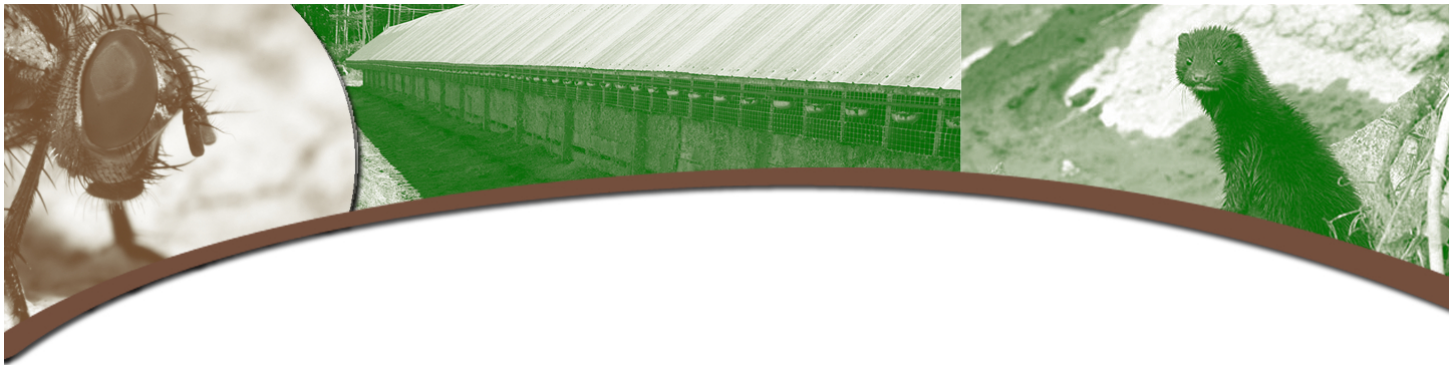

Fly Control in Mink Operations

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April 2009

Refer to the factsheet 'Integrated Fly Control for Livestock Farms' for additional information on fly management techniques.

Introduction

Managing fly populations on a mink ranch is a constant concern for most mink ranchers. High fly populations may transmit disease from barn to barn, cause increased stress to the animals and workers, and create difficulties with neighbours and surrounding businesses. Therefore it is critical to have a comprehensive approach that uses all available techniques to manage this issue. This factsheet outlines some of these activities that can be used on mink ranches.

Monitoring Techniques

In barns, use bated jug traps and spot cards. Nuisance thresholds are 250 flies per jug trap per week and 50 fly specks per card per week. The moving sticky tape method may also be useful. This method involves holding a one metre sticky tape in one hand at shoulder height and walking a measured distance in the barn two consecutive times. The result can be calculated and compared to the nuisance threshold, which is 100 house flies per 300 m total walking distance. Outside the barn, all stockpiles should be monitored for house fly maggots on a weekly basis. For more detailed monitoring techniques refer to the factsheet 'Integrated Fly Control for Livestock Farms'.

Physical Management of Flies

Mass trapping of flies is one way to help reduce small fly populations. It uses similar supplies to the monitoring techniques mentioned above, but would include more devices per shed. Sticky tape, bug zappers or yellow corrugated plastic painted with Tanglefoot™, would help attract and trap flies. Tanglefoot™ is a commercially available product that can be applied to a plastic surface and washed off after it has been filled with flies and/or foreign material, allowing the plastic to be used again.

The conditions in the manure collection area can be altered to some extent to discourage fly larvae development. This could involve changing the pH through spot lime applications or by adding peat moss which would lower the pH and absorb moisture making it less hospitable for flies. Diatomaceous earth can also be applied, as it is very abrasive to developing larvae and may reduce the number of larvae that pupate and emerge as adults.

Tarping of manure piles with a thick black plastic can be critical for preventing adult flies from laying eggs and killing existing eggs in the pile. The tarp creates a barrier for the flies to get to the manure. It is critical

that the edges of the tarp are buried in soil and aren't allowed to blow in the wind. The black tarp will also heat up the manure through passive heat from the sun and kill existing larvae, eggs and pupae.

Cultural Management of Flies

Barn style is critical. The design of a barn and cage layout can make manure removal on a regular basis more practical and thus reduce breeding areas for flies. Automated manure belts or trough systems under the cages can make cleanout much easier. As in other livestock operations, regular removal of manure reduces the ability of the flies to reproduce in large numbers.

Whatever the barn style, barn sanitation and regular removal of manure from the barn, is the most important thing a rancher can do to control flies. This should be done on two week schedules, to minimize manure build-up and interrupt fly lifecycles. This frequency can be extended when temperatures are cool, but it must be done more frequently in June, July and August when warmer temperatures speed up fly lifecycles.

Proper maintenance of watering systems is also critical. Fixing leaky watering systems not only saves water supplies it can reduce fly problems. Wet manure from leaky nipple drinkers creates an ideal environment for flies under the cages. The water combined with manure and other organic material is an ideal environment for fly development.

Over feeding and delayed clean-up of feed can also lead to fly issues. Most feed used on mink ranches are wet and high in protein. This is ideal media for fly larvae development. Optimizing feed amounts for each cage and developing a regular feed clean-up rotation can reduce fly breeding sites. It is critical to dispose of excess feed properly, by composting it with the manure in a tarped compost pile. As mentioned, tarping a manure storage area is critical, as this is a prime media for fly growth and reproduction.

Finally, keep areas around the sheds maintained. Keep the grassed areas mowed, allow for adequate drainage between sheds and clean-up manure and feed spills quickly. This reduces habitat for the flies and limits breeding sites.

Biological Management of Flies

Check with suppliers of biological agents for availability and follow the use instructions. Encourage natural enemies of house flies by composting and using selected cultural practices. Refer to the factsheet 'Integrated Fly Management for Livestock Farms' for information on biological control techniques.

Chemical Management of Flies

Only use insecticides as a last resort when environmental conditions have made control of fly populations by other methods impractical. Many products require livestock to be removed before application. In most cases this is not practical for mink ranches. Do not use these products if the mink cannot be removed.

Bait and kill products or perimeter and wall sprays may have some use in certain shed configurations. Most of the products registered for livestock operations are designed to kill adult flies primarily, and this should be taken into consideration when targeting your sprays. For example if adult fly populations are found in the rafters of the shed, spraying the manure piles will have a limited effect.

Avoid spraying any product on the cages or on the watering systems. Allow for adequate ventilation when spraying in or around sheds. Always use proper safety equipment when applying an insecticide. Refer to the factsheet 'Integrated Fly Management for Livestock Farms' for information on available pesticides and their use. Whenever using any pesticide follow the label instructions.

Additional Information

The focus of fly control on a mink ranch should be reducing the number of areas a fly can lay eggs. Enclosed ranch systems can make this much easier and should be considered if you are designing a new ranch or considering expanding capacity on your ranch.

Fly maggots in manure collection area - ideal fly breeding area

Poor drainage around shed which creates ideal fly breeding area.

For more information:
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