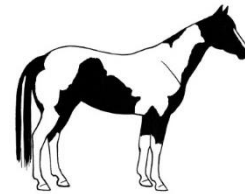
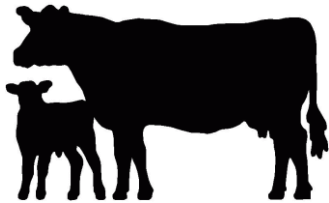




# WRVC NEWSLETTER

## SPRING 2017

# OPEN HOUSE!!!



Tours

Food

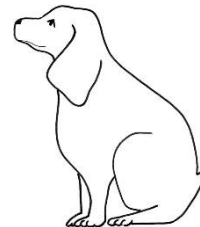
Giveaways

Fun

FRIDAY, APRIL 21<sup>ST</sup>

8AM-5PM

LUNCH WILL BE SERVED



## Celebrating 1 Year in Our New Facility!

# HUGE

# ANNIVERSARY SALE!!!

## 10% Off EVERYTHING

## Storewide April 21<sup>st</sup> only

\*Some exclusions do apply

203 Hwy 12 E  
Hettinger, ND 57639  
Phone: (701) 567-4333  
<http://westrivervet.com/>  
Check us out on  
Facebook!

Dr. Ethan Andress,  
Dr. Lisa Henderson,  
Dr. Jenna Innes,  
Dr. Bleaux Johnson,  
Dr. Don Safratowich,  
Dr. Lindy West

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# Understanding Fertility Exams of Bulls

Ethan Andress, DVM

One of the more confusing aspects of owning a bull is what it means for a bull to have a fertility exam. A fertility exam involves examining the bull for obvious physical and structural defects that may impede a bull's ability to breed, as well as an examination of the semen to make sure it meets certain standards.

To pass the exam, the bull should be structurally sound to adequately breed and travel a pasture. He should have adequate condition to survive a breeding season. He should have no structural abnormalities to the penis or testicles, and semen should have motility and morphology within normal limits. A fertility exam does not measure a bull's libido or sex drive. The evaluation measures semen quality as of the day of the test, but cannot identify what the semen will be like in the future.

Most of the exam is pretty obvious. If a bull can't walk, he can't breed. If a bull is in poor condition, he will likely not compete. If he has one testicle, a crooked penis, a wart or other structural defect he should not pass a fertility exam.

Here comes the confusing part. Ranchers want to test bulls as early as possible to know which ones to replace. Veterinarians want to test the bulls the day of turnout. Why do we want to do it so late?

First, stress wreaks havoc on sperm quality. Cold weather can not only damage scrotums, it also causes tremendous stress that can cause animals to test poorly. Many animals fail in February and March simply from environmental stress.

Second, nutrition has a huge impact on fertility. Bulls are usually fed last, with the lowest quality feed. Ranchers tend to focus their attention on the young and fertile, and allow the bulls to fend for themselves or live on the feed that they would not feed to bred cows. Crucial nutrients, especially vitamins and minerals, are often deficient in these feeds. Silage also tends to decrease semen quality. Veterinarians will consistently tell you that bulls on green grass produce the best semen.

Third, exposure to females improves sperm quality. To stimulate young males, nothing drives semen quality faster than being across the fence from a cycling female. In most operations, this leads to disaster with bulls crossing fences. As a result, we frequently isolate the males in a location where they can't cause any trouble. The tradeoff is bulls that are not being stimulated.

Fourth, there is a natural seasonality to many species. If you watch bulls in the spring, their necks thicken, their muscles bulge and they become more active and aggressive as they feel the testosterone surge in their system. It is nature's way of driving the calf crop to be born at a perfect time to match the environment. Cattle can breed out of season with success, but there is certainly an influence from nature to fertility. Fall programs can be effective, but they seldom match the fertility of spring programs.

