

# RED MITES

## HOW TO IDENTIFY AND ELIMINATE THEM!

### The Parasite

The red mite (*Dermanyssus gallinae*) is a common parasite of chicken coops. It belongs to the family Gamasidae and measures up to 1 mm in length. The mites move slowly and have a distinct red to brown color. These mites have their legs grouped at the front of their body and feed on blood at night. They live in the environment during the day so are not found on the bird during that time. Their population increases rapidly during the warmest months of the year when lifecycles can be as fast as 7 to 10 days. These parasites have also been known to bite humans, leaving behind itchy red marks resembling a rash. Red mites are very resistant to food deprivation and remain in a coop for up to 6 months after infested birds have been removed. *Dermanyssus* mites also contribute to the spread of infectious agents within a flock including *Salmonella*, *Pasteurella* and poxvirus.

### Transmission

Transmission of red mites occurs after direct contact with an infested bird, contact with the infested coop or bedding material, or secondary to the natural dispersion of the mites. Egg-laying and brooding chickens are especially susceptible to infestation as they stay immobile for long periods of time in dark environments infested with the mites.

### Clinical Signs

Clinical signs typically associated with infestation in chickens include weight loss and decreased egg production but can progress to weakness and even death. Birds may seem agitated or irritable. Birds with massive infestations can be severely anemic and have a pale comb and wattle. Mite infested birds can also show feather damaging behaviors. Eggs can be soiled by red marks (crushed mites on the shell) and pale yolks can be observed. In cases of severe infestation of the coop, chickens may even refuse to enter the structure. Mites can cause red, irritated, and spotty skin. Mites are typically found at the base of the tail feathers, in the vicinity of the cloaca, under the wings, and at the base of the primary feathers of the wings so you can look in these areas for evidence of bites.

### Diagnosis

The diagnosis of a red mite infestation relies on visualization of the parasites which is difficult as they only feed on the chicken at night. During the day, mites hide in cracks and crevices within the coop and in the litter. It is therefore important to look for mites in the litter, in the cracks/corners of the coop or under the perches rather than looking on the birds themselves. The mites appear as grey-brown clusters that can be mistaken for dust.

***Diagnosis of red mite infestation is difficult; clinical signs are often mild and the parasites are hidden during the day.***

It is possible to examine samples with a microscope or magnifying glass to identify mites. Other methods to find mites in the environment include trapping them by placing cardboard rolls on the floor and under the perch, where the mites will take refuge during the day. Double sided tape can also be placed in strategic locations, trapping any mites crawling across it. After 24 to 48 hours, inspection of the traps will allow visualization of the mites. At night, the mites move between locations and trails may be identified by rubbing a white cloth on the perch to identify red smears. Another method is to place a white sheet hanging from the roof of the coop and to check the sheet for the presence of red mites at night.

### Treatment

Eliminating red mites from a coop is a difficult and often frustrating task. A more reasonable objective is decreasing the mite population to a level that is not associated with illness in the chickens and to maintain a low level of parasitism through frequent cleaning.

***It is important to repeat the cleaning process every 5-6 days in cases of severe infestation.***

In cases of massive infestations, frequent, intensive cleaning is necessary. One must remove the litter, all movable coop furniture (food bowls, perch, etc.) as well as the roof and, if possible, any slats under which the mites love to hide. These items will need to be sprayed with pressurized water, paying particular attention to cleaning the cracks and crevices where mites like to live. Cleaning should be continued every 5-6 days as long as mites are visible; this frequency of cleaning is necessary since the mite's reproductive cycle takes a week to complete. Clean litter must then be deposited; diatomaceous earth or amorphous silica can be added to the litter and dusted on the perch every two days. The frequency of application will need to be higher when there is high humidity. The use of insecticides is regulated by local law which should be reviewed prior

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to application; ask your avian veterinarian for advice on what products are allowed in your area. Numerous insecticides have been suggested for use but care must be taken if the birds will have contact with these products as they can be toxic to the birds and eggs can become contaminated with chemicals; make sure to always read the label instructions carefully. Another approach relies on the use of natural predators of red mites such as *Androaelaps casalis* (another species of mite that does not infest birds or mammals).

## Prevention

Prevention of red mite infestation relies on keeping new, potentially infected birds quarantined from the existing flock until they can be examined and treated as needed. Additionally, providing dust baths to chickens to increase normal preening and feather care can help. The baths can be composed of diatomaceous earth, kaolin clay or sulfur. If diatomaceous earth is used, it should be used in moderate amounts because excessive dust can cause irritation of the respiratory tract or potentially be ingested. Frequently cleaning the coop is also an important aspect of mite prevention.

## Online resources

Follow AAV on Facebook ([facebook.com/aavonline](https://facebook.com/aavonline)) for great tips and the latest news for pet bird owners. You can also find us on Twitter ([@aavonline](https://twitter.com/aavonline)) and YouTube!

Our website, [www.aav.org](http://www.aav.org), offers a Find-a-Vet tool to help pet bird owners locate avian veterinarians around the world. We also offer a variety of resources such as basic bird care instructions and more. Visit the website today!

AAV offers bird clubs a monthly news bulletin for use in their newsletters. Clubs may contact the Publications Office ([pubs@aav.org](mailto:pubs@aav.org)) for information.

## For more information

For more information on birds, ask your veterinarian for copies of the following AAV Client Education Brochures:

- Basic Care
- Behavior: Normal and Abnormal
- Avian Chlamydiosis and Psittacosis
- Feather Loss
- Feeding
- Health Exam
- Injury Prevention and Emergency Care
- Signs of Illness
- When Should I Take My Bird to a Vet

## Looking for an avian veterinarian near you?

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