# Using MGA

***Three MGA-based synchronization systems can bolster your AI results.***

Melengestrol acetate — commonly known as MGA — is the common denominator in three widely used systems for synchronizing and artificially inseminating (AI) cows and heifers.

MGA, which is fed with grain or protein and often top-dressed on other feeds, suppresses estrus and prevents ovulation in cows and heifers. It's fed at a rate of 0.5 mg/animal/day in a single daily feeding.

"While the duration of feeding MGA may vary, it's critical that the daily intake be consistent," says Dave Patterson, state Extension beef reproduction specialist at the University of Missouri-Columbia. "Animals that fail to consume the required amount of MGA on a daily basis may prematurely return to estrus during the feeding period. Therefore, adequate bunk space must be available so that all animals consume equal amounts of feed throughout the MGA feeding period."

Cows and heifers normally exhibit estrus beginning 48 hours after MGA withdrawal, and this will continue for six to seven days.

"It's generally recommended that females exhibiting estrus during this period not be inseminated or exposed for natural service because of the reduced fertility females experience at the first heat after MGA withdrawal," says Patterson.

Method 1

## MGA + prostaglandin

The MGA + prostaglandin (PG) method involves the combination of MGA with PG. PG is available in five different products — Lutalyse, ProstaMate, InSynch or Estrumate, and estroPLAN.

In this program, MGA is fed for 14 days. PG is administered 19 days after the last day of MGA feeding.

Producers should heat detect and AI those cows exhibiting estrus from the time PG is administered for up to six days after PG.

Method 2

## MGA Select

The MGA-Select protocol is a simple program that involves feeding MGA for 14 days followed by an injection of GnRH on day 26 and an injection of PG on day 33. The addition of GnRH to the 14-19 day MGA-PG protocol improves synchrony of estrus, while maintaining high fertility in postpartum beef cows.

Producers should observe for animals in heat from the time of PG administration for up to six days after PG. Cows may be fixed-time inseminated using this protocol with insemination performed 72 hours after PG. GnRH should be administered at the time of AI to all cows that are inseminated by appointment.

Method 3

## 7-11 Synch

This breeding system was designed to do two key things: 1) shorten the feeding period of MGA without compromising fertility; and 2) improve synchrony of estrus by synchronizing development and ovulation of follicles from the first wave of development.

In this system, cattle are fed MGA for seven days with PG administered on the last day. Four days after MGA withdrawal, they're given GnRH followed by administration of PG seven days later.

Producers should heat detect and AI from the time PG is administered up to six additional days.

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### Other considerations

"An additional consideration for Methods 1, 2 and 3 pertains to cows or heifers that fail to exhibit estrus after the last PG injection," says Patterson. "In this case, cows or heifers can be re-injected with PG 11-14 days after the last injection of PG. These females can then be observed for signs of behavioral estrus for an additional six to seven days."

This procedure can help maximize efforts to inseminate as many females within the first two weeks of the breeding period as possible.

Cows that were inseminated during the first synchronized period should not be reinjected with PG. In addition, the decision to use methods 2 or 3 in heifers should be based on careful consideration of the heifer's age, weight and pubertal status. **HW**

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