

Financial Benchmarks for Beef Producers

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Summary

Detailed financial information on individual farm operations is difficult to obtain. This study analyzes 22 beef operations in detail to arrive at a set of financial benchmarks compatible with the recommendations of the Farm Financial Standards Task Force. Averaging the 22 operations in the study shows them to be on solid financial footing. However, the study points out significant variability between individual operations. This demonstrates how critical it is for farmers to analyze their own operation.

Introduction

A group of south central Iowa beef producers volunteered to provide in-depth financial information about their operations. The purpose is to generate financial benchmark measures for beef producers in general and specifically for participants in the Chariton Valley Beef Initiative. Although no two operations are alike, compiled benchmark information may be used to measure financial progress. This study's purpose is to develop a beginning set of benchmark measures. A total of 22 producers participated in the project. The common denominator is that each of the participants has a beef cow enterprise and produces calves as part of their operation.

Methods

Letters were sent to 50 participants in the Chariton Valley Beef Initiative, and 22 volunteered to participate. To obtain a beginning benchmark, the University of Minnesota Finpack FinLRB program was used to analyze each of the 22 operations based on their January 1, 2000, balance sheet. In addition, a supplemental questionnaire was completed on each operation. Table 1 summarizes the financial profile of the participants. The FinLRB program analyzed the financial ratios recommended by the Farm Financial Standards Task Force (FFSTF) which are summarized in Table 2. Information was grouped in a combined summary to protect the identity of individual producers.

Results

An analysis was completed on each operation during the first six months of 2000. Analysis was keyed to the 14 financial measures of the FFSTF and seven income categories.

Income Data

Gross farm income (GFI) averaged \$316,710 and ranged from \$30,000 to well over \$1 million. The smaller operations generally had supplemental off-farm income whereas the larger units tended to be full-time farming operations.

Income from beef sales averaged 44% (range 5 to 88%) of GFI. For those units where calves were sold primarily as feeders, calf sales represented an average of 30% (range 2 to 81%) of GFI. In four operations the calves were moved into the owner's feedlot and sold as finished beef. For units finishing beef, finished beef sales represented 36% of GFI. Cull sales were a small part of sales and averaged 2.5% of GFI.

Farm Financial Measures

Liquidity

Liquidity measures the degree to which debt obligations coming due within the next 12 months can be paid from cash or assets that will be converted into cash. Liquidity is measured by the current ratio and working capital. A current ratio of 2.0 and working capital equal to 1/4 to 1/3 of GFI is considered satisfactory. The project farms averaged a current ratio of 2.1 (range 0.4 to 8.7), and working capital averaged 7.1% of GFI. Although the average current ratio is good, working capital will likely limit debt servicing flexibility of many units.

Solvency

Solvency measures the degree to which all debts are secured and the relative mix of equity and debt capital used on the farm. Average debt to asset (D/A) ratio for the project farms was 0.42 (range 0.12-0.81). Typically Iowa farms have ratios in the 30-40 % range. This places the project farms average on the upper end of the typical range.

Profitability

Profitability is the difference between income and expenses. Profitability can vary significantly year to year. Starting from gross farm income, subtracting out operating expenses (less interest), depreciation, and interest will yield net farm income (NFI). NFI for the project farms averaged \$70,282. Because NFI is affected by the overall size of the operation, more comparative figures are those for return on assets (ROA) and return on equity (ROE) because the numbers are expressed as ratios. ROA for the project farms was 7.1% (range -1.2 to 30.5%) and falls within the average long term rates of 6-8% common in Iowa. ROE measures how fast farm net worth is growing, excluding changes in land and machinery values. ROE for the project farms averaged 9.3% (range -8.1 to 45.9%). The operating profit margin for project farms averaged 20.1% (range -12.0 to 45.8%). Operating profit margins have typically averaged

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15 to 20% in Iowa. The asset turnover ratio measures how efficiently investment capital is being used. The project farms averaged a turnover rate of 30.6% (range 9.8 to 68.4%). This is within the typical 30 to 35% for Iowa farms.

The operating expense ratio measures the percentage of GFI needed to service operating expenses minus interest cost. The average operating expense ratio for the project farms was 65.2% (range 42.3 to 79.2%). Typically about 60-70% of GFI goes to operating expenses. The depreciation expense ratio measures how much GFI is consumed by depreciation. Because depreciation is a non-cash expense, farm operators often "live off of depreciation." Setting aside income to service depreciation can be critical when it comes time to replace depreciable assets. Average depreciation for the project farms was 7.7% (range 0 to 21.6%). Typical depreciation for Iowa farms runs 5 to 10% of GFI. Interest expense is the cost of borrowed money and is directly impacted by the amount borrowed and the interest rate paid. Project farms averaged 7.8% (range 0 to 17.5%). Typical interest expense on Iowa farms runs 5 to 10% of GFI.

