

## A DCA Options in Pregnancy Testing Your Cows

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If you usually have your cows pregnancy checked, you probably have done it already. If you haven't or plan to do it there are basically four different options. All four options have differing price tags, depending on who does it.

The first and most traditional option is rectal palpation of the uterus to feel for the fetus and related signs of pregnancy (placenta, uterine fluid, uterine artery diameter). The palpater is not only able to estimate gestation length at the time of palpation, but also to detect any abnormal findings (uterine infection, scarring, mummified fetus, cystic ovaries, etc). Most palpaters are the most accurate within the first 4 months of pregnancy, and most can detect pregnancy at 35 days. By 5 months, the uterus has fallen so far over the brim of the pelvis that it becomes more difficult to reach the fetus, but estimations can still be made based on placental attachments (cotyledons) and uterine artery diameter.

The second option is ultrasound and has been around for years but has become more popular in the last ten years, especially for those that AI. It has all the capabilities of rectal palpation plus more and with better accuracy. It enables the veterinarian to see the fetus on a monitor or head set, making it easier to judge the viability of the fetus (heartbeat), detect twins, or sex the fetus. The technology also allows you to freeze the image on the screen, giving you the opportunity to measure the fetus and predict a more accurate calving date vs rectal palpation. Abnormalities or infection are also easier to detect as the scan can pick up great detail (millimeters) of the reproductive tract. If you are a registered breeder who utilizes artificial insemination (AI) prior to bull turn out, this option may be the most ideal, as it would allow you to determine between AI verses bull-bred more confidently. In order to do that, you must wait at least 14 days between AI and bull turn out to differentiate between the two. Most scanners are able to detect a viable fetus as early as 26 days after conception. The biggest limitation with ultrasound is that it becomes virtually impossible to do after 90 days of gestation. This is mainly due to the location of the uterus and the size of the fetus. Some heifers can be done as late as 100 days, but it will take more time. If you are interested in finding out the sex of the calf, the ideal range is 70-80days. Usually ultrasound costs an extra \$20-30 an hour, but some may charge by the head for smaller numbers.

The third option is more recent and involves taking blood samples that can be sent in to determine pregnancy. It is called BioPRYN, which is a partial acronym for "Pregnant Ruminant Yes or No." That is basically all it tells you: "Is she pregnant? Y or N." It tests for a Pregnancy Specific Protein B (PSPB) produced by the placenta and present in the serum of pregnant cows. Samples can be taken as early as 30 days after breeding. The cow must be at least 90 days past her previous calving, as some residual PSPB from the last calf may be present in the blood, if bred back too soon. Most labs are able to get results by the next day once they are received, with an overall accuracy of 97%. The cost is usually pretty comparable to rectal palpation and cheaper than ultrasound. It may be convenient for those who are able to draw their own blood, but it also has its own limitations. The cow still most go through a head-gate or chute in order to get a blood sample, and it does not tell you anything about the viability of the fetus at that time. It also does not tell you an estimated calving date, but would be useful if your herd was monitored close enough to record the breeding dates. For those who do not have a veterinarian close by, this would be an option.

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The fourth option is to do nothing, but still involves some cost. The cost depends on how many cows are open, and when you realize that they are open. The cost of feeding an open cow adds up over the winter, as does the potential genetic loss of not finding the problem soon enough, and ending up with a "non-breeder". Non-breeders usually result from damage to the uterus, either from a difficult calving, an abortion that mummifies, or from a cow that gets over-conditioned and deposits too much fat in the pelvis. Pregnancy detection also tells you a lot about the fertility of your bull. If a majority of your cows cycle 2-3 times before settling, there may be an issue with your bull's fertility, and a breeding soundness exam should be done. In addition, open cows may be an indication of other issues: nutrition, presence of molds, infectious disease, etc.

I am sure you are all looking forward to this year's calf crop, I know I am! Hope your calving season goes well, and that all your cows are with calf- Happy 2011- Jeff Collins DVM

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