

# Large Animal Newsletter

## Inside this Newsletter

1. Preg Check 2008
2. Twin Forks Clinic Spring Trade Show
3. Top 10 Ways to Save Money on Cow/Calf Nutrition
4. Plan and Act Now to Control Calf Scours
5. The IRM Redbooks are in!

looks like the mature cows reached their goal while the 2<sup>nd</sup> calf heifers and replacements fell a little short.

Preg Rate	Ave	Min	Max
Mature Cows	92.9%	71%	100%
2nd Calf hfrs	90.6%	85%	100%
Replacements	85%	56.8%	100%

### Projected Calving Pattern

We have also tried to get some idea of the projected calving pattern in each herd or the percentage of cattle calving per 20-day cycle. The projected calving period is just an estimate of the percentage of cows calving in three consecutive 20-day periods (cycles). This is based on the individual cows projected calving date, which is calculated using the veterinarians diagnosis of fetal age. The projected start of calving in each herd is calculated by using the A.I. or bull turnout dates if they are available.

The projected calving period can give us an idea if there were any problems occurring during the breeding season. For example, if cows were slow to come back into heat after calving due to low condition scores, or other reproductive problems, then the conception in the first cycle would be low. If there were problems later in the season, e.g. hurt bulls, heat or handling stress, then conception in the 1<sup>st</sup> period may be acceptable; conception in the 2<sup>nd</sup> and 3<sup>rd</sup> periods may fall short.

The goal commonly used for conception/cycle is 65% in the 1st cycle, 85% by the 2<sup>nd</sup> cycle and 100% by the 3<sup>rd</sup> 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 cows due to calf within a 60-day calving period (the 3<sup>rd</sup> period). However, it is also important to look at the conception rates per period to make sure there were no problems during the breeding season. The average conception per cycle for this year are as follows...



### Preg Check 2008

Another year has come and gone and the preg check season is essentially over. For the past 9 years we have been keeping records on the pregnancy exams that have been performed. To date, we have about 2250 head of mature cows, 2<sup>nd</sup> calf heifers, and replacement heifers compared to 7525 head a year ago. Calving season should be in full swing by the end of January and should be about 90% complete by the end of April.

### Pregnancy Rate

Overall, the pregnancy rate for all classes of cattle is 90.6% compared to 91.5% a year ago.

A general rule of thumb for pregnancy rate is 92% for mature cows and 2<sup>nd</sup> calf heifers, and 95% for replacements. On the average, it

## % Conception/Cycle

	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>
Mature Cows	49.5%	75.5%	95.6%
2nd Calf hfirs	39.1%	53.1%	86%
Replacements	62.7%	82.8%	93%

As you can see, there were several cows that will calve a little later than we would like them to. Many of these are older cows that were probably culled before they became a problem at calving time. The group that seems to be lagging behind the most is the 2<sup>nd</sup> calf heifers. When you think about it, the 2<sup>nd</sup> calf heifer has highest demand on her, she is still growing, she is trying to raise her first calf, and we expect her to get bred in a timely fashion also. This is where proper management and nutrition can make all the difference.

## 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 reproductive performance, affecting rebreeding rate, calving interval, calf vigor and colostrum score. Numerical scores are assigned to each cow from 1 (emaciated), to 8 (extremely fat).

### Body Condition Score

Class	Average	Min	Max
Mature Cows	5.01	2	7.5
2nd Calf hfirs	4.74	3	6
Replacements	5.54	3	7

Our goal is for the mature cows and 2<sup>nd</sup> calf heifers to have a condition score of 5 to 5.5 at calving time, while the replacements should be a condition score of 5.5 to 6. As you can see, on average the 2<sup>nd</sup> calf heifers need to gain the most prior to calving. The mature cows and the replacement heifers will have the minimum recommended condition if they maintain it through the winter. Condition scores ranged from 2 to 7.5. Cows with a condition score of

4.5 or less may need to be managed separately from more aggressive cows to be sure they gain enough condition prior to calving. Cows on the other end of the spectrum should be investigated. It is possible that they are gaining excess weight at the expense of their calf. Obese cows also 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	Pregnancy Rate
<=3.5	75.5%
4	88.3%
4.5	95.1%
5	94.0%
5.5	94.3%
6	93.6%
6.5	95.5%
>6.5	77.4%

The above chart shows the distribution of pregnancy rate vs. condition score. The optimal range for body condition score is between 5 and 6. This chart shows the pregnancy rate decreasing when condition score is below 4.5 or above 6.5. Granted, it shows we can get a high percentage of cows pregnant at a condition score of 4.5, but when it comes to nutrition, we need to remember that we are not just managing for this year's pregnancy, but also for the pregnancies in the seasons to come.

