

Livestock & Poultry Area Integrated Pest Management

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Livestock Area Flies

Sanitation – the first and best line of defense against flies

- Remove all manure from livestock pens as frequently as possible.
- Manure that has been removed should be spread thinly on fields or other outside areas to facilitate rapid drying. Another option is to stack the manure and cover with black plastic.
- Eliminate silage seepage areas, wet litter, manure stacks, old wet hay or straw bales, and other organic matter accumulations.
- Provide proper drainage in barnyards. Use clean gravel and other fill to eliminate low spots in livestock yards. Proper tiling can reduce wet barnyards.

Residual Sprays – the second line of defense against flies

- Apply to the inside and outside of buildings
- Apply to walls, ceilings, partitions, stanchions, posts, and other fly resting places.
- Avoid contaminating feed, drinking water, milk, milking utensils, and milk rooms.

Bait Treatments

- Apply baits after the removal of all floor litter and manure.
- For best control, use baits liberally and repeat as needed.
- Most effective when used in conjunction with other control measures.
- Do not use in areas where animals can slip and fall or where children may come in contact with the bait.

Space Treatments

- Effective for rapid knockdown and kill of adult flies
- Reduce air movement as much as possible to increase effectiveness.

Larvicides

- Must be used extensively to be effective.
- All manure must be treated within an area in order to effectively reduce the fly population.
- Should be used in conjunction with a regular manure sanitation practice.

Poultry Area Flies

Population monitoring

- Locate major sources of fly breeding using moving tape method (see livestock section of Field Crops PMG, VCE Publication 456-016).
- Keep records of population counts.
- Begin population control measures in problem houses.

Sanitation and manure management - Inside

- Remove manure from inside high-rise egg houses during the cooler months of the year.
- Spread manure thinly on fields and plow or disk it under immediately after spreading.
- of manure once or twice a week from shallow pit houses reduces fly populations.
- Stored manure should be covered completely with heavy grade black plastic.
- Provide daily inspection and repair of leaking waterers.

Sanitation and manure management – Outside

- Remove all garbage, leaking feed, spilled manure, bird carcasses, and eggs regularly.
- Keep vegetation, weeds, and grass trimmed around houses.
- Install proper eave troughs and down spouts on houses to carry water away from buildings.
- Provide proper drainage in poultry yards and roadways.

Biological control

- Natural enemies build up in manure accumulations.
- More effective if sanitation and manure management, as seen above, is followed correctly.
- Leave at least one fourth of the manure undisturbed in high-rise houses to promote parasites.
- Natural enemies are available for sale and can be released in poultry houses.
- See VCE publication 444-769 for more information on control in high-rise poultry houses.

Chemical control

- Insecticides are used to supplement sanitation and biological control.
- Apply carefully to avoid killing natural enemies.
- **Fly baits:**
 - Designed to kill flies that escaped the natural enemies in the manure.
 - Inexpensive and easy to use.
 - Put out at the beginning of fly season and renew at least once a week in warm weather.
 - Attach somewhere or place in a container to keep them out of manure pits.
- **Contact sprays:**
 - Use if moving tape counts indicate natural controls are being overwhelmed.

- Effective for quick knockdown and kills on contact.
- Have short residual life and will not control later infestation.
- Do not spray in the manure pits or on the birds, eggs, feed, or water.
- **Residual sprays:**
 - Can be used inside or outside houses.
 - Concentrate sprays on upper walls and ceilings of layer houses.
 - Apply only to houses where moving tape indicates a problem to prevent resistance.

Feed-through larvicides

- Practical when moving tape counts indicate high populations or when equipment failure causes buildup of wet spots in the manure.
- Use until tape counts show significant population reduction.

Reference

Youngman, R.R., Bloomquist, J.R., McKinnon, W.R., Paulson, S.L., Whittier, W.D. Agricultural Animal Pest Control. Virginia Cooperative Extension (Publication 456-215).