K-State beef cattle experts discuss how to effectively manage artificial insemination in the herd

By Lisa Moser, K-State Research and Extension news service

MANHATTAN, Kan. — Late spring is the time of year when cattle are turned out on grass pastures and cows are grouped with the bulls for breeding.

However, for producers who want the genetic advantage of certain sires, a fixed time artificial insemination plan may be the better option, said the experts at Kansas State University’s Beef Cattle Institute during a recent Cattle Chat podcast.

Joining veterinarians Bob Larson, Brian Lubbers and Brad White was beef extension specialist Sandy Johnson. Johnson serves on the beef reproduction task force and has done a lot of research in this area. To learn more about the protocols she references, go to beefrepro.org.

“The success of an AI breeding program starts a year in advance with how the cattle are managed nutritionally and when they calved in the prior breeding season,” Johnson said.

She said if the cattle are in good body condition and they have resumed cycling prior to synchronization, the success rate of a fixed time AI protocol is essentially the same as natural mating with a bull.

Larson added that in studies done at K-State and other universities, typically 60% to 70% of cows that ovulate a fertile egg and are bred by a fertile bull or with fertile AI semen will become pregnant each heat cycle – and this is the same percentage for both AI and natural breeding with a bull.

With a fixed-time AI protocol, the cows are synchronized to come into estrus through the use of hormones that mimic the natural hormones that control reproduction.
Lubbers said part of this success is dependent on the training of the person doing the artificial insemination.

“If you are doing it yourself, make sure you have training and realize that you are not going to be as proficient in breeding cows through AI as someone who does this every day,” Lubbers said.

Larson said in some large operations producers hire an AI company to come in and do the breeding on an appointment.

“As the protocols have improved over the years, we have moved from producers doing the AI breeding to hiring that out to professionals to do,” Larson said.

Along with a skilled technician, the experts agree good cattle handling facilities are important in the success of the protocol.

“With our best fixed time AI systems, the cattle are making three trips through the chute with the third time being insemination,” Johnson said. White added that this handling will happen over a period of 10 days.

Another benefit, according to White, is reduced stress for handling cattle in good working facilities.

“Lowering the stress by having good facilities to work in is beneficial for both the cattle and the people,” White said.

To hear the full discussion on this topic as well as how protocols may need to differ in cows and heifers, go to the Cattle Chat podcast online.

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Beef cattle reproduction task force, www.beefrepro.org

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