

THE HEAT IS ON - 19 Tips on Heat Detection

ARTIFICIAL INSEMINATION

Artificial insemination is one of the best tools available today for a breeder wanting to increase the genetic merit and production of his or her herd.

The cow herd must be on a rising plane of nutrition for an artificial breeding programme to be successful.

There are three stages of heat – Coming into Heat, Standing Heat & Coming off Heat.

Reproductive Cycle of a Cow

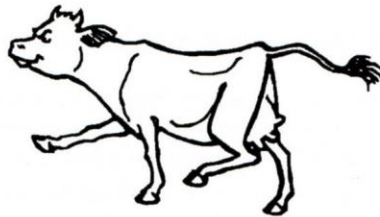
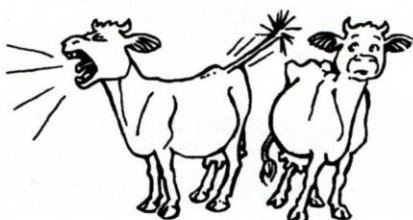
Cows and heifers typically come into heat or oestrous every 17 to 24 days (average is 21 days). Once calved a cow will usually return to heat 4 to 8 weeks after calving, depending on their body condition and the availability of feed (the cow must be on a rising plane of nutrition).

Early Signs – before the female is in standing heat

- 1 A small string of mucus dripping out of a reclining cow is not too common but should not be confused with the more copious mucus seen when the cow is in heat.
- 2 Bawling when all other herd mates are quiet. This sign is observed quite often among heifers, but not often among cows.
- 3 The cow is more alert and observant.
- 4 She walks in a rapid business-like way & is unsettled.
- 5 She is standing when all other herd mates are lying down, looking alert.
- 6 A cow may walk through her herd mates sniffing as a bull might do when he checks his cows.
- 7 She will attempt to ride other cows not in heat.

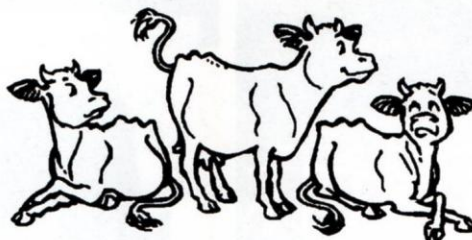
Standing Heat

- 8 Standing is the primary sign of oestrous. The cow stands still when other cows mount her. This is the most obvious sign and it is identified as 'Standing Heat'.
If there are a number of cows in heat in a herd, there will probably be more than one cluster of cows riding each other.
A cow in heat may also ride other cows in heat, so how do you tell if the cow doing the riding is in heat or not?



This can be usually determined by watching their activity for a few minutes. If you do not see the other signs of heat in the riding cow, she is probably not in heat. If still in doubt about the status for the individual, move her over with the other cows in heat. If she is in some stage of heat she will stay close to them, if she is not, she will not show a continuous interest in them.

- 9 She gives signs so watch closely. She will place her head on the rump of another cow, and when she rides another cow, copious strings of mucus will be expelled from her vulva.
- 10 Mucus can often be seen on the side of the tail or rump.
- 11 Cows in heat will group together and stand closer to each other than they usually do.
- 12 Bull calves will follow a cow in heat and attempt to ride her. She will often stand for the calf.



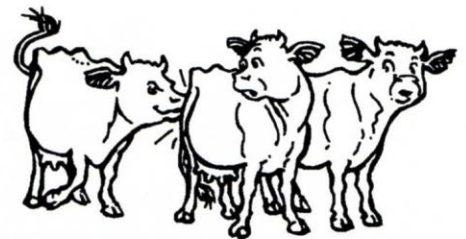
Signs that a cow has just gone off heat

- Standing heat usually lasts for 10 to 24 hours, but some cows may be shorter. With short heat cycles cows are easy to miss when in heat, especially if it occurred during the night. Signs to look for in the morning -
- 13 Wet or matted hair, especially over the top of the shoulders.
 - 14 Hair on the tail or rump may be sticking up or slightly matted where mucus has dried.
 - 15 Mud on the hips or hair rubbed off the hips or tail head where the cows have ridden.
 - 16 The vulva of a cow in heat increases in size & will appear pinkish and swollen.

- 17 A cow that has been riding all night while in heat may be tired by morning and be one of the few cows that will be lying down.
- 18 Mucus will often be expelled as the insemination gun/tube is inserted if the cow has been in heat.
- 19 A string of blood on the side of the tail or rump indicates the cow was in heat two or three days ago. If you did not detect heat this time, check her again in 15 + days.

Timing for Artificial Insemination (AI)

The key component to timing AI is frequent and accurate observation periods to determine the onset of Standing Heat (oestrous). If possible, check every couple of hours and write down your observations. These observations will help your AI Technician to determine the best time to inseminate your cow.



Research has found that the best time to inseminate a cow is between 6 and 24 hours after Standing Heat has been observed and before ovulation.

Ovulation (the release of an egg into the fallopian tube) usually occurs approximately 24 to 32 hours after Standing Heat (oestrous). Optimal fertility of the ova (egg) is thought to be between 6 and 12 hours after ovulation. The viable lifespan of sperm in the reproductive tract is estimated at 24 to 34 hours, but this may depend on the fertility of the sperm.

This guideline suggests that cows in heat during a.m. hours should be inseminated in the p.m., and cows in heat in the p.m. should be inseminated in the following a.m.

This won't necessarily work with all cows but your AI Technician or Vet will give you further advice to prepare your cow for a successful insemination and your observations will assist any decisions made.

