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Improving Reproductive Efficiency in Heifers

To improve the reproductive efficiency, and thus profitability, of a beef cattle operation, you must understand proper heifer development. Properly managing yearling heifer reproduction is the first step toward reproductive efficiency.

Your goal is to manage heifers so they'll conceive early by reducing the age of puberty, shortening the time from puberty to conception and increasing fertility.

Age at puberty is the most important factor in managing heifer reproduction. For puberty to occur, a heifer should weigh at least 67 percent of her expected mature weight. This percentage of mature weight is a heifer's "target weight."

Most heifer development programs require that heifers reach the target weight by the onset of their first breeding season. For maximum fertility and reproduction, heifers must have at least one estrus before the breeding season begins. Research shows that fertility increases about 20 percent from the first to third estrus after puberty. Thus, it's logical to manage heifers to reach puberty before the start of breeding season.

Crossbreeding is another management practice to reduce heifers' age at puberty. Crossbred heifers, with a genetic makeup of not more than 75 percent of one breed, have a significantly reduced age at puberty compared to straight-bred heifers. Crossbred heifers also have greater overall fertility resulting from hybrid vigor.

Examine the cowherd to determine the cows' approximate weights and use these data to set the heifers' target weights. Then, determine how much heifers must gain daily to reach the target weight. Once you determine the necessary daily weight gain, develop a ration that provides the proper nutrients to help heifers reach the target weight. Periodically weigh heifers to ensure that they're gaining the appropriate weight. If not, adjust the ration to compensate.

Also, be sure heifers are properly vaccinated according to label and veterinarian recommendations.

Breeding is the final step in managing heifer development. It's advisable to consider estrus synchronization and/or artificial insemination. Some advantages of estrus synchronization are potentially higher pregnancy rates; heavier, more uniform calves at weaning; and increased production and labor efficiency. Using AI gives producers the ability to use superior, more predictable sires.

Most calving problems occur when heifers have calves for the first time; thus, there is merit in using estrus synchronization and AI with bulls of proven calving ease on first-calf heifers.

By getting heifers bred as early as possible, you give them more time to rebreed after calving. For more

information about cattle reproductive efficiency or other cattle topics, contact the Carter County Cooperative Extension Service. Educational programs of the Cooperative Extension Service serve all people regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identity, gender expressions, pregnancy, marital status, genetic information, age, veteran status, or physical or mental disability.

Upcoming Events:

- **Northeast Area Livestock Association** – Tuesday, March 26th at 6:00 PM
- **Private Pesticide Applicator Training** – Tuesday, April 2nd at 5:30 PM – Call 474-6686 to register.
- **Little Sandy Beekeepers Meeting** – Tuesday, April 2nd at 6:30 PM- Guest Speaker: Nathan Alexander, Big Sandy River Watershed Coordinator
- **Farmer’s Market Training & Meeting** – Monday, April 8th at 6:00 PM