

AI BREED YOUR COWS ON YOUR SCHEDULE

The calving season is either in full swing, finished or coming to a close for others. Last year's breeding decisions are now being either admired or cursed. Regardless, producers should be considering the upcoming breeding season. Bulls should be fertility checked to ensure they are sound breeders. Too often bulls fail a breeding soundness exam resulting in significant impacts on the operation. For those that have considered artificial insemination (AI) or those currently using AI in your herds, the following is intended to share with you some information on fixed-time AI (TAI).

Across the US, AI is not implemented in the beef herds to a large degree with only 13% implementing AI (NAHMS, 1997). This often is a result of the amount of time necessary for observing estrus in cows or heat checking. It may also be partially due to a lack of facilities, labor resources, and expenses associated with these issues. Researchers continue to investigate methods to increase success rates of AI reducing the costs per confirmed pregnancy as well as methods that lend to increased adoption of this technology.

Most all semen catalogs provide protocols for synchronizing beef cows and heifers that are recommended by the Beef Reproduction Task Force. These protocols can be found on this website under the reproduction section. These protocols may appear complex at initial glance, but they are quite simple once you become familiar with them. These protocols have been investigated by researchers. It is important to follow the details in each of the protocols to ensure success. Further, be aware that the protocols may differ for cows and heifers. It is important to note differences in lengths of time for some protocols as well if you are planning on a calving season that fits a particular window in time. Additionally, it is important to realize that success rates can vary.

Fixed-time AI protocols have been a relatively recent advance in AI implementation. With TAI, you are in control of the breeding season. Fixed-time AI eliminates the need for labor and expenses associated with heat detection. These resources are diverted to a known time that allows producers to plan for these increased labor needs while eliminating it at other times. This a great advantage for producers that have off-the-farm employment.

In the spring of 2006, 20 commercial cows were selected from the Lancaster Agricultural Research Station (LARS) herd for TAI to South Devon semen following the CO-synch+CIDR® protocol. This protocol involves handling cows three times. Cows were administered gonadotropin releasing hormone (GnRH) and a CIDR® during the afternoon of May 31. Seven days later on the afternoon of June 6th the CIDR® was removed and cows received prostaglandin injections. This protocol calls for a second GnRH injection and insemination to occur at 60 hrs (+/- 6 hrs) following removal of the CIDR®.

It was noted that 70% of the cows exhibited standing estrus. Six cows actually were observed to be in heat on June 8th and were inseminated that afternoon and the remaining 14

cows were inseminated on the 9th. Overall conception rates based on fall pregnancy palpations indicated a 60% success rate. It was noted that 50% (3 of 6) cows that were inseminated early on the 8th conceived while 64% (9 of 14) of those bred on the 9th conceived. Four of these cows were sold in the fall of which three were preg checked bred and one open. Of the 16 remaining cows, 62.5% calved to their AI date. The success rate observed here is in line with that reported for this technology.

For those producers that are interested in using AI, TAI protocols allow for management of labor resources without sacrificing conception rates. It is important to consider the costs associated with synchronization protocols as well as the labor resources required for the various synchronization protocols. The use of TAI is ideally suited for beef producers with limited time.