

Is this cow in heat?

by Gerald R. Anderson

ANY dairy farmer can tell you that many cows never show signs of heat, and even a well-trained observer would be hard pressed to find all cows that were actually exhibiting estrus. Consequently, the heat is often missed and an opportunity to get a cow bred fades away until a future date. This can cost an owner a great deal of money, so the goal is to not miss heats and obtain good herd fertility.

For years, there has been a search for an accurate on-farm estrous test, one that would be quick and easy to run. Fortunately, this dream has come to fulfillment and estrous testing capacity is now available.

Some state DHIA (Dairy Herd Information Association) organizations have been promoting the technology vigorously. Nevertheless, it has been slow to be adopted. In my area, most of the larger herds aren't using it. They



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are using other technologies that work reasonably well such as activity monitors, heat detector patches, tail painting, or hormone strategies like prostaglandins.

According to Darin Lehman, who tests over 100 DHIA herds in central Minnesota, on-farm estrous testing is a useful technology he feels would work well with tie stall herds, mostly because of the close cow observation that can occur in this type of an environment. There is more than one way to use on-farm estrous testing, and any farmer interested in the technology should experiment with it a little to see if it fits their needs.

The test is done with fresh milk. Using a very small sample in a test vial (a quarter inch is about right), a test strip is put in and observed. It takes a minimum of five minutes to get results, sometimes 10. If you have other things to do, you can come back and check later, as you don't have to be there right on the dot. It is fairly forgiving that way.

As the milk wicks its way up the test strip, it interacts with two lines. The top line is the control line. That line should always show up. If not, you have a defective test strip and

need to run the test again. If only one line shows up, your cow is not in heat. If two lines show up of the same density or the bottom line is darker, the cow is probably in heat or very close to it. If the bottom test line is weak or faint, the cow is either coming or going out of heat. In this situation, you should take another test the following day to verify.

Another tool in the toolbox

You can use this technology on its own, but that gets expensive and you might not like the results since it is hard to precisely time inseminations. It's best to use this as a supporting technology where cows are having silent heats.

If you are charting your cows on calendars, breeding wheels, or Herdex record systems for 21-day cycles, you can use the test along with visual information or secondary signs to hone in on these cows. If you have some idea when a cow might be in heat, you can start taking tests over a number of days to zero in on it. It beats wasting expensive semen on a calendar breeding when there is no supporting evidence that the cow is actually in heat.

If the cow shows an actual stand-

ing heat, you wouldn't want to waste the money on this test. An exception would be if a cow is showing a suspicious heat where the timing is all off.

The other situation that is even more important is when the cow has already been confirmed pregnant. Then the question is: are you looking at a bonafide heat or a false heat? Most of the time standing heats are bonafide, but on rare occasions those events are not.

Having a fast estrous test available can rule the false heats out and prevent you from inseminating a cow that is already pregnant. This is perhaps the test's greatest value and one reason you should have test kits available, even if you don't use it at any other time.

An individual test strip costs about \$5. They have a shelf life of about 18 months. The test strip is checking for progesterone in the milk. If the cow is in heat, it has low progesterone.

Progesterone testing is another tool available to dairy farmers today. There are many different ways to harness the value of the estrous tests. Due to its low cost, most farmers should be able to experiment with this technology to see if it fits their operation. 🐄

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