



Beef Tips

July 2009

Department of Animal Sciences & Industry

www.asi.ksu.edu/beeftips

Upcoming Events

K-State Beef Conference

Aug. 13, 2009
Manhattan, KS
www.KSUBeef.com
785-532-1281

KSU/KLA Field Days

August 2009
Locations to be announced

Beef Stocker Conference

Sept. 24, 2009
Manhattan, KS
www.beefstockerusa.org

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Summer Pneumonia in Calves

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

One of the most frustrating things that can happen to a cow/calf producer is to have a set of healthy growing calves start developing pneumonia during mid-summer while the calves are still nursing the cow. With some operations, this is an annual event, while with others it only happens sporadically. Summer time pneumonia generally happens when the passive immunity (antibodies) from the dam's colostrum naturally diminishes, and the calf's own immune system has not had any exposure to the viruses or bacteria that usually cause this pneumonia that would result in production of active immunity.

We know that the primary bacterial species involved, *Mannheimia haemolytica* and/or *Pasteurella multocida*, are passed from the nasal cavity of the cow to the nasal cavity of the calf at a very early age. However, these bacteria rarely cause disease merely by being present – there usually has to be some sort of stressor that triggers the onset of pneumonia. Stressors such as a sudden cold rain, hail storm, extreme heat, dust, aggravation from massive fly populations, dry pasture conditions that suddenly cause their dams to drop in milk production, etc., can be all it takes for pneumonia to be initiated. Also, viruses such as IBR, BVD and BRSV, that are carried by some cows in the herd and shed intermittently (IBR, BRSV) or continually (persistently infected BVD carriers), can establish an infection once colostrum antibodies wane in the calf. The presence of internal parasites can also weaken the calf's immune system, making it more susceptible to these pneumonia-causing organisms.

Where there is a history of summer pneumonia, vaccinating the calves with a 5-way respiratory viral vaccine (IBR, BVD types 1

and 2, PI₃, and BRSV) along with a *Mannheimia haemolytica* bacterin/toxoid may be warranted. If the cow herd has been previously vaccinated with a modified live virus (MLV) form of viral vaccine, then it is usually advantageous to use a MLV version on the calves as well. If the cow herd has not been previously vaccinated with a MLV form, then 2 injections of a killed form of these viruses 3 weeks apart is in order. To have a chance for any of these viral vaccines or bacterin/toxoids to be effective, the final dose should be administered 2-3 weeks prior to the historical time of the summer when the pneumonia outbreaks have been known to occur.

If summer pneumonia is experienced for the first time, or prevention efforts fail, early detection is critical to treatment success. There are many antibacterials that can be used to effectively treat the bacterial portion of the disease if treatment is initiated early enough. However, if sick calves are detected too late in the course of the disease, damage to the lungs may be so extensive that the calf becomes chronically affected or dies. With the heat of summer, undetected pneumonia will usually progress much faster than pneumonia cases that arise during the cooler months.

Normally, most cow/calf producers expect everything to be on "cruise control" for the summer. The tendency may be to get a little lackadaisical. However, pneumonia in suckling calves is one disease problem that requires vigilance to keep from experiencing devastating losses during the summer months.

“You can’t manage what you don’t measure.”

Tally Time

Sandy Johnson, livestock specialist

Results from the [NAHMS BEEF 2007-08](#) survey of cow-calf management practices indicate that 54.5% of operations accounting for 34.1% of cows have no defined breeding season. Use of a single breeding season was indicated by 34% of operations or 48.4% of cows. Of those that used one breeding season, 60.8% of operations and 61.8% of cows had a breeding season of 105 days or less. Roughly a quarter (26.2% of operations and 22.8% of cows) used a breeding season of 64 days or less. An analysis of Texas, Oklahoma and New Mexico SPA data showed that for each day the breeding season was extended, the annual cost to produce a hundred pounds of weaned calf was increased by 5 cents and the pounds of calf weaned per cow per year decreased by about .2 pounds.

