

TIMELY INFORMATION

Agriculture & Natural Resources

DAERS 08-4

August 2008

Making Adjustments To The Cattle Herd Due To Higher Production Costs

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Many cattle farmers are stymied by all of the changes facing them today. Lower revenues due to declining feeder calf prices coupled with significantly higher fuel, fertilizer, and feed costs have most cow-calf farmers confused about which production management practices pay and which ones do not. These dramatic changes have challenged our current beef production systems and will likely lead to a new beef/forage era where less emphasis will be given to supplementation with feed and more attention will be focused on growing, managing, and harvesting forages with cattle.

Why Are Production System Changes Needed?

It is no surprise that rising energy costs have touched everything that we in the cow-calf business use as inputs. Feed, fuel, and fertilizer costs have more than doubled during the last three years on many farms. Average annual cow carrying costs have increased somewhere between \$50 and \$100 per head during the last year for most cattle farmers. This increased cost of production coupled with lower feeder calf prices will further reduce net farm income per brood cow. In many cases, the combination of these two forces will result in significant negative net farm returns for most cattle farmers. More simply, when the cost of an additional unit of an input exceeds the value of what it produces, you usually reduce its use. That is where we are with feed, fertilizer, and fuel.

As many of you know our current cow-calf production systems were developed with cheap corn and cheap energy. Cheap energy was used to ship the calves to the major feedlots in the west and cheap corn was used to finish them. Unfortunately the costs of these two inputs have realized a three-fold increase in a short period of time, while the price of fed cattle is about the same. Given these dramatic increases in the cost to finish cattle without any significant increase in fed cattle prices, feeder cattle buyers are forced to pay less for feeder cattle and feeder calves.

What Possible Production System Changes Are In Order For Your Operation?

A good starting place is to look at your costs and returns for your cattle operation from last year. If you do not have a costs and returns budget, look at your Schedule F from last year. Separate your production costs into at least seven categories: Harvested Feed Costs; Purchased Feed Costs; Grazing Costs; Animal Costs; Interest Costs; Depreciation Costs; and Miscellaneous Costs. Pick the largest dollar cost category and evaluate how you could reduce these costs. Then proceed to the next largest category and scrutinize how to reduce those costs. If you need help with financial record-keeping, you may contact the Alabama Farm Business Analysis Association through your local County Extension Office.

Generally there are two ways to reduce costs. Either you have to find opportunities to buy the input cheaper (or a cheaper substitute input) or you have to reduce the use of the input. If you get lucky, sometimes you can do both. However, in most situations when you reduce inputs you should expect less output. Unless, of course, this particular input was not a necessary input in your production system. We have more unnecessary inputs than most folks realize (convenience feedstuffs, excessive use of inputs, unnecessary machinery and equipment, misallocated costs to the cow enterprise, etc.).

Cattle farmers that choose to reduce inputs such as feed, fuel, and fertilizer are also choosing to own and manage fewer cows. This is a painful adjustment for most farmers. This decision involves not only economics, but also affection and emotion as well. Most cattle farmers fall in love with their land and cattle. Selling some cows is a tough decision to make, but it is the correct decision given that the costs of these inputs exceed the value of their use in the cow-calf enterprise. Most forecasters say these higher input costs are permanent and we should adjust our production systems based on current prices. That means each of us need to figure out what pays and what doesn't pay.

For instance, let's take a 1,100-pound brood cow and feed her 120 days during the winter 5 pounds of corn per head per day at \$0.10 per pound which is \$60 per brood cow ($5 * \$0.10 * 120$) and 25 pounds of hay per cow per day (probably does not include hay wasted) at \$80 per ton (\$0.04/Lb.) which is \$120 per brood cow ($25 * 120 * \$80 / 2000$), graze her from spring through fall on 2 acres of fertilized pasture at \$100 per acre which is \$200 per brood cow, and spend \$60 on fuel per brood cow to deliver the supplement and hay she needs, maintain the pastures, fences, water troughs, trips to town, etc. It should be easy to see that 11 bushels of corn per brood cow, 2.5 rolls of hay per brood cow, 2 acres of fertilized pasture per brood cow, and 15 gallons of fuel per brood cow will not pay. That's about \$440 in cash costs per brood cow ($\$60 + \$120 + \$200 + \60). We have used values here that are much lower than what most cattle farmers will incur and we haven't included the costs associated with salt and mineral, Vet. & Med., depreciation, interest (on capital purchases or operating), insurance, marketing expenses, property taxes, labor and management, utilities, etc.

