



Cooperative Extension Service
Institute of Food and Agricultural Sciences

Common Intermittent External Parasites of Poultry¹

J. A. Hogsette and R.D. Jacobs²

In this fact sheet, we describe three intermittent external parasites: fowl ticks, chicken mites, and bed bugs. Although different in size, these pests are very similar in many other respects. All are blood feeders, and all but the larval stage of the fowl tick stay on the host briefly to feed. After feeding, they leave the host and conceal themselves in the floors and walls of the housing near to or some distance from the host. All are considered rare, at least in Florida, and all are nocturnal feeders.

Fowl Ticks

Scientific name: *Argas persicus*

Biology and life cycle: Fowl ticks, or blue bugs, are classified as soft ticks and are very different from the hard ticks we normally find on cats and dogs. Fowl ticks are light reddish brown to dark brown, and the skin is wrinkled. Adult size is 6 to 9 mm in length. Females lay eggs in the cracks and crevices they occupy, usually in batches of 30 to 100 or more. Females lay several batches of eggs and produce an average of 700 to 800 eggs during their lifetime. A blood meal is needed to produce each batch of eggs. Eggs hatch in 2 to 4 weeks and 6-legged tick larvae appear. Larvae are active day or night and readily seek a host. Larvae attach to the host and feed for 5-6 days. After this time, they drop from the host, and molt to the nymphal stage. Nymphs, which have 8 legs, feed only at night and for short periods. After two more nymphal molts, the ticks reach the adult stage. Under favorable conditions, time from egg to

adult is approximately 30 days. Adult ticks completely engorge on hosts in 30 to 45 minutes. Adults are extremely resistant to starvation, and can live more than a year without a blood meal.

Bed Bugs

Scientific name: *Cimex lectularius*

Biology and life cycle: Bed bugs are gregarious insects and can be found in large numbers in poultry houses. Adults are reddish brown and the immatures are off-white in color. Females lay eggs in batches of 15 to 60 in the cracks and crevices they occupy. Females lay between 150 and 600 eggs in their lifetime. Eggs hatch in 1 to 3 weeks, and 6-legged nymphs appear. There are five nymphal molts until the adult stage is reached. Time from egg to adult is 1 to 4 months, however the time is usually much longer. Later nymphal stages can withstand long periods of starvation (1 to 5 months) and still survive. Adults completely engorge on hosts in 5 to 10 minutes.

Chicken Mites

Scientific name: *Dermanyssus gallinae*

Biology and life cycle: Chicken mites, also called red mites or roost mites, are commonly confused with the northern fowl mite, *Ornithonyssus sylviarum*. One main difference is that the northern fowl mite spends its entire life on the host, but the chicken mite does not. Chicken mites are quite small, but they can be seen with the naked eye. Chicken mites are gregarious

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2. J.A. Hogsette, USDA-ARS, Gainesville, and R.D. Jacobs, multi-county extension agent, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611.

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and can be found in large numbers around poultry. The life cycle is fairly complicated, with a series of feeding and nonfeeding immature stages. Eggs hatch in about 3 days, and the life cycle can be completed in 7 to 10 days under favorable conditions. Adults are resistant to starvation, and can live off the host for more than a month.

Damage

Damage caused by all three pests is very similar. Upon inspection, birds will have bloody lesions of varying size depending upon the parasite that produced the lesions. But as much as the birds are inspected, no cause will be found for the lesions. Unless, that is, the inspections are made at night. At that time, the pests will be feeding on the host. None can move very quickly, so they should be easy to observe and, if necessary, collect for identification. All have been known to feed on humans, but this is now very uncommon in the U.S.

Control

Changes in housing have all but eliminated these three pests in commercial poultry flocks. However, they sometimes appear in small flocks of chickens, other poultry, or exotic birds like parakeets and cockatiels. The manner by which these pests move from one poultry flock to another is largely unknown, except for the chicken mite, which has been shown to hitch rides on wild birds, rodents, and other animals. When the pests are discovered and identified, they can sometimes be controlled by management changes and modification of housing. For example, the cracks and crevices required by these pests for shelter should be eliminated, minimized, or sealed in current or planned housing. Entry of wild birds and rodents can be prevented with screen and other barriers.

Because these three external parasites are rare, they have not had the level of exposure to pesticides as have flies or other more common pests. Therefore, they are easily controlled with premise treatments of pyrethroid pesticides. Again because these pests are rare, it can be difficult to find pesticides labeled specifically for their control.