



# Controlled Calving Season Is Controlled Management

*The key to successful management in a cow herd is being able to plan health, feeding and marketing programs that will be effective and efficient.*

These plans can work well only if there is a carefully controlled breeding and calving season.

A 2009 study from Troxel and Barham in Arkansas examined how the results of changing the length of a calving season in six herds influenced productivity and returns in the herds. The result was changing calving seasons from an average of 273 days to 85 days long. It required an average of 3.8 years to make this change. Herd breakeven cost was reduced by 30%, specific costs per animal unit were reduced by 40%, and income per animal unit was increased by 100%.

Why should one expect this much change in economic returns from reduction of and, thus, control of a calving season? In most cases the reason lies in knowing when cows are expected to calve and making sure they are pregnant at the appropriate time. In an uncontrolled environment, cows may go unbred for several weeks or months while using feed and management resources

that are returning nothing to the enterprise. The way calving seasons are controlled is to put the bull on one side of the gate at the designated end of the breeding (and calving) season, the cow herd on the other side of the gate and to close the gate.

**The optimum calving season would have 60% of the cows calving in the first 30 days of the calving season.**

How long should a calving season last? The rule of thumb is 90 days to ensure that all the cows calve within a year, but the length should be based on herd and management needs from manager time and marketing. The optimum calving season would have 60% of the cows calving in the first

30 days of the calving season. Conversion to a shorter calving season will highlight two things in the herd. First, less fertile cows can be identified and these freeloaders can be eliminated. Unbred cows during a breeding season cost money from lost weaning weight. For each heat cycle that a cow fails to breed, the average lost income is over \$30 in today's market. Second, management problems can be identified that are preventing

effective reproductive efficiency. This problem can usually be traced to nutrition.

There are other factors that improve the bottom line with controlled calving seasons. These include the following:

## Nutritional program

When cows are in stages of production that vary by more than a couple of months, it becomes nearly impossible to efficiently use feed resources, particularly in winter. The only options are to maintain several different groups of cows or to waste feed on cows that may not need it. The results in Table 1 show how nutritional needs change for cows before and after calving and by age.

These data clearly show that an attempt to nutritionally manage a herd that contains all of these production groups will result in either one group being undernourished or feed being wasted on groups that do not require higher levels of feed. This result will be particularly true for higher-cost nutrients like protein.

## Health management

The timing of particular vaccination programs for both cows and calves is age and status dependent. For example, one way to effectively control persistently infected BVD (bovine viral diarrhea) in a herd is to vaccinate the cow herd after calving and before breeding with a modified-live vaccine. Any attempt to vaccinate pregnant cows this way could result in abortions. An effective health program will most often happen when the entire cow herd can be treated alike on the same day, with the same products and with one trip through the chute.

## Marketing

As feeder calf marketing programs become more sophisticated, one of the important features of success is the uniformity of a sale group of calves. It is clear prevaccination and weaning of feeder calves and grouping calves across farms in similar weight and phenotype will be profitable. To access these markets and to effectively manage the prevaccination and weaning, it is important that all of the calves can be treated alike because they are a similar age and weight. Uniformity has value when marketing cattle this way.

## Management resources

One of the key management interventions in the cow herd occurs at calving. It really does not economically matter how many calves are born on the farm each year. What really counts is how many calves get across the scales at weaning and are sold. Therefore, time spent in the herd at calving has great economic power when calving difficulty, calf abandonment, twinning and other issues are effectively managed. When calving season is extended by weeks and months, there is less effective management. Concentration of this effort in a shorter calving season will get more calves to the sale. In addition to calving, the need to sort the herd into nutritional management groups or weaning calves in several cycles through the year adds to a management burden that can be eased by management of a calving season.

There is free money in a cow herd that has a tight window of breeding and calving, and it is not a difficult action to realize the benefits by just shutting a gate.

— Penn State Extension, extension.psu.edu

**Table 1. Nutritional needs of cows for different stages of production**

Status	Weight gain	Crude protein	TDN (total digestible nutrients)
Yearling heifers (850 lb.)	1.4 lb./day	1.6 lb./day	10.8 lb./day
Dry cows (1,200 lb.) (middle 1/3 pregnancy)	0.0 lb./day	1.5 lb./day	10.1 lb./day
Dry cows (1,200 lb.) (last 1/3 pregnancy)	0.9 lb./day	1.7 lb./day	11.8 lb./day
2-year-old heifers (lactating — 950 lb.)	0.5 lb./day	2.0 lb./day	12.5 lb./day