

Large Animal Newsletter

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Preg Check 2010

Another year has come to an end and with it comes the end of the preg check season as well. For the last 11 years we have been keeping a database of the preg check results that we receive from each herd. This year the doctors at Twin Forks Clinic have preg checked over 10350 head of mature cows, 2nd calf heifers and replacement heifers. This is about 2000 head more than what was recorded a year ago. Calving season should be well under way by the 1st of February and about 87% complete by the end of April.

Pregnancy Rate

Overall, the pregnancy rate for all classes of cattle was **88.6%** compared to 90.9% a year ago. This is the lowest pregnancy rate we've seen since we started keeping the database 11 years ago. Most of the increase in opens can probably be attributed to pre-calving nutrition a

year ago. It seems like most herds had really good pregnancy rates, or really bad conception rates, there were few "average" herds.

As a general rule of thumb, or goal is for the mature cows and 2nd calf heifers to have a pregnancy rate of 92%, while the replacements have a goal of 95%. As you can see, the mature cows were the only class that came close to meeting our goal, while the 2nd calf heifers and the replacement heifers fell way short.

Preg Rate	Ave	Min	Max
Mature Cows	90.4%	37.5%	100%
2nd Calf hfrs	78.6%	0%	100%
Replacements	84.4%	58.1%	100%

And yes we did have one group of second calf heifers that were all open. This is a good reminder to have a breeding soundness exam performed on your bulls to make sure they are able to breed, it is also important to watch the bulls in action to make sure they are actually physically doing the job that we purchased them to do!!

One of the reasons that the replacement heifer pregnancy rate may be so low is that some producers are keeping more heifers than necessary. These producers are roughing them through the winter, and then breeding them in a 40-60 day breeding season, pulling the bulls and expecting to have some opens.

Another reason that pregnancy rates are low overall maybe the fact that last year, corn harvest was very slow, the corn wouldn't dry out. Most of the producers that rely on cornstalks for winter forage, had to wait an additional month or two before they could get their cows to cornstalks. This had adverse effects on cow nutrition prior to calving. This was extremely hard on the coming 2nd calf heifers, they had just weaned their first calf, were still growing, and trying to support their 2nd calf in utero at the same time.

Projected Calving Pattern

We also tried to get some idea on the projected calving pattern in each herd, or the percentage of cattle calving per 20-day cycle. The projected calving pattern is just an estimate of the percentage of cows calving in 3 consecutive 20-day periods (cycles). This is based from the cow's individual projected calving date that is calculated using the veterinarian's diagnosis of fetal age. The projected start of calving in each herd was calculated by using the A.I. or bull turnout dates if they were available.

The projected calving pattern can give us an idea if any problems occurred during the breeding season. For instance, if the cows were slow to come back into heat due to low condition score after calving, or other reproductive problems, then calving percentage in the first cycle would be low. If there were problems later in the season, e.g. hurt bulls, weather, or handling stress, then calving percentage in the 2nd or 3rd cycles may fall short.

A goal commonly used for conception/cycle is 65% in the first cycle, 85% by the second cycle and 100% by the end of the 3rd cycle. Since the accuracy of fetal aging by the veterinarian varies by the stage of pregnancy, probably the most important number to look at is the percentage of females calving by the end of the 3rd cycle (60 days).

However, it is also important to look at the projected calving percentages per cycle to determine if any obvious problems occurred during the breeding season.

The average calving percentage per cycle for this year is as follows...

% Calving/Cycle

	1 st	2 nd	3 rd
Mature Cows	47.9%	73.3%	89.8%
2nd Calf hfirs	34.2%	60.8%	78.2%
Replacements	60.5%	82.7%	95.2%

Compared to previous years data, all classes are lagging behind in terms of percent calving by the 3rd cycle. The mature cows and 2nd calf heifers seem to be behind the most. Again good pre-calving and calving nutrition is so important. It affects post partum interval or the time from when a cow calves until the time she can rebreed. It appears that last year, many cows did not rebreed due to nutrition, and some of those that did rebreed did so later than we would like.