A shorter 45 day breeding season can be used with an estrous synchronization program and still maintain the pregnancy rate of a 60 day season. The advantage of estrous synchronization on calf weaning weight is often confounded with genetic differences in AI verses natural service sires. A recent [summary of data](#) from the University of Nebraska compared data from 60 day non-synchronized (6 years, 2075 records) and 45 day synchronized (2 years, 521 records) breeding seasons both using natural service sires. Compared to the 60 day season, 12% more calves were born in the first 21 days of the calving season and the average weaning weight was 20 lbs greater for the 45

day synchronized breeding season. The synchronization system used was a single injection of prostaglandin F_{2α} (around \$2 per dose) given 108 hours after bull turn out. Recommendations for this synchronization system include a cow to bull ratio of 25 to 1 or less and use of mature bulls that have passed a breeding soundness exam.

Past years of harsh winter conditions and dry summer conditions may have resulted in longer and/or more spread out calving seasons. While grass growth was slower earlier in the spring due to cooler conditions in some parts of the state, current moisture conditions should allow for much improved forage response which should in turn help cow rebreeding performance. Good pasture conditions should make this a better than average year to consider shortening the breeding period if your calving distribution records or other information so indicate. In most cases shortening an extended breeding season should be done gradually, a week to two weeks per year.

If individual calving dates are not recorded, information on number of calves born per week or month can still be used to examine the current situation. If pregnancy diagnosis is used to estimate expected calving distribution, remember the accuracy of estimating stage of pregnancy drops considerably after 120 days of pregnancy.



Tally Time Reminder

Timely numbers to record

- Number of cows and heifers exposed to bulls
- Date bulls in and out
- Body condition of cows at bull turn out
- Pasture usage and precipitation



Conference highlights on distillers grains use and storage

Sandy Johnson, livestock specialist

The Ethanol Co-Product Storage and Utilization in Grazing Systems Conference was held June 2nd and 3rd, 2009 at the University of Nebraska Ag Research and Development Center near Mead, NE. Compared to the storage emphasis of the meeting last year, this year's meeting focused more on utilization in forage based systems. The following represent some highlights from my notes. Material from last year's conference can be found on line at <http://bioenergy.unl.edu/seminar08.shtml> and material from this year is expected to be added.

Feeding WDGS on the ground vs. bunks –

Aaron Stalker, UNL

Dry, pregnant cows were supplemented on winter range the equivalent of 1 lb of dry matter of wet distillers grains (3 – 3.5 lbs as fed) from Dec. 1 to Mar. 1. During that time period, cows fed in bunks lost 20 lbs compared to a loss of 64 lbs for cows fed on the ground. Cows fed in bunks increased body condition by 0.4 compared to no change for cows fed on the ground. Average daily gain of calves fed either on the ground or in bunks was greater by 0.2 lbs per day for bunk fed calves. Loss from feeding on the ground was estimated at 13% of wet distillers grains offered.

Benefit of storing WDGS with low quality forage –

Terry Klopfenstein, UNL

Performance of steers fed a mixture of wet distillers grains plus solubles (WDGS) and straw or WDGS and cornstalks was improved when the mixture was stored for a period of time in a large bag compared to when the feedstuffs were mixed at the time of feeding. Average daily gain was lower and pounds of feed to pounds of gain (F:G) was greater for steers fed the fresh mixture compared to the stored mixture. This implies some benefit of the storage time with WDGS on fiber digestibility of low quality forages.

Impacts of distillers grains feeding on meat characteristics –

Chris Calkins, UNL

- Feeding WDGS in finishing diets increases the polyunsaturated fatty acids in the meat and susceptibility to oxidation during retail display.
- Vitamin E helps to minimize problems with oxidation, discoloration and off-flavors when feeding WDGS.

- With minimal aging (7 days), little to no Vitamin E is needed, with extended aging, up to 1,000 IU per head per day is needed. Type of packaging also influences the amount of Vitamin E needed.