## Cow Weight

Of the herds that we preg checked, only about 17% of them weighed their cows. That being said, we were still able to see quite a range in weights amongst the different classes of cattle.

### Weight at Preg Check

Class	Average	Min	Max
Mature Cows	1239	840	1790
2nd Calf hfirs	NA	NA	NA
Replacements	1009	750	1225

The eight-year average for mature cow weight is 1288 compared to this year's average of 1239. In past years the trend in cow weight has increased, but this year it seems to have decreased. That being said,

there was still quite a range in cow weights.

Some producers have been weighing their cows at preg check time in order to get an idea on cow efficiency in terms of percentage of dam weight weaned (calf weaning wt./cow preg 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, the average cow would have to wean a calf weighing 620# to wean 50% of her weight. On the extreme end of the spectrum, the cow that weighed 1790# would have to wean a calf that weighing 895# to wean 50% of her weight. Couple that with the fact that she would require about 11 more pounds of grass per day compared to the "average" cow. With feed costs as they are, it may be worth taking a hard look at the heavier cows and making sure that they are producing enough to justify keeping them.

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

## Twin Forks Clinic Spring Trade Show

Twin Forks Clinic will be hosting a Spring Veterinary Trade Show. It will give producers the opportunity to learn about new and existing products for the approaching calving and branding seasons. Drug company representatives will be available to discuss products. Twin Forks Veterinarians will be present to aid in matching products and plans to meet your needs. A booking program is available with savings for the producer.

### This event will take place at:

**City of Wray Round House**  
**245 4<sup>th</sup> Street**  
**Wray, Colorado**

**Wednesday, January 21, 2009**  
**12:00 PM until 4:00 PM MST**

**Lunch will be provided.**

If you are unable to attend please call or stop by either of our clinics by January 31, 2009 to discuss your

spring needs and take advantage of the booking discounts.

## Your Sponsors will be:

**Twin Forks Clinic**  
**MWI**  
**Ft. Dodge**  
**SolidTech**  
**Bayer**  
**Pfizer**  
**Intervet-Schering Plough**  
**Boehringer Ingelheim**  
**AgriLabs**  
**Merial**

## Top Ten Ways to Save Money On Cow/Calf Nutrition

10) Early Pregnancy Examinations – It goes without saying but the earlier you market cattle the less feed they require. Historically this has the added benefit of selling cull cows at a higher market.

9) Mineral Program – Price mineral for need not convenience. Convenience costs more money, if this fits your system this is fine but understand these products are not more effective they are just easier. Standardized Performance Analysis data shows that the amount of money spent on a mineral program does not increase profitability for that operation.<sup>(1,2)</sup>

8) Parasite Control – Lice and internal parasites cost weight gain and performance. Addressing these issues with the modern products we have today provides a good return on investment.

7) Ionophore Use – Using a product such as rumensin adds efficiency to a feeding program. When rations are being fed, this product is easy to use and has a very good return on investment. Note: some natural programs do not allow feeding of ionophores and horses are very sensitive to this product. Do not allow

your horse to eat a ration that has ionophores included.

6) Early Weaning – It is much more efficient to wean early and feed the calves than it is to feed the cows. Early weaning works. We have several clients that started an early weaning program due to drought that have gotten along very well. For the most part, the health on the calves has been excellent. Even moving weaning up by a month can have an impact on cow body condition going into the winter. Calves can be weaned quite early if it is deemed necessary. Discuss the health program for your calves with your veterinarian prior to starting an early weaning program.

5) Feed Stuff Analysis and Ration Formulation – Studies have shown a savings on winter-feeding programs by doing analysis on available feedstuffs and formulating rations based on the analysis.<sup>(3)</sup> This method allows for program feeding to a target, not over or under feeding causing inefficiency. You need to price feed stuffs for what you are buying. For example if you are buying protein, price several available sources for protein \$/ton so you can determine the best deal. Think about alternative sources of feed: Corn by-products, potatoes, etc. when pricing ration components.