Finally, bulls are expected to reach puberty by 14 months of age. Testing bulls at 10 and 12 months of age is an exercise in futility. At 12 months age, many of the bulls have reached puberty, but as many as 70% have not. At 10 months of age, we would expect many of the bulls to be pre-pubertal. At 14 months of age, a bull should be producing normal semen. The question must be asked. How do all these bulls pass at this age for a bull sale when tested in February? Technically, they don't. They pass as normal for their age. Everything appears to be developing normally and there is no reason to believe that if development goes as planned, they will be normal functioning adults. Our advice would be take any tests done in the first quarter of the year to be used as an indication that you are purchasing a potential breeder that should be retested prior to use to assure that development occurred as expected.



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In the process of moving to the new clinic, it was difficult for us to grasp the great changes that had occurred in the practice, and the history we were leaving behind. We thought it would be nice to do something special to remember the “legacy” of those that came before us, and to leave something special for those that follow us. At that moment, we started working on creating the West River Veterinary Clinic Legacy Foundation to commemorate the past and future of our community.

The purpose of the foundation will be to offer educational opportunities to students attending college through scholarships to school, and grants to students for educational opportunities to our clinic. Through the foundation, the clinic can apply for grants for equipment and educational opportunities specifically designed for rural economic development.



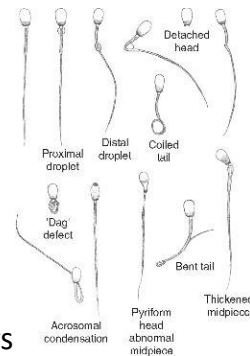
We are excited to announce, the foundation will be offering the first scholarship this spring for \$250. The details of the scholarship are being worked out and the application will be sent to the schools soon. If you have a student that would like to apply, please contact us and we will send an application when it is completed. The recipient will be selected on a specific criteria

related to our agricultural community, veterinary medicine and animal health. The scholarship will not be limited to veterinary medicine, but more to an agricultural community base as a whole.

In addition, the foundation has been approved as a 501c3 for tax purposes which allows all donations to be tax deductible. We have a 7 person board made up of local community members and a local student. We will be unveiling fundraising plans soon. Donations can be made directly to the foundation and mailed to the clinic address. Recognition for major donations will be honored in our community room.

## Understanding Fertility Exams of Bulls, cont.

Early semen testing can be helpful in eliminating those bulls with anatomical and structural problems, but is not a reliable indicator of semen quality in May and June. We would not recommend selling a bull for failing a semen test in March, unless there was some circumstance that indicated the result would not change later. By May, hormones surge, nutrition improves, stress is reduced and horrible semen will suddenly look nothing like it did before. Semen development takes 60 days from start to finish. The semen we see is a reflection of the life of that semen for that time.



To prepare your bulls for a semen evaluation and their breeding season, ensure adequate nutrition. An overly fat bull is equally bad to an overly thin bull. Provide vitamin and mineral supplements as needed to offset deficiencies. Limit silage consumption, especially at the time of turnout. Nothing beats green grass. Provide fence line contact with females. If in with females, remove from the cows at last 24 hours prior to the test. Bulls in with cows, can be extremely difficult to pull a semen sample from.

In using bulls, a fertility exam is a shot in time and does not measure a bull’s desire, or problems that may have developed from the day of test. If a new bull comes guaranteed, and has already been tested, check the date of the test. Things may have changed, or he may have passed as normal for his age or normal for the season. Fertility exams are not perfect, but they can help reduce the incidence of open cows or long calving seasons.

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# Pregnancy Toxemia – A different kind of parasite

Jenna Innes, DVM

Pregnancy toxemia is the most commonly occurring metabolic disease of sheep and goats and often goes by the term twin lamb disease or pregnancy ketosis. It is a life threatening condition that affects ewes during late gestation and does after kidding, generally affecting those carrying multiple feti. Pregnancy toxemia is characterized by anorexia and depression, which progresses to neurologic signs and recumbency; and in 80 percent of cases results in death within two to ten days. While the disease can be drastic and treatment often difficult, there are ways to help prevent this different kind of parasitic condition.

