

There's definitely a synch program or aid for every dairy

by Hoard's Dairyman staff

WHEN it comes to identifying which cows or heifers are in heat, numerous options are available to help you and your staff save time, catch cows and heifers in heat, and get them pregnant. Here are some for your consideration:

Rump-mounted heat-detection patches: Kamars, Bovine Beacons, or Estrus Alert are some of products that can be mounted to the cow's tailhead. These devices are activated when another cow or heifer mounts the individual in heat. After repeated standing events, the device changes color to alert farm staff that the cow may be in heat.

Tailhead chalk or paint: Both products are applied to the tailhead. The chalk or paint can be applied to the tail heads of every cow in a breeding pen or simply to those eligible for



breeding. When other cows mount the individual in heat, the chalk or paint gets rubbed off the tail head, indicating she may be in heat.

Electronic, rump-mounted heat-detection patches: This pressure-sensitive device which is known as HeatWatch sends signals to a computer that identifies every time a cow is mounted. This information can help pinpoint the best time to A.I. breed.

Pedometers: These devices are available from many milking equipment companies. The information provided by the pedometer is not estrus-specific but assesses general body movement (mostly walking) which is significantly higher during estrus than at other times during the estrous cycle.

Progesterone inserts: Just last

year, the CIDR (controlled internal drug release) was approved for use in dairy heifers. It is now approved for use in dairy cows, as well. To use the insert, it is placed in the vagina for seven days. One day or 24 hours before removing the insert, a regular dose of Lutalyse or Estrumate is injected intramuscular. Heats generally occur very quickly upon insert removal, with most of the activity from 24 to 96 hours.

Estrus synchronization: The options are nearly unlimited. A plan can be developed to fit nearly every situation. With estrus synchronization, you will still have to heat detect. However, your success should improve as grouping several females in heat increases the number of times each estrual female is mounted. This greater activity results in a higher heat detection rates. Consult with your veterinarian or A.I. specialist to develop a tailored program for your dairy. Here are just a few:

- **Double prostaglandin injection:** Two injections of prostaglandin are given 11 to 14 days apart. A.I. breeding occurs during the one- to four-day period following the second injection. "Research has demonstrated that two injections given 14 days apart works best for milking cows," says reproductive specialist Jeff Stevenson of Kansas State.

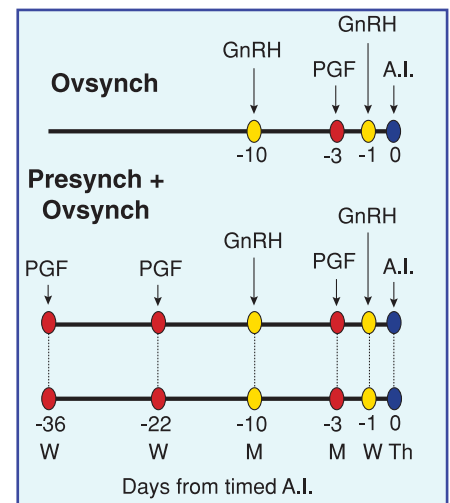
- **Single prostaglandin, heat detect, and follow-up:** This is similar to the previous plan; however, this one reduces costs because heifers and cows showing heats after the first prostaglandin injection are bred. Those not detected in heat 11 to 14 days after the first injection are given a second injection.

- **Heat detection followed by prostaglandin on Day 7:** Under this scheme, you can reduce costs by heat detecting and breeding for the first six days and then only injecting the remaining noninseminated cattle on Day 7. This method enables you to catch heats in cattle that would not respond to prostaglandin if they had been injected during the first 6 days of heat detection. "This system was

designed specifically for use in seasonal breeding," says Stevenson.

- **Determine a functional CL; then inject with prostaglandin:** This program has been used by producers for years. It begins by determining that cows and heifers are open at preg check based on palpation or ultrasound. If they have a functional CL (which is responsive to prostaglandin), they are given prostaglandin to bring them into heat for prompt breeding.

Ovulation synchronization: Ovsynch can offer some advantages over the before-mentioned protocols. Why? Heat detection is not required. However, if cows show heat too soon after prostaglandin that the timed A.I. is not properly timed, they should be A.I. bred, based on that detected heat to improve overall pregnancy rates. You begin by giving a GnRH injection at Day 0 (10 days prior to breeding). At Day 7 (3 days before breeding) prostaglandin is given to regress the CL. Then at Day 9 (16 to 20 hours before breeding) another GnRH injection is given. See the chart for more details.



Some producers have improved their pregnancy rates with Ovsynch by combining it with Presynch. In this plan, two prostaglandin injections are administered 14 days apart with the second injection given 12 to 14 days before the start of Ovsynch. 