



Cows in colour

Stay focused on heat detection for at least two cycles to get more AI calves

Would you like more AI calves in your herd? A good heat detection system and staying focused on the job ensures cows truly on heat are submitted to AI as soon as possible after calving. If you miss heats or submit cows not on heat you will have fewer AI calves and lose dollars.

A quick check

Your heat detection system is working well if:

Seasonal herds

9 out of 10 cows are inseminated within the first three weeks of mating.

Year-round herds

3 out of 4 cows are inseminated within 80 days after calving (if you are aiming for a 12-month calving interval).

See submission rate on your Fertility Focus Report.

Finding a cow truly on heat is worth \$200

- Genetic gain from AI calves
- Semen is not wasted on cows not on heat
- Fewer cows to mop up at the end of AI
- Fewer late calving or carry-over cows
- Fewer cows culled because they are not in calf

Picking cows truly on heat

The definite sign a cow is on heat is when she stands to be mounted by other cows. You may see her standing or see that her heat detection aid has been activated.

If a cow isn't standing to be mounted it can be hard to know if she is 'truly' on heat. There are other indicators that she is coming on heat, is on heat or has recently been on heat that you can use to help decide (see box).

Not sure?

Some cows show signs of heat for a few hours only (an average of 7 hours in one study on Holstein-Friesians and even shorter for very high producing cows) and will be mounted just a few times. So there is a chance that you won't detect definite signs.

If you are unsure a cow is on heat, should you still submit her for AI?

- If she has NOT been inseminated in that mating period, inseminate her.
- If she has been inseminated and could be pregnant, consider inseminating her with less expensive semen and deposit the semen deep in the cervix but not into the uterus. If after this second insemination she shows definite signs of heat a few days later, inseminate her again.



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Signs of heat

Definite

- Standing to be mounted by other cows
- Tail paint is removed or heat mount detectors have been set off (provided that low tree branches have been removed on the farm)

Other indicators

- Swollen vulva
- Clear mucus hanging from the vulva
- Poor milk let down
- Sniffs, follows other cows, rests chin on other cows
- Mud marks on the flanks
- Heat detection aid is lost

People are part of the system

Everyone responsible for detecting cows on heat must know the signs to look for and how to record the information. It is especially important when there are new people on the farm or on farms with larger herds and lots of staff. Allocate the job of heat detection to one or two experienced people. If necessary, provide them with training. Allow enough time in their rosters to be able to do the task well. See www.thepeopleindairy.org.au for online resources that will help you manage these people issues.

Keeping good records that include cow ID, dates of heats or possible heats (for example, using a question mark for cows with weak signs or if you are unsure) and sire used are useful for recognising true heats when the signs are unclear. These records can also be used to create a mating list to help your vet when pregnancy testing.

Good record keeping relies on accurately identifying cows. Make sure freeze brands or ear tags are clearly visible.

Heat detection aids

All farms should use heat detection aids

to help identify cows that have been mounted.

- The most commonly used aids are:
 - tail paint – most economical option, apply it forwards leaving a rough finish with hair standing up and reapply at least weekly;
 - heat mount detectors (e.g. scratch-off colour patches, pressure activated colour tubes)
 - cost a bit more but are easier to read and need less maintenance once applied.

Both methods can give good results but heat mount detectors are usually more effective.

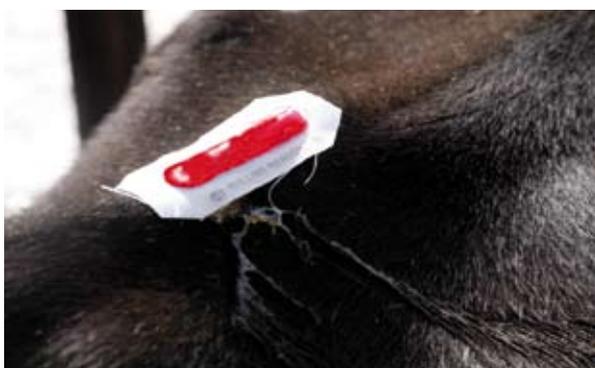
For example, heat mount detectors give better results if inexperienced staff are heat detecting.

- Apply heat detection aids according to the instructions.

See chapter 10 in *The InCalf Book* for detailed information about the application and use of heat detection aids.



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Paddock checks

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- Do paddock checks twice daily for at least 30 minutes – this increases the chance of detecting cows on heat and seeing other indicators of heat that are not picked up by heat detection aids.
- Observe cows in the paddock 2 hours after milking – heat detection is more accurate when the cows are out of the dairy and laneways, have eaten and are relaxed.
- In hot weather observe cows in the evening.

Staying focused

It is important to stay focused on the job of heat detection. More cows will be submitted for AI when you maintain the same level of effort for at least two cycles.

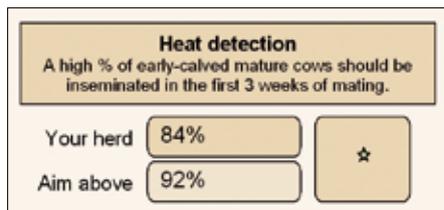
To help identify cows returning to heat for their second cycle, re-apply tail paint of a different colour or a new heat detection aid on about day 18 to all cows that have been inseminated.

If putting heat mount detectors on a large number of cows in your herd seems daunting, check if your herd improvement centre offers this service.

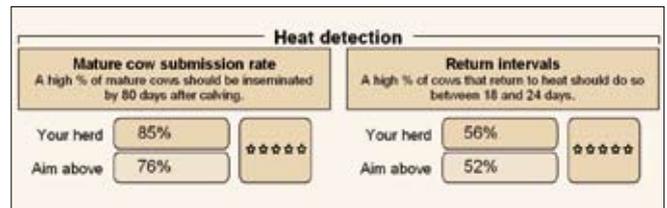
How well did your heat detection go?

It is easy to find out how you went with your heat detection by checking your submission rate and heat detection efficiency on your InCalf Fertility Focus Report. If you are herd recording, ask your local herd test centre for your Fertility Focus Report.

Seasonal and split herds



Year-round herds



Tips for different calving systems

Identify non-cycling cows early and call in your vet to check and treat these cows before mating.

Seasonal/split calving herds

Using a synchrony program will compress the heat detection into a short, intense period. Ensure you have enough trained people on the farm to detect, record and inseminate the greater number of cows expected on heat. Contact your local service provider if you need help. If using bulls to mop up after AI, make sure you have extra bulls (4 bulls per 100 cows at mating start date). Run all bulls for the week returns are expected and then rotate and rest them.

Year-round calving herds

Batch mating will help you focus on heat detection by dividing cows into more manageable groups.

Use a coloured tail tape system to help identify cows that have reached their voluntary waiting period (e.g. red) and cows that have been inseminated (e.g. green).

InCalf enquiries:

Harris Park Group

phone: (03) 9620 7283; website: www.incalf.com.au; e-mail: enquiries@incalf.com.au

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