

Large Animal Newsletter

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Calving Season 2008

At the time this article was written, we have had 46 calving calls at both the Benkelman and Wray clinics.

Looking back at previous years data, we should be about 88% done.

Compared to the last couple of years, we have had about half of the calving calls than we normally do.

For the last eight years, the staff at Twin Forks Clinic has been keeping data on the calving calls that we receive. The data that we collect includes, owner, birth date, cow age, calf sex, calf vigor score, dystocia score, colostrum score, total IgG

supplied by colostrum, and additional treatments.

Dystocia Score

Calving calls were ranked by dystocia (calving difficulty) scores. These dystocia scores are as follows..

1. Unassisted
2. Easy Pull
3. Hard Pull
4. C-Section
5. Mal-presentation

About 37% of the calving calls that we received were the result of a mal-presentation. Mal-presentations include those calves that were coming backwards, had feet back; the head was back or were coming breech. In more than half of these cases, the veterinarian was able to reposition the calf and it was then delivered with an "easy pull".

About 30% of the calving calls that we received were considered "Hard Pulls". About half of these were the result of 1st calf heifers with calves that were probably a little too big for them. Most of the remainders in this classification were the result of mal-positioned calves that were "hard pulls" after the vet repositioned them. Some of these calves were dead in the uterus and had to be cut out.

Only 11% of the calls that came in resulted in a C-Section. We normally see about 20% of our calving calls as a result of C-sections. Three of the calls in this classification were likely the result of a calf that was too big. Two of the C-Sections were the result of a uterine torsion a condition in which the uterus actually twists over itself and many times can only be straightened out with surgery.

Calf Vigor

Calf vigor score was used to describe calf health and aggressiveness after birth. A calf vigor score of 1 is a good indicator that calving assistance was given in a timely manner. Calf vigor

scores and occurrences are as follows..

1. Looking Good	43.5%
2. Big Head/ Vigor+	2.1%
3. Slow	4.3%
4. Needs Treatment	2.1%
5. Dead	47.8%

In terms of dead calves at birth, this is one of our worst years. Over the last eight years, the average percentage of dead calves at arrival is about 27%. One of the main contributors to the calves being born dead this year was mal-position. About 64% of the calves born dead were the result of a mal-positioned calf that did not get assistance soon enough. Twins, deformed calves, and uterine torsions made up the rest.

Calf Sex

Of the calves assisted at the clinic, about 73% of them were bull calves. The average occurrence of bull calves for the last 8 years is about 68%.

We also noticed other differences between bull and heifer calves. The bull calves were about 15 lbs heavier at birth (93.5 vs. 78.6). Bull calves were also 5 times more likely to be the result of a C-Section.

Birth Weight

Birth weight was measured with a CalfScaletm hoof tape. Research has shown these tapes have a correlation of about .85 with weights that were taken with a hanging scale. The hoof tape measures the circumference of the hoof in centimeters and correlates that measurement with an estimated birth weight. We have found these tapes to be fairly accurate except in the case of longer bodied calves.

Birth weights averaged 89 pounds with a range of 70-114 pounds. As mentioned earlier, the bulls weighed about 15 pounds more than the heifers on the average.

Calves weighing 90 pounds or more were more likely to be the result of a C-Section or a hard pull. Calves weighing less than 90 pounds also showed a slight advantage in calf vigor.

Cow Age

About 37% of the calving calls that came in were from 1st calf heifers. Another 39% came from middle-aged cows, 13% came from older cows with the remainder coming from 2nd calf heifers.

Colostrum Score

For the past several years, the staff at Twin Forks Clinic has measured colostrum score with the use of a colostrometer. A colostrometer measures the specific gravity of the colostrum, giving us an idea of the density on immunoglobulins (IgGs) and other solids in the colostrum. Basically, the higher the colostrum score, the better the colostrum quality.

