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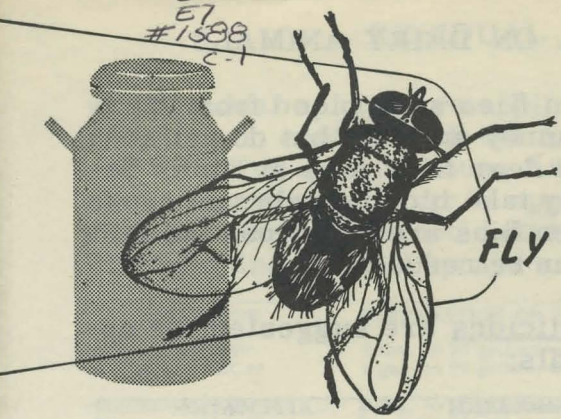

E.C. 58-1588

ENTOMOLOGY

FLY CONTROL IN DAIRIES

by ROBERT ROSELLE,
Extension Entomologist

SANITATION

Sanitation practices are the most important factors in reducing fly populations on the dairy farm. The house fly and stable fly, two of the most important dairy flies, breed in moist, strawy manure, spilled feed, manure, and other kinds of decaying vegetation.

The principal breeding site of stable flies is hay bunks, especially those that permit hay to accumulate on the ground. Manure, hay, spilled feed or ensilage should not be allowed to accumulate. They should be spread every 4 or 5 days during the summer months. All pens, loafing sheds, stalls, and surrounding areas must be kept at all times.

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CAUTIONS

INSECTICIDES MUST BE HANDLED WITH CARE, especially those recommended for residual application, sweet baits, and impregnated cords. Read the instructions of the label carefully. Do not leave insecticides exposed to children, adults, or animals. Do not spill on skin or clothing. Do not inhale fumes when mixing sprays. If concentrates or sprays are spilled on hands, wash immediately with soap and water. If spilled on clothing, remove clothing. Do not smoke or eat while applying insecticides. Do not contaminate feed or water Do not use in milk rooms. Never use residual sprays on animals. Never store insecticides in unlabeled containers. Dispose of empty containers immediately. Bathe and change clothing after using residual sprays. Remove all animals from barns when applying residual sprays.

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FLY CONTROL ON DAIRY ANIMALS

Stable flies and horn flies suck blood from dairy animals. House flies annoy animals but do not suck blood. Horse flies and deer flies may at times become important, as they take blood meals and cause pain while feeding. When flies are numerous the milk production materially can be reduced.

The following insecticides are suggested for application to dairy animals:

INSECTICIDE	FORMULATION	APPLICATION
Pyrethrins or allethrin plus synergist*	1% pyrethrins or allethrin 10% synergist, in oil solutions.	1 or 2 ounces per head daily as a mist spray or with a treadle sprayer.
	0.05% to 0.1% pyrethrins or allethrin plus 0.5% to 1.0% synergist in water sprays.	1 to 2 quarts per head as a wet spray every 3-7 days.
Methoxychlor (for horn flies only).	50% wettable powder. As a dust only.	1 tablespoon rubbed into the back and neck of each animal every 3 weeks.

*Recommended synergists are: piperonyl butoxide or MGK 264.

Pyrethrins and allethrin protect animals only a short time. They must be used frequently for adequate fly control.

Repellents such as MGK 264, MGK R-326, MGK R-11, and Tabutrex have full clearance for use on dairy anmals. They may be used in combination with pyrethrins or allethrin.

Treadle sprayers are available commercially. To be effective they should be used inside barns, or with special covers. They are ineffective in the open as wind will carry the mist away from animals.

FLY CONTROL IN DAIRY BUILDINGS

To control flies in dairy buildings three methods must be used, they are: Sanitation, Screening, And Use of Insecticides. Milking parlors, milk rooms, and other places where dairy products are handled must be screened for effective fly control. Insecticides can be used in the barn as residual sprays, sweet baits, space sprays, or impregnated cords.

RESIDUAL SPRAYS

Residual sprays are applied to resting surfaces to kill flies on contact with the insecticide deposit. They are effective against house flies and stable flies. Residual sprays must never be applied to animals. Especial care must be taken to avoid contaminating feed and water. The following residual sprays are recommended:

INSECTICIDE	PREPARATION OF SPRAY	APPLICATION
Korlan, 25% WP*	8 lbs. to 25 gallons water	Apply to walls, ceilings, and other surfaces where flies rest. One gallon of spray should cover about 500 square feet. DO NOT apply in milk rooms. Avoid contaminating feed and water. Remove animals before spraying. The addition of 10 pounds of sugar to 25 gallons of spray will tend to increase the effectiveness.
Korlan, 12.9% EC**	2 gal. to 25 gallons water	
Diazinon, 25% WP*	8 lbs. to 25 gallons water	
Diazinon, 25% EC**	1 gal. to 25 gallons water	
Malathion, 25% WP*	10 lbs. to 25 gallons water	
Malathion, 57% EC**	1/2 gal. to 25 gallons water	

* Wettable Powder
** Emulsifiable concentrate

SWEET BAITS FOR HOUSE FLIES

Sweet baits are only effective against house flies, and a few other kinds which do not suck blood. They are not effective against stable flies, or horn flies.

The following sweet bait formulations are recommended:

INSECTICIDE	PREPARATION	APPLICATION
Malathion, 25% WP	1 lb. malathion, 1 cup sugar, 2 1/2 gal. water	Apply to doorways, around windows and other places where flies congregate. Apply daily until populations are reduced, then as needed. Apply with a sprinkling can or small sprayer.
Korlan, 25% WP	2 pounds Korlan, 8 ounces sugar in 3 gal. water.	
Diazinon, 25% WP	1 lb. Diazinon, 1 pound sugar in 3 gal. water.	
Malathion dry bait	Available commercially	Broadcast daily until fly population is reduced. Then apply as needed.
Dipterex dry bait	Available commercially	
Diazinon dry bait	Available commercially	

Dry baits can be prepared by mixing wettable powder formulations of the recommended insecticides with sugar. Follow package directions if dry baits are made on the farm.

SPACE SPRAYS

Space sprays are recommended where residual sprays fail to control flies. Emulsifiable concentrates containing

at least 1% pyrethrins or allethrins and 10% synergist are recommended. These materials are diluted 1 to 19 with water for use as a fine mist in compressed air sprayers. For use in small electric fog generators dilute 1 to 9 parts of water. Barn doors and windows should be closed when space sprays are used, and kept closed for 30 minutes after spraying. These sprays can be applied to animals.

IMPREGNATED CORDS

Cords impregnated with diazinon or parathion are commercially available. They are effective if properly used, and give long lasting fly control. The cords are strung in rows on the ceiling several feed above head height. Parathion treated cords are very hazardous and must be handled carefully. They kill flies that rest on them by contact with the insecticide in the cords. THE DIRECTIONS AND PRECAUTIONS OF THE MANUFACTURER SHOULD BE CAREFULLY HEEDED.