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BeefTalk: Are Your Heifers Ready to Breed?

By Kris Ringwall, Extension Beef Specialist, NDSU Extension Service

For most beef operations, heifers are the first group of females to be bred. Research shows heifer growth to at least 65 percent of mature body weight and adequate fleshing is necessary for successful spring breeding. Based on this data, heifers should be in feeding groups based on weight and target gain by this time.

At the North Dakota State University Dickinson Research Extension Center, the benchmark is 70 percent. Our winter feeding regimen was set up so we could achieve that target weight. Estimated mature weight was determined by measuring the frame score of the heifer and using an established formula to estimate mature weight. National Research Council (NRC) guidelines for beef cattle and actual feed analysis were used to formulate rations to meet the desired targeted gain levels.

For the center, the replacement heifers weighed 648 pounds on Feb. 6, and as of April 3 weighed 734 pounds. These heifers had an average frame score of 5.2, which calculates to an estimated mature weight of 1,188 pounds. The 70 percent target weight for these heifers is 831 pounds. That means they need to gain an additional 97 pounds before breeding on May 14. The heifers need to gain 2.3 pounds a day, which is very achievable. (Keep in mind that the steer mates to these heifers are gaining over 4 pounds a day in the feed lot.)

Ultimately, the nutritional and growth regimens should have an outcome of all the heifers expressing estrus prior to the scheduled breeding date. Although heifers may be bred naturally, with no synchronization, we would like to achieve the maximum number of heifers conceived to the first estrus.

This year, the heifers will be estrus synchronized to facilitate a single artificial insemination (AI) service followed by a second AI for any return heats. The method of heifer estrous synchronization the center uses is the MGA/PGF system. Melengestrol Acetate (MGA) is a feed additive that suppresses estrus. Once MGA is removed from the diet, heifers exhibit estrous behavior. The heifers will have MGA added to the ration the morning of April 11 and the last day of MGA feeding (completing the required 14 days) will be the morning of April 24.

This year the heifers will receive the prostaglandin injection the morning of May 12. The prostaglandin (PGF) will induce most heifers to express estrus within 48 to 96 hours. Estrus activity will be monitored and breeding heat detected with the use of the HeatWatch system. Heifers are artificially inseminated 12 hours after standing heat is detected. The majority of the heifers will be bred may 14 and 15. Heifers not responding to estrus synchronization or not settling to the two AI opportunities will either be

placed in the feed lot and marketed on the rail or exposed to cleanup bulls and marketed as April calving heifers.

All these heifers are scheduled to be checked by ultrasound for pregnancy on June 12, which will allow the heifers to be sorted and allotted to summer pastures.

Stay tuned for updates as the breeding season arrives.

Your comments are always welcome at www.BeefTalk.com For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to www.CHAPS2000.COM on the Internet. In correspondence about this column, refer to BT0034.

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2001 Heifer Development Progress
NDSU Dickinson Research Extension Center

Winter Weight - 02/06/01	648 lbs
Winter Frame Score	5.2
Spring Interim Weight - 04/03/01	734 lbs
Target Breeding Weight - 05/14/01	831 lbs
Needed Total Weight Gain	97 lbs
Needed Average Daily Gain	2.3 lbs

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