cattle?
    a. Facilities
    b. Breed of cattle
    c. Weather
    d. Marketing

57. Who would the operator consult with to try and improve his cattle's performance?
    a. Nutritionist, veterinarian, feed dealer, respected peers
    b. Marketing advisor, lender
    c. Coffee shop cohorts
    d. Cattle buyer

FINANCIAL ANALYSIS – Page 11-13

58. Current Ratio becomes more favorable the larger it becomes.
    a. True
    b. False

59. Reviewing the Working Capital ratios shows Cousins peaked in:
    a. 2020
    b. 2021
    c. 2022

60. Working capital on the 12-31-22 balance sheet was in which category?
    a. Strong
    b. Caution
    c. Weak

61. Comparing a debt to asset ratio of 57%, a debt-to-equity ratio of 1.34 and equity to asset ratio of 43%, you can make the following observation:
    a. Debt to Equity is more favorable
    b. Debt to asset is more favorable
    c. Equity to asset is more favorable
    d. They are equal

62. The capital expansion moved Cousins into which category:
    a. Strong
    b. Caution
    c. Vulnerable

63. Based on the equity ratios Cousins should
    a. Have 100% of his cattle unpriced to capture the maximum profit opportunities
    b. Step up his consultant fees to jump start the performance
    c. Switch to feeding dairy steers
    d. Increase his risk management with an aggressive marketing plan and potentially Livestock Risk Protection Insurance.

64. With an expanding operation and a larger asset and equity base, you would typically expect the rate of return on assets and equity to:
    a. Improve
    b. Stay the same
    c. Decline

65. Historically Cousins's Debt Coverage Ratio has been in which category?
    a. Strong
    b. Caution
    c. Vulnerable

66. Cousins's Operating Expense Ratio has remained relative constant while growing the business. It is in the Caution category. With 100% rented land compared to 100% owned land, would you expect Cousins's operating expense ratio to be __________ with rented land.
    a. Higher
    b. Same
    c. Lower

67. How many bushels are in full size corn or soybean contract on the Chicago Mercantile Exchange?
    a. 1,000
    b. 5,000
    c. 10,000
    d. 15,000

68. Page 9 in the materials – Crop & Feed Check shows Cousins produced how many bushels of soybeans:
    a. 2,400
    b. 4,507
    c. 6,907

69. If the operator does not want to use a full CME contract to reduce price risk on his soybeans, which of the following is **NOT** an option:
    a. CME mini contact
    b. Elevator cash forward contract
    c. Elevator hedge to arrive contract
    d. Put them in the bin

70. With corn producing more bushels per acre, Cousins has the ability to utilize what tool to place a price floor under the corn?
    a. Purchase a Put option
    b. Purchase a Call option
    c. Sell a Put option
    d. Sell a Call option

71. If Cousins wanted to utilize the CME to obtain price protection on the cattle, how large is a futures contract?
    a. 1,000 pounds
    b. 5,000 pounds
    c. 40,000 pounds
    d. 50 head

72. Assuming Cousins does not change is cattle operation, page 7 Beef Enterprise Analysis shows how many head purchased:
    a. 300
    b. 120
    c. 163
    d. 175

73. Assuming he continues with the average purchase and sale weights with the same average daily gain as shown on page 7, how many days will the cattle be on feed?
    a. 525
    b. 300
    c. 481
    d. 270

74. Average purchase weight @ 550# @ $229.36 per cwt = $1,261.46. If interest rates increase by 1.5% from 7% to 8.5% and he 100% finances the purchase price, how much will his interest cost per head increase?
    a. $88
    b. $107
    c. $19
    d. $25

75. On the bottom of page 5 – Crop Enterprises show the estimated labor hours per acre. The crop labor demands a total of 578 hours. Page 7 – Livestock Analysis shows 473 hours for the enterprise. The analysis shows no nonfarm income. Based on the information presented, is the operator fully employed?
    a. Yes
    b. No