

# Common continuous parasites of poultry

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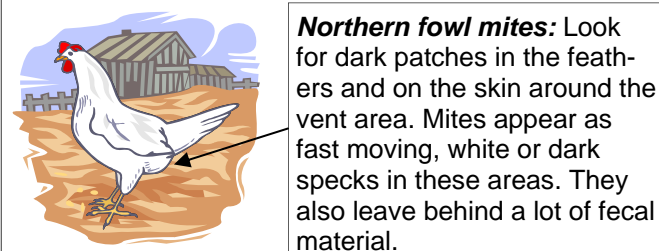
A number of parasites attack poultry by either sucking blood or feeding on the skin, feathers, or scales on the skin. Continuous external parasites are those that spend all of their adult life on their host. Temporary parasites feed, but do not live, on their host.

## NORTHERN FOWL MITES

The Northern Fowl Mite (*Ornithonyssus sylviarum*) is the most common external parasite in poultry (chickens, turkeys, game birds, pigeons, etc.), especially in cool weather climates. They are commonly spread through bird-to-bird contact. Northern fowl mites are blood feeders. Clinical signs of an infestation will vary, depending on the severity of the infestation. Heavy mite infestations can cause anemia due to blood loss. Chickens will have decreased egg production or weight gain, decreased carcass quality, and decreased feed intake. The flock will also be more susceptible to disease.

To check for Northern Fowl Mites look around the vent area (see Figure 1). They can often be seen as tiny specks moving quickly on the skin. Sometimes, however, the most obvious indication of an infestation is the presence of eggs and mite fecal material in these areas.

Figure 1. Diagram showing where to look for Northern fowl mites on a chicken



Northern Fowl Mites are usually found in poultry flocks during the winter and cooler months of fall and spring. This parasite has been seen on many species of wild birds but is believed to be carried mainly by the English sparrow.

Typical control measures include Sevin,<sup>®</sup> Prozap Insectrin Dust and PoultryGuard.<sup>®</sup> Check the label for proper registration and use. For floor birds, adding powdered insecticides to the litter or dust baths may serve as a preventive measure.

For organic producers that are not able to use the products listed above diatomaceous earth can be used as a preventive measure. Diatomaceous earth (DE) is believed to be a natural insect control powder. DE is obtained from deposits of diatomite, which are the fossilized sedimentary layers of tiny phytoplankton called diatoms. DE is a form of amorphous silica that can kill insects by desiccation, by absorbing the oily or waxy cuticle layer by direct contact. When the thin, waterproof layer is lost, the insect loses water and dies. In addition to its desiccant action, DE works abrasively to rupture insect cuticles.

In addition to DE, there are a few products that are available for use with organic poultry production—such as PyTGanic Pro<sup>®</sup> which is a pyrethrum-based product. Pyrethrum is a botanical insecticide derived from chrysanthemums. The life cycle of Northern Fowl Mites is 5-7 days, so repeated treatments may be necessary to eliminate a large infestation.

## STICKTIGHT FLEAS

Sticktight fleas (*Echidnophaga gallinacea*) are another common external parasite of poultry. Although they are called a 'flea' they are stationary when compared to most other fleas. They are a burrowing flea and female fleas at-

tach to the skin around the face and wattles to lay eggs (see Figures 2 and 3). Ulceration and aggravation of the skin can occur. When the area around the eyes is affected, blindness can result. In severe cases, stick-tight flea infestations can kill young birds.

Figure 2. Diagram showing where to look for sticktight fleas on a chicken

**Sticktight fleas:** Look for small brown insect that appear as dots clinging to or embedded in the fleshy parts of the chicken's head around the eye




Figure 3. Sticktight fleas around the eye of a chicken.



Stick-tight fleas can be transferred to other animals, including dogs, cats, horses and humans.

Sticktight flea larvae develop in the soil around chicken cages and pupate in about two weeks. Two weeks later, adult fleas emerge from the pupae and are free-living until it is time to breed. Female fleas attach to the skin around the face and wattles of chickens and lay their eggs to continue the life cycle.

Chickens raised in wire cages three or more feet above the ground do not usually become infested with sticktight fleas. Sevin® dust can

be applied to the fleas and litter. Attached fleas will die within a short period of time, but they remain attached to the chicken for an indefinite period (several days or weeks).

An alternative method for treating a sticktight flea infestation is to coat the adults with petroleum jelly, which causes them to suffocate. The fleas will be dead but will not fall off immediately and can remain for several weeks.

**SCALY LEG MITES**

Scaly leg mites (*Knemidokoptes mutans*) burrow into and live in the skin under the scales of the feet, causing the lifting of the scales and deformity of the feet (see Figures 4 and 5).

Figure 4. Diagram showing where to look for scaly-leg mites on a chicken.

**Scaly leg mites:** Mites burrow under scales on lower legs (shank) and toes causing scales to bulge out. Legs and toes become deformed.

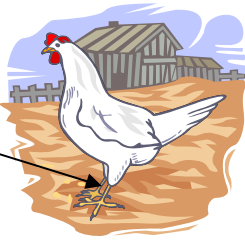


Figure 5. Scaly leg mite infestation of chicken feet



Chickens raised in wire cages three feet or more above the ground do not usually become infested with scaly leg mites. Prevention is easier than treatment—inspect new birds before adding them to a flock. Transmission is from bird-to-bird. Scaly leg mites are frequently picked up at poultry shows. It is recommended that you treat all chickens that have returned from poultry shows.

Chickens with scaly leg mites can be treated by dipping the legs in linseed oil. This has to be repeated at seven day intervals for three weeks. Do not use fuel oil, kerosene, motor oil or other liquid petroleum products on the chickens at any time. The swollen and deformed look to the feet may remain even after the mites are dead. Since most poultry judges consider a scaly leg mite infestation to indicate a lack of proper management by the exhibitor, such chickens should not be shown in poultry exhibits.

## CHICKEN LICE

Chicken body louse (*Menacanthus stramineus*) and the Shaft louse (*Menopon gallinae*) are the two species of lice most commonly found on poultry. Lice feed on blood and other fluids of the host causing birds to become restless and irritated. This adversely affects feed intake, digestion, growth and egg production. Young birds are more seriously affected.

Lice tend to be more abundant in unclean, overcrowded conditions.

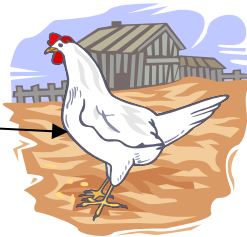
Control of chicken lice is typically done with the use of Malathion and Sevin dusts applied to the birds. Pesticides used for northern fowl mites will usually also control lice.

## SUMMARY

External parasites of poultry can be detected through a physical examination of the bird. Periodic examination of your flock is recommended so that infestations can be detected early and a larger flock outbreak contained. It is especially important to detect infestations early in food-producing poultry because there are restrictions on the treatments available for these flocks. It is also important to remember that many of the external parasites live part of their life cycle off the bird and in the environment so these areas should be treated during an outbreak as well.

Figure 6. Diagram showing where to look for body lice on a chicken

**Chicken body lice:** Look for small, yellow-brown, cigar-shaped, quick moving insects on skin and feathers on breast and under wings.



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