



# Beef Tips

January 2008

Department of Animal Sciences & Industry

[www.asi.ksu.edu/beeftips](http://www.asi.ksu.edu/beeftips)

## Upcoming Events

See details on pages 3-4

### 4-State Beef Conference

January 9, 2008  
Washington, KS

### Calving Management Schools

Jan. 14-16, 2008  
St. Francis, Phillipsburg, Holton, and  
Concordia, KS

### Hay and Forage Conference

Jan. 16, 2008  
Manhattan, KS

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## Trichomoniasis Causes Early Embryonic Death, Abortions and Infertility in Beef Herds

Brad White, DVM, MS; Mike Sanderson, DVM, MS; Robert Larson, DVM, PhD, Pat Payne, DVM, PhD; College of Veterinary Medicine

*Trichomonas foetus*, a protozoan, causes early embryonic death, abortions, and infertility in beef herds. The disease has been of routine concern for a number of years in many western states. In the last few years, there have been more cases in Kansas and producers should be aware of the disease and the management implications.

Definitive diagnosis requires culture and identification of the organism from an animal in the herd. In infected herds, ranchers may not notice any indications of a problem until the time of pregnancy examination when an increased number of open cows are detected. If the breeding season is long (more than 90 days) the astute rancher may notice an increased number of cows cycling at the end of the breeding season. The number of cows that calve can be reduced by 20% to 40% and the average calving date will be later and the calving season will be spread out longer than in non-infected herds. Proper herd management techniques are necessary to limit losses due to the disease in future years.

Bulls colonized with *Trichomonas foetus* are the primary reservoir for infection in the herd, yet are typically asymptomatic. The infection is localized in the prepuce and penile crypts and there is no known treatment to clear infection. Bulls less than 3 years of age may clear the infection, while those 3 years of age and older are usually infected for life. All non-virgin bulls should be considered potential sources of infection for a herd. Although young bulls may not become permanent carriers, they can still spread the infection to susceptible females during the period that they are infected.

Culturing bulls (preputial samples) for the organism is an important component of control programs, but the test produces many false-

negative results. In order for a bull to be considered negative for trichomoniasis, he must have three samples taken at weekly intervals be culture-negative. All positive bulls should be sent to slaughter. Bulls that were not previously tested should also be tested 3 times. All bulls including new imports should be tested in cases where *Trichomonas* is suspected.

Infection in the cow occurs primarily by exposure to an infected bull at breeding. Initial infection of the female does not cause rapid conception failure, rather the pregnancy progresses to about 60-120 days with a peak loss at 70-90 days, at which time the embryo/fetus dies and is resorbed or aborted. The first sign of Trichomoniasis in a herd is that infected cows and heifers return to estrus one to three months after breeding. A period of infertility may last for another two to six months as a result of the infection. Cows that are infected with *Trichomonas foetus* typically clear the infection within a few months.

Immunity, however, is not permanent and the cow is subject to re-infection and abortion in subsequent breeding periods. Occasionally an open cow will fail to clear the infection or a pregnant cow will remain infected through pregnancy and be a source of infection for the herd at the next breeding season. Ideally open cows should be culled at the end of each breeding season. Infected cows will also occasionally have an abortion due to *Trichomonas*. All abortions should be examined to be sure they are not caused by *Trichomonas*. Cows that are open or abort due to *Trichomonas* should be culled prior to the breeding season.

*“All non-virgin bulls should be considered potential sources of infection for a herd.”*

## **Summary Recommendations for Positive *Tritrichomonas* Herds**

### *Bulls*

1. Send all *Tritrichomonas* test positive bulls to slaughter
2. Retest bulls (3 negative tests) for *Tritrichomonas* prior to each breeding season
3. Test all imported bulls regardless of age (3 negative tests to enter herd)
4. Keep the average bull age as young as possible. Some experts recommend removing bulls greater than 3 years of age – others suggest that aggressive annual testing of bulls plus removal of bulls greater than 5 years of age is adequate.
5. Maintain a controlled breeding season to allow assessment of reproductive performance.

