

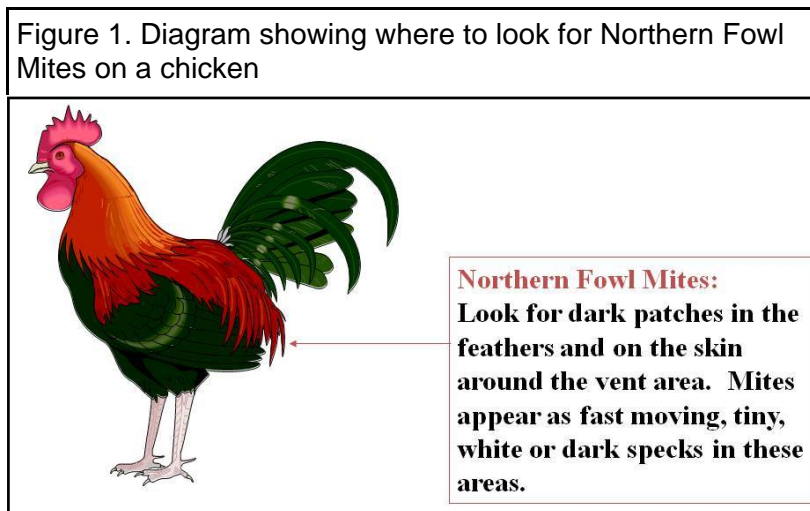
COMMON CONTINUOUS EXTERNAL PARASITES OF POULTRY

By Jacquie Jacob and Tony Pescatore

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, especially in cool weather climates. They are commonly spread through bird-to-bird contact. 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 above). Northern Fowl Mites are usually found in poultry flocks during the winter and cooler months of fall and spring.

Typical control measures include Sevin,[®] Prozap Insectrin Dust and PoultryGuard.[®] 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, there are a few products that are available for use with organic poultry production—such as PyTGenic Pro[®] 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. Female fleas attach to the skin around the face and wattles to lay eggs (see Figures 2 and 3 below). Ulceration and aggravation of the skin can occur. When the area around the eyes is affected, blindness can result.

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

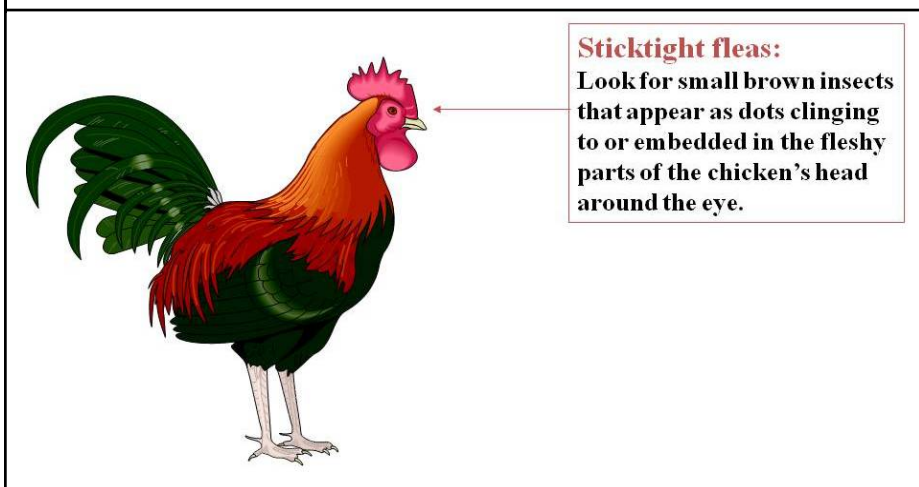


Figure 3. Photograph showing sticktight fleas around the eye of a chicken



Photograph by Jacquie Jacob

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. Seven[®] 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.

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).

