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Estrus Synchronization and AI Protocols

One of the most important sets of dates have been placed on my spring calendar. You might think it is my kid's birthdays, or my twentieth wedding anniversary (all very important dates that my family might say I don't pay attention to!) but what I'm discussing today are the dates for estrus synchronization for my spring calving cow herd. Regardless of when calving season occurs in your operation, the use of synchronization protocols can result in shorter breeding and calving seasons, which research shows time and time again to have major impacts on cow herd profitability.

More calves born earlier in the calving season result in a more uniform, heavier, consistent sized calf crop at weaning. Other management benefits can include: grouping cows by gestation group for marketing, calving or nutritional management, better use of vaccination timing and quantities, having replacement females of a more uniform maturity at breeding next year, all in addition to the obvious larger groups of more uniform sized calves.

The Beef Reproduction Task Force has released some updated estrus synchronization protocols for heifers and cows, including sexed semen protocols - as that technology is becoming more common place in all phases of both the beef and dairy industries. These protocols can be found in most of the major semen supply company websites, apps and/or catalogs and at many University websites as well. Each year it seems more options become available to producers, which is both beneficial and possibly confusing at the same time.

Estrus synchronization can be used for natural mating or breeding by Artificial Insemination (AI). These synchronization protocols permit managers to concentrate the labor needed for heat detection, and in some cases eliminate the need for heat detection due to the success of timed-AI systems. Estrus synchronization systems vary in cost, labor required, and effectiveness on various classes of livestock. If you've never used estrus synchronization or are looking at a different system, you need to visit with folks more familiar with their use and consider the following questions to help decide what works best for your situation.

Do you have facilities to handle multiple trips through a chute? Do you have adequate labor and/or time to invest? If using AI, is a technician available or are you able to learn the process? Are you willing to invest in some up-front cost for a protocol and do you feel there will be return on this investment? Do you have a specific purpose for AI and synch protocols, such as use of superior sires, goals for all male or female calves with sexed semen, specifically designed crossbreeding systems, etc... These are just a few of the things to consider, but thought needs to be given before jumping into this management approach.

Generally speaking, the use of AI permits more cows to get bred to genetically superior sires for traits of economic importance related to your operation's production and marketing goals. Even if not utilizing AI, there is benefit to having more first heat cycles in the first third to half of the breeding season, with return heats being more uniform and synchronized as well. This can mean more bull power is required with a natural service approach. Having breeding and calving "waves" does have appeal for some, compared to a two month (*or whatever your planned calving season length is*) stretch of intense daily observation.

Maintaining a 60-to-75-day breeding and calving season can be one of the most important management tools for cow calf producers. Estrus synchronization can be the tool to get cows settled as early in the breeding season as possible and get cows bred to bulls with highest possible genetic value. A wealth of information on this topic, including free protocol decision tools can be accessed at: <https://beefrepro.org/>