AI Insights

CIDR Strategies

Quick tips for AI synchronization using the CIDR insert.

by ***Kindra Gordon***

Since being approved for use in the U.S. a few years ago, the controlled internal drug release (CIDR) progesterone insert has quickly gained popularity among beef producers seeking a simplified synchronization protocol.

"The biggest advantage of progesterone is that it will jump-start anestrus cows. The CIDRs are an easy way to administer progesterone if cattle are on grass and not in a melengestrol acetate (MGA) feeding situation," says Tim Olson, who is based in South Dakota and has worked as a Select Sires field representative and artificial insemination (AI) technician for more than a decade.

Cliff Lamb, University of Minnesota beef reproduction specialist, agrees that the CIDR can offer a good synchronization alternative. He says that research is continuing on CIDR protocols, but most results show the protocols work well and on average will realistically yield a 50-53% pregnancy rate.

As an example of one of the protocols being promoted, Lamb says the Select Synch+CIDR and timed AI treatment garners one of the best estrus responses and yields consistent overall pregnancy rates. In an eight-state trial with 14 different herd locations, Lamb reports Select Synch+CIDR and clean-up timed AI at 84 hours yielded an average 58% conception rate.

Among heifers the Select Synch+CIDR protocol most frequently yields the greatest pregnancy rates and provides a reliable alternative to an MGA/prostaglandin as well, Lamb says.

All in the timing

The biggest difference in managing synchronization programs between heifers and cows is timing, Lamb explains. Research indicates for best results heifers should be timed AI bred at 54-60 hours, while cows yield better results if the timed AI is conducted at 60-66 hours, he says.

Olson says that much of the CIDR's success relies on timing. "Some producers may have too high of expectations for this reproductive tool — especially with regard to timed breeding."

Olson reports that the CIDR will produce a tight synchronization among the herd — with 85-90% of the cows consistently coming into heat. But, he adds that there is no magic hour.

He explains, "With every synchronization program there is a variation with response time due to the cows and their environment. It could be 48 hours at one ranch and 60 hours at another. That's why I don't recommend timed breeding."

Instead, Olson suggests heat detection for 60 hours. "It can increase pregnancy rates 10-15%, and in three breeding sessions you'll get over 80% of the cows bred," he says. Olson then recommends mass insemination of nonresponders at 72 hours.

For producers who insist on timed breeding, Olson says they should expect no better than a 50% pregnancy rate.

Other pointers

For producers considering synchronization systems, Cliff Lamb, University of Minnesota beef reproduction specialist, provides this insight to some common questions:

Is there a difference in gender ratio with synchronization systems?
He says no. In research trials they've produced 53% bulls and 47% heifers, which is very similar to the ratios in natural service herds.

Is there an optimum herd size for synchronization?
Again, Lamb says no. He says with the right facilities and labor there is no limit to how many animals can be synchronized.

Are there differences between the CIDRs available in the U.S. and those from Canada or Mexico?
Lamb says there is no difference; they all release the same amount of progesterone.

Can CIDRs be used a second time?
Lamb says this is being done, but he does not recommend it, especially because of the risk of transferring diseases.

Will leaving CIDRs in for 14 days versus the standard seven days yield better results?
Lamb says new research is being conducted in this area, especially as a tool with heifers, but there are no specific results that can be presented at this time.

Lastly, Lamb encourages producers who are considering a synchronization system to analyze the protocols that are printed inside all artificial insemination (AI) catalogs. He says those are the systems that have been researched and proven to work. He also encourages producers to work with experts to define and implement reproductive management procedures designed specifically for their herd. **HW**

Similarly, Lamb says research indicates that timed AI with heat detection will improve pregnancy rates by about 10%. Additionally, he says research shows there is little difference in pregnancy rates whether GnRH is administered first in the program or after the CIDR is removed.

Most importantly, Lamb says like any other synchronization program nutrition, management and weather affect the response of cows to GnRH and CIDR-based estrous synchronization systems. Specifically, body condition, parity and days since calving need to be monitored to ensure breed back. He recommends cows be managed for a body condition score (BCS) of 5.5-6 and be more than 50 days postpartum for the best response to synchronization.

Olson also points out that the CIDR isn't for every herd. "If your cattle are in good condition and cycling, or if you are currently using a MGA or synchronization program with good results there's no need to switch to the CIDR," he says.

Lamb and Olson say the cows that benefit most from a CIDR program are high-risk females that probably aren't cycling at the start of breeding season — typically the second- or third-calf heifers or those that have calved within the last 45 days. **HW**