

Heat Detection is Part of Your Life...Deal With it

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Most of the dairy reproduction articles written in the current popular press focus on programmed breeding of dairy cows. One of the many "Synch" systems which are utilized for programmed breeding certainly have a place in the dairy herd reproductive program. However, experience has taught us that too many of the cows which do not get pregnant at the programmed insemination fall through the cracks if dairy herd managers do not continue to routinely check cows for standing heat. So, we will revisit the basics of old fashioned heat detection in this article.

Standing heat (estrus) is the time when the cow stands to be mounted by other cows or a bull. The heat (estrous) cycle (number of days from one standing heat to the next) of the cow averages 21 days. Heat cycle length is usually consistent for an individual animal, but can vary from 18 to 24 days. The average cow will be in standing heat for 8-12 hours. Some animals may stand for only 4 hours; others as long as 24 hours. Actually seeing the cow stand when mounted must be your goal.

A successful heat detection program in a free stall or loose housing situation requires watching cows at least two, preferably three times each day, and devoting up to one-half hour per group per watch. Australian researchers reported that 100% of cycling cows were detected in heat when watched 24 hours per day. One-hour observations at 7 a.m., 12 noon, 4 p.m. resulted in detection of 91% of the cycling cows.

The best time for the first watch is before morning milking, because a high percentage of cows exhibit heat in the morning as reported in a Canadian study (data in table below). Cows should be observed again during the day and the last watch should be conducted in the evening.

Distribution of Mountings by Time of Day

Time	Percentage
12 midnight - 6 a.m.	43
6 a.m. - 12 noon	22
12 noon - 6 p.m.	10
6 p.m. - 12 midnight	25

The three major observations for standing heat must be done at times other than milking, feeding and manure scraping. Of course good managers are always observant and will catch cows in heat at times other than the designated observation periods. Heat detection must receive high priority. If possible make heat detection the job of one particular family member or employee who believes heat detection is important.

Dairy farmers must be aware of the secondary signs of standing heat, but should use that information judiciously. The goal must still be to actually see as many cows as possible in

standing heat. A cow that is mounted once or stands when mounted in a crowded holding pen because she couldn't more may not be in standing heat. Be honest with yourself. If you are breeding several cows which have not been seen in standing heat, you are fudging.

Be aware of the external signs of heat as listed below:

1. The cow in heat stands when mounted by other cows.
2. The cow in heat is more active than when she is not in heat and may mount other cows or try to get them to mount her, particularly when coming into or going out of heat.
3. The cow in heat may raise tail, roam and/or bawl, and hair may be roughened on the rump.
4. Mucus may be seen on the vulva and tail.
5. The vulva is swollen, large, moist and smooth compared to when she is not in heat.
6. Her milk production and feed consumption may go down, and her behavior might change.
7. Blood may be discharged from the vulva 12 to 48 hours after the cow has gone out of heat. When you see a bloody discharge, it only means that the cow was in heat, not that she is pregnant or open. Start watching for the next heat 18 days after blood is observed.