

The Ontario Animal Health Network is a program focusing on early disease detection so as to identify trends in animal health issues. Information was obtained from a quarterly survey of practicing veterinarians and laboratory data from the Animal Health Laboratory. It is the intent of this program to improve the health of small ruminants in Ontario.



Ontario Animal Health Network (OAHN) Small Ruminant Network Quarterly Producer Report

August 2016

Report #9

Highlights

- **Q2 Surveillance Summary**
- **Dry Weather Conditions in Ontario**
 - Nitrate poisoning
 - Toxic plants
- **Looking for a Veterinarian?**

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@OntAnHealthNet

Email
oahn@uoguelph.ca

Q2 Surveillance Summary

Clinical Impressions Survey

In youngstock, practitioners surveyed indicated that the top clinical issues for the quarter dealt with **pneumonia, coccidiosis, and septicemia**. Lambs and kids were equally affected.

The main clinical findings for adult sheep and goats were **hemonchosis, caseous lymphadenitis, mastitis, and foot rot**.

Dry Weather Conditions in Ontario

Dry weather conditions are impacting much of Ontario this summer. Small ruminant practitioners have voiced concerns about the poor quality of pastures being grazed and the likelihood of reduced forage yields. Both are currently influencing on-farm management decisions, with the need to supplement and/or purchase additional feed(s) likely, in order to account for reduced feed quality and yields. The impact this will have on overall animal health and body conditioning over the fall and winter months is yet to be determined but should be closely monitored.



REMEMBER: Consult with your veterinarian, nutritionist and/or feed company to build a nutrition plan for the upcoming fall and winter. Feeds should be analyzed and rations balanced accordingly. In addition, it is important to start thinking ahead now if there is a need to purchase feed, in order to prevent health and welfare consequences. Consulting the right expertise now will help to maintain health, while keeping costs down.



OAHN Small Ruminant Network Team:

Southern ON
Dr. Rex Crawford

Northern ON
Dr. Connie Dancho

Eastern ON
Dr. John Hancock

OVC
Dr. Paula Menzies

AHL
Dr. Maria Spinato

OMAFRA
Dr. Jocelyn Jansen
Dr. Tim Pasma
Dr. Alexandra Reid

OAHN Coordinator
Dr. Melanie Barham

Potential for Nitrate Poisoning in Dry Weather

Thomas Ferguson, Forage & Grazier Specialist, OMAFRA

Chopping, green chopping, or grazing corn stressed by dry weather is an attractive option for producers facing feed shortages. While it can provide high quality feed, there are risks associated with nitrate poisoning that must be understood. Corn, sorghum and sudan grass are the most common cases of nitrate poisoning, but it can also be seen in cereals, and some weeds such as pigweeds and lamb's quarters. Nitrate poisoning occurs when there are high levels of soil nitrates and environmental conditions that cause them to accumulate in plants.



Nitrate poisoning is particularly high risk during the 5 - 7 days following a rain that ends a severe dry period and 5-7 days following a frost. Avoid grazing or green chopping during this period. Making silage from drought-stressed corn can greatly reduce the risk of nitrate poisoning as the levels of nitrates are reduced during fermentation, however the amount of nitrogen dioxide (silo gas) produced by high nitrate forage is higher.

PRODUCER TIP: Nitrate levels in feed can be tested for easily and inexpensively. Consult with your veterinarian and nutrition team. Pregnant animals are more susceptible to the effects of nitrate poisoning and should be carefully managed if feeding feeds with elevated nitrate levels.

WHAT DOES NITRATE TOXICITY LOOK LIKE?

Clinical signs include:

- rapid breathing
- fast and weak heartbeat
- difficulty breathing
- muscle tremors
- staggering
- death

If you suspect nitrate poisoning, keep the animals quiet and comfortable and call your veterinarian immediately. Less affected animals may be listless and show more subtle signs including poor appetite, reproductive problems (including abortion), and poor performance.

Toxic Plants

Dr. Margaret Stalker, Pathologist, AHL

Dry hot weather conditions this summer may increase the risk of plant toxicoses, as plant species which are usually not eaten become a potential food source when pasture is sparse due to drought or overgrazing, or when animal are released into a new weedy pasture when hungry.



Redroot Pigweed



Pigweeds (*Amaranthus spp.*) and lamb's quarters (*Chenopodium album*) are annual weeds common throughout North America. Both can accumulate toxic levels of nitrates when grown under drought stress and/or have been recently fertilized with nitrogen fertilizers or manure.

Signs of nitrate poisoning occur within 2-6 hours of eating, and include drooling, laboured breathing, incoordination, muscle tremors, vomiting, diarrhea, and death. Redroot pigweed (*Amaranthus retroflexus*) can also cause acute kidney damage in sheep, cattle, and pigs. Clinical signs include loss of energy, depression, fluid accumulation in the abdomen or on the underside of the belly, and muscle wasting.



Lamb's Quarters

Recognition of poisonous plants and the proper management of animals and pastures will help to minimize risk. **Avoid pasturing hungry animals or green feeding on drought-stunted crops or weedy pastures.**

For more information on poisonous plants to livestock:

<http://www.extension.umn.edu/agriculture/forages/utilization/plants-poisonous-to-livestock/>

<https://www.uvm.edu/pss/vtcrops/articles/VTPoisonousPlants.pdf>

Looking for a Small Ruminant Veterinarian?

Producers looking for a small ruminant veterinarian should visit the Small Ruminant Veterinarians of Ontario website (www.srvo.ca) and view a map of its current members; or speak with fellow producers to locate a veterinarian in their area.

