

Large Animal Newsletter

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Preg Check 2005

As the year winds to a close, so does the preg checking season also. Looking back at prior records, it is estimated that this years preg checking is about 96% complete. In this article we will summarize some of the things that we saw this year.

By now most producers who are going to have their cows preg checked, have already done so. If you had the staff at Twin Forks Clinic do the preg checking for you, you should have received a summary and individual listing of the cows that you had checked. Information on the summary included, the initials, of the examining veterinarian, the bull turnout and A.I. dates if available, the date they were palpated, the pregnancy rate based on the number of head preg checked, the average condition score for the group and a predicted calving distribution chart. Average weights and weight ranges were included if the cattle were weighed.

The individual listing included the animals ID, age if available, days pregnant, condition score and predicted calving date base from the veterinarians call. When it was known, cattle were summarized by animal classes of mature cows, 2nd calf heifers, and replacements.

Condition Score

Of the measures that we look at during preg check time, condition score gives us the clearest picture of the cow's nutritional plane. Condition scoring is a subjective measure of the energy reserves of the animal. Condition scores are closely linked to reproductive performance, affecting rebreeding rate, calving interval, calf vigor and colostrum quality. Animals were assigned a numerical score ranging from 1(thin) to 8(fat), based on fat deposition over the ribs, backbone, hooks and pins and in the brisket. Here is a summary of what we saw.

	Ave	Min	Max
Cows	5.1	2	7.5
2 nd Calf Heifers	4.9	4	7
Replacements	5.5	4	7

It is recommended that cows and 2nd calf heifers should have a condition score of 5 to 5.5, and replacements should have a score of 5.5 to 6 prior to calving. On average, all classes of cattle fell within the recommended ranges. There were outliers however, that need special care. The cattle with a condition score less than 4.5 may need to be separated from more aggressive cattle in the herd to give them a chance to gain the necessary condition before calving. The fatter cows (condition score 7 or 8), may be gaining condition at the expense of their calf. Obese cows can also have higher rates of calving difficulty. At any rate, these fatter cows represent an inefficient use of feed resources.

There were a few older cows that had a condition score of 2, these cows were either late, or open, and most of them had no teeth. These are cows that should have been sold at calving last year or even sooner.

As mentioned before, condition score has a major impact on reproductive performance. Chances are, if a cow is thin at calving time, it will have a hard time catching up during the summer, and this will have a negative impact on her ability to conceive.

Condition Score	Pregnancy Rate
2	37.5%
3	86.9%
4	93.5%
5	94.5%
6	95.2%
7	94.5%

Above is the distribution of pregnancy rates vs. condition score. The optimal condition score is around 5 or 6. It appears that cows don't breed well under a condition score of 4 and it is not very efficient to feed cows over a condition score of 6.

Cow Weight

Of the cattle preg checked, only about 14% were weighed. However, we did see quite a bit of variation in weight amongst classes.

	Average	Min	Max
Mature Cows	1372	970	1856
2 nd Calf Heifers	1205	865	1800
Replacements	995	854	1148

With feed resources as scarce as they are, it may be worthwhile to take a hard look at the heavier cows to make sure that they are producing enough to justify keeping them. After all, it takes about 12 more pounds of dry matter to feed a cow weighing 1856 pounds compared to the average 1372 pounds. That translates into about 40 more pounds of grass per day!!!

Pregnancy rate

Pregnancy rate was calculated simply by dividing the number of cows diagnosed pregnant by the number of cows preg checked. The results for conception rate are shown below.

Preg Rate	Ave	Min	Max
Mature Cows	93%	33%	100%
2 nd Calf Heifers	96%	77%	100%
Replacements	88%	68%	100%

A general rule of thumb for conception is 92% for mature cows and 2nd calf heifers, and about 95% for replacement heifers. It appears that on the average, the mature cows and 2nd calf heifers conceived about where we would expect to, while the replacements fell a little short. One

reason the replacements may have fell a little short is that many producers have been keeping more replacements than normal. Some of these heifers may have been immature or reproductively unsound when they were exposed to a bull.

Conception per Cycle

The projected calving distribution is just an estimate of the percentage of calves born in three consecutive 20-day periods over a 60-day calving season. This is calculated based from the individual cow expected calving date according to her days pregnant. The starting calving date is based from the bull turnout date if it is available.

