

COMPARISON OF CIDR-BASED PROTOCOLS TO SYNCHRONIZE ESTRUS AND FACILITATE AI IN POSTPARTUM BEEF COWS

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ABSTRACT

Artificial insemination (AI) and estrous synchronization are reproductive technologies that enable beef producers to efficiently improve herd genetics. The recent development of protocols designed to synchronize estrus and ovulation enable producers to utilize fixed-time AI (FTAI), thus reducing time and labor required to detect estrus.

The 7-d Select Synch and CO-Synch + CIDR protocols provide an efficient and effective means to synchronize estrus in postpartum beef cows. Recently a 5-d Select Synch and CO-Synch + CIDR protocol was developed. To date, however, the literature is devoid of information comparing the 7-d and 5-d protocols on the basis of their practical application in the field. Experiment 1 was designed to fully characterize and compare the 7-d and 5-d Select Synch + CIDR protocols. There were no differences between treatments for estrous response, interval to estrus, or the variance for interval to estrus. Additionally, response to GnRH and follicle size at GnRH did not differ between the two treatments, nor were there any differences in synchronized conception or pregnancy rates resulting from AI. Experiment 2 was designed to compare pregnancy rates resulting from fixed-time AI following administration of the 7-d and 5-d CO-Synch + CIDR protocols with FTAI at 66 and 72 h. There was no effect of treatment, technician, sire, or location on FTAI pregnancy rates. The results from these experiments indicate that the 7-d and 5-d Select Synch and CO-Synch + CIDR protocols performed comparably on the basis of synchronizing estrus and facilitating pregnancy resulting from FTAI, respectively.