The last profitability measure is the net farm income from operations ratio. It represents the dollars the operator gets to keep after all expenses are paid. NFI can be used to pay off principal debt, invest in new capital, spend on family living, or grow net worth. Project farms averaged 19.3% (range -1.0 to 46.3%). Typical NFI ratios in Iowa run 15 to 20%.

Other Measures

Off-farm income was reported by 61.9% (13 of 21) of the operations and averaged 48.2% of net income for those farms. Of those farms, three reported both spouses working off-farm. Of all farms in the study, off-farm income represented 29.8% of net income.

The beef enterprise generates over 50% of net cash income and is considered the major enterprise by 47.6% of the operations. Another 28.6% of the operations consider

beef production a major enterprise, but results in less than 50% of net cash income.

Two-thirds of the producers expect to expand their cow herds in the next three to five years an average of 25%. Two-thirds of the producers classify themselves as commercial cross-bred cow-calf producers. In addition, each producer was asked a series of questions about the number of head sold, average weights when sold/transferred, feed usage, and veterinary costs. This information is summarized in Tables 3 and 4.

Implications

Overall, with the notable exception of working capital, the project farms on average are on solid financial footing. However, as can be observed, there is significant variability farm to farm. Thus, it is critically important for each farmer to analyze his/her operation regularly in detail. If a ratio is weak, the cause should be determined, evaluated, and appropriately addressed. Each operator should develop a trend sheet and track the key measures year to year. Although one-year measures are important, multi-year trends are a more significant indicator of the financial success of a farm. Now that a benchmark has been established, a follow-up project should continue to measure these same factors and estimate the progress made by individual operators and the group as a whole.

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Table 1. Income Data.

	Number Involved	Low Value	High Value	Average*	Dollar Average**
Total Gross Farm Income	22				\$316,710
% GFI from Beef Sales	22	5%	88%	44%	\$121,699
% GFI from Calf Sales	18	2%	81%	30%	\$58,214
% GFI from Finished Beef Sales (net)	9	5%	74%	36%	\$158,292
% GFI from Cull Sales	20			2.5%	\$6,631
% GFI from Breeding Stock	4	2%	17%		\$18,070
Net Cash Income as % of GFI	22	11%	52%	27%	\$91,282

*Simple average (compares to Iowa Beef Cow Business Record)

**Weighted average

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Table 2. Farm Financial Measures.

	Number Involved	Low Value	High Value	Average Value	% of GFI	Typical Range*
Current Ratio	21	0.4	8.7	2.1		2+
Working Capital	22	(\$72,178)	\$149,483	\$22,630	7.1%	25 - 33%
Farm D/A Ratio	21	12%	81%	42%		30 - 40%
ROA	22	-1.2%	30.5%	7.1%		6 - 8%
ROE	22	-8.1%	45.9%	9.3%		≤ROA
Operating Profit Margin	22	-12.0%	45.8%	20.1%		15 - 20%
Net Farm Income	22			\$70,282		
Term Debt Ratio	21	0.54	5.59	2.13		
Capital Replacement Margin	22			\$28,473		
Asset Turnover Ratio	22	9.8%	68.4%	30.6%		30 - 35%
Operating Exp Ratio	22	42.3%	79.2%	65.2%		60 - 70%
Depreciation Exp Ratio	22	0.0%	21.6%	7.7%		5 - 10%
Interest Exp Ratio	22	0.0%	17.5%	7.8%		5 - 10%
NFI from Operations Ratio	22	-1.0%	46.3%	19.3%		15 - 20%

*FM 1845 (revised March 2000)

Table 3. Beef Cow/Calf.

	Number Involved	Low Value	High Value	Average Value
Calves per Cow, Sold or Transfers to Finishing Lot	22	0.37	0.98	0.80
Number Head Sold or Transfer to Finishing Lot	22	21	506	104
Weight Sold or Transfers to Finishing Lot	22	447	800	572
Veterinary Fees/Cow	19	\$10.00	\$48.00	\$17.46
Tons Hay Fed/Cow	21	1.50	4.50	2.54
Tons Silage Fed/Cow	6	0.25	1.50	0.57

Table 4. Beef Finishing

	Number Involved	Low Value	High Value	Average Value
Number head sold	10	5	606	232
Incoming Weight	10	483	800	594
Finished Sale Weight	10	1050	1280	1192
Veterinary Fees/Head	8	\$5.27	\$20.00	\$11.53
Tons Hay Fed/Finisher	6	0.25	1.75	0.59
Tons Silage Fed/Finisher	5	0.25	1.45	0.89