

Proceedings, The Ranch Beef Cow Symposium XXIII
December 3, 4 and 5, 2013, Rapid City, South Dakota

PRODUCER PANEL – MANAGING COW COSTS TO IMPROVE PROFITABILITY

Moderator: Dr. Jack Whittier, Colorado State University

Panel Members:

James Sewell – TA Ranch – Saratoga, WY
Ed Blair – Blair Brothers LLC – Sturgis, SD
Chip Ramsay – Rex Ranches – Whitman, NE

Dr. Bob Taylor, while at Colorado State University, often used a simple equation to emphasize the relationship between inputs and outputs on profitability. That equation was:

$$\text{Profit} = \text{Income} - \text{Costs}$$

The purpose of this panel is to learn from three successful ranch managers, the practices and approaches they have used to manage costs and thereby improve profit in their operations. By working on both increasing income and reducing costs, profitability can grow.

DO YOU REALLY NEED ALL THAT?

James Sewell, TA Ranch

In 2012, the four largest operational costs for TA Ranch were **employees, fed feed, equipment, and cow depreciation**. The ranch is managed and operated entirely by hired **employees**, so all their salaries, insurance, payroll taxes, and benefits are charged against the cow herd. **Fed feed** was much higher than normal in 2012 as the result of purchasing added feed to stretch existing pasture forage. **Equipment** costs include all vehicles and farm equipment, fuel, depreciation, and repairs.

Both employee related costs and equipment are overheads that basically stay the same no matter how many cows are run from year to year. Since they are two of our largest costs, **cow depreciation** is also driven in part by them, assuming we retain replacement heifers. Reducing overhead costs to a more reasonable level is one of the challenges we are working on.

I will focus on the equipment portion as an example of managing cow costs. The first step is try break down ranch operations into what tasks need to be done going forward. For TA Ranch, the most important task of the year is flood irrigation in April through July. To irrigate, we need a certain number of people on the ground. They all need some sort of transportation based on their job location and housing situation. We also need vehicles to allow us to work cattle, which is the primary task for the rest of the year. Obviously there is some overlap between the two. To evaluate the equipment needs, we list the equipment needed for each job in

terms of pickups, ATV's, and trailers. The following example is the one for pickups. This is a reduction of five pickups over what we had before. We anticipate needing to buy 0.69 trucks per year.

| Trucks | | | | | | | | |
|--------------------|------------------|---------|---------------|--------|----------------|-----------------|-------------|-----------|
| Driver | Unit | Engine | Miles/Yr | Milage | Fuel Use (gal) | Life Expectancy | Turns/Yr | Notes |
| Manager | 3/4 Ton Crew Cab | 8 cyl | 15,000 | 14 | 1,071 | 100,000 | 0.15 | |
| Cow Boss | 1 Ton Crew Cab | 8 cyl | 15,000 | 10 | 1,500 | 100,000 | 0.15 | |
| Ault | 1 Ton Reg Cab | 8 cyl | 12,000 | 10 | 1,200 | 100,000 | 0.12 | |
| River | 1 Ton Reg Cab | 8 cyl | 12,000 | 10 | 1,200 | 100,000 | 0.12 | |
| Mechanic | 1/2 Ton Reg Cab | 6 cyl | 15,000 | 15 | 1,000 | 100,000 | 0.15 | |
| Main Ranch - Irrg | Reg Cab | 6/8 cyl | 5,000 | 10 | 500 | 40,000 | | Pass Down |
| River - IRRG/Spare | Reg Cab | 6/8 cyl | 5,000 | 10 | 500 | 40,000 | | Pass Down |
| | 7 | | 79,000 | | 6,971 | | 0.69 | |
| previously | 12 | | | | | | | |

We currently use a combination of our own equipment and a contractor to put up the grass hay we use to get through part of the winter. We also own other equipment related to irrigation and fence maintenance. The following example is for hay equipment and tractors. We plan to need about 1.15 pieces of equipment per year, but only 0.6 with an engine. This is a reduction of six tractors, five balers, four hay processors, one swather, and one loader from what we had before.

