LINWOOD
VETERINARY SERVICES

DR. MURRAY RUNSTEDLER DR. PAUL SOSTAR DR. ANDREW MACLEOD
DR. JOHN TOKARZ DR. KELLY HAELZLE DR. IAN BISHOP
Linwood Veterinary Services
3860 Manser Road, Linwood, ON N0B 2A0 (519) 698-2610
& Hwy 89 Veterinary Services, 7434 Hwy 89 Mount Forest, ON N0G 2L0
1-800-663-2941 Fax (519) 698-2081
linwoodvet@linwoodvet.ca

We will provide industry-leading, reliable, knowledgeable service, in a friendly, courteous and timely manner, to benefit our clients and the communities we serve.

Clinic Hours: Mon-Fri 7am – 5pm Sat 7am – 12pm **Hwy 89 Clinic: Mon-Sat 7am-1 pm**

Orders for Delivery: *call by 9:30am at the latest* for same day local delivery Monday to Friday

24 Hour Emergency Vet Service

OCTOBER 2012 NEWSLETTER

Clinic News

Holidays- Please note that there will be no delivery services available Monday **October 8**, observing Thanksgiving, and the Linwood clinic will be open till noon only, Hwy 89 till 1pm. Your veterinarians will be on call for any emergency needs.

Got nitrates?

The corn crop this summer was impacted by drought to various degrees. That means there will be a lot of drought-damaged corn being fed as silage. And with that comes the threat of increased nitrate levels, which can be dangerous, even deadly, for dairy cows or any other ruminants.

Here are some recommendations for preventing nitrate toxicity when feeding corn silage harvested from drought-damaged fields.

Proper fermentation

Harvesting strategies like raising the cutting height to avoid chopping the bottom of the stalk where nitrates accumulate can be utilized but this is hard to do since producers need to get as much off their fields as possible. This is however an effective way to reduce nitrate levels.

The silage fermentation process also reduces nitrate levels. Nitrate concentrations are often reduced during silage fermentation so that high nitrates in fresh corn plants may end up as acceptable concentrations in the fermented corn silage.

Estimates vary, but generally expect fermentation to reduce nitrate levels in drought-damaged corn silage by at least 25 percent or more. The use of inoculants that improve fermentation might even bump that up a little more.

A good rule-of-thumb is to let the silage ferment for at least three to four weeks post-ensiling before feeding it.

Test, test, test

Even if everything was done right during harvest and ensiling, still have the silage analyzed for nitrates, in addition to its nutrient composition, before feeding it.

When you do this, take a few more samples than you normally would because drought damage can increase nutrient variation between samples since field growing conditions would be variable.

Obviously, nutrient variation can be problematic during ration formulation, so when you get the results back, take the average and use that during diet formulation.

Generally, drought-damaged corn silage has a pretty good feeding value, unless it's extremely damaged and if energy is an issue then the ration may need to supplement with more corn grain or another starch source.

Follow feeding nitrate recommendation of your nutritionist since there are ways to incorporate these feeds into a ration safely.

Clinical Signs of Toxicity

The term “nitrate toxicity” is commonly used but the toxin is actually nitrite. Nitrate is converted to nitrite in the rumen. Nitrite is absorbed from the rumen and converts blood hemoglobin to methemoglobin. Methemoglobin cannot transport oxygen to body tissues, so animals die from oxygen insufficiency.

The first symptom to appear is a grayish to brownish discoloration of nonpigmented skin and mucous membranes of the mouth, nose, eyes and vulva. This discoloration results from the chocolate-brown color of the blood, a distinct characteristic of nitrate toxicity that persists several hours after death.

As the syndrome progresses, a staggering gait, rapid pulse, labored breathing and frequent urination develop, followed by collapse, coma and death.

Symptoms often occur rapidly, within one-half to four hours after ingestion of a toxic dose. Some animals exhibit symptoms but recover spontaneously and completely. Pregnant animals may abort a few days later.

If noticed early enough the treatment of nitrate poisoning is by using methylene blue at the rate of 100ml per 1,000 pounds live weight (intravenously).

How to avoid the high cost of BRD in Feedlots

Every year Bovine Respiratory Disease (BRD) results in major economic losses due to the health problems it causes and goes beyond just the cost of medications. There are greater losses due to mortality, weight loss, poor feed efficiency and productivity, increased feed and labour costs and lost opportunity.
You must have a complete lung health program to minimize feedlot respiratory issues and improve productivity by:

1. **Vaccination** with a Modified Live vaccine for bovine respiratory disease.
2. **Immediate antibiotic therapy** at the first signs of BRD which would follow an established treatment protocol not limited to just antibiotic use.
   - Nuflor or Resflor
   - A-180 or Baytril
   - Micotil
3. **On-arrival antibiotic therapy** on calves identified as high risk of developing BRD. This type of antibiotic use can profoundly reduce BRD mortality and illness. It is for this reason it has become common practice in feedlot cattle management.
   - LA Tetracyclines followed by Medicated Crumbles
   - Zactran
   - Draxxin
   - **Zuprevo**
     - **Merck Animal Health** has introduced the longest lasting on-arrival antibiotic on the market today**.**
     - This is a low dose, easy to administer, fast acting, long lasting, antibiotic that could be part of your BRD prevention program.
     - It is quickly absorbed from the injection site, resulting in high concentration in blood, and lung tissue to fight off the pathogens associated with BRD.
     - It’s long lasting effect means less pulls, and less worries for the first few weeks after arrival, and more money in your pocket.

Speak to your veterinarian for more information about BRD and the treatment options available including how any new products would fit into your operation. With the high cost of feed inputs this year you will want to prevent the possibility of animals becoming sick**.**

A long lasting BRD treatment “on- arrival” therapy can reduce the risk of this disease taking away your profitability.