Again, the projected calving pattern is just an estimate of the percentage of cows calving per 20 day period based on the veterinarian's diagnosis of fetal age. Since the accuracy of fetal aging by the veterinarian varies by the stage of pregnancy, it is important to look at the actual calving distribution after calving. If you have any questions on how to calculate your calving distribution, I would be glad to help

Body Condition Score

Of the measures that we look at, body condition score probably gives us the best picture of the cow's nutritional plane. Condition scoring is a subjective estimate of the cow's fat reserves. Adequate condition is important because it is linked to performance, affecting rebreeding rate, calving interval, calf vigor, and colostrum score. Numerical scores are assigned to each cow from 1(emaciated), to 9(extremely fat).

Body Condition Score

Class	Average	Min	Max
Mature Cows	5.05	2	8
2nd Calf hfirs	5.22	2	6.5
Replacements	5.58	4	7

Our goal is for mature cows and 2nd calf heifers to have a condition score between 5 and 5.5 while the replacement heifers should have a condition score between 5.5 and 6. As you can see, on average, all classes of cattle fell toward the bottom of their acceptable ranges. All classes probably need to gain a little more condition prior to calving season to help insure satisfactory

breed-back. Condition scores ranged from 2 all the way to 8. Females with condition scores below 4.5 may have to be managed separately from more aggressive cows to be sure that they gain enough condition prior to calving. Those females at the other end of the spectrum should be investigated. It is possible that they are gaining excess weight at the expense of their calves. Obese cows also tend to have a higher incidence of calving difficulty. At any rate, these cows represent an inefficient use of feed resources.

Pregnancy Rate vs. Condition Score

Condition Score	Preg Rate 2009	Preg Rate 2010
<=3.5	83.5%	71.5%
4	91.7%	81.8%
4.5	92.9%	85%
5	94.5%	90.4%
5.5	94.1%	93.2%
6	93.2%	94%
>=6.5	93.3%	93.7%

The above chart shows the distribution of pregnancy rate vs. condition score for the past two years. The optimum body condition score is between 5 and 6. This chart shows pregnancy rate decreasing as condition score gets below 5. It also appears that the cattle with a condition score less than 5 had a harder time getting bred compared to a year ago. This chart also shows that pregnancy rates really don't get any better when the condition score is above 6. When you consider the extra feed that was required for that cow to reach a condition score of 6.5 or higher, it becomes obvious that those feed resources were simply wasted.

When we summarized condition score vs. pregnancy rate on the preg check reports that we sent back to our producers, we only split up condition score into 3 groups. We also included the percentage of the herd that fell into those condition score groupings. I will include those total numbers so you can compare them to your reports if you wish.

Body Condition Score vs. Preg Rate

Condition Score	% of Total	Pregnancy Percentage
<= 4	12.7%	79.6%
4.5-6.5	86.6%	91.5%
>= 7	.7%	90.8%

Cow Weight

This year, only about 7% of the cows that were preg check were weighed at preg check time as well. That being said, we were still able to see quite a weight range amongst the different classes of cattle.

Weight at Preg Check

Class	Average	Min	Max
Mature Cows	1332	730	1975
2nd Calf hfirs	1240	1110	1500
Replacements	1047	788	1200

There was over 1200 pounds difference between the lightest and heaviest cows preg checked! Believe it or not, that range has been almost that wide for the last several years.

Some producers have been weighing their calves at weaning time and their cows at preg check time to get a look at cow efficiency in terms of percentage of cow weight weaned (calf weaning wt./cow preg check wt. X 100). Depending on calf age at weaning, most producers would expect their cows to wean 40-50% of their own weight. Simply put, with the "average" cow weighing 1285 pounds, she would have to wean a calf weighing 643 pounds. On the extreme end of the speculum, the 1975-pound cow would have to wean a 988-pound calf to wean 50% of her body weight. Couple that with the fact that it would take about 13 more pounds of grass a day to maintain the 1850-pound cow compared to the average. With feed costs being the highest expense behind the cost of the cow, it might be worth taking a hard look at the heavier cows to make sure they are producing enough to justify keeping them.

In conclusion, pregnancy rates and the conception per cycle both suffered this year. Pre-calving and calving nutrition was a likely concern for most of the herds. Other concerns could have been bull

breeding soundness and reproductive diseases like trich. We at Twin Forks can help you make next year's breeding season a success. We offer nutritional consulting, solid vaccination programs, breeding soundness exams, we can even test your bulls for trich if that is a concern of yours. Feel free to stop in or give us a call!!

Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic INC

Proper Handling of a Uterine Prolapse

Usually every calving season, the vets here at Twin Forks Clinic get called out to replace at least a few uterine prolapses. Uterine prolapses can be life threatening, hopefully the information in this article will inform you what to do in case you should encounter one.

A prolapse is basically the falling down or slipping of a body part from its usual position. The two types of prolapses that we generally see in cows are vaginal and uterine prolapses.

A vaginal prolapse occurs when just part of the vagina is pushed out. It can be about the size of a soccer ball and is usually red and smooth in appearance. While it is important to get it cleaned and pushed back in as soon as possible, vaginal prolapses generally are not life threatening. The cow can be hauled to the vet clinic to be treated if necessary. Unfortunately, once a cow has a vaginal prolapse, it will likely become reoccurring problem in the future.

A uterine prolapse usually happens at calving. The entire uterus is expelled out of the cow and can hang down to the hocks when standing. This condition can be life threatening to the cow and needs to be cleaned and reinserted as soon as possible. The cow can go into shock quickly and die from blood loss.

Uterine prolapses usually happen during or within hours of calving. A

difficult calving that causes injury or irritation of the external birth canal, severe straining or excessive pressure applied when pulling a calf can cause a uterine prolapse. Poor uterine tone or nutritional related problems with low blood calcium or animal in poor condition can increase the incidence of uterine prolapses. Other causes can be retained placenta, or a loose uterine attachment in the abdominal cavity, which could be heritable.

So what should you do if you encounter a cow with a uterine prolapse? Here are a few steps to help insure success.

Step 1. Restrain the cow as quietly and quickly as you can. If she is in the middle of a field or pasture, rope and tie her down so she can't get up. There is a main artery that supplies the uterus and if the cow is moved abruptly or allowed to run off, the artery can rupture and the cow will die.

Step 2. Call the vet immediately. The sooner the uterine prolapse is reinserted, the better the chance for recovery. Our number is 308-423-2895 if you are calling the Benkelman clinic, or 970-332-3116 if you are calling the Wray clinic.

Step 3. Stay with the cow until a vet arrives. If she is tied down, make sure she stays down. If she is in a chute, make sure she stays quiet and doesn't choke.

Hopefully, you will not have to deal with any uterine prolapses, but if you do, this advice can make the difference between a live cow and a dead one.

The IRM Redbooks are in!!

The new Integrated Resource Management Redbooks are available free of charge at either of the Twin Forks Clinic locations. These books contain a wealth of information including a gestation table, the body condition scoring system, NCBA beef quality assurance guidelines, and 7 steps for improved injection-site quality control.

Probably most importantly, these books allow for a means of keeping track of everything from calving records, pasture usage, inventories, health records, weaning data and much more.

For those of you who would rather keep this information on the computer, an excel spreadsheet version of the Redbook is available for download on our website at... www.twinforksclinic.com/links.php. Just right click on "NCBA Redbook" and download the spreadsheet to your computer.

Pinkeye Woes

This last year has left many producers frustrated with pinkeye. Twin Forks Clinic has cultured many of these problem cases to develop a pinkeye vaccine that has the specific bacterial strains to meet the needs of this area. This vaccine will include two *Moraxella bovis* strains as well as five strains of the most problem-some bacteria *Moraxella bovoculi*. The strains of *Moraxella bovoculi* were the most frequent causes of pinkeye but are currently not available in any commercial vaccine. Because of the unavailability of a commercial vaccine to meet this emerging need, we developed a vaccine specific to this area. In our opinion, it will hold the best chance of pinkeye prevention for this area. Please ask if you have any questions concerning pinkeye prevention/treatment.

Rattlesnake Vaccine for Horses!

We at Twin Forks Clinic have utilized the rattlesnake vaccination program for dogs with very good results seen. Horses continue to be the second most afflicted species with bite wounds in our area. We are pleased to announce the approval of a rattlesnake vaccine labeled for use in horses. This vaccine would be highly recommended for horses and herds at risk for bites. Please consider this in the spring-time vaccination needs for your horse. We would love to design the program that best meets your horses needs.

The staff at Twin Forks Clinic would like wish all of our clients a happy and prosperous New Year!!

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