

Large Animal Newsletter

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About 64% of the calving calls that we received were a dystocia score 5 or a mal-presentation. Mal-presentations include those calves that were coming backwards, breech, had feet back, or the head was back. We also had four calls in which the calf was upside-down, including one that was coming upside-down and backwards. In about 40% of the mal-position cases, the doctor was able to reposition the calf and it was then delivered with an "easy pull".

About 22% of all calving calls were considered hard pulls. Half of the cows in this category were 1st calf heifers with calves that were a little too big for them. The others in this category were middle-aged cows in which the calves were a little too big, or the cow didn't dilate for some reason.

Only about 9.5% of the calving calls resulted in a C-section so far this year. In recent years, we have seen up to 25% of our calving calls resulting in C-Sections. All of these calls were out of 1st calf heifers. Five of these calls were a result of the calf just being too big in relation to the pelvic area of the heifer. One of these calving calls was the result of a deformed calf.

Calf Vigor

Calf Vigor score was used to describe calf health and aggressiveness after birth. A calf vigor score of 1 is a good indication that assistance was given in a timely manner. Calf vigor scores and occurrences are as follows.

- | | |
|---------------------|-------|
| 1. Looking Good | 46% |
| 2. Big Head/Vigor + | 3.2% |
| 3. Slow | 4.8% |
| 4. Needs Treatment | 9.5% |
| 5. Dead | 42.8% |



Calving Season 2009

As this article is written we have had 69 calving calls at both the Wray and Benkelman clinics. Looking back at previous years data, we should be about 86% done. We have already had more calving calls this year than during the entire calving season of 2008.

For the past nine years, the staff at Twin Forks Clinic has been keeping data on the calving calls that we receive. The data that we collect, includes dystocia score, calf vigor, calf sex, cow age, colostrum score, and other treatments.

Dystocia Score

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

The nine-year average for calves that were born dead at the clinic is 32%. For the last couple of years, this percentage has been 10 to 16% higher than the average. This year about 56% of the calves that were born dead were a result of malpositions that did not receive assistance soon enough. Twins, deformed calves, and premature calves made up the rest.

Calf Sex

About 75% of the calves that were assisted at Twin Forks Clinic, were bull calves. The average for the last 9 years is about 69%. The bull calves were about 6 pounds heavier at birth on average.

Birth Weight

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

Birth weights averaged 87 pounds and ranged from 70 to 110 pounds. As mentioned earlier, the bull calves were about 6 pounds heavier than the heifers.

Calves with a birth weight of 90 pounds or greater were 10% more likely to be the result of a hard pull or c-section. However, there were no differences in calf vigor.

Cow Age

About 33% of the calving calls have been from 1st calf heifers. About 8% came from 2nd calf heifers, 37% came from middle aged cows and 22% came from cows eight years of age or older.

Colostrum Score

For the past several years, the staff at Twin Forks Clinic has measured the colostrum score of all the calving calls that come in. Colostrum score is measured with a device called a colostrometer. A colostrometer measures the specific gravity of the colostrum and gives us an idea of the amount of immunoglobulins (IgGs) and other solids in the colostrum. Basically, the higher the colostrum score, the better the colostrum quality.

Colostrum scores give us an idea of the amount of IgGs in a quart of colostrum. For instance, a colostrum score of 100 means that there are roughly 100 grams of IgG per quart of colostrum. Our goal is to provide the calf with 200 grams of IgG within the first 24 hours of life. If a cow has a colostrum score of 100, the calf would require 2 quarts of colostrum within the first 24 hours. Measuring the colostrum score also gives us a good idea whether or not the calf needs to be supplemented with a colostrum replacer like Colostrx 130 or Lifeline.

Colostrum scores ranged from 30 to 130 with an average of 84. On average the calf would have to consume almost 2 ½ quarts of colostrum to receive adequate passive transfer. The mature cows showed the highest colostrum scores on average while the older cows showed the lowest.

Class	Average Colostrum Score
1 st Calf Heifers	82.5
2 nd Calf Heifers	85
Mature Cows	89.5
Older Cows	65

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, we milk the cow and tube feed the calf it's 1st

feeding. Our goal is to get about 100 grams of IgG into the calf before they leave the clinic. Our ability to do this is sometimes limited to the quantity and/or quality of the colostrum available. When the quantity or quality was low, we supplemented the calf with a colostrum replacer like Colostrx 130 or Colostrx Plus. This year on the average, calves received 115 total IgGs before they were sent home. That is more than half of what they need in the first 24 hours.

Overall, the number of calving calls that we have received has been about "average" compared to the previous 5 years. Most of them were due to mal-positioned calves.

Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

Prepare now for Breeding Season!!

It seems like this year's calves have just barely hit the ground and it's already time to get ready for breeding season. The staff at Twin Forks Clinic can help.

Breeding Soundness Exams

So far, the crew at Twin Forks Clinic has performed breeding soundness exams on 302 hd. About half of these bulls were herd bulls, with the other half being yearlings and 2 year olds that were for sale.

