

INSECT CONTROL ON POULTRY - 2009
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ENT-28

Note: The information and directions on the use of these pesticides are not as complete as the product label. **READ THE ENTIRE LABEL** before using any pesticide. Many insecticides are sold under brand names not listed in this publication. Check labels for the names of recommended active ingredients.

Note: The instructions for use of the recommended pesticides are not as current or comprehensive as the pesticide labels and are intended to be used as guidelines only. Before using any pesticide **READ THE LABEL** for more specific instructions. Many insecticides are sold under brand names not listed in this publication. Check labels for the names of recommended active ingredients.

Fly Control in Poultry Operations

Effective sanitation and manure management programs are essential to maintaining fly populations at low levels. Manure, spilled feed, and wet bedding should be removed weekly in order to interrupt the fly breeding cycle. Insecticides will provide only temporary relief unless breeding sites are eliminated.

Moisture control is essential to ensure that manure accumulations dry rapidly. Proper ventilation, temperature control, cutting of grass and weeds around buildings and use of fans to increase air movement over droppings will enhance drying. Repair leaky waterers, cull birds that habitually produce very loose manure, remove broken eggs and dead birds and reduce feed spillage to improve fly control.

Proper screening of doors and windows will reduce fly numbers egg rooms and offices. Air curtains and properly positioned fly electrocutor traps are also useful in preventing flies from entering buildings.

Contact sprays, fogs or space sprays

Contact sprays, fogs, or spaces sprays provide rapid but short-term control of flies. They are best used when fly outbreaks must be reduced quickly. Repeat them as needed. Do not contaminate feed or water. Usually, the birds may be present during application but should not be sprayed directly.

Insecticide	Amount
Pyrethrins (0.1 to 0.6%) plus Piperonyl Butoxide (1 to 6%)	Ready-to-Use

Residual Fly Sprays

Insecticides may be applied as residual surface sprays, non-residual space sprays, baits, manure sprays, or feed additives. Always read and follow label instructions before applying insecticides for fly control. Treat walls, ceilings, posts, and other fly resting sites. Spray these areas thoroughly and to the point of runoff. In order to minimize control failures due to insecticide resistance, do not apply products from the same chemical class repeatedly throughout a season. Rotation of pyrethroid and organophosphate insecticides can reduce the potential for development of resistance.

Do not contaminate food, water or utensils with spray. Do not treat animals directly. One gallon of spray treats 500-1,000 square feet, depending on the type of surface (See label directions). Apply to walls, ceilings and other fly resting sites. Alternate applications of pyrethroids with organophosphates. Residual fly spray materials listed above provide control for 1-7 weeks.

Pyrethroid Insecticides	Organophosphate Insecticides
cyfluthrin - Countdown 2 EC OR 20% WP or Tempo 2E	stirofos - Rabon 50% WP
fenvalerate - Ectrin 10% WDL	stirofos + vapona Ravap EC
<i>lambda</i> -cyhalothrin - Grenade 10% WP	
permethrin - Atroban, Ectiban, Expar, Gardstar, Insectaban, Insectrin, Overtime, Permaban, Permethrin II 10% or 25% WP	

Fly Parasite Release Programs

Several companies offer fly parasite release programs that can be used to supplement fly control around concentrated poultry operations. The benefits of parasite release programs in livestock operations have not yet been proven. Several parasite species are available. *Spalangia nigroaenea* attacks house flies and stable flies in feedlots. Parasites in the genus *Muscidifurax* attack house flies while those in the genus *Spalangia* attack stable flies. Do not buy blends of unknown species and do not buy shipments of *Nasonia vitripennis*, a species that has been ineffective in midwestern feed lots. See ENTFACT 502- "Biological Control of Flies".

Fly baits

Baits can be scattered where house flies congregate to provide some temporary reduction in numbers. Never use baits where birds or other domestic animals can eat them. Place baits in areas where flies congregate, such as window sills or doorways. Baits alone will not control fly populations. They should be used along with sanitation and other insecticidal methods (e.g., residual and space sprays).

