



Feathered Facts

A
Baker County
Extension
Service
Newsletter

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Dear Extension Friends,

Thank you for continued interest in poultry and the information provided by the UF | IFAS Baker County Extension Service. This issue of *Feathered Facts* focuses on pests and pest control for the home flock. A few issues ago, I talked about good management and diseases. The information on pests ties into good management since many pests can be vectors for disease. As always, if we can help you in any way, please do not hesitate to contact us.

Sincerely,

Michael A. Davis, Ph.D.
Director / Agriculture Agent
UF | IFAS Baker County Extension Service

UF UNIVERSITY of FLORIDA
IFAS Extension
Baker County Extension

Pest Control on the Poultry Farm

Control of pests such as rodents, flies, beetles and mites is important for flock health and management. Pests are not only a nuisance, but they can also carry diseases and pests such as rodents can pilfer food that is meant for the flock. Proper pest management is one of the keys to a successful poultry flock, no matter the size.

Past pest control strategies relied mainly on pesticides and chemicals to remove pests from the area. While these methods are still used and can be important, there is another strategy that may be easier on the environment and the pocketbook. This strategy is referred to as Integrated Pest Management or IPM. Integrated pest management not only relies on the use of chemical control, but also employs cultural and physical control along with biological control to reduce or eliminate pests in and around the growout area. The articles on the following pages will introduce IPM and will discuss common tactics for pest control in the poultry growout area. Additional information can be found at <http://edis.ifas.ufl.edu/ig140>.



Integrated Pest Management

Integrated Pest Management, commonly referred to as IPM, is a control strategy for pests that combines cultural/physical, biological and chemical control procedures to reduce or eliminate pests. Many types of operations, such as pasture and hayfield management and horticulture, currently use IPM strategies. Integrated Pest Management typically involves the following objectives for control of pests:

1. Monitoring the populations of pests and biological control agents (if available). Pest management should be proactive instead of reactive. Proper monitoring of pests will help keep you ahead of the curve instead of behind the eight-ball. Monitoring involves both the detection of pests and their identification.
2. Determining the significance of the problem. While we would all like for there to be zero pests involved in our operations, this is not a feasible goal. When determining the significance of a pest problem, the most common indicator is that of economics. An operator must determine the level at which it is advantageous to apply control measures as it relates to the economics of the flock (economic threshold) and since flocks are different the economic threshold for action will be different depending on your situation.
3. Once you have determined that you have reached the economic threshold for a particular pest, you must then determine the control method that you will use. Integrated Pest Management has controls that are cultural/physical, biological and chemical. The type of pest and your situation will oftentimes determine the type of control method that is selected.
4. Once you have applied the control method evaluate the effectiveness of the control. This final step circles back into the monitoring step so that you know if the control method achieved its goal.

Fly Control



Flies are more than just a nuisance. They are also suspected of carrying disease organisms. There are many different types of flies that may be associated with a flock, including the house fly, the little house fly, the black garbage fly, the blow fly and the small dung fly. There are several ways to minimize fly populations by controls in conjunction with or instead of pesticides.

Monitoring

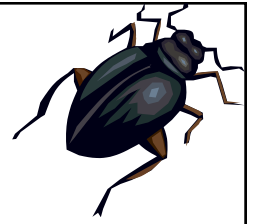
Monitoring to determine if there is a fly problem is typically accomplished via a speck fly count. This method is accomplished by placing a set number of 3x5 index cards (usually 4 to 10) throughout the housing area where flies are likely to land. When the flies land, they will leave a black speck on the card. Monitor the cards each week, replacing the old cards with new ones. If you have a fly speck count average of 100 or more, you should consider using a fly control measure.

Cultural/Physical Control

Manure management is one of the easiest ways to control fly populations. Poultry manure that is fresh can contain anywhere between 60% and 80% moisture. This is a perfect set of conditions for flies to reproduce. Manure that is below 50% moisture is less suitable for reproduction, but it can still take place. A good cleanout plan for your housing area will keep the manure level down and will disrupt the reproductive cycle of the flies. Other considerations include: water leak prevention and maintenance, adequate ventilation and avoidance of high temperatures in the housing area, if possible. Physical control methods include the use of screens and fly traps. It is important to note that the use of fly traps as a stand alone measure is not usually effective in population control. They should be used in conjunction with another method.

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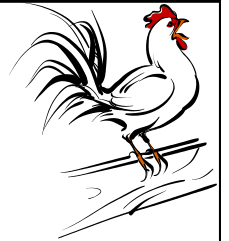
Beetle Control



There are two species of beetle that can inhabit poultry manure and litter: the darkling beetle (lesser mealworm) and the hide beetle. While these beetles compete with flies they are potential vectors for diseases such as fowl pox, acute leucosis, tapeworms and other pathogenic bacteria. They may also cause structural damage to the housing area.