| Hay Equipment | | | | | |
|---------------------------|-----------|------------|-------------|---------------------------|--|
| Unit | HP | Life (yrs) | Turns/Yr | Notes | |
| 4 WD Tractor w/ Loader | 125 | 10 | 0.10 | Stacking/Feeding/Dragging | |
| 4 WD Tractor w/ Loader | 125 | 10 | 0.10 | Stacking/Feeding/Dragging | |
| 4 WD Tractor w/ Loader | 125 | 10 | 0.10 | Meadow Drag/Snow/Spare | |
| 4 WD Tractor | 80 | 10 | 0.10 | Rake/Dragging/Auger/Yards | |
| Self Propelled Swather | 130 | 5 | 0.20 | | |
| Self Propelled Swather | 130 | 5 | 0.20 | | |
| Double Kuhn rake | n/a | 4 | 0.25 | Pull behind tractor | |
| Double Kuhn rake | n/a | 4 | | spare | |
| Large Square Baler | n/a | | | CUSTOM OPERATOR | |
| Flatbed Hay Wagon | n/a | 20 | 0.05 | Pull behind Tractor | |
| Flatbed Hay Wagon | n/a | 20 | 0.05 | Pull behind Tractor | |
| Total Pieces | 11 | | 1.15 | purchased per year | |
| Pieces with Engine | 5 | | 0.60 | | |

These lists allow for a couple of things. First, we attempt to get down to the minimum amount of vehicles and equipment to perform the tasks that need to be done at the ranch. Second, the lists facilitate capital purchase planning. Once we had the lists, we sold any equipment items on the ranch that were in excess of the minimum needs. In 2013, we have had three sales on BigIron.com as well as selling quite a bit of equipment through the local implement dealer. Those sales drew buyers from a large area and did not require a spectacle out at the ranch. We still have about 25% of the excess equipment left to sell. The proceeds from the sales this year were very significant. Some of the items sitting on the “line” were very surprising in the amount they brought.

Once the extra equipment was sold it no longer needs to be repaired or insured. The ranch also looks significantly cleaner. Since 2011, we have seen a 46% reduction in fuel used, 65% reduction in equipment repairs, 11% reduction in equipment depreciation, and about a 25% reduction in vehicle insurance and licensing costs. So, not only did we generate cash flow for the present but significantly reduced operational costs going forward.

DETERMINE IF RESOURCES REALLY PAY OFF – OR ARE THEY A DRAG ON THE RANCH?

Ed Blair – Blair Brothers LLC

Ed Blair is a partner in Blair Brothers LLC, a Family owned and managed company. Ed along with his brother Rich, son Chad, and nephew Britton operate a commercial Angus cattle ranch in Western South Dakota, just northeast of the Black Hills. The area is predominantly cool season grass range, with an average rainfall of 14 inches. The Blair’s are a total AI operation synchronizing 1200 to 1400 head of cows and yearling heifers a year, mature cows have an 85% pregnancy rate in 26 days having been exposed to two cycles of AI in those 26 days. Any female that does not stick AI is marketed private treaty as bred replacements.

The family markets 400 Angus bulls private treaty a year with bulls selling from North Dakota to Texas. Bull sales begin in February. We purchase back customer calves with some going directly to feed yards in Kansas while others are backgrounded in North Dakota, local area feeders, and at home. After backgrounding these calves through the winter, the calves are summered in Montana then placed on feed in Kansas. All open heifers, plus steer calves, are harvested and then sold on US Premium Beef’s high quality grid. Blair’s were a founding member of US Premium Beef a co-op of producers with ownership in two packing houses in Dodge City and Liberal, Kansas.

All operations have different resources available to them, you have ranches with abundant range where with some protein supplement you can get through most winters, other operations have a combined farming and ranching with cheap crop residue to winter on, I don’t have either but I do have access to an abundant and relative cheap feed source, in that I am six miles from the Belle Fourche irrigation project.

Growing up my Dad had a combination wheat, cow, and a yearling operation. Planting 400 acre of winter wheat, 175 Herford cows and wintering and summering 250 yearlings. The yearlings being the drought plan, in that you didn't run the yearlings on grass in a dry year.

After (attending) three years of post-high school I came home to the operation in the mid seventies got married, farmed wheat, ran more cows, and wintered more calves. Bought a drought resistant feed source in the form of an irrigated farm. In the 1980's added rotational grazing, cross breeding, and in the late 1980's AI. I quit raising wheat and bought more irrigated farm ground, expanded the cow and yearling operation.

Fast forward to 2009, having come through seven years of below average precipitation, cash flow was becoming a problem and I was looking for a way to cut expenses. The first thing I looked at were the major budget items fuel, machinery, fertilizer, chemical, water and repairs most all of these were related to the farming operation. After a week of my daughter and I crunching numbers we decided to sell the farm.

