

animals) will have finished. Rather than waiting for slowpokes that may not finish, conclude the race by giving nonresponders a GnRH injection and a consolation prize (fixed-time A.I.).

Select Sires' field experience suggests the Hybrid protocol optimizes conception rates by allowing most animals to be inseminated at standing estrus, yet gives all animals an opportunity to conceive with mass A.I. at 72 hours.

Genetically valuable semen can be used on cows in standing heat, while less expensive semen can be saved for the timed-A.I. services. Higher conception at standing estrus and reduced drug costs may easily offset the necessity for three to four days of estrus detection.

Bear in mind that the success of SELECT SYNCH and the Hybrid protocol are absolutely dependent on good heat detection. If your labor is not up to the challenge, you'd be better served to stick with OVSYNCH.

Although GnRH is 90 percent effective at ovulating or luteinizing the follicles of cows between Day 5 and Day 12 of the estrus cycle, it is only 50 percent effective in cows between Day 13 and Day 17. We may think of these late-cycle animals as "cheaters" — they don't go back to the starting line. Because of this unfair edge, they may come into heat before the race starts (the day of or before the PGF injection). Therefore, within all GnRH-PGF protocols, heat detection should be extended to 48 hours before PGF injection to catch the cheaters. Although their fertility is normal when bred to detected estrus, they will stand little chance of conceiving to fixed-time A.I.

MINIMIZING "CHEATERS"

To minimize the number of cheaters, Drs. Bill Thatcher (University of Florida) and Jeff Stevenson (Kansas State) developed a solution they call PRESYNCH. PRESYNCH involves two injections of PGF 14 days apart, with the latter one given 12 days before the first GnRH injection of OVSYNCH. As a result, 80 to 90 percent of the cycling animals will be in a responsive stage of the estrus cycle (Day 7 to Day 9) at the



A leader in synchronization research, Select Sires hosted the Fifth Annual Estrus Synchronization Think Tank in Columbus, Ohio, in October, attracting leading researchers from throughout the country. It is through cooperative research efforts with these recognized experts that Select Sires has developed breeding systems that not only allow producers to get better results with A.I. but also have become industry standards for synchronization. And, it doesn't stop there—Select continues to support research efforts to develop even better systems to meet your needs.

start of OVSYNCH. Preliminary results suggest PRESYNCH improved pregnancy rates to OVSYNCH by 10 to 20 percent (Figures 2 and 3). Although research trials used a 12-day interval between PRESYNCH and OVSYNCH, a 14-day interval would be easier to schedule and should not significantly alter the results.

Thatcher also reported that initiating bST treatment at either the first GnRH injection or the timed insemination of OVSYNCH-treated animals significantly improved pregnancy rates. This positive effect of bST was nearly identical for the two injection times, and was independent of PRESYNCH (Figure 3). Cycling animals treated with PRESYNCH, OVSYNCH and bST had fixed-time A.I. pregnancy rates approaching 60 percent. What bST does physiologically to result in such incredible pregnancy rates is not clearly understood. However, if these preliminary data are reproducible, a revolution in dairy herd reproductive management programs may be imminent.

DECIDING WHAT'S BEST

Yes, synchronizing estrus in cows is getting a little complicated, but it's working. Can the same be said about your heat-detection program? If the answer is "yes," then congratulations and keep up the good work. If heat detection is a little subpar, then perhaps PGF or SELECT SYNCH could help. If things are getting in pretty bad shape, try OVSYNCH or the Hybrid system. If your heat-detection program has gone to the dogs, you should try OVSYNCH and you may as well throw in the kitchen sink (PRESYNCH and bST).

Work past the point of thinking of estrus-synchronization protocols as being too many or too complicated. Now that you understand how and why they work, it's easier to think of these protocols as tools in your reproductive toolbox. Although I often try to fix everything with a hammer, we all know there is a proper tool for every job. Work with your veterinarian or Select Sires sales representative to determine which tool is needed to optimize reproductive performance in your herd. ♦

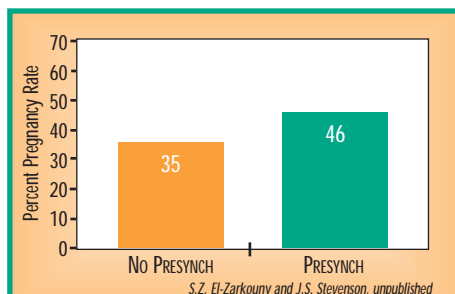


Figure 2. Preliminary results suggest that adding PRESYNCH to an OVSYNCH program can increase pregnancy rates by 10 to 20 percent.

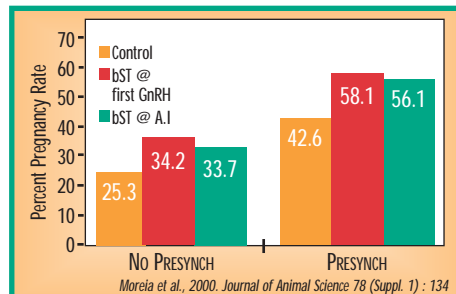


Figure 3. Pregnancy rates of cycling cows on OVSYNCH, fixed-time A.I. bred at 73 days in milk, with and without PRESYNCH and bST.