



Resources:

**Canadian Biodiversity Information
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cbif.gc.ca/pls/pp/poison

**For more information, please contact
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Sheep Laurel Poisoning in Livestock

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Designed for livestock owners,
farmers, and anyone involved in
animal care, this brochure provides
essential information on identifying
and managing Sheep Laurel
poisoning.

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Figure 1. Sheep Laurel

INTRODUCTION

The most common livestock poisoning seen in the province is from Sheep Laurel (*Kalmia augustifolia*). Sheep laurel is also known as lambkill because of its effect on young lambs. Throughout Newfoundland, the plant is called goowiddly, gold-withy or gould. These local terms are also used to describe Bog Laurel (*Kalmia polifolia*). This plant is also toxic, but because it is found in wet, boggy areas, it is less likely to be consumed by livestock.

DESCRIPTION

Sheep Laurel is much-branched, broad-leaved evergreen shrub with woody stems growing up to 3 feet. Leaves are usually opposite or in whorls of three, flat, narrow leathery, olive green and shiny above, pale green and dull beneath. Their flowers are pink, cup-like and clustered around the stalk, with new leaves extending beyond the flowers. Blooms are usually from late June to early August.

Sheep Laurel is found in a variety of habitats throughout Newfoundland and southern and central Labrador including bogs, swamps, heaths and forested areas.

POISONING BY SHEEP LAUREL

Sheep Laurel contains the glycoside poison, known as grayanotoxins. These chemicals interfere with the sodium channels in the membrane of cells. In nerve and muscle cells, these channels are responsible for the changing of activity of the cell. When the channels are interfered with, cells are stuck in an active stage. In the gastrointestinal tract, this results in salivation, diarrhea and vomiting. Affected animals may die or recover without treatment, depending on the dose ingested.

The toxicity of Sheep Laurel varies between species. Sheep are considered to be the most susceptible with poisoning occurring when animals eat 0.15% of their weight of the plant. Cattle show problems at 0.15%, and goats at 0.25%. Horses do not typically eat the plant, but cases have been seen where young foals ingest enough to show signs of toxicity. Moose do not eat Sheep Laurel. Chickens will eat Sheep Laurel and the meat of poisoned chickens is toxic.

Due to its woody stems and tough leaves, Sheep Laurel is not a preferred food for most animals. Problems with poisoning usually occur when there is a shortage of feed, or when young animals are first let out of barns in the spring. Inexperienced, young animals will often sample any plant that is available to them when they are first allowed access to pasture. Toxicity can also be seen in late fall or winter when the shortage of available feed may force animals to graze on *Kalmia* bushes.

SYMPTOMS

Depending on the amount of plant material ingested, signs of Sheep Laurel poisoning can begin shortly after ingestion or take hours to appear. The signs of toxicity are similar in cattle, sheep and goats:

- Salivation
- Soft feces and diarrhea
- Green around the mouth
- Staggering
- Shaking
- Weakness
- Recumbency (inability to stand)
- Coma

TREATMENT

The success of treatment depends on how much of the plant was ingested and how quickly treatment has begun. Poisoned animals and all other susceptible animals should be removed from the source of the Sheep Laurel.

If treatment is started early, a mild laxative such as mineral oil or Epsom salts in water may help remove the toxin from the gut. When poisoned animals are weak, using a stomach tube will decrease the danger of putting a laxative into the animal's lungs. Supportive treatment, such as oral intravenous fluids and warmth and shelter may be of help. Veterinarians may choose to use drugs such as vasopressors and atropine to support the cardiovascular system.

Sheep Laurel poisoning is diagnosed by the typical signs accompanied by the presence of the plant in areas accessible to the animal. On postmortem examination, the plant will be found in the rumen.

PREVENTION

The best method of preventing Sheep Laurel poisoning is to keep animals away from the plant. If this is impractical, young animals should be given access to areas affected for short periods of time at the beginning of spring.

Control of the plants on pastures can be difficult. Plants can be cut down if they are present in small numbers. In large numbers, burning and herbicides have generally proven effective.