Before we can talk about prevention, we must first understand how things can go so wrong when lambs and kids act as parasites. The disease exists when the nutrient requirements of the growing lambs/kids in the uterus exceeds the nutrient intake of the ewe/doe. As the lamb/kid(s) grow, the ewe/doe begins to run out of space in her abdomen and she physically cannot eat enough to compensate for the growing feti. When the female cannot consume enough nutrients, she will sacrifice herself by metabolizing fat stores to fulfill




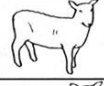

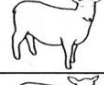
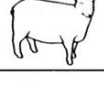
her maintenance requirements. Instead of the normal energy source, glucose, the fat is utilized in the form of ketones. This is similar to how the Atkins diet works. The problem occurs when ketone levels become too high, this causes depression and reluctance to eat. This results in even higher ketones, more depression and a self-potentiating downhill spiral

Early diagnosis and intervention are key to prevent this snowball effect. In ewes, most cases develop 1 – 3 weeks before lambing. Decreased aggressiveness at feeding, particularly with grain consumption, is a red flag. As the disease progresses, animals will spend more time lying around, there may be muscle twitching and/or teeth grinding noted. Since the absent glucose is essential for proper brain function, neurologic signs are often witnessed such as an unsteady walk, blindness, convulsions and coma.

Ewes or does in early stages of the disease can often be treated successfully, however treatment of advanced cases is generally unrewarding but should prompt the producer to focus on the rest of the flock. Early stages include those that are still ambulatory, have a decreased but not absent appetite and few neurologic signs. Treatment includes oral propylene glycol as an immediate energy source, along with electrolytes for dehydration, and pain management. In more advanced cases, it may also be necessary to induce lambing/kidding or schedule an emergency c-section to get the “parasites” out.

The most important question for producers is how do we prevent getting to the treatment stage? Females with a poor body condition, those that are overconditioned or those carrying more than one fetus are the most at risk for developing pregnancy toxemia. Ewes or does should not enter the last 4-6 weeks of pregnancy either too thin or too fat, these animals should be grouped during preg checking or midgestation and then fed appropriately. Increasing nutrient density in the third trimester is most easily accomplished by feeding grains, especially corn, and switching to higher quality hay. Proper feed management and ration formulation are the most important preventative measures a producer can take and the key to avoiding this different type of parasite disease



Score		Description	
1		Spine sharp, back muscle shallow,	Lean
2		Spine sharp, back muscle full, no fat	
3		Spine can be felt, back muscle full, some fat cover	Good Condition
4		Spine barely felt, muscle very full, thick fat cover	Fat
5		Spine impossible to feel, very thick fat cover, fat deposits over tail and rump	

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# Calving Time Preparation

Bleaux Johnson, DVM

Calving season is once again upon us, and for others it is quickly approaching. It is time to make sure we are prepared for the upcoming season. With the abundant amount of snow already this year it has been difficult for many to find clean and dry feeding/calving areas, that are not already filled up with snow. When we start consolidating cattle in confinement situations during calving, our disease risk goes up exponentially. To help reduce the risk, it would be recommended to incorporate adequate nutrition with scour disease prevention vaccines.



Many of these products need to be given at least one month prior to calving. This timing can be crucial as the cow will start allocating antibodies for colostrum production as early as 2 months prior to calving. We also see our worst scours incidence occur later in the calving season. This is often a direct result of overexposure from environmental buildup of bacteria, viruses and protozoa. We recommend rotating cattle out of the calving environment as often as possible to reduce this build up.

If this is the first year giving scour prevention vaccinations to heifers or cows, it is recommended to booster these shots. After the first year it is only recommended for an annual booster for the cows according to label directions. We carry a full line of scour prevention vaccines that include Scour Bos, ScourGuard 4KC, and Guardian. We can also use products like Calf Guard or Endovac to newborn calves if they are in need of further protection. Lastly, many clients continue to use 7-way or Clostridium C/D vaccines at birth to prevent overeating disease. This has been a very effective way of controlling overeating in herds.



