

**CONTROLLING THE NORTHERN FOWL MITE**

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A number of infestations of the northern fowl mite have been reported; therefore, producers should be on the lookout for infestations in their layer houses. To successfully control this pest, one should know its biology.

The northern fowl mite, *Ornithonyssus Sylviarum*, infests a wide variety of domestic fowl and wild birds and is the most important and common external parasite of poultry. Feeding on blood, heavy mite infestations can irritate and stress birds, reducing egg production by 10 to 15 percent.

However, a production loss of only a small percentage can add up to significant losses over the total life of a caged-laying flock. Heavy populations can also reduce weight gains and, in male birds, reduce seminal fluid volume. Mites can also annoy egg handlers and other personnel.

Mites first congregate in the vent area, then the tail, back, and legs of female birds; however, they are more scattered on male birds. As the mite population increases, feathers become soiled from mite eggs, cast skins, dried blood, and excrement. The soiling produces

the characteristic blackened feathers in the vent area. Scabs may also form in the vent area. While death due to actual anemia is rare, birds with heavy infestations (50,000 mites/bird) can lose six percent of their blood daily.

Mite populations can increase rapidly after a bird has been first infested, especially during the cooler months and on young birds (20 to 30 weeks of age). Newly infested birds may support mite populations in excess of 20,000 per bird in nine to 10 weeks. Mites do not become established on birds in large numbers until birds reach sexual maturity. Also, birds older than 40 weeks usually do not support many mites.

The northern fowl mite completes its entire life cycle on the bird, although they can survive off the host for two to three weeks under suitable conditions. Life cycle stages consist of egg, larva, two nymphal stages, and adult. The eight-legged adult is only 1/26th of an inch long and is usually dark red to black. Females lay two to five eggs in the fluff of feathers after each blood meal. Eggs hatch into six-legged larvae within two days. All other mite stages possess eight legs.

Nonfeeding larvae develop in approximately nine hours and molt into blood-feeding nymphs that develop in one or two days. Second stage nymphs, like the larvae, do not feed and molt to adults in

less than a day. The entire life cycle can be completed within a week under favorable conditions.

**Mite Control**

Control of northern fowl mites in caged-layer operations is based on efforts to prevent infestation and to apply an acaricide when an infestation occurs. Regularly monitoring flocks for the presence of mites will allow them to be detected while the population is low or isolated to a few birds.

A house should be clean and mite-free before new birds are moved in, and the new flock should be mite-free. Once the flocks are in the house, care should be taken to prevent contamination from the clothing of workers and various equipment since mites can live for a few weeks off the host.

Mites have been shown to be readily transferred from an infested house to an uninfested house by contaminated egg flats. Wild birds and rodents can harbor and disseminate northern fowl mites as well.

The detection of an initial low-mite population that can be controlled effectively and economically is important in a mite-monitoring program. With early detection, only part of a caged-layer house may need to be treated.

At least 10 randomly selected birds from each cage row in the entire house should be monitored weekly. The vent area should be examined under a bright light and the feathers parted to reveal the mites.

Single caged birds often have more mites than those caged in groups and, because of variation in susceptibility among birds, one bird may have mites while its cage mates are mite-free.

The following index is effective for estimating infestation levels: 0

= no mites observed, 1 = one to two mites, 2 = three to nine mites, 3 = 10 to 31 mites, 4 = 32 to 99 mites, 5 = 100 to 300 mites, 6 = 301 to 999 mites, 7 = 1,000 to 3,000 mites, 8 = 3,001 to 9,999 mites, 9 = 10,000 to 32,000 mites, and 10 = more than 32,000 mites. An average index of five or greater for all examined birds generally indicates the need for chemical treatment.

The actual decision to treat is influenced by flock age, time of year, and distribution of the infestation in the house. It is usually not economical to treat older birds because their mite populations are unlikely to increase. A population buildup is more likely in a young flock. Mite populations can be expected to increase in cooler months and decrease in warmer months. An infestation restricted to one part of the house may not spread, but the infested area should be closely monitored. Detection of mites in broiler-breeder operations generally means the entire flock must be treated.

Chemical control of northern fowl mites in caged-layer operations requires direct pesticide application to the vent region with sufficient pressure (minimum 100 to 125 psi) to penetrate the feathers. The spray will have to be directed upward from beneath the cages to reach the vent.

