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Animal Production FACTSHEET

Blowfly in Sheep

Introduction

Historically, the two greatest threats to the sheep industry in Newfoundland and Labrador have been dog attacks and strike or blowfly infestation. Strike is the disease caused by the invasion of blowfly maggots into the skin of sheep. The first records of blowfly in the province are from 1953. Anecdotal evidence suggests that the insects' arrival can be traced to foreign fishing vessels carrying infested sheep amongst their provisions.

The Fly

A number of different flies can cause strike. Although there are several species of fly in the province which could cause problems, the greenbottle fly, *Lucilia sericata* (previously named *Phaenicia sericata*) is the only species that has been identified as the cause of strike. This fly has a distinctive metallic green body and is a little larger than the common housefly.

Greenbottle flies start hatching in June and are usually gone by November. The fly's lifecycle takes three to four weeks, so four or five generations will typically pass in a year.

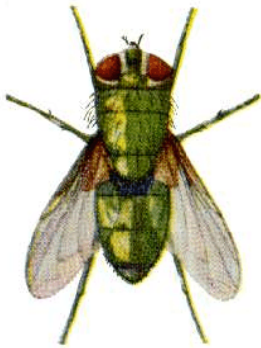


Figure 1: *Lucilia sericata*, the Sheep Blowfly

The adult flies prefer to lay eggs in moist wool of sheep. Up to 500 eggs may be laid by a single fly in groups of about twenty. In warm weather the eggs will hatch into maggots in a day. The maggot's ability to hook into flesh and liquefy tissue for its own nourishment results in the symptoms of strike. The maggots feed off the sheep for about five days and then fall to the ground where they pupate. The pupa hatches into a fly within three weeks. The last generation of the year goes into an extended pupal phase that allows the fly to overwinter on the ground. After hatching, the fly matures and begins the cycle again by laying more eggs.

The Disease

Because blowflies preferentially lay their eggs in a moist environment, sheep with wounds or fecal staining from diarrhea are most likely to have blowfly eggs laid on them. Once the eggs are hatched, the squirming maggots begin to irritate the sheep. As the maggots begin to attach to the sheep and begin feeding, the irritation becomes more intense.

Affected sheep will be restless, shake their tails, stamp their feet and bite at the infected area. Lesions are most commonly toward the back end of the sheep because of dampness from feces or urine. Once strike begins, the damage caused by the maggots will attract more blowflies to lay eggs and progressively make the problem worse.

Sheep in early stages of strike may be difficult to pick out, but as the disease progresses, the activity of the animal and its appearance will suggest that problems are present.

Copies of this and other publications may be obtained from the Department's Regional Offices, the factsheet author or by visiting our website at <http://www.gov.nl.ca/agric/>.



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Infected sheep will have a moist wool coat, visible maggots and a characteristic odour. Often the wool will have a brownish discolouration. Any sign of wool staining should alert farmers to carefully check their sheep. Sheep with severe strike may be found depressed or even down. These animals often have such severe lesions that they cannot be saved. Careful examination of these animals will show destruction of skin and muscle and even wounds opening into the body cavity.



Figure 2: *Sheep with strike wounds on hip*

Treatment and Prevention

Once a struck sheep is found, the entire animal must be carefully examined and all wool removed from infected areas. Depending on the severity of the lesions, treatment can range from simple cleaning and disinfection to surgical procedures requiring veterinary assistance. The appearance of any struck sheep on a farm should tell a farmer that he should carefully examine the rest of the flock.

Prevention of strike in Newfoundland has traditionally relied heavily on the use of insecticidal dips. An effective prevention program must combine a number of different elements. A good system should include both efforts to decrease the number of flies and efforts to make the sheep less attractive to the blowflies. Proper burial of carcasses and removal of garbage will decrease chances for the blowfly to multiply. Recent experimental work with the release of sterile male blowflies may lead to an effective method of decreasing fly numbers.

There are a number of ways to make sheep less likely to be attacked by the blowfly. Since flies are attracted to moisture and decay, many of these methods are directed towards having healthy, clean and dry sheep. All surgical procedures should be completed before June so that open wounds aren't available during the fly season. Docking tails to about 6mm below the vulva will help keep animals clean. Sheep should be sheared clean before fly season and care should be taken to avoid clipper wounds. Diarrhea can be avoided by an appropriate deworming program and taking care to avoid sudden changes in diet. With careful use of these techniques and early removal and treatment of any affected animals, blowfly incidence can be kept under control.

Prevention with insecticide dips is not as simple as it was in the past. At the time of writing this factsheet, no insecticides are registered for use in dips for blowfly prevention in Canada. Sheep owners are encouraged to contact their veterinarian for the most up to date information on the availability of appropriate insecticides and their use.

More Information

For more information on this or other animal diseases, please contact your Regional Veterinarian or consult our website at www.gov.nl.ca/agric.

Image credits:

Figure 1: Public domain

Figure 2: Agriculture Canada publication 1273. *The Sheep Blowfly and its Control in Newfoundland*. 1976

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