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G78-391 Controlling Poultry Insects

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Controlling Poultry Insects

This publication contains information on the control of poultry insects.

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Poultry Lice

Poultry lice are small, wingless insects with chewing mouthparts. The most common in Nebraska are brown chicken lice and chicken body lice. Less important are large chicken lice, shaft lice, chicken head lice, fluff lice, and several other species which are rarely present.

Poultry lice chew dry skin scales and feathers; they do not suck blood. Irritation from louse mouthparts and movement on birds causes appetite loss, weakened condition and susceptibility to diseases. Egg production is reduced, and heavily infested birds refuse to eat and gradually lose weight. Lice can be observed moving on the skin when feathers are parted, especially around the vent, head and under wings.

Poultry Mites

Several kinds of mites attack poultry. The most common are chicken mites and northern fowl mites. Occasionally scaly-leg mites are a problem.

Chicken mites feed at night. During the day they stay in cracks around roosts and interior portions of poultry houses. At night, they feed on the birds as they roost or nest. Chicken mites are very small, grey to yellow in color, but darken after filling with blood. Control of chicken mites is directed more to their hiding places in houses than to the birds.

Northern fowl mites remain on poultry. They are very small, red or brown. Feathers are discolored by excrement and eggs, and the skin is scabby. Control of the northern fowl mites must be directed to the birds.

Chicken and northern fowl mites suck blood, resulting in emaciation and lowered egg production. Continued

heavy infestations can kill the birds.

Scaley-leg mites burrow under the skin, especially on the lower legs and feet. Legs become scaley, swollen, and exude lymph. Severely infested birds may be crippled or unable to walk. In addition to treating with insecticides, legs may be dipped in a mixture of raw linseed oil, 2 parts, and kerosene, 1 part.

Bedbugs

The common bedbug and several other closely related insects feed on poultry. They are flat, wingless, bloodsucking insects about 1/5 inch long when fully grown and have a very distinctive pungent odor when crushed. Bedbugs feed at night, hiding and laying eggs behind insulation, in wall cracks, loose boards, nests and other dark areas during the day. At night they move to sleeping birds and suck their blood. Small, dark fecal dots around cracks, roosts, and on eggs are observed frequently. Bedbugs can be carried into poultry houses by other birds; they also can be carried from poultry houses into human dwellings and become a pest of people. Control must be directed inside the housing, using the materials suggested for residual fly control. (See *Table III*.)

Flies

House flies are the most persistent and common pest, although other species such as blow flies and little house flies are present. House flies do not bite poultry, but are severe nuisances, and can spread some poultry diseases. House flies are present because of poultry manure and exposed wet feed, which are ideal breeding materials. Manure management is most important for house fly reduction. Manage manure under caged birds so the moisture content is reduced to allow coning (approx. 35-40% moisture). If manure can't be dried, spread it in the fields every 5 days. In liquid manure pits, the manure should be liquified rapidly to reduce fly breeding. Manure that remains partially solid in pits creates an ideal breeding site. In some management practices, agitating the liquid in pits has greatly reduced fly breeding.

Chemical controls are valuable, but should be considered secondary to manure management practices. Many poultry operations use a combination of good manure management and one or more of the chemical controls in *Table II*, *Table III*, *Table IV*, and *Table V*. Recognize that it is practically impossible to totally eliminate flies.

Space Treatment for Fly Control

Space treatment is using a fine mist, hot or cold fog to kill flies on direct contact. Mist or fog is applied so that it drifts downward upon fly-resting areas. There is no residual effect from space treatments. They can be applied over birds, but be careful not to wet the birds. Avoid direct contact with water and feed. (See *Table II*.)

Residual Fly Control

Residual fly control involves applying longer lasting insecticides to fly-resting areas. Flies are killed when resting on treated surfaces. Residual sprays may last 2 to 6 weeks. Sprays are applied as a coarse spray to the point of runoff, or until surfaces glisten. Do not apply excessive amounts so that the spray puddles on the floors. Special care must be taken not to contaminate feed. FOLLOW LABEL INSTRUCTIONS COMPLETELY, AND REMOVE BIRDS BEFORE APPLICATION IF RECOMMENDED ON LABELS. See *Table III*.