A split treatment of a recommended active ingredient may increase effectiveness since water is held better when applied to wet feathers. Mix half the insecticide in the standard amount of water for the first application, spray, and then mix the other half in another standard amount of water for the second application.

Dust formulations can be purchased ready to use and may be applied to caged-layers with a power blower. Treatment is difficult in broiler-breeder operations where birds are not confined to cages. Current recommendations for sprays can be obtained from your local extension agent.

**National Shorthorn Leadership Elected**

LOUISVILLE, Ky. — Bill Rasor, Allen, Texas, will serve a second term as the president of the American Shorthorn Association board of directors.

Rasor, owner and operator of WHR Shorthorns, was reelected to a second term at the organization's annual meeting in conjunction with the National Shorthorn Show at the North American International Livestock Exposition in Louisville, Ky.

Rasor, completing a second three-year term, was first elected to the board in 1992. He and his wife, Becky, have long been breed leaders and promoters in both state and national activities. Their children, Will and Ann, have been active in the American Junior Shorthorn Association. Will serves as the vice president of the American Junior Shorthorn Association board of directors.

Reelected as the national vice president was Dr. James Freed, Chickasha, Okla. The Freed operation, Double J Ranch, has established a national reputation for producing strong, performance oriented breeding cattle. Support and dedication to the Shorthorn breed is a family affair. Freed's wife, Beverly, is a former director of the National Shorthorn Lassies. Their children, Janet and Jetty,

have both achieved outstanding success in the junior program.

Two new directors were elected to the board for three-year terms by the voting delegates from 21 districts in attendance. Ron Moore, Jerseyville, Ill., is one of three members of the Hugh Moore Jr. & Sons Shorthorn operation. Moore has played a major role in the development of their strong program and the continued growth of the Shorthorn influence in his area.

Also elected to the board of directors was Bruce Wallace, East Bend, N.C. Wallace's love of the Short-horn breed began in 1940. The owner and operator of Flint Hill Farm is establishing a premier breeding program of seedstock genetics.

Retiring members having completed six years on the board were Derm Jordan, Gibson City, Ill., and Maurice Korthaus, Prospect, Ky. Jordan was a two-term national president.

Returning members of the board are Robert Alden, Hamilton, Mo.; Hale Charlton, Quincy, Calif.; Bradley Eisiminger, Waynesburg, Pa.; Dale Rocker, Seward, Neb.; and Doug Schrag, Marion, S.D. Dr. Roger E. Hunsley serves as the breed's executive secretary-treasurer at the American Shorthorn Association offices in Omaha, Neb.

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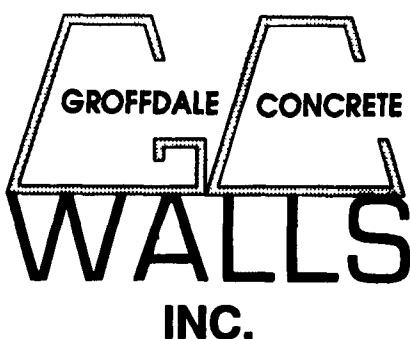
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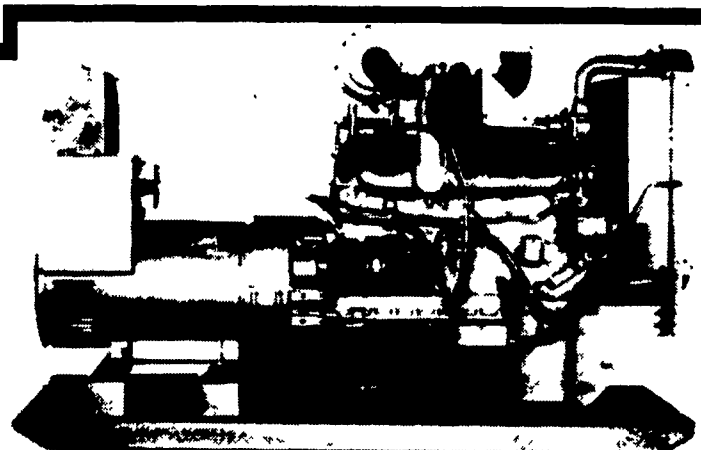
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