Conception per cycle can give us an idea if any problems occurred during the calving season. For instance, if the cows were slow to come back into to heat, the conception in the first cycle would be low. If a bull got hurt in the middle of the season, then conception in the 2nd or 3rd cycles may be low. Finally, the projected calving distribution can give us the overall idea of what percentage of females will have calved within a 60-day calving period.

% Conception/Cycle	1 st	2 nd	3 rd
	Mature Cows	47.5	75.7
2 nd Calf Heifers	55.1	84.4	98.7
Replacements	64.9	86	96.1

A goal we use for conception per cycle is 65% in the first cycle, 85% by the 2nd cycle and 100% by the 3rd cycle. On average, it looks like all classes missed the mark slightly, one way or the other.

It looks like about 94% of all females should calve within a 60-day calving period. It is important to remember that the projected calving pattern is just an estimate and the actual calving distribution will differ. In summary, it looks like it has been a very successful preg checking season. It looks like calving will be well under way by the middle of February and 82% complete by

middle of April.
Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

Now's the Time to get Ready for Calving Season

Even though many of you will not start calving until February, the staff at Twin Forks Clinic has created a checklist to help you get ready for calving season.

- Make sure that all calving facilities are clean and freshly bedded.
- Make sure that chutes and restraining equipment are clean and in good working order
- Make sure calf pullers, o.b. chains, and o.b. handles are clean, in good working shape and available just in case you need them.

Other items that you might include on your checklist...

Equipment

- Calf Saver (resuscitation device)
- Fluid Feeders (One for new calves, one designated for scouring calves)
- Calf weigh tape
- Calf warming equipment for cold weather stress.

Medications and Supplies

- Nolvasan disinfectant (for chains and other equipment)
- OB lube or soap
- Iodine solution for navels
- Artificial or frozen colostrum
- Oxytocin
- Short acting Penicillin
- Uterine Boluses
- OB Sleeves

Records and Identification

- Tags
- Buttons
- Taggers and Tagger Pins
- Marking Pens

- Calving Record Book (Available at Twin Forks Clinic)

Scouring Medications and Supplies

- Bluelite C (oral fluid/electrolyte supplements)
- Naxcel/Excenel
- TMS boluses
- Fluid Feeder
- Syringes
- Needles
- Balling gun

Other Products

- Calf Claimer
- Alpha 7 (7way given at birth to prevent overeating)
- Multimin (Injectable trace mineral supplement)

Also please remember when administering vaccines or medications, to consult your veterinarian and to use clean equipment and proper technique. Most vaccines and medications are worthless when not given correctly.

A word about colostrum management, make sure that calves nurse within the first 6 hours of birth to help make sure they get satisfactory passive immunity from the dam. Calves that are weak or sluggish may need to be bottle fed colostrum or a colostrum supplement like Lifeline to get going.

Natural colostrum is best either fresh out of the cow or frozen. One thing to remember about frozen colostrum is that it should only be kept for about a year. Also, frost-free freezers are not the best for long-term colostrum storage because these freezers go through cycles of freezing and thawing that can allow the colostrum to partially thaw, thus reducing the storage life of the colostrum.

Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

Don't leave it on the dashboard of your pickup

Pharmaceutical and biological companies carefully research and develop products for the cattle industry. Quality control steps incorporated into manufacturing processes ensure that products sold to cattle producers and veterinarians work as intended. Once products are sold, companies lose control of how they are cared for and used. It is the purchaser's responsibility to handle and administer products to maximize potential benefits. Here are some suggestions:

All Products

- Read the label for instructions on handling and administration.
- If products require refrigeration, make sure they are refrigerated when you purchase them. Keep them refrigerated before use and while chuteside. Ice packs or a frozen gallon jug of water inside an ice chest work well to keep products cool.
- Be careful – you can get too much of a good thing. Some products that require refrigeration may be damaged if allowed to freeze.
- If products are designed to be stored at room temperature or within a specified temperature range, it is important to follow the manufacturer's temperature guidelines. These products may be inactivated if allowed to get too cold or too hot. The dashboard of a pickup exceeds room temperature quite regularly!
- You cannot always see physical changes that indicate that a product has been damaged by excessive cold or heat, so you have to know how it was cared for before use to ensure that it will work as intended.

