

Ultrasound—A New Pregnancy Checking Tool

Its preg checking season—both a blessing and a curse in my opinion! On one hand there are many enjoyable aspects about this time of year—I get to be out in the country (hopefully in beautiful fall weather!), visiting with clients, appreciating the current calf crop and having the opportunity to analyze the cows up close. However there are some parts of preg checking that I simply cannot bring myself to like—cold, windy days make me a bit grumpy and getting my arm wrenched around by an unhappy patient has resulted in some cussing on occasion! And I must admit that as the season goes on the act of shoving my arm into cow after cow after cow.....well the novelty begins to wear off!

In recent years a new tool acquired by our practice in Moose Jaw has generated a lot of interest in the economically valuable task of preg-checking. This tool is our new ultrasound machine. Ultrasound is not a brand new technology—it has been available for several years. However the machines were terribly expensive and much too cumbersome and fragile for use in the field. As with most technological advances, they eventually become practical enough for everyday use. Our ultrasound unit consists of : the actual ultrasound machine and attached probe, a T.V. monitor and/or headset, and a “stick” or wand in which the probe snaps into. The ultrasound machine itself is fairly light, and carried in a backpack that I wear. The probe is snapped into a 2 1/2 foot long plastic wand that allows me to scan the cows without having to shove my arm into her. (Yeah!) I prefer to use the T.V. monitor which is then set up at chute side—this way everyone can have a peek at the pregnancy that I am confirming. If I can’t plug in a monitor I can use the monacle headset which puts the ultrasound image right in front of my eye—however I find this way makes me a bit dizzy and so I have compromised for those “preg-check operations in the middle of nowhere” by running the T.V. monitor off my truck via a power converter. This set up is pretty simple and can be done virtually anywhere with a bit of planning. The ultrasound allows me to quite accurately diagnose pregnancies from 30 days to 4 months of age. In this time frame the whole fetus can be viewed and measured. Past 4 months of pregnancy I find it harder to accurately tell you how pregnant she is, but it is still very easy to confirm that she is pregnant.

I see a lot of advantages with incorporating ultrasound technology into your preg-checking routine:

It seems easier on the cows. First of all, they spend less time in the chute—using the wand with the probe attached, I simply poke this into the cow and quickly determine if she is pregnant or not. Most clients just need a “yes or no” answer; some want it more specific than that but this is only a matter of rolling the wand around to locate the fetus. In most cases this is very easily done (like in a matter of a few seconds) and then the cow is done and out. If she lies down or goes down on her front knees it does not matter as I can usually get my image without fighting with her to get her standing. I have also had a number of clients comment that the cows do not strain or stand with their tails up afterwards, especially with heifers as some vets with big arms can really make some of those little girls pretty uncomfortable.

It is easier on the veterinarian. Ok, so this is one of my favorite parts of the ultrasound! Because of the wand we use I very rarely have to commit my arm into the dangerous chasm of the cow rectum---and by dangerous I mean that once you get far enough into a cow when preg checking a sudden movement can wreak havoc on one’s arm, especially rotator cuffs and elbows. The ultrasound reduces the need for rectal palpation (I still double check every open cow manually). Also, by minimizing the amount of time you spend palpating cows you can keep your arm from tiring out and thus for me this means I can preg-check more cows per day.

The ultrasound is much more interactive than conventional preg-checking. With the TV monitor, this means that the clients get to see what I see and feel. I think this gives them more confidence in my decisions regarding breds and opens. I enjoy teaching clients about what I am looking for to confirm pregnancy in the cow—seeing the fetus, the cotyledons (or “buttons”), the fluid, and the umbilical cord. Quite often there is quite a little crowd around the monitor and soon people are calling out “pregnant” before I get the chance! For me, this takes some of the monotony out of a long day of preg-checking.

Last but definitely not least are the economic opportunities involved with ultrasound. We have chosen to price an ultrasound preg-check the same as a manual one—it benefits both me and the client in the long run. With the prices being equal I can choose which technique I prefer to use in each situation. I have also seen a bit of a shift in our preg-check season with the introduction of ultrasound into our practice. A lot of clients are choosing to preg-check their heifers in late summer/early fall (August/September). With the ultrasound I can reliably and quickly detect pregnancies 30 days plus (I prefer ultrasounding at least 45 days after the bulls are pulled as a greater percentage of these pregnancies will continue through to calving and some of the 30 day pregnancies can still be lost). These open heifers can then immediately be pulled off grass and sold, thereby still capturing the higher prices of the summer yearling market. (In fact, one of my clients told me this year that by preg-checking early he made over \$2000 difference in his open heifers versus what he would have got only 1 week later—this more than paid for his preg-checking bill.....)

Some clients are also choosing to really narrow their breeding interval on their heifers as well (45 day bull exposure versus the traditional 60 day period, and we preg check 45 days after the bulls are pulled) This not only enables them to hit that high yearling market with their opens but really puts the selection pressure on fertility in their replacement heifers. You may only have a 70-80% pregnancy rate for the first few years but it does not take long for this number to creep up within a few years of keeping your most fertile animals.

In conclusion, I really think (and hope!) that ultrasonography becomes more widely available in routine large animal practice. It does have potential economic benefits for the producer and hopefully gives the client more confidence in their veterinarian's skill in pregnancy diagnosis. From a vet's point of view, I see this tool as a real benefit in my longevity as a large animal practitioner. I have heard that the average career span of a large animal veterinarian is 7 years—it takes a lot of wear and tear on one's body. Hopefully by using the ultrasound I can limit my arm injuries and fatigue and therefore continue to practice cow-calf medicine for a long time!