

COW/CALF CORNER

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Cattle Marketing Opportunities When Production is Difficult

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

It is often the case in the cattle business that “when production is easy; marketing is hard” and “when production is hard; marketing is easy”. This makes sense because when production is easy and everyone can do it, prices often drop and marketing profitably is a challenge and when production is a challenge, there are often good market opportunities. Certainly the widespread drought is making production a challenge at this time for a great many producers. Many cattle producers are on the defensive trying to figure how to best use rapidly dwindling feed resources; what to sell and when to sell it; and ultimately how to survive the drought with minimal negative impacts.

However, current cattle prices reflect underlying market signals as well as the direct impacts of the drought. Most attention has been focused on how much cattle prices have decreased in the past two months. For feeder cattle, it is always important to consider changes in the price relationships across weights as well as the overall price levels. Recently, prices for lightweight feeder cattle, i.e., calves and stockers, have decreased more than prices for heavy feeder cattle. The decrease in heavy feeder prices reflects primarily the impact of high corn prices on feedlot demand for cattle combined with the general demand weakness reflected in boxed beef prices. Calf and stocker prices reflect all of those factors plus the lack of forage and limited opportunities for stocker based cattle production. As a result, the current price pattern is one in which feeder prices drop rapidly up to about 600 pounds (for steers) and then are relatively flat up to about 850 pounds. In fact, for the past two weeks in Oklahoma, the cheapest steer under

800 pounds is a 575 pound animal with higher prices for weights from 600 to 800 pounds. This type of “inverted” feeder price structure occurs rarely and reflects the combined impacts of high corn prices and a relative excess of animals at the current time due to the drought.

Notwithstanding current production difficulties, the market is providing strong signals to add weight to feeder cattle before feedlot placement. For example, 525 pounds steers have averaged about \$140/cwt. the past two weeks in Oklahoma. Adding 225 pounds at 1.5-2.0 pounds per day would produce a 750 pound steer by November. Using a November Feeder Futures price of \$144.90/cwt and zero basis results in a gross margin of roughly \$350/head or a value of gain of \$1.56/lb. The extent to which this is a good market opportunity will depend on the cost of production but even with relatively expensive feed costs, a cost of production well under this value of gain is likely. While many producers are unable to take advantage of this situation, there are undoubtedly some producers with the ability to implement a stocker or backgrounding program to take advantage of this very high value of gain.

While producers are forced to produce and market defensively through the drought, it is important to keep in mind that market opportunities will exist during and after the drought. The reality of high grain prices for at least the next crop year will continue to be reflected in feeder cattle markets as market signals to add weight to cattle prior to feedlot placement. Producers should manage, not only to get through the drought, but also to be positioned as well as possible to take advantage of opportunities once production becomes easier.

Hay Feeding Cost CAN be Substantially Reduced

Dave Lalman, Oklahoma State University Beef Extension Specialist

The Southern Great Plains region was fortunate to have a tremendous wheat crop in 2012. From that crop a lot of cool season annual forage was harvested to help replenish the depleted hay supply. However, after one of the hottest, driest early and mid-summers on record, dry conditions have persisted throughout much of the region. As a consequence grass hay yields have been...once again...in the 50 to 75% range of long term averages. Can you say de ja vu? Certainly, pasture conditions are poor throughout much of the region, hay is very expensive and difficult to find, and feed prices are extremely high. Cattle operations are once again forced to liquidate animals or consider feeding options. Like never before, producers should consider methods to improve efficiency of harvested forage use. Fortunately, a few relatively simple concepts are available that could make a dramatic impact. In fact, when combined, these strategies could cut the need for hay by at least one third!

Limiting hay intake

Feed yards and backgrounding operations have taken advantage of improved efficiencies associated with limit feeding growing cattle for many years. This strategy could be used to substantially reduce hay use in cow/calf operations as well. By limiting forage intake, forage digestibility should increase and waste should go down. Minnesota and Illinois researchers limited the amount of time cows had access to hay. When cows were allowed access to hay for six hours, hay intake was reduced by an average of 22% over three experiments. Hay waste was reduced with restricted access in two of the three experiments and cow weight gain declined with restricted access in all three experiments. Cows with restricted access gained weight in all three of the experiments, even though they did not gain as much as cows with free-choice access. This suggests that initial cow

body condition and hay quality may be important factors in successful implementation of this strategy. For example, if cows are in poor body condition initially, or if hay quality is extremely low, cow performance, newborn calf health and reproductive efficiency could be compromised.

