



You can't improve what you don't measure

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Spoiler alert! If profitability is not a goal for your livestock enterprise, read no further.

As livestock producers you are constantly reminded of the importance to collecting all kinds of measurements: weaning weight, sale weight, pasture height, days on pasture, pounds per acre, and the list goes on and on. All of this data is important, but if you don't measure the cost of doing business, then the chance of your farm making a profit is greatly at risk.

I accept that of all the measurements collected, financial data are the least fun to keep. However, after a couple years of keeping financial records and most importantly turning those records into information, the pain begins to diminish while the value of this information to your farm grows.

The number one reason for keeping records is to conduct a financial analysis. You are then able to identify strengths and weaknesses of your farm. Known as benchmarking, initially you will compare your values to other farms, but after you have several years of your own records, you will benchmark against own operation.

Let's look at an example from The Center for Farm Financial Management (CFFM) at the University of Minnesota. FINBIN[®] Farm Financial Database. The analysis was completed using the FINPACK[®] software; there are many states that have trained educators and/or technicians who will help you complete a financial analysis using this software. The farms were sorted into low 20% and high 20% profit groups.

Income	Low 20%	High 20%
Calves	824 (470 lb)	913 (523 lb)
Cull	154	189
Purchased	-165	-81
Gross income	679	933

There is \$254/cow difference in the income received between the most and least profitable farms. Each farm received the same price per pound for their calves, yet as the farms

in the high 20% sold more weight per cow, receipts were higher (\$89/cow). How they accomplished this we'll see later. The high profit farms also received more for their cull cows. Without knowing the specifics, this may have been because they sold them in better condition or at a higher point in the market. Finally the high profit farms purchased in less cattle, which could have been replacement heifers, cows and/or bulls.

Expenses	Low 20%	High 20%
Feed	270	197
Pasture	115	123
Vet & med	26	17
Supplies	23	5
Fuel & oil	33	29
Repairs	50	38
Custom hire	14	5
Marketing	7	4
Operating interest	11	11
Total direct expense	550	428
RETURN OVER DIRECT EXPENSE	130	505
Cost of production, \$/cwt		
Direct expense	117	82
Direct & overhead	142	100
Labor & management	194	113

The difference between low and high profit farms was \$122/cow. Feed cost represented the greatest difference. In the detailed report (not shown here) the low profit farm supplemented with more protein, fed corn silage and generally fed more hay that was more expensive. The high profit farm paid more for pasture, perhaps because it was of higher quality. This may have meant the cows were in better shape going into the winter and didn't require extra and expensive feed compared to low profit farms. Other items of note were supplies, which is a catch all for things you might not need. The bottom line is that the 20% most profitable farms returned an additional \$375/cow compared to the 20% least profitable farms.

Looking at cost of production, which is a calculation of break-even cost, in today's market, the low profit group could probably remain profitable if they did not include their labor. The high profit group will remain profitable until calf prices drop below \$113/cwt.

Production information	Low 20%	High 20%
# of cows	92	158
Pregnancy %	96	96
Pregnancy loss, %	3.4	1.5
Cull %	16	17
Calving %	92	94
Weaning %	86	90
Calf death loss, %	8	6
Average weaning weight, lb	569	556
Pounds weaned/per cow exposed	487	500
Average weight sold per cow, lb	540	564

Finally a complete financial analysis will provide production information – the fun stuff! The most profitable farms had more cows. This is not always the case, but economies of scale cannot be discounted. Both farms settled the same percentage of cows, but the high profit farms lost fewer pregnancies (3.4% vs 1.5%). The high profit farms culled a few more cows – maybe those with big tits or low hanging udders – which could have resulted in higher weaning percent? Notice that the high profit farms had a lower weaning weight, but weaned more pounds of calf per cow exposed and ultimately sold more pounds per cow. These two terms are very good indicators of overall reproductive performance.

Instead of a dart board where you hope that you hit the items that reduce profitability, with a financial analysis in hand you know what's important and increase the likelihood that your efforts will succeed in improving profitability. Sit down with everyone that is part of the farm operation (family, hired labor, veterinarian, Extension educator, feed dealer) and discuss the results of the analysis.

Areas of potential improvement that I would consider:

1. Income
 - a. Calving percent – why is this farm losing 2% pregnancy – herd health?
 - b. Weaning percent – why is this farm losing 4% calves from birth to weaning? – mothering instinct; bad udders, scours, pneumonia?
2. Expense
 - a. Nutrition – maintain cows in body condition score of 4-6, depending on age and stage of production.
 - b. Feed – how to reduce feed cost: additional time on pasture; keeping cows in better body condition; pasture management; forage testing to better meet nutrient requirements
 - c. Mineral program – may be contributing to herd health issues, lack of immunity therefore higher vet and medical expense, pregnancy losses
 - d. Overhead – what costs that you don't need?
 - e. Labor – what can be done more efficiently?

Collecting and recording these measurements, at first, can be overwhelming, but when you see the results and your farm moves towards profitability, the drudgery becomes worthwhile. For more information, contact your local Extension educator. In New York, click “Field Staff” at <http://beefcattle.ansci.cornell.edu/>. For Input Forms, go to same address and click “Producer Resources”. You may also contact Mike Baker, Cornell Beef Extension Specialist, mjb28@cornell.edu.