Fly Baits

Poison baits can help control house flies. Distribute dry baits along walls, window sills or other areas away

from feed and water. Make light applications and sweep up dead flies and old bait periodically. Liquid baits should be applied to burlap bags or paper. Organic phosphate insecticides used in liquid baits will decompose, leaving the sugar or syrup to attract flies, so remove and replace liquid bait residues regularly. Dry baits are available as prepared products. Liquid baits can be made as shown in *Table IV*.

Larvacides

Routine use of larvacides is not recommended because of the chance of increasing fly resistance to insecticides, cost of application, and limited effectiveness. Larvacides are not efficient substitutes for good manure management systems, and should only be used as spot treatments to control maggots that develop in wet areas. Spot treatments are shown in *Table V*.

Table I. Mites and Lice		
Material	Dilution	Application and Restrictions¹
Co-Ral (coumaphos) 25% WP	6 ounces in 5 gallons water	1 gallon per 100 birds, as low pressure spray. Do not apply more often than once each week.
Korlan (ronnel) 5% granules	---	1 pound per 100 sq. feet over litter.
Malathion 57% EC	2 tablespoons in 1 gallon water	One gallon per 100 birds. Direct spray.
Ravap (23.0% Rabon, 5.7% Vapona)	1 part in 75 parts water	One gallon to 100 birds, high pressure mist spray.
Rabon (stirofos) 24% EC	1 part in 50 parts water	One gallon to 100 birds, high pressure mist spray.
Rabon (stirofos) 3% dust	---	One pound per 300 birds on wire. One pound per 100 square feet of litter for floor birds.
Sevin (carbaryl) 5% dust	---	One pound per 100 birds. Do not use within 7 days of slaughter. Avoid contamination of eggs, feed and water.
Sevin (carbaryl) 80% WP	4 ounces in 5 gallons water	One gallon per 100 birds. Do not use within 7 days of slaughter. Avoid contamination of eggs, feed and water.
¹ When treating for mites, soak cracks and joints in roosts, nests and walls.		

Table II. Space Treatment for Fly Control.		
Material	Dilution	Application and Restrictions
Pyrethrins 0.1%-0.25 + Synergist 1.0%-2.5%		Spray or fog directly on flies.
Vapona (dichlorvos) 23.4% EC	1 gallon in 25 gallons water	Apply 1 pint per 8000 cubic feet as mist or fog.
Dibrom (naled) 35% EC	5 teaspoonfuls in 1 gallon water.	Direct spray throughout fly infested area.

Table III. Residual Fly Control.		
Material	Dilution	Application and Restrictions
Baytex (fenthion) 4 EC	4 ounces in one gallon	DO NOT APPLY DIRECTLY ON BIRDS.
Cygon (dimethoate) 2-E	1 gallon in 25 gallons water	REMOVE ALL BIRDS FROM BUILDING WHEN APPLYING. Wet all fly resting surfaces to the point of run-off.
Malathion 57% EC	4 tablespoons in 1 gallon water	Apply liberally to litter, walls, ceilings, roosts and adjacent areas.
Korlan (ronnel) 25% EC	1 gallon in 25 gallons water	DO NOT SPRAY DIRECTLY ON BIRDS.

Table IV. Fly Baits.	
Insecticide	Mixture
Dipterex (trichlorfon) 50% soluble powder	1 pound plus 4 pounds of sugar in 4 gallons
Vapona (dischlorvos) DDVP 46% EC	1 1/2 ounces plus 1 cup of
	sugar in 5 gallons water.
Malathion 25% WP	1 pound plus 3 pounds sugar in 3 gallons water.

Table V. Larvacide Treatment.			
Insecticide	Mixture	Application	Restrictions
Cygon (dimethoate) 2 E	1/2 pint quarts water	Apply as coarse spray to breeding areas under caged birds.	Do not spray birds or eggs.
Korlan (ronnel) 24 E	10 ounces in 1 gallon water	Apply as coarse spray to breeding areas under caged birds.	Do not spray birds or eggs.

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