Estimating free-choice intake and determining the degree of restriction below free-choice intake are critical factors in using the limit feeding strategy. The National Research Council publishes equations to estimate forage intake and these equations are incorporated into many cow/calf nutrition evaluation software programs. For example, OSU Cowculator uses cow size, stage of production, milk yield and forage quality to estimate dry matter intake. Cowculator (and many other nutrition evaluation programs) can also be used to estimate performance of cows with varying degrees of hay restriction. Cowculator is available at beefextension.com. Limit feeding is not recommended for first calf heifers or thin, older cows.

Using hay feeders designed to limit hay waste

Our group at Oklahoma State recently studied the effects of hay feeder design on hay waste. Two feeders with open bottoms and two feeders with sheeted bottoms were evaluated (Figure 1). The open bottom feeders wasted an average of 21% of the original bale weight. These two feeders are light weight, convenient to use and inexpensive. Consequently, they are the most popular feeder style being used in the state of Oklahoma. The sheeted (solid) bottom feeder reduced hay waste to 13%. However, a modified cone feeder with a sheeted bottom reduced hay waste to only 5%. The feeders with sheeted bottoms are both heavier and more expensive than the open bottom feeders. Nevertheless, assuming hay valued at only \$120 per ton and a 120-day feeding period, the difference in the value of one feeding season's hay waste between the open bottom steel ring feeder and the modified cone feeder is \$468.72. Few cow/calf operations will be able to absorb the cost of 21% hay waste when hay is extremely valuable.



(a)



(b)



(c)



(d)

Figure 1. Round bale feeder types: (a) modified cone feeder with sheeted bottom; (b) conventional open bottom steel ring feeder (c) polyethylene pipe open bottom ring feeder (d) sheeted bottom steel ring feeder.

Using an ionophore

The use of an ionophore for grazing cattle and cattle consuming hay can increase the energy value of a forage diet and thus further reduce the need for hay. Older research has shown that Rumensin® and Bovatec® improves weight gain of growing cattle. Rumensin® is approved for the use in mature beef cows. Older research showed that Rumensin® reduced hay intake by around 10% while still producing about the same amount of weight gain (Turner et al., 1980; Clanton et al., 1981). In a recent study in our shop at Oklahoma State University, cows fed 200 mg of Rumensin® gained an additional 0.5 per head per day and nearly one half a body condition score unit more during a 58 day study. Importantly in this project, the forage digestibility was improved dramatically, resulting in the improved cow performance. One could look at the addition of Rumensin® in the supplement as having increased the net energy value of this low quality hay diet by about 15%. In other words, less of the same diet (hay) would need to be fed to get the same performance. In our region, the cost of Rumensin® is about \$0.02 per cow per day. I don't know any other way to get that much improvement in forage utilization at such a low cost. There is a reason why the cattle feeding industry has been using this feed technology so extensively for so long, and a substantial improvement in feed efficiency is that reason. The same technology and benefits are available to the cow/calf industry, although it is highly underutilized.

Research is not available evaluating the potential hay savings when two or more of these technologies are combined. Nevertheless, it is very possible that hay use could be reduced by 30 to 40% when two or all three of these strategies are implemented.

The Impact of Hot Weather on Bull Fertility

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Several research trials have been conducted throughout the years looking at the effect of high temperatures on bull fertility. Certainly that research has importance to many Southern Plains

cattlemen in the summer of 2012. As far back as 1963, researchers exposed bulls to temperatures of 104 degrees F. and 54% humidity for an 8 period and then allowed the temperature to drop to 82 degrees F with 72% humidity for the remainder of the 24 hour period. This temperature regimen was continued for 7 days and was designed to resemble natural conditions in the subtropics. They found the high temperatures resulted in major detrimental effects on initial sperm motility, sperm concentration and total numbers of sperm per ejaculate.

In 1978, Oklahoma scientists (Meyerhoeffer, et al.) placed bulls in controlled environments of 95 degrees F. for 8 hours and 87 degrees for the remaining 16 hours while similar bulls were placed in environments of 73 degrees constantly. These treatments were applied to the bulls for 8 weeks and then all bulls were allowed to be in the 73 degree environment for another 8 weeks. During the treatment, the heat stressed bulls had average rectal temperatures of 0.9 degrees F higher than non-stressed bulls. The percentage of motile sperm cells decreased significantly in the stressed bulls by 2 weeks of heat stress. **Sperm motility did NOT return to normal values until 8 weeks after the end of the heat stress.** This explains some of the reduction in fertility that is often associated with summer and early fall breedings. One cannot escape the conclusion that high ambient temperatures can result in detrimental effects on fertility by effects on both the cow and the bull.

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