The Secret to Enhancing Fertility in Your Cow Herd
Courtnie Carter; Graduate Student, University of Tennessee Animal Science

Courtnie Carter is a graduate student and research associate in the University of Tennessee Department of Animal Science. She is pursuing a Master of Science degree in reproductive physiology under the guidance of Dr. Justin Rhinehart.

The secret to enhancing fertility in your cow herd is not a new or ground-breaking technology, and it is not difficult to implement. It really is not a secret at all, but it does take commitment to a process, minimal investments of time and labor, and a willingness to potentially take an economic loss now in order to minimize more substantial losses in the future. The secret to enhancing fertility in your cow herd is to pregnancy check every year and sell open cows and heifers.

Although they are not actually the same thing, the terms “fertility” and “reproductive efficiency” are often used interchangeably. They can both be loosely defined, at the individual cow level, as the ability for a cow to produce a live calf within a defined calving season each year. This is the most important economic trait in a cow-calf herd, as it is with any other food production, because it is the first limiting step to having a marketable product each year.

There are many factors that influence cow and heifer fertility in the breeding season. They include how long it has been since they last calved (days postpartum), the amount and type of nutrition they receive prior to and during the breeding season (indicated by body condition score), heat or cold stress, mineral balance, and disease resistance. This is not a complete list of all the fertility influencers, and it is difficult to measure or manage each factor individually. So, you can think about the annual pregnancy check as a single measure that tells you how each cow or heifer, given their genetic capacity, reacted to the way you managed all these environmental factors prior to and during that breeding season.

You might remember an article that Dr. Rhinehart published last year discussing intensive verses extensive management, and that a farmer or rancher’s general philosophy can fall anywhere along that spectrum. Since nutrition, cattle handling, genetic selection, and uncontrollable environmental factors play a vital role in reproduction, and each is specific and unique in every operation, cattle that have acceptable fertility in one operation may not work well in a different management situation. For example, one question that comes up in most meetings is “what size cow is best for my operation?” The answer to that question can be as simple as, “the size cow that produces a marketable calf for you every year.” Pregnancy checking every year simply gives you the opportunity to find the cows and heifers that are fertile in your environment and under your management.

To take it a step further, you can think of fertility beyond an “all or nothing” perspective. Once you start finding the cows that breed every year, you can then focus on the cows that breed earliest, and therefore have calves early in the calving season. Whether you maintain a 90-day,
60-day, or a stringent 45-day breeding season, continually working to shift the calving
distribution forward puts more pressure on finding the most fertile cows. Here again,
pregnancy diagnosis is an important part of staying true to this window and determining which
cows bred early in the season.

Identifying the open, infertile cows is only part of the process. It may not be the most
economically sound decision for your operation to send open cows to market immediately.
There are different marketing strategies to consider. One of the options that may generate
more salvage value from cull cows is allowing them to stay with the bull outside of a breeding
window and, if they do eventually become pregnant, marketing them as bred cows. This
decision would depend on the availability of feed resources and the value of gain. For heifers,
pregnancy checking as soon as possible after their first breeding season can create the
opportunity to market them as heavy feeder heifers.

This is certainly not a comprehensive description of all the decisions that must be made when
balancing enhanced fertility with budgeting and other economic issues. However, if you
manage a cow-calf herd with the intention of making a profit, a cow can generally be viewed as
an employee that receives room and board as its salary. If a cow is not producing a calf every
year then it “isn’t earning its keep”, and ultimately you become the employee. In that light, the
question becomes, are your cows working for you, or are you working for your cows?