### *Cows*

1. Cull all open cows
2. Remove bulls after no more than a four month breeding season. Examine the herd for pregnancy and cull all open heifers and cows.
3. Cull all cows that have a *Tritrichomonas* positive abortion
4. At pregnancy palpation watch for pyometras in cows, cull any cows with a pyometra.
5. Increase efforts to keep neighbor cows and bulls out, and inform neighbors of the situation.
6. Optional: Vaccinate cows 8 weeks and 4 weeks prior to breeding

Producers should be aware of Trichomoniasis and the implications the disease has for bull management. Your local veterinarian will be a good partner in developing a biosecurity plan for any bulls that you bring into the herd.

## **Nebraska Issues Import Order on Trichomoniasis for Beef and Dairy Animals**

LINCOLN - The Nebraska Department of Agriculture (NDA) has issued an import order (Dec. 26, 2007) to help protect the health of Nebraska's livestock as a result of Trichomoniasis infections in surrounding states. The order will take effect on Tuesday, January 1, 2008.

Trichomoniasis is a venereal disease of cattle that is known to cause infertility, open cows, and occasional abortions in cows and heifers. "The health of the livestock in our state is of upmost concern to the Nebraska Department of Agriculture," said NDA Director Greg Ibach. "Trichomoniasis is a disease of concern to Nebraska's beef and dairy producers; therefore, it is extremely important to have regulations in place to help safeguard our animals, as well as our livestock production industry."

The import order is in addition to the current Nebraska Animal Importation Act and includes important importation requirements for beef and dairy animals before being imported into Nebraska. Individuals that are planning to import cattle into the state should contact the NDA, Bureau of Animal Industry (BAI) at 800-572-2437 for more information. The complete import order can be found on the NDA website at [www.agr.ne.gov](http://www.agr.ne.gov), under Animal Health or at [http://www.agr.ne.gov/division/bai/trich\\_order\\_4.pdf](http://www.agr.ne.gov/division/bai/trich_order_4.pdf).

# Wind Breaks and Adequate Energy Reduce Risk of Cold Weather Abortions

Larry C. Hollis, D.V.M., M.Ag, extension beef veterinarian

As we get into colder winter weather, it is not unusual to experience an extreme cold or cold/wet weather event. One major problem that has been observed to sometimes follow closely on the start of an extreme cold event is an “outbreak” of abortions, usually occurring within 2-5 days after the extreme cold weather hits. Affected cows are usually in the last trimester of gestation, but cows in mid-gestation may sometimes be affected.

The tendency for this “outbreak” to occur appears to be related to (1) how drastically the temperature drops compared to the average temperature that the cows have been experiencing up to that point in time, (2) the body condition score of the cows, (3) the level of supplemental feeding prior to the cold event, and (4) the consistency and frequency of supply of supplemental feed during the cold event.

An extreme cold weather-related abortion “outbreak” will typically go away as fast as it came, with abortions being observed only over a 2 to 3 day period.

However, if an abortion “outbreak” occurs, it is always wise to have an aborted calf and placenta checked by your veterinarian to make sure that there is not an infectious cause for the problem.

Establishing cows in body condition scores (BCS) of 5-6 prior to the onset of consistently cold weather, maintaining that BCS throughout the winter and calving season, providing wind breaks or other forms of shelter, and feeding increased levels of energy feedstuffs immediately prior to and daily during the extreme cold period are management strategies that will help reduce the tendency for cold-induced abortion “outbreaks” to occur.

Body condition is critical. Body fat stores help insulate the animal as well as provide an energy reserve that can be drawn upon during extremely cold weather. Well-haired cattle will fluff up to keep warm during winter months, appearing to have a better BCS than they really do! Don’t mistake hair for body condition!

## Hay and Grazing Conference Set for Jan. 16 in Manhattan

The 2008 Kansas Hay and Grazing Conference is scheduled for Jan.16 in Manhattan at the Kansas Farm Bureau building. “This conference is for anyone interested in livestock grazing, hay production and utilization, and buying and selling of Kansas grass and hay products,” said Gary Kilgore, one of the conference coordinators. The event’s keynote speaker, R.L. Dalrymple, a longtime forage management agronomist with the Noble Foundation in Ardmore, Okla., will discuss crabgrass as a forage and livestock grazing management tool. Dalrymple developed Red River and Quick-N-Big crabgrass varieties and was the principle researcher in developing crabgrass production systems. He produces those varieties in his family seed business that markets in 25 states.