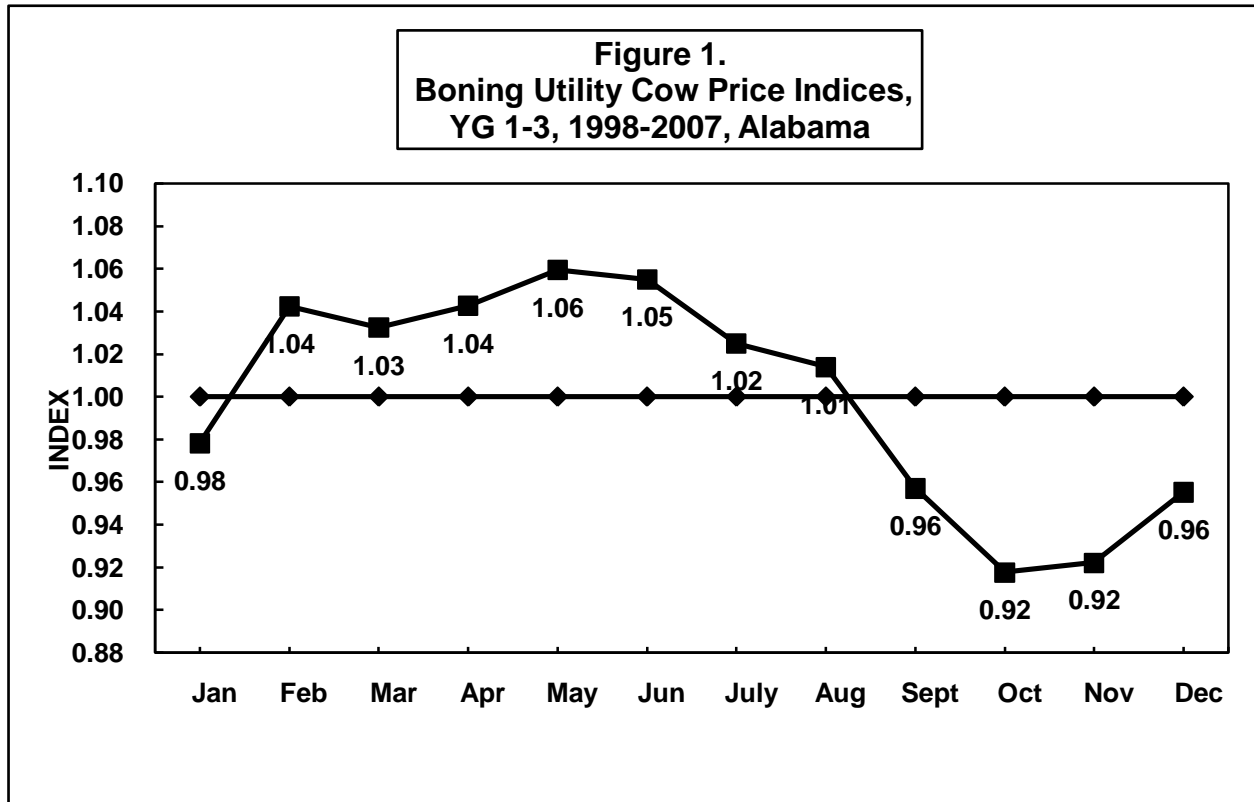
Next let's assume we are going to sell an average weight of 500-pound feeder calves from about 75 percent of the brood cows to pay for these costs (this assumes a 90 percent feeder calf weaning rate and 15 percent of the heifers to be retained for the breeding herd). That gives you about 375 pounds of feeder calf per brood cow ($0.75 * 500$ lbs.) or a breakeven price of \$1.17 per pound of feeder calf just for her feed, fertilizer, and fuel costs ($\$440 / 375$ lbs.). If we add a conservative \$200 for all of the other costs that gives us a breakeven of about \$1.71 per pound of feeder calf for total costs ($\$640 / 375$ lbs.). I think most folks will agree that we need to make some adjustments to our production systems. Clearly, many of us have to make some tough decisions. The simple thing to do is sell some cows and reduce the level of input use. We need to manage for more grazing days by either reducing the number of cows or increasing the number of grazing acres (more acres per cow), use more stockpiled grass and less hay, reduce feed, fuel, and fertilizer use and waste, focus on the appropriate cow-size for your feed resources, etc. See http://www.aces.edu/timelyinfo/Ag&NatResEcon/2008/May/DAERS_08_2.pdf for more information on strategies to lower your unit cost of production (what it costs you to produce a pound of calf). Also, if you have substantial debt payments, you need to seek guidance from your accountant or financial advisor to guide you through these difficult times ahead in the cattle business.