Active Ingredient	Insecticide	Chemical Class
imidacloprid	Quick Bayt	neonicotinyl
methomyl	Apache, Fatal Attraction, Golden Malrin Fly Bait Plus, Tailspin	carbamate
trichlorfon	Dipterex	organophosphate

Manure sprays

These sprays kill developing fly larvae. They are recommended where manure cannot be removed often enough to provide substantial fly control. Apply at a rate of approximately 1 gal of diluted spray/100 sq. ft. to kill maggots. Do not spread treated manure onto crops not listed on the insecticide label. Apply sprays at rates that wet the manure surface, it is not necessary to soak the manure. Repeat treatments as necessary but no more often than every 7 days.

Insecticide	Amount
Larvadex 5% SC (cyromazine)	1 gal/25 gal water
stirofos - Rabon 50% WP Rabon 24% EC	2.5 oz/gal water/100 sq. ft. 6 oz/gal water/100 sq. ft.
stirofos + vapona - Ravap 28.7% EC	5 oz/gal water/100 sq. ft. droppings

Larvicides and Feed Through Treatments

Use larvicides strictly according to the label. Insure that there is thorough but not excessive coverage and penetration of droppings to achieve control. Larvicides are designed to be used in caged bird houses only.

Larvadex Premix (cyromazine) can be used as a **feed through larvicide** on for caged layer hens. Use at 1 pound per ton of feed for house fly control.

Northern Fowl Mites

Northern fowl mites are the most serious external parasites of poultry. Large numbers of these blood feeding mites can buildup on birds in just a few weeks, especially during cool weather. Northern fowl mites settle around the vent of the bird and the area can become matted and black. This area needs to be treated thoroughly with an insecticide for best control. A second application, about 10 days after the first one, is advised. The mites can live off of birds for 2 weeks or more so they may survive in houses that are temporarily empty.

Lice and Northern Fowl Mites (Bird Treatments)

Insecticide	Application Rate	Comments and Days to Slaughter
permethrin - Ectiban 5.7% EC Permethrin II 10% EC	1 qt/25 gal water 1 qt/50 gal water	Use 1 gal/100 birds. Retreatment may be needed in 4-12 weeks. 0 days
Rabon 50% WP (stirofos) Rabon 3% D	6-1/2 oz/5 gal water Use 1 gal/100 birds 1 lb/300 birds	Do not treat more than once every 14 days. 0 days
Ravap EC	5 oz per 2 gal water	Use 1 fl oz per bird Do not treat again within 14 days
carbaryl - Sevin 80% SP	4 oz/ 5 gal water Use 1 gal/100 birds	Thorough coverage and feather penetration is essential. 7 days
Sevin 5% D	1 lb/100 birds.	Do not treat more than once every 4 weeks. 7 days

Note: Sprays should be applied at high pressure (100-125 PSI) to provide good coverage and penetration of feathers. Treat vent area thoroughly.

Lice, Chicken Mites and Northern Fowl Mites (Poultry House and Litter Treatments)

Insecticide	Amount	Days to Slaughter	Comments
Rabon 50% WP	6-1/2 oz/5 gal water 1-2 gal/1000 sq ft OR Dust 2-1/2 oz/100 sq ft	0	Do not treat more than every 14 days. Treat litter thoroughly.
Sevin 80% SP Sevin 5% D	6.5/lbs/ 100 gal water 1 lb/40 sq ft*	7	Use 1-2 gals of spray per 1,000 sq. ft.

* Do not apply dust to eggs or nests. Do not treat more than once every 4 weeks.

Note: Poultry house and litter treatments should be applied thoroughly to litter, walls, floors, roosts, and similar areas where pests hide. Force sprays into all cracks and crevices.

Lesser mealworms (litter beetles) are stored grain pests that can cause structural damage, become an annoying nuisance, and may serve as a reservoir of diseases. Remove birds prior to treatment with Countdown / Tempo or Grenade. Do not treat with Rabon if birds are 6 weeks old or less. Wall sprays can reduce numbers of adults. Sevin or Rabon can be used as litter treatments. Frequent and thorough litter clean out will keep beetle numbers down. 10% Beetle Bait (carbaryl) can be spread over the litter as a supplement to residual sprays.