



## MAY 2016: Fly Control

From May to October, flies can be a problem for your livestock operation, with peak levels occurring from mid-July to mid-September. Flies are an irritant to livestock, farm workers, and neighbours.

The two most common fly species in livestock operations are house flies and stable flies. Bites can be painful and cause restlessness in animals. Further, animals are less likely to consume feed with flies on it, and flies can be a source of disease spread. Some pathogens that can be spread by flies include bacteria that cause mastitis and pinkeye. In order to prevent flies from negatively impacting productivity and becoming a food safety hazard, fly control in livestock operations is essential.



Preventing a population build up is easier than controlling established populations. Take proactive steps control flies before your facility is heavily infested.

Controlling and eliminating flies at early life stages (eggs or larvae) is most effective. Look for larvae (maggots) to determine the locations where flies are laying eggs and target these areas in your control and prevention strategy. Flies can move up to one kilometer, so ensure your fly control program targets all potential breeding sources within this radius. Flies have been known to transmit pathogens from farm to farm, so talk to any neighbours with livestock about their fly control program.

Goats will shiver, perform little head shakes and feet stomps, as well as flutter their ears if bothered by flies. If you see this behaviour in your herd, you likely have a fly problem and your herd is expending energy to escape flies rather than eating and resting.

### Sanitation

Flies breed on wet organic matter such as wet bedding, manure, and spoiled or spilled feed. For this reason, keeping all areas free of organic matter should be the first step in fly prevention and control. It takes about 21 days for an egg to develop into a fly. Cleaning up wet organic material weekly can disrupt the life cycle of the fly, removing eggs, larvae, or pupae before they become adult flies. Pay special attention to often wet or soiled areas such as feed troughs and around water bowls. All stored feed, bedding, and manure should be covered if possible.

Bedding may need to be cleaned out more frequently during summer months to ensure it stays dry. Some producers have success with switching to sand bedding during the summer months. Sand is not organic, so flies cannot use it to lay eggs. Sawdust and wood savings are also less attractive to breeding flies than straw.

Manure and soiled bedding should be removed from the barn as far as possible. Composting and turning or tilling a compost pile weekly should prevent flies from reproducing. For manure in a lagoon, preventing crust from forming on the surface will eliminate breeding sites. Finally, spreading manure thinly on crop land and harrowing pens or pastures to break up manure will help to dry it and prevent fly breeding.

Taking steps to keep the barn dry is essential. Ensure the barn is graded to avoid standing water. If this is not possible, other steps to dry the area such as placing shavings down to absorb the water (and then cleaning up the wet shavings) may be effective. Repair water leaks or any other sources of moisture. Keeping vegetation around the barn well maintained may also help to reduce the amount of flies in your barn. Fans can disrupt flies and dry damp areas. Ensure any milk or milk replacer is immediately cleaned up, not left out where it will attract flies. Garbage cans should be covered as well as emptied and cleaned frequently. Pay special attention to young stock areas, as they tend to be ideal breeding ground for flies.

It is essential to control the breeding sites of flies before taking any other pest control steps. If the breeding sites are not managed, attempts to control infestation will be ineffective.

### **Traps**

Sticky tape or traps are effective in controlling minor fly infestations if placed where flies congregate. However, these must be changed frequently. Sticky traps are also useful when assessing the degree of fly infestation in a facility as well as determining the species that are most prevalent, allowing you to make informed control decisions.

Ensure that sticky traps are placed well out of reach of animals, including dogs and cats if applicable, and will not contact animals even if they fall from where you have secured them.

### **Insecticides**

Insecticides may be necessary in moderate to high levels of fly infestation. Always make sure you read and follow all label directions on chemical fly control products. Producers in Ontario may need to be trained and certified to purchase or use some insecticides. Ensure you are following all the appropriate regulations set out by the Ontario Ministry of the Environment and Climate Change. Go to [www.ontario.ca/ministry-environment-and-climate-change](http://www.ontario.ca/ministry-environment-and-climate-change) or call 1-800-565-4923 for more information.

Talk to the dealer and your herd veterinarian to ensure that chemicals used in your operation are safe for animals and do not pose a food safety risk.

Baits must be placed in areas where livestock cannot get access to them and where they cannot contaminate feed or water.

Space or area sprays spread a fine mist throughout an enclosed area and kill adult flies on contact. Residual sprays are applied to adult fly resting areas such as walls and posts. Continuous use of sprays may result in resistance, so products should be used sparingly, and only as needed. Ideally, use sprays targeted at larvae. While this won't provide instant relief, it is more effective over time. Ensure the spray you use is targeted at the species of fly in your facility and try to avoid using insecticides that kill natural predators of nuisance flies such as some wasps, beetles, mites, or other fly species.

Some oil-based insecticides can also be put on back or face rubbers. Application twice daily is most effective, so placing these in high traffic areas such as exits to the milk parlour is recommended.

### **Biological control**

It is possible to purchase insects that feed on flies. This method of fly control is typically safe for use around livestock and may be acceptable in organic production systems. However, as flies have a different reproductive cycle than insects that feed on them, frequent release of large numbers may be required to control infestations.

### **Fly control in dairy operations**

It is extremely important to control fly populations in the milk parlour and milk house, as flies can pose a food safety risk. These areas are especially attractive to flies if they are wet or milk residue is left on any surface. Screens and well fitted doors can prevent flies from entering the milk house, and doors should be closed as much as possible. You may need a separate pest control plan for your milk parlour and milk house, as some pest control measures or chemicals may be prohibited.

### **Summary**

Cleaning your facility to eliminate fly breeding grounds is essential and will minimize the need for insecticides. Considering methods such as biological control can help you develop a safe and effective way to minimize animal discomfort and loss of productivity due to flies this season.

For more information on pest control in your facility, talk to your feed or equipment dealer. To learn more about insecticides that can be applied or administered to animals, talk to your herd veterinarian.

To sign up for an electronic copy of Ontario Goat's *Goat Gazette* please visit:

<http://www.ontariogoat.ca/goat-gazette/>