Northwest Veterinary Associates Newsletter

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Anovular Cows Result in Open Cows

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We all know how frustrating it is to have too many open cows at preg check time, right? There are many factors involved in getting cows pregnant and this makes investigating breeding problems challenging. Heat stress, high urea nitrogen, and diseases like leptosporosis and BVD certainly can be an issue in some herds, and certainly should not be overlooked. Perhaps a much more common cause for reproductive inefficiency is related to the anovular cow. This essentially means that cows have not resumed normal ovarian cyclicity after calving.

Recent studies that have evaluated anovular conditions in dairy cattle have reported that 20-30% of postpartum cows are anovular between 50 to 75 DIM. Some cows that are anovular appear to grow follicles to the point of selection (a small follicle that is supposed to continue its growth to become the one that ovulates) and these follicles are between around 7-9 mm in size. Cows with these structures are often the ones that feel like she might be coming into heat, but could be "going cystic", due to the lack of good uterine tone. Others that are anovular grow to or beyond time of ovulation and yet do not ovulate. These follicles are usually

larger than 10 mm and are what we frequently call cystic. These high rates of anovulation contribute to poor service rates despite the best estrous detection program because the cows fail to display behavioral estrus and ovulate. It also leads to lower conception rates for herds using a timed AI (TAI) program because cows either do not ovulate, or ovulate but are sub-fertile.

So what is going on with these cows that are "without" ovulation? Lots of work has been done using daily ultrasound examinations coupled with blood analyses for the different reproductive hormones. What essentially has been learned is that in both of these anovular conditions, there appears to be a problem at the level of the cow's brain that leads to altered sensitivity to estrogen (and possibly other factors) which causes failure of ovulation. It is interesting to note that these same changes in follicular development are identical to those seen in cattle that are underfed.

Work has also been done to learn more about what to do with these animals. In one study, lactating Holstein cows were evaluated for anovular condition and subjected to either Ovsynch or detection of estrus for first