Colostrum scores give us a rough idea of the IgGs contained per quart of colostrum. For instance, a colostrum score of 100 means that there are roughly 100 grams of IgGs per quart of colostrum. Our goal is to provide the calf with about 200 grams of IgGs within the first 24 hours of life. A calf born to a cow with a colostrum score of 100 would require two quarts of colostrum within the first 24 hours to provide adequate passive transfer. Measuring the colostrum score also gives us a good idea whether or not the calf will have to be supplemented with a colostrum replacer like LifeLine or Nursemate.

Colostrum scores range from 25 to 130 with an average of 84.6. On average, the calf would have to consume almost 2 ½ quarts of colostrum to receive adequate passive transfer. The 2nd calf heifers showed the highest colostrum scores on average while the middle-aged cows had the lowest.

<u>Class</u>	<u>Average Colostrum Score</u>
1st Calf Heifers	88
2nd Calf Heifers	98
Mature cows	71
Older cows	85

Typically we would expect the older cows to have the lowest colostrum scores. I might add at this point that there were not that many older cows and about half of them had dead calves. Since we did not measure the colostrum score when the calf was born dead, the average colostrum score on the older cows is probably skewed.

There are several factors that affect passive transfer. These include cow age, cow nutrition, cow health and vaccination history, and udder confirmation.

When we assist live calves at Twin Forks Clinic, we tube feed them their first feeding of colostrum. Our goal is to get about 100 grams of IgGs into them before we send them home. Our ability to do this is sometimes limited by the quality of the colostrum and the quantity available. When the quantity and/or quality were low, we supplemented with a colostrum replacer like Lifeline or Nursemate. This year on the average calves received 98 total IgGs from natural colostrum in their first feeding. That is about half of what they require within the first 24 hours.

For the most part, this calving season has been easier than in years past. Compared to previous years, we have only had about half of the calving calls compared to normal.
Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

Equine Wellness Packages

Spring is fast approaching and so are those summer-time threats to your horse. Mosquitoes can transmit the deadly diseases of Sleeping Sickness

and West Nile. The spring and summer climates are ideal for intestinal parasites and tetanus is an ever-present danger. Horses that travel to events or are exposed to horses that travel to events, breeding farms, or sale barns are at high risk for respiratory diseases such as Influenza, Rhinopneumonitis, and Strangles.

Spring (April-May) is the ideal time to begin or continue preventative measures to protect your horse. Vaccines and deworming are essential for their well-being. We at Twin Forks Clinic take these preventative measures very seriously and have developed basic "packages" to meet these needs. Our equine packages provide your horse with needed vaccines and dewormings for the year. We also have packages designed to provide services such as dental care and coggins testing, along with the needed vaccinations and deworming. The deworming program will consist of four different products that will be given throughout the year. Reminders will be given to you to help maintain the ideal schedule to avoid parasite resistance, decrease worm egg burdens on pastures, and maintain health and performance of your horse. Ask us about these packages today!!

Bull Breeding Soundness Exam Season is well Under Way

So far the veterinarians at Twin Forks Clinic have performed 368 bull Breeding Soundness Exams (BSE) at both the Wray and Benkelman Clinics. If you have not had a BSE performed on your bulls by now, we would certainly recommend that you do so before turnout.

A BSE consists of three parts, the physical exam, the reproductive tract exam, and the semen evaluation.

The physical exam includes making sure that the bull is sound on his feet and legs. This is very important; as we need to make sure that the bull can travel and mount a cow. The vet also checks the bulls' eyes for pinkeye or other lesions. This is important because bulls need to be able to see mounting activity in the herd.

The vets also check the bull's teeth and body condition. Typically, a bull's useful breeding life is 4 to 5 years at the most, but we do occasionally find bulls with broken mouths or no teeth at all. Condition score should be around a condition score 6 on a 1 to 9 scale. The bulls should burn a lot of energy during the first breeding cycle, so having them in good condition prior to turnout is a must.

The second part of the BSE is the reproductive tract exam. This includes measuring and palpating the testes, palpating the seminal vesicles and examining the penis. This is to make sure that there are no chronic infections or injuries that would jeopardize semen production, and delivery. This also helps assure that the bull's testes are large enough to produce adequate semen to get the job done.

The final part of a BSE is the semen evaluation. When evaluating semen, the veterinarian looks at motility and morphology of the semen. Motility is the ability of the sperm cells to swim to the egg. Morphology is the percentage of normally shaped sperm cells.