Be sure to have available proper colostrum supplementation. The calf's gut is only able to absorb the antibodies from colostrum within the first 24 hours of life, but will benefit the most receiving adequate colostrum if they receive it within the first 6 hours of life. We recommend using at least a 100g Immunoglobulin powdered replacer when a calf will not get any colostrum from the dam. The supplements usually are around 50g per bag and can be used in conjunction with the cow's colostrum to help provide adequate or additional supplementation to a calf. Finally, there are other products such as Nursemate or Immu-PRIME that can be used to aid in the uptake of colostrum. These are not supplements or replacers and should not be used in the substitute of receiving adequate colostrum.

If you have any questions regarding the upcoming calving season, or if you would like to discuss your current vaccine protocol be sure to give us a call at 701-567-4333.



## Chutes for SALE

We have a new or used foremost chute and a new or used Silencer chute for sale. We also have a wide variety of head catches, calf tables and calf panels. Contact Victoria at the WRVC for further information.

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# The Expectant Mare

Lindy West, DVM

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Pregnancy is often thought of as a delicate and fragile condition, but when it comes to horses, this perception is perhaps due to the mare's relatively poor reproductive performance in comparison to other domestic animals. Proper nutrition, deworming, exercise, dental care, and vaccinations will help enable a mare to have the best opportunity for a healthy pregnancy.

The earliest days of an embryo's existence are the most precarious. During the first 30 days, there is a 10-15 percent chance that the embryo will be resorbed by the dam (mother). Different factors influence this early embryonic loss, including: stress, illness, uterine infection, hormonal abnormalities (including low progesterone), presence of twins, and other undetermined causes.

During the first 2-3 weeks post-breeding, the first ultrasound may be performed. This early ultrasound examination may reveal the presence of problematic twins. One may also "tease" the mare during this time to determine if she has come back into estrus (heat). The heartbeat can be confirmed by ultrasound approximately 25-35 days post-breeding. Due to the embryo's uncertain beginning, it may be recommended to reconfirm pregnancy by rectal ultrasound between 60-90 days post-breeding.

The mare should go into the breeding season fit and possibly even gaining weight. Severely underweight mares will have more trouble conceiving than those of the appropriate weight. Avoid stressing her as much as possible since stress can cause a drop in progesterone (a hormone that helps maintain pregnancy). Illness and/or fever can cause the mare's system to produce prostaglandins (a hormone that can cause abortion). Transport her only if necessary. Use caution when exposing her to other horses, and avoid any undue risk of injury or disease transmission by isolating broodmares from traveling horse populations. For the normal broodmare, treat her as you would a non-pregnant mare during the first seven months. She will benefit from moderate riding or exercise.

Provide nutritious forage while avoiding overfeeding. Supplements are not always necessary in mares being fed a balanced diet. The broodmare diet should be composed primarily of high quality forage in the same manner as pre-pregnancy amounts. Keep in mind that extremes in weather can alter her nutritional requirements and should be taken into account when determining rations.

Keep current on vaccinations and deworming, as infectious diseases can trigger abortion. Vaccination for EEE, WEE, Influenza, and Tetanus is recommended at the beginning of pregnancy. Boosters are recommended one month prior to foaling to increase colostral antibodies. An equine rhinopneumonitis vaccine should be given at 5, 7, and 9 months post-breeding. In the Dakotas, rabies vaccination should be given annually at any time. West Nile Virus vaccines should be given annually, preferably 4-6 weeks before foaling (\*\*Note: if previously unvaccinated, wait until after foaling to give this vaccine\*\*). Most dewormers today are safe for pregnant mares. It is especially important to deworm the mare within several weeks of foaling, since she will be the primary source for infecting her foal with parasites. DON'T give any supplemental hormones unless specifically prescribed by your veterinarian. Routine hoof and dental care are also important.

Within the last four months of pregnancy, the foal will grow rapidly. Nutritional energy needs will increase correspondingly. Good quality hay/ forage should still be the mainstay of the mare's diet. Concentrated feeds (example: Equis Generation) may be added to the ration to give energy without adding excess bulk. Remember not to let her become obese! Foaling is an "athletic activity," and she needs to be in good shape to perform. Exercise during this time should be light to moderate (i.e. a pastured mare will get as much exercise as she needs by just grazing). If confined, hand-walking is appropriate. Your 11-month waiting game will soon come to an end!