- Mark all syringes so you know which product they contain while chuteside. A piece of masking tape, or better yet a piece of colored tape (use a different color for each product) with the name of the product written on the tape with a permanent marker is ideal.
- Do not pour injectable products from original packaging into a larger container. The injectable product was sterile when manufactured, but when you change containers there is a high probability of contaminating the whole container of product.
- Never re-enter a bottle with a used needle. The likelihood of contaminating the rest of the bottle of product is high. Put a new needle on the syringe each time you have to re enter the bottle.
- To avoid having to re-enter a bottle, use a draw-off assembly and automatic refill syringe.
- Change to clean equipment any time existing equipment gets dirty enough that it creates a risk for injection site contamination.

- Clean and disinfect syringes and equipment at the end of each day's use. Washing them out with water from the horse tank does not constitute proper cleaning!

Larry C. Hollis, D.V.M., M.Ag.

Why tag placement is so important

Retention and readability are two words to bear in mind when placing radio-frequency ID (RFID) tags in the ears of your cattle.

"The most common problem we've experienced is producers placing tags on the top of the ear," says the University of Kentucky's Jim Akers. "The ear is thicker on top and gets thicker as you move toward the head. The problem occurs when producers

jam the tags up against the head of these cattle.”

Akers is working with the Southeastern Livestock Network (SLN) pilot project. He says improper placement can affect tag retention and cause infections from compression necrosis in the ear.

“On one occasion, we had to cut out and replace tags on 500 head because the tags were put in too close to the head and caused infection,” he says.

Manny Encinias, a New Mexico State University Extension livestock specialist in Clayton, observed similar problems. He's working with 68 producers in the Tri-National Livestock Health and ID Consortium.

“With the exception of one producer, these volunteers had never applied an electronic tag,” Encinias says. “I sent the tags with the applicators and gave them a picture of where I wanted the tags placed. Of 800 tags sent out, we've only lost two.”

But, he adds, there were a few mishaps during the initial stages of the learning process. These ranged from applying tags backwards to too close to the head, causing abscesses and infections.

One SLN goal is to test tag sites and measure their readability and retention. Akers is working with 100 Kentucky herds, in different topographies, using various fencing and management systems. “We have other control tests that have been underway for four years,” he adds. “We go in twice each year

and monitor the herds. We check if the tags still work and for lost tags. We've varied tag placement — some placed on top of the ear, some in the middle lobe, some closer to the head and some farther out.”

Readability problems due to placement haven't been encountered, though there's been “a little reduction depending on the system when we have tags in the upper placement,” he says. “I think a few panel systems don't work as well with that orientation, but we haven't seen any huge statistical difference.”

Testing readers

Encinias says he's working with New Mexico livestock inspectors in testing both handheld and panel readers. While the studies aren't official, some observations may be important, he adds.

For instance, one red flag popped up in testing a continuous-flow system using panel readers. The average of tags successfully read was 93%.

“When we examined the video shot during the test, our only conclusion was some tags were placed in the top of the ear, closer to the head,” Encinias says. “On more of a horizontal surface like that, the tags didn't read as well with the systems we were evaluating.”

Encinias recommends producers place tags in the middle lobe, two to three finger widths from the outside of the ear. Akers adds that the official RFID tags should be placed in the left ear.

“We're trying to communicate the left ear is the industry-accepted standard,” Akers says. “It improves read rates. And it the minimizes reader investment for markets and feedyards.”

Recognizing all official forms of ID from other countries is as important as establishing consistency in tagging animals in the left ear in the U.S. system, Encinias says. For example, New Mexico and other southern-tier states receive cattle from Mexico tagged with official Mexican ID tags. Most of those tags are cut out upon reaching the U.S.

“Mexico has systems to trace cattle back to herd of origin. But we lose all that info if the tags are removed,” Encinias says. “We have to educate people to recognize other countries' tags.”

He says producers he's worked with are beginning to embrace the technology, but there's still a long way to go.

“The whole system has to be 100%,” he says. “Because if it's not 100%, I don't think there's a reason to do it.”

Akers says that he believes 100% is unrealistic because of the changes that would have to occur in producers' business practices to facilitate that goal.

“The costs of going beyond 96-97% would be damaging to our marketing infrastructure,” he adds.

Stephanie Veldman Associate Editor, Beef Magazine, 12/1/2005

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