



# Knowing Your Cow Herd: Production = Reproduction

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**H**ow well do you know your cow herd? It seems like a peculiar question, but it is a worthy one. Overall, “How well are your cows and heifers doing to produce a marketable product?” The success of a beef cow-calf operation depends upon the number of calves produced and marketed each year. Fewer calves produced reduces the number of calves to market. Production equals reproduction. Reproductive performance can increase or decrease overall profitability. Proper management of nutrition, herd health, and accurate record keeping are all crucial components impacting reproduction. Not meeting the nutritional requirements of cows and replacement heifers can remarkably undermine reproductive success. Setting goals and prior planning is very important.

## What Should My Reproductive Goals Be?

- Target a defined calving season of 60 to 90 days or less.
- Reach high pregnancy and calving percentages and an optimal herd average calf weaning weight.
- Maintain cows who consistently produce a calf each year and strive for a high percentage of calves born in the first half of the calving season.

## Why a Defined Calving Season?

A defined calving season of 60 to 90 days can best utilize time, labor, and resources. A more uniform calf crop in age, development, and weight is produced. This allows for better focus on nutrition, herd health, management practices, and marketing

when calves and cows are in a similar stage of production. With accurate record keeping, a defined calving season also identifies cows that routinely calve outside the desired calving season or do not calve at all.

### How Can I Determine Reproductive Success?

Pregnancy diagnosis is a key practice to evaluate the results of the breeding season. Pregnancy in cattle can be determined by rectal palpation, reproductive ultrasound, or blood testing. Rectal palpation is the most common method and is best done at least 45 days after the end of the breeding season by a veterinarian. Evaluating pregnancy status is an important management tool to lower production costs, as it allows you to cull non-productive cows from your herd. Why keep an open cow or heifer that will not produce a calf to market?

After pregnancy status has been determined, a pregnancy percentage can be calculated as another indication of reproductive success. Calculate the pregnancy percentage by dividing the total number of bred cows and heifers by the total number of cows and heifers exposed to a bull during the breeding season. Then, after the calving season, a calving percentage can be calculated by dividing the number of calves born by the number of cows and heifers exposed during the breeding season. The calving percentage provides an assessment of any loss due to calving or reproductive health problems.

Moving forward to weaning, a weaning percentage can be calculated by dividing the total number of calves weaned by the number of cows and heifers exposed. The weaning percentage is an assessment of any loss between calving and weaning. Looking further, a cow herd's production level can be evaluated by the herd's average weaning weight. What is an optimum herd average weaning weight? This is determined by an operation's goals, resources, and marketing plan. The Alabama Beef Cattle Improvement Association (BCIA) Commercial Record Keeping Program has reported an average 205 day adjusted weaning weight of 581 lbs. over the last 5 years.

### How Can I Measure Reproductive Performance?

A calving distribution is a very useful way to evaluate a cow herd to see when calves were born in a defined calving season. To do so, record the date when the first calf was born. At the end of the first 21 days of the calving season, count and record the number of calves born. Continue this for each additional 21-day calving period. Determine your calving distribution by reviewing the number of calves born in each 21-day period of the calving season. It is ideal for a high percentage of calves to be born in the first half of the calving season to be more efficient.

Over time, an average calving interval is a key method to evaluate individual cow performance. An average calving interval

is the average number of days from one calving date to the next. An ideal average calving interval is 370 days or less, and a higher calving interval indicates a cow is later calving or has missed a year in producing a calf. Why keep cows that do not successfully produce a calf each year?

### How Do I Best Select a Replacement Heifer?

After you have evaluated your mature cow herd, how do you best add to the herd in selecting replacement heifers? To begin, what do we ultimately want in a replacement heifer? A well-developed heifer to calve unassisted at 2 years of age in the early part of the calving season. Then, wean a good (maybe great) calf and REBREED early or on time for her second calving season. Long term, become a reliable cow who maintains a good calving interval and produces calves that perform. So, what should I look for in a replacement heifer? Evaluate structural soundness in conformation, hooves, muscling, weight, and body condition score. Note the birth date and age, as older replacement heifers have had more time to develop to breed more successfully. Review the heifer's adjusted weaning weight and ratio, if available, and any dam production history, such as average calving interval and calf adjusted weaning weights. Evaluate frame score and certainly disposition. Sire information is absolutely an asset, and for bred heifers, service sire information and projected calving dates are essential.

### Take Home Message

Get to know your cow herd to best answer the question "How well are your cows and heifers doing to produce a marketable product?" Production equals reproduction. Reproductive performance can increase or decrease overall profitability. Set production goals and develop a management plan to meet your targets.

*For more information, scan this QR code for a resource extension publication "Managing and Measuring Reproduction in the Cow Herd."*



*This article is furnished as a producer-directed goal of the Alabama State Checkoff. For more information on how beef checkoff dollars are working for you, contact the Alabama Cattlemen's Association at 334-265-1867 or visit our website at [www.bamabeef.org](http://www.bamabeef.org).*