Of the herd bulls that we have fertility checked, about 16% of them have failed compared to 13% a year ago. Reasons for some of these bulls not passing includes poor motility, poor morphology, lameness problems, age, and injury.

Problems that were encountered a year ago, 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.

Vaccination and Deworming

Now is the time to vaccinate and deworm all breeding females in the herd. Many producers have been vaccinating with a 5 way viral combination with Vibrio/Lepto. In most cases, the initial dose must be given to the cows when they are open prior to breeding. All females should be vaccinated 30-45 days prior to breeding.

This may also be a good time to consider deworming the females prior to turnout. During calving, cattle are often confined tighter than normal, so the possibility of parasite infection is present.

Don't forget the bulls! Vaccinating and deworming the bulls is important too. All producers who have their breeding soundness exams done at Twin Forks, have the opportunity to participate in our "Bull Program". We vaccinate, deworm, delice and test all new bulls for PI BVD for a reduced rate.

A.I. and Synchronization

For those of you who utilize synchronization and/or A.I. in your breeding program, Twin Forks Clinic can provide the tools to make your program a success.

We have computer software that maps out on a calendar exactly when you need to administer your reproduction drugs, and heat detection and breeding events for maximum results. This helps eliminate errors that can occur during the synchronization program. All we need to know is when you want to start breeding, and which synchronization protocol you want to use and we can supply you with a detailed calendar to make sure that synchronization goes smoothly!

We also have MGA, CIDRs, prostaglandins, and GnRH available for your synchronization needs. We can also special order special products if you prefer.

We started carrying MGA this year. The mix that we carry needs to be fed at rate of 1 pound per day, in order to supply the cattle with 0.5 mg of melengestrol acetate/head/day. This allows for more uniform intake compared to other MGA supplements that are fed at .5 lb./hd./day

Our staff has over a decade's worth of experience in providing arm service, semen handling, and synchronization planning. If there is anything we can do to help you make your breeding season a success, Let us know!!

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!!

Udder Quality

Many of you who utilize our services with the CowCalf 5 record keeping system have not only been measuring production in terms of weaning weight or percent of dam weight, but have been measuring traits that affect future production as

well. Several years ago I suggested to the programmers for CowCalf 5 that we include a way to measure and manage udder quality. We know that selection for high milk production can have a negative impact on udder quality. We also know that udder quality generally deteriorates over time, and the sooner we identify cows with poor udders, the sooner we can get them out of the herd and reduce the risk of decreased production on their part.

The conformation of a beef cow's teats and udder are important in a profitable cow/calf enterprise. Females with poor udder and teat conformation are a management challenge for commercial cow/calf producers. Cattle producers do not have the time or labor to manage around cows that need intervention at calving to physically "milk-out" a quarter(s) so that the calf can suckle or to save the quarter from infection.

Research findings in two experiments indicates that the occurrence of clinical mastitis in beef cow herds was 17.5% and 11.9% resulting in a reduction in weaning weights of 12.5% and 7.3%, respectively. Poor udder and teat conformation can potentially lead to increased calf sickness as teats may be contaminated with mud and debris from a lot or calving area before the calf suckles.

Although selecting and culling based on conformation of teats and udders may be considered convenience trait

selection, selecting against poor teats and udders increases profit potential by increasing calf performance, reducing calf sickness, increasing longevity of the cow, and reducing labor inputs.

Initially, we used the American Gelbvieh Association's udder scoring system in which a score of 0-50 is assigned to both teat size and suspension. The scores for teat size and suspension are added together to create an "udder score" with a score of 100 being excellent for both size and suspension.

AGA Udder Scoring	System
Teat Size	Udder Suspension
50-(best)	50-(best)
45-very small	45 very tight
40	40
35 small	35 tight
30	30
25-intermediate	25-intermediate
20	20
15-large	15-large
10	10
5-very large	5-very pendulous

Later we discovered, while it is important to quantify different teat sizes and suspensions, an udder score of 100 was not "perfect". For a cow to have an udder score of 100

according to this scoring system her teat size would have to be very small and udder suspension would have to be very tight.

According to research done at the University of Georgia, the correlation between teat size and suspension was .95, suggesting that the same genes may control both traits. They found that cows with large pendulous udders and large teats had a negative impact on the calf's direct weaning and yearling weights. The cow was probably producing enough milk to reach the calf's genetic potential, but the calf was having trouble accessing it. Conversely, they also found that cows with small teat size and very tight udders probably were not producing enough milk to the calf to reach it's genetic potential. In conclusion the researchers concluded that in order to obtain a balance between maximum milk production and accessibility of the milk by the calf, that producers select cattle with intermediate values for udder score.

What does this mean to us?? First off, we probably don't need to waste much time assigning both teat and suspension scores to the cows when both traits are closely correlated, a simple overall udder score will do. Second of all, while a cow with large teats and a pendulous udder is bad, a cow with small teat size and a tight udder suspension is not necessarily good either and avoiding extremes in all traits when we select replacements is critical.

Kevin L. Cawthra, Animal Scientist, Twin Forks Clinic

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