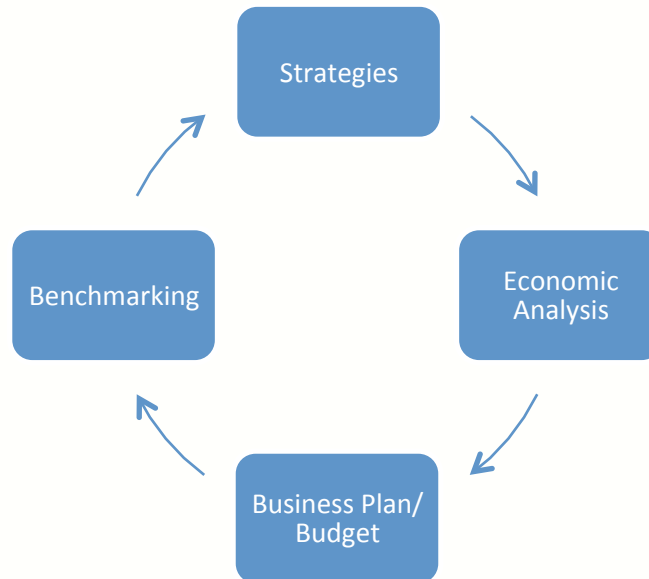
Goals were to sell the real estate, all related equipment, quite putting up dry land hay and seed those acres to grass. The only ranch equipment would be a wheel loader two tractors and feeder wagons. Also along with this change we planned on forming long-term contracts for hay with area farmers and also buying hay on the open market. Next step was getting aggressive with our corn marketing, through the use of the futures market, we can consistently buy corn for under the cost of production just by using the yearly market cycles.

Top ten things our operation does to be profitable:

1. Short duration rotational grazing
2. Piped water
3. Early wean for drought and also to have cows into shape going into winter
4. Graze corn stalks and other crop aftermath into last third pregnancy
5. Use a least-cost balanced and limited fed ration in the last two months of pregnancy and early milk production.
6. Synchronized AI
7. Good cattle handling equipment & techniques
8. Low stress weaning and preconditioning & overall herd health program
9. Buy right – market right
10. DOING WHAT IS EASY IS NOT NORMALLY THE MOST PROFITABLE

RAISING THE BAR ON PROFITABILITY

Chip Ramsay, Rex Ranch



Strategies

Five basic strategies can be used to increase profitability.

1. Cost Leadership
2. Product Differentiation
3. Market Segmentation
4. Innovation
5. Growth

Rex Ranch has employed many of these strategies over the years but the main focus has been on “Cost Leadership”. While “Cost Leadership” is important and must not be ignored, other strategies may need to become the primary strategy in order to raise the bar on profitability.

Benchmarking

Benchmarking is the process of comparing one's business processes and performance metrics to industry bests or best practices from other industries. It is typically more than a one-time event; it should be a continuous process in which organizations continually seek to improve their practices. Benchmarking can be both internal and external in nature. Internal includes comparisons within the operation on the same year as well as between years. External should be with comparable businesses within our own industry where possible.

Benchmarks can look both at future production as well as past performance. Historical or lagging indicators look backward and help management assess past performance. Management can then learn from its own historical performance and that of competitors to ultimately improve future performance and production. Some examples of historical indicators include yield, cost/acre, and contribution margin.

Leading indicators are predictive in nature and help management assess future production and financial performance. Due to the long production cycle in agriculture, predictive indicators that can be measured early on are especially valuable. Some examples of leading indicators include cow body condition, calving interval and conception rate.

Key production indicators should be aligned from the front lines of production to the operation as a whole. This alignment helps each employee see how his or her specific stewardship contributes to the overall success and profitability of the entire company.

Economic Analysis

When evaluating new opportunities or production alternatives an operation should include an analysis of the economic impacts of each option. The analysis should consider cash flows, cost of capital, and contribution margins. Understanding fixed and variable cost components on an operation allows for calculation of contribution margins and should lead to better decision making.

Operating income will continue to increase as long as increases in production are done in a way so incremental revenues exceed incremental costs. Keep in mind the following:

- Fixed costs are costs not directly tied to production levels, such as management labor and fixed assets.
- Variable costs change with production levels, such as feed, fertilizer, or seed.
- Some costs are fixed within a relevant range, such as direct labor and equipment.
- Contribution margin is calculated as revenue less the variable cost and is usually calculated on a per unit basis.

Below is a formula showing the relationship between production levels, contribution margins, and fixed costs.

$$\text{Operating income} = (\text{volume} * \text{contribution margin}) - \text{fixed costs}$$

Contribution margin is a good metric for measuring the value of adding additional production within the existing cost structure. It also is a better metric than operating income for making short term decisions regarding the selection of enterprises competing for the same resource.

Questions

Strategy

1. Identify which strategies your operation is currently using and apply a numerical value (1-10) showing the degree to which each is being employed. Which one strategy, if focused on, could increase the profitability of your operation?

Benchmarking

2. What predictive and historical indicators is your operation using? What additional indicators should be measured?
3. How effective is internal and external benchmarking in your operation? How can it be improved?

Economic Analysis

4. Which costs in your operation are variable and which are fixed?
5. When should you use contribution margin instead of operating income in your decision making?
6. What new opportunities are being evaluated to improve profitability?