COW/CALF CORNER

The Newsletter

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Marginal thinking for optimal decisions

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How should $300+/cwt. calf prices affect cow-calf producer decisions? The market signal is pretty clear; more calf production is needed and will be rewarded. For many producers, this may be a question of expanding the cow herd. In addition to potential herd expansion, producers should consider whether current market values should prompt management changes as well. Consider this question, for example: What is the optimal level of death loss for cows or calves? While we don't often think about it, the optimal level is not zero. Could we achieve zero death loss? Probably yes or something very close to it, but the last bit of death loss reduction would require extreme measures for which the costs exceed the benefits and thus is not optimal. However, the increase in calf values this year means that additional efforts to reduce death loss are warranted compared to what was optimal in the past.

This illustrates the economic principle that every producer should be examining now: adjust production activities until the marginal benefits equal the marginal costs. The sharp jump in revenues this year (marginal benefits) implies that producers should consider a host of marginal changes in production and costs. This may mean doing more of something you are already doing or beginning to do something you have not done in the past.

Narrow measures of technical efficiency often lead to non-optimal decisions. For example, high calf prices are a motivation to sell more pounds of calf. However, a narrow focus on weaning weights ignores reproductive efficiency, cow size and cost of production, and other factors. Maximizing value of production per acre includes both technical production efficiencies as well as economic values of inputs and outputs. Maximizing value of production per acre means evaluating the contributions of a host of cattle and forage production variables along with the costs of inputs used for production.

Pounds of calf weaned per exposed female is a technical measure of productivity that encompasses several other technical efficiency parameters including conception rates; calving percentage; and pre-weaning calf death loss as well as weaning weight. To the extent that increasing pounds of calf weaned is consistent with maximizing the value of production per acre, producers should consider what changes might impact these production components. Conception rates may be boosted marginally by having cows in better shape at breeding. The extra feed required to add one-half to one body condition score to cows may be worth it this year. Ensuring bull fertility with breeding soundness exams may avoid decreased or delayed conception. Ensuring cow and bull health with respect to venereal disease and enhanced bio-security for new animals entering the herd can avoid abortions and reduced calving percentage. Cow and calf health programs should be evaluated to reduce the risk of death loss. Think of the value of increased monitoring of cows at calving that saves one extra calf this year. These are just a few examples of questions that need to be asked and answered in all cow-calf operations.

Most production factors should be evaluated to see if marginal adjustments are indicated by increased animal values. The principal market signal at this time is to have something to sell and producers should consider additional measures that will enhance productivity of the entire operation.

Cow age and cow productivity (When is she too old?)

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

Strong cattle prices have encourage ranchers to keep any cow that might have a live calf to sell at the next weaning period. If rainfall allows forage growth to be adequate, keeping an older cow to have another calf to wean next year is tempting.

At cow culling time, producers often face some tough decisions. Optimum culling of the herd often seems to require a sharp crystal ball that could see into the future. Is she good for another year? Will she keep enough body condition through the winter to rebreed next year? Is her mouth sound so that she can harvest forage and be nutritionally strong enough to reproduce and raise a big calf? At what age do cows usually start to become less productive?

There is great variability in the longevity of beef cows. Breed may have some influence. Region of the country and soil type may affect how long the teeth remain sound and allow the cow to consume roughages such as pasture and hay.

Records kept by a very large ranch in Florida in the 1980's and published in the 33rd Annual Proceedings of the Beef Cattle Short Course by the University of Florida Animal Science Department show how productivity changes over the life of the beef cows. These large data sets, (19500 cows, and 14000 cows in two separate years) are plotted below. They indicate the average percentage of cow determined to be pregnant based on their age in years. These cows were not pampered but expected to produce in the environment in which they were kept.

This data would indicate that cows are consistent in the rebreeding performance through about 8 years of age. A small decline was noted in 1983 as cows aged from 8 to 10 years of age. However the most consistent decline in reproductive performance was noted after cows were 10 years of age. A steeper decline in reproductive performance was found as they became 12 years of age. This data, collected in Florida on cows with some Brahman influence, represents one of, if not the largest data set on this subject. (Source:Genho, 1984 Proceedings of the Beef Cattle Short Course. Animal Science Department, University of Florida.)