Other topics to be covered will include Financial and Transitional Planning; Hay Hauling and Trucking Regulations; Weed and Brush Control; Improved Alfalfa Traits; Annual Forages; Grazing Steers in the Flint Hills; and Using Distiller’s By-Products on Grass. Additional presentations will include Marketing Organic Hay; Forage Trends in Feedlot Rations; Efficiency in Feeding Hay; Liability in the Hay Business; Using Inoculates and Preservatives. K-State Research and Extension and the Kansas Forage and Grassland Council are cosponsors of the event.

The conference begins with registration from 8:30 to 9:30 a.m. at the Kansas Farm Bureau building on the northwest side of Manhattan just off Seth Child Rd., at 2627 KFB Plaza. The registration fee is \$40 if paid by Jan. 11. It covers a 2008 membership in the Kansas Forage and Grassland Council, conference lunch and breaks, conference proceedings and a 2008 KFGC discount coupon book. Registrations received after Jan. 11 and at the door are \$60 per person. Registration and other information is available by contacting Gary Kilgore 620-431-1530 or Karen Walters at [kwalters@oznet.ksu.edu](mailto:kwalters@oznet.ksu.edu).

## **K-State to Conduct Calving Schools In Several Kansas Locations**

COLBY, Kan. – Cattle producers know the investment of time, money and physical work that goes into achieving a high percent calf crop, and to help them hone their skills, K-State Research and Extension will host several calving schools just ahead of the calving season. “Timely, correct obstetrical assistance has been estimated to reduce calf death losses by over 50 percent,” said K-State Research and Extension northwest area livestock specialist Sandy Johnson.

At each calving school, featured speaker Bob Mortimer, who is a veterinarian with Colorado State University, will demonstrate proper ways to assist with various calving difficulties, said Johnson, who coordinated the sessions. Mortimer has trained veterinary students in obstetrics in the process of calving 3,000 to 4,000 heifers per year for 25 years. Also on the program will be Pfizer Animal Health veterinarian Dale Grotelueschen, who will speak about management methods to improve calf health.

There is no cost to attend, but reservations to the hosting county office are requested by Jan. 11 to ensure enough workshop materials and food for meals. Times and locations of the calving schools include:

- Jan. 14 – 5:30 p.m. - 4-H Building, St. Francis - 785-332-3171.
- Jan. 15 – 9:30 a.m. - Phillips County Fairgrounds, Phillipsburg - 785-543-6845.
- Jan. 15 – 5:30 p.m. - Jackson Co Fair Building, Holton - 785-364-4125.
- Jan. 16 – 10 a.m. - Community Education Conference Center, Cloud County Community College, Concordia - 785-243-8185.

Those interested in attending should register by calling the telephone number at the location at which they plan to attend.

## **4-State Beef Conference**

Area cattlemen should mark the dates of January 9th and 10th on their calendars and make plans to attend the 24rd Annual 4-State Beef Conference. Speakers and their topics for the 2007 conference are as follows: Drs. Galen Erickson and Rick Rasby, University of Nebraska presenting information of nutrient quality, feeding and storage of distillers grains, Dr. Bruce Anderson, University of Nebraska presenting information about pasture renovation and interseeding, and a livestock producer from Dublin, Virginia, Tim Stuphin, presenting tools that he thinks impacts profitability.

The conference is scheduled for Wednesday, January 9th and Thursday, January 10th, 2008. The Wednesday morning session will begin at 10:00 a.m. in Tecumseh, NE at the Community Building and the afternoon session will begin at 4:00 p.m. in Washington, KS at the First National Bank. The Thursday morning session will also begin at 10:00 a.m. in Bethany, MO at the Community Center and the afternoon session will start at 4:00 p.m. in Lewis, Iowa at the ISU Armstrong Research Farm.

The registration fee is \$25.00 per person and reservations are requested by January 4th, 2008. The fee includes a beef meal and a copy of the conference proceedings. To keep registration fees affordable in the future, please help us by calling in your reservations. For more information, contact your local county extension office.

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