4) Pasture Improvements – Taking care of pastures is key to long-term success of any grazing enterprise. Tools such as rotational grazing can increase forage utilization and increase pasture quality. Having a drought plan and not over grazing can prevent long term damage to pastures. Land EKG, a consulting company, can help access pasture quality and make decisions on stocking rates and time on pastures. They provide grazing plans to help improve pastures and grass production.

3) Graze Crop Residues – Allowing a cow to forage for feed is generally the most cost effective way to maintain

her. Turning out on corn stalks, alfalfa, soybean residues, volunteer wheat, rye pasture, turnips, Grazex, can all be important sources of forages. Corn stalks should be utilized as soon as available due to feed value decreasing with time. Try to save corn stalks or other crop residues that lend themselves to be calving pastures for the calving season. This will allow continued grazing of forages into calving season. Soybean residues may best be utilized during colder weather due to the fat content present.

2) Cow Size – Moderate framed cows eat less than big framed cows. Looking at numbers such as % of dam weight weaned is a good tool for assessing cow efficiency. The beef industry is way behind the other food industries in looking at feed efficiency numbers. This is a big mistake. We need to keep our eye on the bottom line. The beef industry needs to look at feed efficiency numbers when selecting bulls and heifers. Cross breeding programs are available to create the desired carcass size for the packer from a more moderate sized cow.

1) Have a Plan – Looking at all of the points above and available scientific information one must formulate a plan that matches your environment and management style. Goals are the road map that get you where you want to be. Hope is not a plan; it is the absence of a plan. Hopefully we all have a plan to reduce our nutrition cost and make our businesses more profitable.

Dr. Rod Auffet, Twin Forks Veterinary Clinic.

### References:

1. Dunn B. Factors Affecting Profitability of the Cow-Calf Enterprise. The AABP Proceeding-Vol. 35 September 2002.
2. Hilton M. OSU Fall Conference Proceeding 2007
3. Anderson B, Rice D, Kubik D, Rasby R. Forage Analysis for Dietary Diagnosis and Management. Agri-Practice 1991;12(3):29-35.

## Plan and Act Now to Fight Calf Scours

Scours is a major cause of death in newborn calves. Even sick calves that survive end up costing producers time and money via lost production and lower weaning weights.

Jon Seeger, DVM, Pfizer Animal Health Beef Veterinary Operations, says calf scours is the result of many infectious agents—bacterial, viral, and even protozoal—ganging up on calves at their most vulnerable time.

“Being a newborn is tough enough. But if the calf is born to an undernourished or unvaccinated dam, doesn’t get good quality colostrum as soon after birth as possible, or is stressed by a wet and muddy environment teeming with infectious organisms at birth, it doesn’t have a fighting chance. And calves chilled at birth have even less colostrum absorption,” Seeger says.

He says a combination of good nutrition, effective vaccination and environmental hygiene with good calving and colostrum management can provide cost effective protection. Here are some pointers:

- Be sure to feed pregnant females enough energy and protein in their last trimester to provide for optimum development of the calf’s immune system and quality colostrum production.

- Effective vaccination before calving helps provide newborn calves with antibody-rich colostrum for scours protection.
- Environment/hygiene. The goal is to calve in clean, dry areas. Calve first-calf heifers in clean fields away from the main adult cowherd, as calves born to heifers are more susceptible to scours.

Keep the calving season as short as possible, and try to calve in a dry area, and the healthy cow-calf pairs out to pasture quickly. Avoid feeding hay in high population areas to minimize calves’ exposure to high pathogen concentrations.

In addition, practice strict sanitation when working with sick calves. Treat sick calves last, using disposable gloves, and disinfect all equipment. Wash your clothes before working healthy calves and be sure to isolate sick calves and cows.

- A calf needs high-quality colostrum to receive the antibodies it needs to build its immunity and disease fighting ability. The sooner and the more colostrum ingested, the higher the survival rate of the calf in the early weeks of life.

## 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](http://www.twinforksclinic.com/links.php). Just right click on “NCBA Redbook” and download the spreadsheet to your computer.