



HEAT DETECTION IN CATTLE

AIM: TO PROVIDE FARMERS WITH INFORMATION ON HOW TO DETECT HEAT IN CATTLE FOR EFFECTIVE MATING

1. What is 'HEAT':

- 'HEAT' is the time when a cow will stand to be ridden/mounted by her herd mates or a bull. This is the time when she is **ready for mating**.
- 'HEAT' occurs every 18-24 days in non-pregnant cows. The average time is **21 days** (3 weeks).
- It is **IMPORTANT** to record every time your cow shows 'HEAT'

HEAT	21 Days	HEAT	21 Days	HEAT
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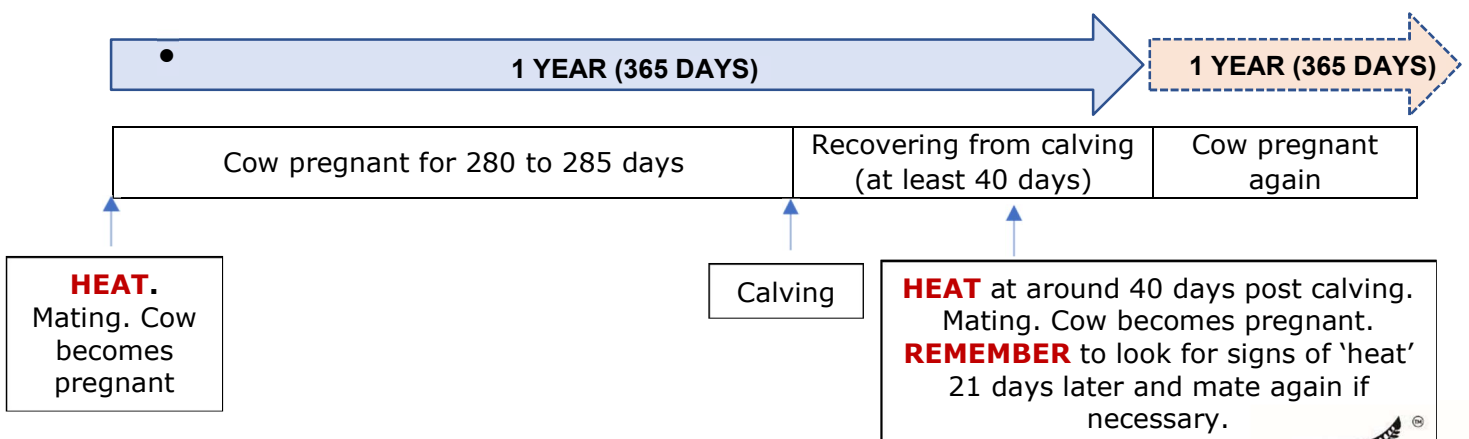
- 'HEAT' lasts an average of **half a day** (14-15 hours) but can vary from 2-30 hours.

2. Which cows come on 'HEAT'?

- If heifers are well fed and managed, they can start to come 'on heat' at 12-15 months (1 year - 1 year 3 months) of age. Poorly grown animals will not show signs of 'heat' as early as this.
- After this age, any cows that are not pregnant or suffering from reproductive problems should come 'on heat' every 21 days.

3. Why is detecting 'HEAT' important?

- Profitable dairy farmers aim to have 1 calf per cow per year.
- To achieve this, you need to get the cow pregnant within 3 months of calving.
- Failure to detect cows 'on heat' is the major contributor to poor reproductive performance and low reproductive efficiency.
- It is important to detect 'heat' in your cows and heifers if you want to ensure your herd`s reproductive performance.





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4. What are the signs of 'HEAT'

Major signs of heat:

- ✓ **Standing to be mounted** is the most common and best sign of 'heat';
- ✓ Mounting other cows may be a sign of being on 'heat' or approaching heat.



Other signs:

- ✓ Sniffing / licking other animals;
- ✓ Swelling, redness and mucous discharge from the vulva;
- ✓ Bellowing, restless, trailing, crying, running and trying to escape;
- ✓ Rubbed tailhead hair and dirty flanks;
- ✓ Chin resting and back rubbing;
- ✓ Head raising and lip curling;
- ✓ Decreased feed intake and milk production.



NOTE: If you have only one breeding cow on your farm and no other mature animals, it is not possible to rely on mounting behaviour as a sign of heat. **Observe your animals closely for the other signs.**

5. What should you do if you see signs of heat?

IMMEDIATELY:

- ❖ Take the cow to the bull, or bring the bull to the cow; or
- ❖ Call the AI technician to inseminate the cow.

REMEMBER when selecting a bull, use one which is healthy and an appropriate size for your cow. This can help avoid oversized calves which can lead to calving complications. Ask your **Extension Officer** for advice.

NOTE: If bulls can access cows 'on heat', they will almost certainly mate these cows.

For **controlled breeding programmes** using AI or designated bulls, **KEEP** bulls and sexually mature bull calves **AWAY** from the cows.



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6. Why might a cow not show signs of 'heat'

POSSIBLE CAUSE	SOLUTIONS
<p>1. The cow is showing signs of 'heat', but you are not able to see them</p>	<ul style="list-style-type: none"> ✓ Keep good breeding records (e.g. calving date, date 'heat' signs seen); ✓ Become familiar with your cow's behaviour; ✓ Know when to look for signs of 'HEAT'; ✓ Watch cows for at least 20 minutes per day when they are not feeding or milking. Best times are morning or late afternoon when 'heat' signs are more common; ✓ Ensure cows are not lame or in pain and have access to a non-slip area with firm surface so they can mount; ✓ If possible, keep the cow with a healthy fertile bull for 1 month
<p>2</p>	<p>their own will not show</p>
<p>3</p>	<p>; (e.g. date 'heat' signs seen; access to a bull; date of</p>
<p>4</p>	<p>te to prevent unplanned</p>
<p>5</p>	<p>20 kg of fresh forage/silage according to yield of milk; dry condition and not too thin; if 'on heat', contact your local vet.</p> <p>ry Officer and let them know: st 'on heat'; lved.</p> <p>alf and heifer rearing (<i>see</i> and in good body condition.</p>



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every day, ideally in the

urs of each animal; er if you have concerns.

ZDTP is focused on supporting dairy farmers to improve their productivity, milk quality and linkages to urban markets. The views expressed in this publication are those of the implementers of the programme and do not necessarily reflect those of the New Zealand Government. For further information, please contact ZDTP on zdtpinfo@primeconsultants.net. Follow us on www.zambiadairy.com, Facebook (facebook.com/zambiadairy/) and Twitter (@DairyZambia).