The common control method for beetles is to apply insecticidal sprays or dusts to the litter. However, this may cause a decrease in beneficial insect populations. A thorough cleanout of the area followed by a chemical treatment before litter is placed back into the area will help to control beetle populations. Common active ingredients for beetle control include cyfluthrin, carbaryl, pyridine, boric acid and others.

External Parasites



There are several species of external parasites that may infest the poultry flock. Typically, these pests will result in lowered egg production and reduced weight gain. Descriptions of these pests are outlined below.

Poultry Lice

Many species of chewing lice may attack poultry. In general, these pests do not suck blood, but rather chew on dry skin scales, feathers or scabs. Some lice species will ingest blood from an open wound. Flocks that are infested with lice generally have a poor appearance and exhibit skin irritation and damaged feathers. Young birds may exhibit and die from secondary infections. Since the lice rarely leave the bird, treatment of the surrounding areas may not provide control. Common active ingredients for lice control include permethrin, carbaryl and tetrachlorvinphos + dichlorvos. Good management procedures will help to reduce the risk of lice infestation.

Poultry Mites

There are several species of mite that can infest a poultry flock. These pests will suck blood from the host and can be transferred from poultry to humans. Examples of mites that may infest the flock are: 1) red chicken mite, 2) northern fowl mite and 3) tropical fowl mite. Of these, the most important is the northern fowl mite.

Northern Fowl Mite

The northern fowl mite is considered parasitic on many types of domestic fowl, including poultry, and wild birds. An infestation with this pest can cause anemic conditions in the flock, decreased egg production, decreased weight gain and general unthriftiness. Extreme infestations can cause death. Typical active ingredients for northern fowl mite control include permethrin, malathion, carbaryl and tetrachlorvinphos + dichlorvos.

Common Red Chicken Mite

Like other external parasites, the common red chicken mite is parasitic on many types of fowl and wild birds. It can also be spread to people via contact with infested birds. An infestation with this type of mite will exhibit similar conditions to an infestation with the northern fowl mite, including: anemia, decreased egg production, decreased weight gain and general unthriftiness. Young birds that become infested typically die. This mite is also the vector for avian spirochetes. Red mites may not be visible on the birds during the day as they will usually hide in dark places. They typically feed on the birds during nighttime. Treatment for these mites should be on the bird and on the premise. Common active ingredients for red chicken mite control are permethrin, malathion, carbaryl and tetrachlorvinphos + dichlorvos.

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Fly Control *Continued from page 2*

Chemical Control

The use of insecticides for fly control should be used as a supplement to cultural/physical control. Remember to always follow the directions for the chemical control.

- **Area Sprays, Mists & Foggers**

These insecticides are intended for a quick kill of flies in the area. They do not have any residual action, so larvae will not be affected. The use of this type of control is suggested for early morning when flies are resting higher up in the housing area. The typical active ingredient for these types of sprays is a pyrethrin.

- **Residual Sprays**

The use of residual sprays has been a common practice for many years. This has led to resistance of some species to the chemical control. The use of residual sprays should be limited to cases where other control methods have not achieved the desired effect. Typical active ingredients for these types of sprays include permethrin, cyfluthrin and others.

- **Baits**

The use of baits is a very common part of a fly control program. Baits can be placed in walkways and aisles where flies will congregate. Baits should also be rotated to avoid the development of resistance. Care should be taken to not place baits where they are accessible to the birds. Common active ingredients for baits include methomyl, spinosad and others.

- **Larvicides**

Larvicides can be used as a spot treatment for areas that contain a large number of maggots. As with other insecticides, make sure to keep the birds away from treated areas and follow the directions on the label.

External Parasites *Continued from page 2*

Fowl Tick

The fowl tick is also referred to as the blue bug. Symptoms of infestation include weight loss and decreased egg production. This pest will hide during the daylight hours so it is difficult to control. Typical active ingredients for control include permethrin and tetrachlorvinphos + dichlorvos.

Sticktight Flea

This pest can be a severe problem in Florida. Symptoms of infestation include dark brown spots on the face, wattles and comb. Young poultry may die from infestation. Older birds may exhibit decreased egg production. These pests tend to be prevalent in the cooler parts of the year. Common active ingredients for control include permethrin, deltamethrin, lambda-cyhalothrin and pyriproxifen.



Baker County Extension Service

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Hours: M—F 8:30am to 5:00pm (Closed Noon to 1:00pm for Lunch)