Of the bulls fertility checked, about 16% of the bulls were either failed or deferred to be retested later.

Problems that were encountered with bulls that failed or were deferred are listed below.

Occurrences of Reproductive Problems amongst Bulls that Failed during BSE at Twin Forks Clinic

Problem	Occurrence
Morphology (<70% Normal cells)	65%
Poor Motility	17.5%
Scrotal < 32 cm.	5%
Lameness	5.2%
Vesiculitis	3.5%
Abnormal Testes	14%
Penis (Warts, Persistent Frenulum Deviations)	8.7%
Teeth (Broken or Gummer)	5%
Any combination of above	33%

Many of the bulls that were deferred had small problems like penile warts, persistent frenulum, or prepuce problems that could be addressed with some veterinary attention. These bulls were deferred pending a recheck to make sure that they healed correctly after their problems were addressed. Many of these problems would have gone unnoticed if a BSE were not performed.

For those of you who have a BSE performed on your bulls, you're not out of the woods yet. It is very important to watch your bulls closely after turnout. We need to make sure that the bull is both able and *willing* to breed cows. Inability to complete normal service or lack of libido can greatly reduce calf crop percentage. The best way to detect these problems is by watching the bulls if at all possible during the first part of the breeding season.

Reproductive losses caused by problems like lack of libido, lameness, or injury, can be avoided by removing and replacing the affected bulls.
Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic.

Hardware Disease From Tires An Issue For Livestock

ABERDEEN -- The Cooperative Extension Service advises cattle producers to check tires used to hold feed to make sure steel wires aren't exposed.

A study by Russ Daly, a South Dakota State University Extension

veterinarian, found thin wires inside cattle carcasses. The wire came from tire feeding stations and caused hardware disease, he said.

Cattle wear down the tires as they rub against them, exposing steel wires inside the tires. The study says the wires then break off, and cattle then can ingest them or be stuck by them.

"They need to make sure they're not seeing any exposed steel belting. If they are, they need to take that tire out," said Lanette Butler, McPherson County livestock educator.

Daly said he would not discourage the use of tire feeders if they are in good condition.

"This is certainly no epidemic, nor something that would wipe out a herd," he said. "But it does give us an answer to some of those lingering health concerns we have seen in cattle."

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Cattle Fly Control: Horn Flies, Chemical Control, Ear Tags

Three types of control methods are used to suppress horn flies: biological, cultural and chemical. Producers who use all three methods (that is, they employ integrated pest management practices) will reduce

horn fly populations the most while incurring the least expense.

Chemical control: Several chemical control methods can help reduce the number of horn flies on cattle: ear tags, sprayers and dusters, feed additives and boluses.

Ear tags

Ear tags are 2- to 3-inch plastic tags impregnated with an insecticide and attached to a cow's ear. Several insecticides are formulated for use in ear tags, and many brands of tags are available. This large selection can make it difficult to decide which tag to use and when.

Following these guidelines will help you use ear tags effectively:

- Avoid tagging cattle until there are more than 100 horn flies per cow. This will minimize the chance for the flies to develop early-season resistance to the insecticide in the tag. If you do not tag cattle until April or later, the tags will still be effective late in the year, when horn fly numbers are high.
- Read the ear tag labels carefully to determine when to remove them from the animals. Do not use the tags beyond their recommended useful life – if left in longer, the flies will be

- exposed to lower doses of the insecticide and may increase the chances of fly populations developing resistance.
- Rotate classes of insecticides (not brand names of tags) every year. Most ear tags contain one of two classes of insecticide – pyrethroid and organophosphate. If you use the same class of insecticide 2 years in a row, horn flies can quickly become resistant.
- Do not use ear tags that contain both pyrethroids and organophosphates. These combination tags do not slow resistance development and may increase this problem.
- After tagging cattle, add a supplemental treatment – such as pour-on, back rub, etc. – at mid-season (July or August).

Source: Jeffery K. Tomberlin, Assistant Professor and Extension Specialist, The Texas A&M University System

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