General comments about storage –

It's hard to mess up storage; about anything people have tried has worked. If it takes two to three weeks to accumulate the desired amount of WDG to be mixed with low quality forage to make a pile, that seems to work OK. Feeding WDG that was essentially untouched since unloading months earlier and remained uncovered has worked.

Comments made at the meeting indicated most usually just mix in any discolored/spoiled feed with the rest. A survey of beef producers in Iowa indicated that 64% combined the spoiled and unspoiled feed and 28% discard spoiled feed. In contrast, feed specialists and veterinarians in Iowa indicated that 23% of clients combined and fed spoiled and unspoiled feed and 65% separated and discarded spoiled product. There is interest in trying to develop some sound guidelines for use of spoiled product but for now it's left to the user's best judgment. Life of the co-product is longest and losses reduced when covered or in a silage bag and on a concrete surface.

In past years the price of distillers grains has decreased in the summer months as cattle on feed numbers have declined. That pattern was somewhat different last year and decline did not occur until much later in the year. It is unclear how the current economic conditions will impact the pattern. To follow distillers grains prices see Dr. Darrell Mark's webpage for a good list of sources http://agecon.unl.edu/mark/ethanol_markets.html (weekly reports) and http://agecon.unl.edu/mark/ethanol_byproducts.html (longer term summaries).

Other information about use of distillers grains ([November 2006](#), [September 2007](#)) and storage of distillers grains ([May 2007](#), [July 2008](#)) can be found in previous issues of Beef Tips.

“This implies some benefit of the storage time with WDGS on fiber digestibility of the low quality forages.”

“Making Money in Hard Times, conference theme”

K-State Beef Conference Set for Aug. 13 in Manhattan

MANHATTAN, Kan. - "Making Money in Hard Times" is the theme for this year's K-State Beef Conference, planned for Thursday, Aug. 13, at the Frick Auditorium in Kansas State University's College of Veterinary Medicine.

"The conference is especially geared for cow-calf producers and designed to provide take-home knowledge that will enhance their ability to improve profitability," said K-State Research and Extension veterinarian Larry Hollis.

Beef producer and BEEF magazine contributing editor Troy Marshall will be the featured speaker. His presentations, "Issues Facing the Beef Industry" and "Opportunities Facing the Cow-Calf Producer," will open and close the conference. Marshall has been a market analyst for Cattle-Fax, director of commercial marketing for two breed associations, editor of The Seedstock Digest and recipient of the 2003 Beef Improvement Federation Ambassador Award.

The conference will begin with registration at 8 a.m., and the program will start at 9 a.m.

The registration cost is \$60, due by July 31. The fee includes morning and afternoon refreshments, a noon meal, and conference materials. More information and registration forms are available on the

Web at <http://www.asi.ksu.edu/beefconference> or by contacting Linda Siebold at 785-532-1281 or lsiebold@ksu.edu.

Other conference presentation topics and presenters will include:

- Replacements: Raise them or buy them? - Sandy Johnson, K-State animal scientist.
- Animal welfare: It's your business! - Dan Thomson, K-State Beef Cattle Institute.
- Management strategies affecting calf marketability - Karl Harborth, K-State animal scientist; Lee Schulz, K-State agricultural economist; and Kevin Dhuyvetter, K-State agricultural economist.
- Options to extend the grazing season: Cool season annuals - Stacy Gunther, University of Arkansas animal scientist.
- Options to extend the grazing season: Crop residues - Rick Funston, University of Nebraska animal scientist.
- Mineral needs to complement ethanol by-product feeding - Justin Waggoner, K-State animal scientist.

Watch for summer price bargains

Historically, winter protein needs could often be purchased more economically during the off season. With all the focus on the ethanol industry we might forget all the other by-products that are available. A good way to follow some of these prices is to visit a site updated weekly at the University of Missouri : <http://agebb.missouri.edu/dairy/byprod/bplist.asp>. Storage, storage loses, transportation costs and feeding costs should all factor into the purchase decision. Advance planning may help control feed costs.