Market Considerations on Selling Brood Cows

First, identify and rank the cattle in your herd. This will help you determine who stays and who goes to market. This is not an easy task. We encourage folks to use herd records such as those generated by the Beef Cattle Improvement Association (BCIA) program to keep production records and measure performance. See www.albcia.org for more information on BCIA. These records can be used to measure performance and rank your cattle herd. In addition to performance, try to cull the brood cows with defects, bad dispositions, low producers (those that don't wean a calf weighing at least 50 percent of their mature cow weight at weaning), older cows, cows that are open or cows that do not fit your calving season, etc. Next, try to select a market time period to market your cows that will pay you higher prices. We are going to assume that the cows you plan to sell are in good body condition and will grade as boning utility. If you have breaking, cutter, and/or canner cows, they too have similar seasonal price trends.

The monthly price trend for boning utility cows is presented in Figure 1 below. By taking the average of the monthly prices from the last 10-years received for boning utility cows we can develop a price index that describes the seasonal trends during the year, as shown in Figure 1. By using these price indices we can determine based on a 10-year average the higher price months to sell boning utility cows. The seasonal price index describes the average monthly trend and may be expressed as a percent of the 10-year average market price. For example, Figure 1 shows that the boning utility cow price index during May is 1.06 or six percent higher than the 10-year average price. Selling boning utility cows during the month of May is also 14 percent higher than ($1.06-0.92$) selling them during the months of October and November.

Of course, weight and body condition will need to be given consideration during these two time periods. In general, the monthly average prices for the months of February through August are higher than the 10-year average price as shown in Figure 1. The months of September through December and January are less than the 10-year average price. See http://www.aces.edu/timelyinfo/Ag&NatResEcon/2008/February/DAERS_08_1.pdf for additional information on Alabama beef cattle price trend data.



Spring calving cows that are currently nursing calves are more complicated in regard to how to market them. The 10-year price trend (Figure 1) above shows that boning utility cow prices are the lowest during the months of October and November when many farmers typically plan to sell their calves and cull the cows. Boning utility cows are 8 percent below (1.00-0.92) the 10-year average in October. The alternatives to compare when reducing a spring calving herd are 1) selling a cow and calf pair, 2) selling the cow and calf separately before weaning, 3) selling the cull cow and calf separately after weaning (say October), and 4) retaining the cull cow in October and selling her between February and May. This decision is usually determined by market prices of cows and feed inputs and the weather.

The fall calving cows usually wean their calves in the spring or early summer. These cows can be sold at almost the seasonal market highs. The price trend (Figure 1) shows boning utility cows to be from 1 to 6 percent above the 10-year average market price during the months of February through August.

Making the decision to reduce the number of cows in your cowherd is a lot simpler for the fall calving herd due to more favorable market prices.

Final Thoughts

The economics of reducing the number of cows in your cow herd is based on the current economic conditions where the cost of an additional unit of an input exceeds the value of what it produces. As a result of these economic conditions, we need to reduce the use of the high cost inputs (feed, fuel, fertilizer, etc.). For most cattle farmers, this involves substituting lower cost grass that the cow can harvest herself to replace the higher cost inputs. It should be clear that if we buy less feed due to high grain prices and grow less grass per acre due to high fuel and fertilizer prices, we must reduce the number of cows on our farms and/or increase the number of grazing acres on our farms. Additional attention to cow size, buying inputs in bulk and at their seasonal low prices, maintaining a controlled breeding season, performing cattle management practices in a timely fashion, maintaining a herd health program, and so on, will also help you lower what it costs you to produce a pound of beef.

Also remember that the biology of the cow does not change just because the input costs have increased significantly. The cow will continue to have the same nutritional needs (protein, energy, minerals, vitamins, water, etc.) as she did when feed, fuel, and fertilizer inputs were cheap. Be careful not to mismanage the cow herd during these stressful financial times.

Another concern with rising production costs is the increase in risk faced by cattle farmers. Higher production costs coupled with widely fluctuating cattle market prices will be certain to put some red ink in the ledgers of many cattlemen. The time you spend now in planning, monitoring, and effective management will likely be key factors in making your cattle business successful in the future.