

# HEAT DETECTION

Achieving high submission rates is a key driver of dairy farm profitability, making accurate heat detection one of the most important functions on the farm. Hopefully heat detection had already have started on your farm, with the simplest method being to tail paint the herd at least 3 weeks prior to the start of mating. We would also recommend that you record the numbers of the cows bulling each day, as this makes it easier to confirm returns to heat based on the cycle of the cow. A non-pregnant cow should come on heat every 18-24 days with the average cycle being 21 days.



Cows in heat will stand out as restless and active, often gathering in small groups of continually milling animals called a sexually active group. This group contains animals that are coming into heat, are in heat, or are just leaving the heat period of the cycle. You will notice bulling behaviour best in the paddock – usually a couple of hours after milking once the cows have had a good feed.

Cows in heat will stand to be ridden which will rub skin, hair and tail paint off the top of the tail as well as triggering any heat detection devices applied to that area e.g. kamars. Other signs that cows have been ridden may include scuff or mud marks or saliva down the flanks of the cow on heat caused by mounting animals.



Not every cow in heat will show standing behaviour. Other signs of a cow being in oestrus that you need to look for include:

- Loss of mucus. The "bull-string" may hang from the vulva of the cow in heat and is a valuable aid in detection.
- Relaxation and reddening of the vulval lips, vulva and vagina also occurs.
- Changes in behaviour such as tail raising, twitching, increased excitability, irritability, bellowing and increase in urine outflow all may accompany oestrous behaviour.
- Milk holding and a drop in milk yield, due to decreased grazing time.
- Group behaviour such as licking, sniffing, chin rubbing and resting in groups in the paddock increases. Increased involvement in the sexually active groups in the paddock.

The optimal time for insemination is within 12 hours of the start of standing heat. As determining when a cow started standing heat is often not practical under our system, the next opportunity after the detection of standing heat a cow should get mated.

During the mating period a combination of heat detection methods should be used to achieve the best results.

Observation in the paddocks is still the best method of heat detection. Allow time to go to the paddock at least twice a day. The best time is after the cows have had a feed –late morning, early evening.

Kamars are triggered by pressure and may be better for younger cows that have light heats and don't stand for long periods.



For big herds consider using vasectomised bulls as heat detectors in conjunction with tail paint or heat detection devices.

If heat detection is an ongoing problem on your farm then you might like to consider splitting the herd and using a synchrony program with guaranteed mating times for top cows, and natural mating with bulls for rest of the cows from the start of mating.