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Reproduction Programs: Prostaglandin (PG) Based

Prostaglandin (PG) only works on cows that have active ovaries and are already cycling.

Cows are less likely to respond to PG if they calved in poor condition, have been calved less than 6 weeks at the time of treatment or if they are first-calvers.

Prostaglandin will abort cows that are less than 3 months pregnant.

It is important that cows that calved in the calving period before carryover cows are definitely empty before they are given PG.

About 2/3 of cows that are cycling will come into heat in the five days following an injection of PG. Whether or not a cow comes into heat after an injection of PG depends on the stage of the cycle. Cows that have had a heat in the previous 7 days usually will not respond to an injection of PG. Conception rates in PG programs are equal to conception rates following natural heats and may even be slightly higher.

Using PG in any of the following programs will help to identify cows that aren't cycling earlier and allow you to plan treating them earlier.

The success of prostaglandin programs depends on good heat detection. It is important to use intensive paddock observation as well as heat detection aids such as tail paint or Kamars.

1. Double PG injection

All cows are injected twice 11-14 days apart. The first injection is given 16 days before the start of mating and the second injection is given 2 days before mating starts. Nearly all cows that have active ovaries will come on heat in the 7 days following the second injection. This system has given us good results especially when used with Kamars or Oestrus Alerts to aid heat detection.

Advantages

- Heat detection is concentrated over 4 or 5 days
- Two rounds of AI for most cows in a 4 week period
- Heat detection prior to mating is recommended but is not vital
- All cows are injected – no need for separate groups
- Non-cycling cows are identified early on in the joining period
- First injection of PG means more heats before the start of mating which may lead to increased fertility
- Works well with OvSynch or CIDR-synch to get all cows joined in first 21 days of mating

Disadvantages

- Very concentrated period of calving and joining – can be overwhelming

2. The 6-day injection program (why wait)

Cows are observed for heat and are inseminated as they are detected on heat for 6 days. About 25% of cows should be submitted in this period. The remainder are injected with prostaglandin on day 6 after mating starts and inseminated as they come into season over the next 5 or 6 days. This should allow all cycling animals to come on heat within 12 days.

Advantages

- Fewer doses of PG are required
- Heat detection is concentrated over 12 days

Disadvantages

- Separate groups are required – not all cows are injected
- No extra heats prior to the start of mating
- Does not work well with OvSynch or CIDR-synch to get all cows joined in first 21 days of mating

3. PG all cows 21 days before mating

All cows are injected 21 days before mating and all heats are recorded. The second heat after the PG injection coincides with the start of mating.

Advantages

- Simple and easy
- Cows have pre-mating heat to increase fertility
- Relatively cheap
- Heats (and calving) not quite as concentrated as when double PG program used
- Non-cycling cows identified at the start of mating
- Doesn't put eggs all in one basket as with double PG program – heats are more spread out
- Works OK with OvSynch and CIDR-synch to get all cows joined in first 21 days of mating

Disadvantages

- None