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GREAT PLAINS

BEEF CATTLE FEEDING HANDBOOK

Texas A&M University
Texas Agricultural Extension Service
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College Station, Texas

L-1100

Control of Flies Around Feedlots

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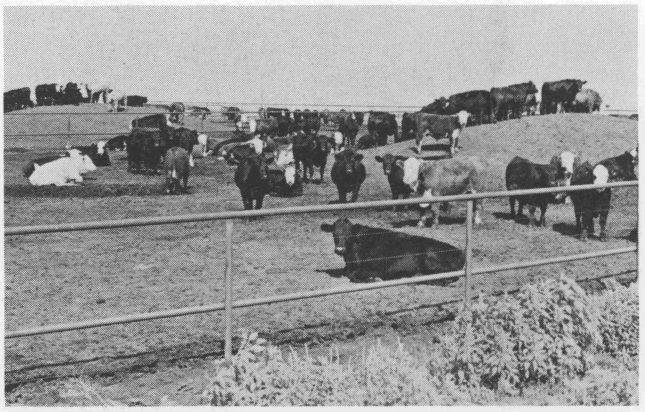
The type of fly found most frequently in and around feedlots is the common housefly. Horse manure appears to be the preferred egg laying site but any type of fecal material or decaying organic matter will support housefly development. This fly is a scavenger and does not feed on animals, but does cause irritation and annoyance. Stable flies, which are blood feeders, may also be present but have not caused major problems in the Southern Great Plains.

With warm summer conditions, ten days or less may be required for development of the housefly from egg to adult. Under these conditions, eggs laid on fresh manure, decaying organic matter, wet feed, plant clippings, and garbage may hatch in eight to twelve hours. The larvae or maggots require about five days while the pupae need four to five days for development. The adult lives an average of four weeks during the summer.

The flight range of adults generally ranges from one-half to two miles, but weather patterns will greatly affect this. Marked flies have been found up to twenty miles from the release point.



Properly constructed manure mounds eliminate "wet spots" where odors and fly breeding occur.

Removal of spilled feed from around feed bunks will eliminate important fly breeding site.

Control

Effective housefly control requires proper animal waste management and good feedlot sanitation. Feedlots should be designed to facilitate cleaning and prevent areas of continual waste accumulation. Removal of manure from under fence lines and spilled feed from bunk areas will eliminate important fly breeding sites. By stocking pens at heavy rates, maximum tramping will prevent fly larval development. Pens should be scraped clean shortly after the removal of cattle as larval development may occur in five days.

High and steeply sloping manure piles are least suitable for fly breeding, particularly inside pens where trampling occurs. However, even with outside stockpiles constructed in this fashion, some fly development may occur in the outer few inches of manure.

Water systems should include a concrete apron and a drain line to facilitate cleaning without creating a high moisture area in the lot. Float valves on water

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troughs should be protected to prevent animals from playing with the waterers and causing them to overflow. Feed troughs or bunks should be constructed with a concrete apron and maintained to minimize feed spillage, and the mill area should be kept free of spilled feed. Other areas that need special attention are the horse pens, truck washing areas, sick pens, and the receiving-shipping section.

Much interest has recently been shown in biological control through the periodic release of predators and parasites of the housefly. This has been effective in poultry houses, but little data is available to support or disprove this system under feedlot conditions. Natural enemies of the housefly do occur and are the most effective biological control method at this time.

Other methods of control which show promise for the future include juvenile hormones, feed additives, sterile flies, and pheromone sex attractants.

Chemical control should be used only when needed to supplement other management practices. Control of the adult stage of the housefly may be satisfactory for short periods of time, but a complete program aimed at both the larval and adult stages appears to be the most effective.

Aerial applications of such materials as naled (Dibrom) or malathion will generally reduce adult populations for short periods of time. Residual sprays and baits applied to fly resting areas such as fences, barns, sides of feed troughs, shades and other structures also afford some adult fly suppression. Frequency of residual sprays will depend on material used, weather conditions, fly population pressures, etc. To measure fly control effectiveness, the absence of flies should be considered rather than the number of dead flies. Fly resting areas are important sites for the use of residual sprays, but perhaps even more important in a chemical control program are the areas of larval development. The application of insecticides (larvicides) to stored manure and other areas such as hospital and horse pens affords a means of preventing the development of large numbers of adult flies.

A partial list of materials which may be utilized in a chemical control program includes:

Dichlorvos (DDVP)
Dimethoate (Cygon)
Methoxychlor
Ronnel (Korlan)
Trichlorfon (Dipterex)
Diazinon
Fenthion (Baytex)

Before any chemicals are utilized in a control program directed toward either the adult or larvae, the label should be thoroughly read to determine the usage and restrictions of the material. Resistance of the housefly to certain chemicals may prevent effective control. This resistance varies with usage patterns of insecticide across the country. Chemical control serves as a useful tool in a fly control program, but proper waste management and feedlot design are the keys to a successful control program.

Recommendations

From the available information on feedlot fly control, several recommendations can be made. The basic objective in fly control is to eliminate possible sources of fly development. This can be accomplished by the following steps:

1. Design feedlot to allow proper drainage and prevent areas of waste accumulation. Prevention of potential fly breeding areas affords the best means of control.
2. Correct improper pen drainage to avoid "wet spots" where odors and fly breeding can occur.
3. Remove manure from pens within five days after animal removal to prevent larval development.
4. Remove manure and spilled feed at important fly breeding areas such as fence lines, feed bunks, hospital pens, horse pens, truck washing stations, and receiving and shipping areas.
5. Chemical control should be used in conjunction with proper waste management techniques and not as the sole means of control.
6. Residual and space sprays aid in reduction of adult flies.
7. Apply larvicides to areas of intense larval development such as manure stockpiles, hospital and horse pens.
8. If sprinkling is used to control dust or relieve cattle heat stress, make sure sprinkler heads do not leak. Proper waste management becomes even more important in fly control if a sprinkler system is utilized.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

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