What are we missing out on when having a year-round breeding season?

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One of the most important management practices for a cow-calf operation is the establishment of a controlled breeding season. Nevertheless, data collected by the United State Department of Agriculture (USDA) indicates that approximately half of the cow-calf operations in the United States do not have a controlled breeding season. There are a number of benefits that producers miss out on when they fail to adopt a controlled breeding season, benefits that will be discussed in this article.

Using a controlled breeding season can help cattle producers optimize the nutritional program of their herd. Cow-herd nutrient requirements vary greatly depending on the stage of production. For example, cows in peak lactation have greater nutrient requirements compared with cows in late lactation. Similarly, cows during late gestation have greater nutrient requirements compared with cows in mid-gestation. When herds are managed in a year-round breeding season, cows are at different stages of production throughout the year and, because they are managed as a group, the nutrient requirements vary significantly between cows. When producers that run cows on a year-round breeding season gauge their nutritional program based on the requirements of cows in peak lactation, input costs will increase because cows with lesser requirements will be fed more than they require. Conversely, if the same producer gauges the herd nutritional program based on the requirements of cows in late lactation, cows in peak lactation will lose condition and their performance will be decreased. Therefore, having a year-round breeding season reduces our ability to match the nutritional program (forage and feed resources) of the herd to the nutritional requirements, which has negative implications on the economic viability of the operation.

Calf management is also facilitated when producers manage the cow herd in a controlled breeding season. Calf processing (identification, branding, deworming, vaccination, castration, etc.) days are more easily scheduled when the calf crop is of a similar age. Moreover, the response to several management practices is influenced by calf

age. For example, the immune response of calves to a vaccine or their growth response to a creep feeding strategy varies depending on the age of the calf. Managing cows in a controlled breeding season generates less variation in calf age, leading to a more consistent and predictable response to management interventions (implants, vaccines, creep feeding, etc.), and increases the probability of a positive return on investment when these management practices are utilized.

Calf crop uniformity also gives feeder calves a value advantage. Uniform groups of calves not only facilitate management in cow-calf herds but also in the feedlot after those calves are marketed. Therefore, feedlots and order buyers are often willing to pay more for uniform groups of calves. In fact, surveys performed in sale barns across different states have shown that non-uniform calves are commonly marketed at a discounted price compared with uniform groups of calves.

Controlled breeding and calving seasons also optimize labor because they allow producers to closely observe cows for calving difficulty for only a short period of the year.

A controlled breeding season can help identify reproductively unsound cows. This is likely one of the main benefits of a controlled breeding season. Producers that manage cows in a controlled breeding season can more easily perform pregnancy diagnosis, recognize non-pregnant cows, and make informed culling decisions. Recognizing and culling cows that fail to maintain a 365 calving interval also helps producers to indirectly make genetic progress by recognizing cows that are underperforming in their environment.

A controlled breeding season also facilitates the adoption of reproductive technologies. As discussed in several previous articles from our newsletter, estrus synchronization and artificial insemination can positively impact the profitability of commercial cow herds. Having cows managed in a controlled breeding season facilitates the use of these technologies and increases the desired outcomes (conception rates) for herds that adopt them.

Converting from a year-round to a controlled breeding and calving season. The Georgia Cooperative of Extension has a few resources to help cattle producers that would like to convert to a controlled breeding season. **Click here** to access an article with a detailed description of how to gradually transition from a year-round breeding season to a controlled one. Another useful resource is the "UGA Calving Season Calculator". This spreadsheet (**click here**) facilitates the process of identifying the ideal day to insert or remove bulls while transitioning from a year-round to a controlled breeding season. For further guidance during that transition, please contact your local Cooperative of Extension office (extension.uga.edu or 1-800-ASK-UGA1).