

When Is Prime Time For Heat Detection?

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NEWARK, Del. — This is April, and adding 279 days doesn't get us to a projected calving date at the end of June, so why worry about it now?

First, the end of June is just before the beginning of the "base" period in dairy cattle management. It's the time when many dairy farmers in this region find it most profitable to have their cows begin lactation.

At least that's what the milk-marketing people are striving for with their quota-like base-making period from July to December, when they usually increase milk prices.

So April is the wrong time to breed cows, and worrying about estrus detection for breeding is not a high priority.

But the right time, the beginning of September, will soon be here. We cannot relax our vigilance toward an ever better success rate.

Look at the DHIA records and you will understand quickly what I mean about greater vigilance.

Missed estrus and missed pregnancies result in lost milk income, but you can change this without an extra penny of investment.

DHIA records show several entire herds averaging a calving interval of more than 13.5 months. This means the cows were not detected in estrus in time to get them pregnant again for a new lactation 12 months from the last one, an optimum cycle in terms of dairy herd net income.

Even in good herds, we find calving intervals of more than 13.5 months for individual cows. Getting them on time by using better estrus detection will put money into the dairy farmer's pocket.

So, how do you do it?

This is where I must say, "Oh my!" It's not easy, as one can surmise from the long list of tools and gadgets necessary to perform the task the bull used to accomplish so easily.

He has a sense that people do not have, and this has turned out to be a major handicap whether we admit it or not. The bull uses his nose to sniff the scent that is part of estrus in cows. He curls up his nose in a characteristic behavior of scent analysis called "flehmen."

With his nose curled up, he sniffs, carefully drawing in air from the cow's back through his sinuses.

Humans cannot tell the difference. What can we do instead? We observe whether a cow shows restless behavior, has mucous secretion around the tail, mounts others and begins to stand like a sawhorse.

Observing behavior is so unreliable or depends so much on conscientious people watching at the right time that success in getting cows bred on time after calving always suffers, especially in larger herds.

This is where the endless list of gadgets comes in, endless because none of them seem to do the job really well.

First on the list is a "clean-up" bull, the nearest to the real thing and not a gadget. It is at the top of the list of resorting to something else when everything fails.

A clean-up bull is an admission that everything else has failed.

Next is a bull who has had one of several possible operations to make his penis unable to breed. He wears an ink stamp under his chin to mark the cows in estrus. This method is similar to the popular practice among sheep breeders who keep a ram with an apron performing the same task.

Instead of a bull with an opera-

tion, some dairy farmers use an "androgenized" cow, one injected with a male hormone to make her think she is male. She, too, wears an ink pad under her chin.

Following along similar lines is the gadget of a patch glued to the rump of cows due to come into estrus. When one is in estrus, other cows mount her. Paint in the patch becomes visible because of the exerted pressure.

Alternatively, farmers paint the rumps with crayons which then become wiped off or smeared. All this requires daily attention to the gadget details and a certain investment.

Another approach to detecting restless behavior in cows is the so-called pedometer like joggers use. In cows, the pedometer is mounted around her legs or neck strap to detect a difference in activity from day to day. Sometimes, manure covers that part of the leg!

In herds with electronic feeding and milk weighing systems, the differences in feed intake and milk production can be related to estrus.

So are slight increases in body temperature, measured directly in milk at milking time, although on warm summer days the increase in milk temperature usually comes from the sun.

The traditional approach has been to rely on a recurring 21-day calendar or on a sophisticated "breeding wheel," which call into view the cows that should be in estrus on a certain date so the herd manager can check them.

Good herds usually do fairly well with any of these gadgets, but marginal herds don't.

The next step is to the veterinarian for treatments, not just for his monthly visits of pregnancy checks. Why did this cow not come into estrus? Why is she not

yet pregnant when she should be? Treatments usually involve reproductive hormones of some kind or related substances.

Dairy farmers could test (it doesn't have to be only the veterinarian) the progesterone hormone content, minute as it is, of milk samples from individual cows to determine where she is in her normal cycle to know for certain when her estrus will occur.

Then the veterinarian can accelerate the process by administering a series of estrogen and progesterone hormones to bring her into estrus on a certain date.

The veterinarian also can inject prostaglandins, which are not hormones but fatty acids. Prostaglandins act on the corpus luteum in the ovaries to bring about estrus within 72 hours.

This is also called estrus "synchronization," because more than one cow can be brought into estrus at the same time with all the possible economic benefits, when one thinks in terms of base time for getting the most milk income at the best time.

This brings me to the final point. Should we continue to worry about detecting estrus when we

have to admit that our noses are not made for it and the many gadgets are only partial solutions?

Many good new ideas and solutions in the dairy business have come from New Zealand. A popular practice there is to synchronize the entire herd. Herd owners then have two months vacation without worrying about milking and they don't seem to worry much about estrus detection.

A few farmers in Ohio have recently considered trying this method. I don't know whether it's crazy for our circumstances or whether it will have merit eventually.

If the milk processing plant assigned certain months of synchronized calving for certain farmers, the market supply of milk every month could be maintained.

Not having to worry about how well and how efficiently to detect estrus may be worth trying to synchronize certain herds at certain times. It's bound to be used more and more now, even if only to get cows to rebreed on time after calving.

This has worked out best in our University of Delaware dairy herd, and more and more farmers are finding it profitable.

Extension Sets Pasture Feeding Meeting

WELLSBORO (Tioga Co.) — Penn State Cooperative Extension is sponsoring a pasture feeding meeting on May 11.

The meeting will be held at the Penna. Electric Building south of Mansfield on Business Route 15 from 12:30 p.m. till 3 p.m.

Lisa Holden will speak on pasture ration balancing and feeding. Lisa has worked closely with the pasture research trails with the Penn State University dairy herd. A farmer panel will discuss

what they feed with pasture and how they do it. Also general discussion on pasture layout, feeding, watering systems, and fencing will take place.

This is the first pasture meeting of the season. Last year several Tioga County dairy farmers met regularly to discuss intensive grazing.

Call the Tioga County extension office for more information at (717) 724-1906.

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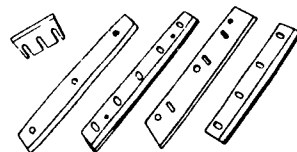
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