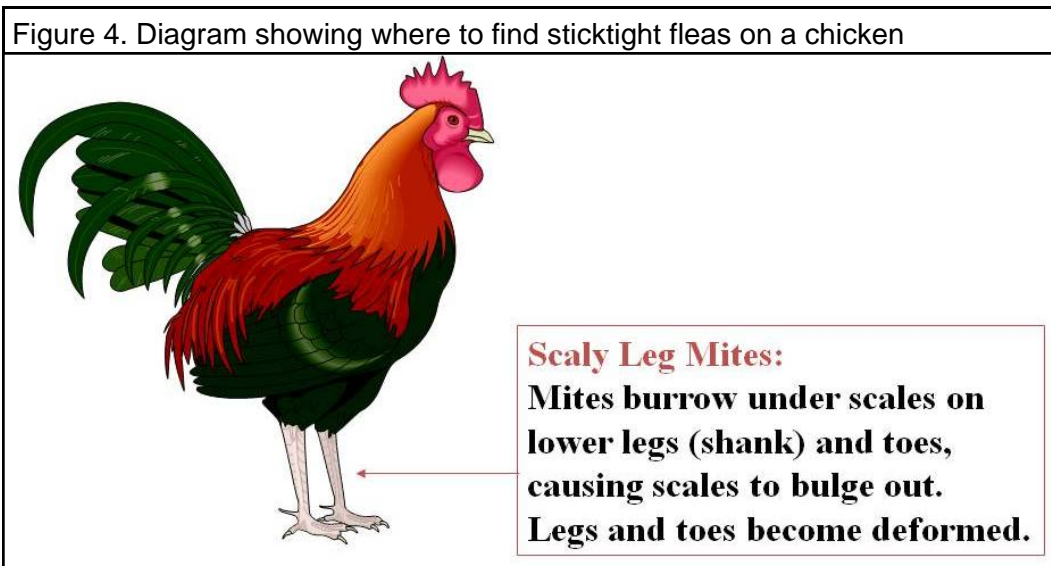


Figure 5. Photograph showing a scaly leg mite infestation of chicken feet



Photograph by Jacquie Jacob

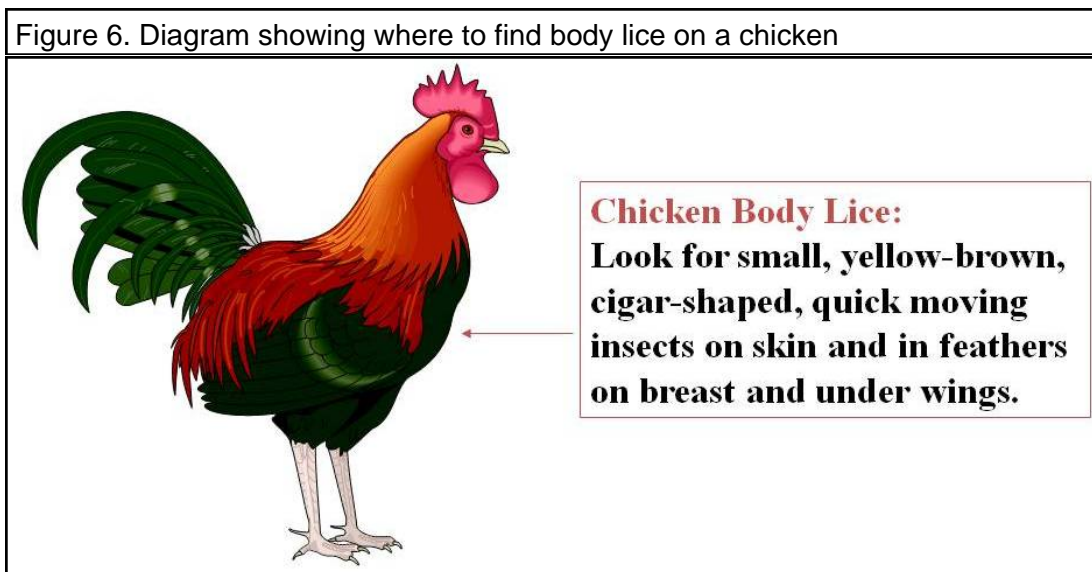
Chickens raised in wire cages three feet or more above the ground do not usually become infested with scaly leg mites. Prevention is easier than treatment—inspect new birds before adding them to a flock. Transmission is from bird-to-bird.

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. Louse 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.



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