

## External Parasites of Poultry

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The major external parasites of poultry are lice, mites and ticks.

Deaths resulting from infestations of external parasites are rare, but production losses often occur because of the irritation caused to the birds. For example many external parasites suck blood which often causes birds to become anaemic.

Ticks and mites can also transmit diseases such as tick fever (spirochaetosis) to the flock.

### CONTROL

External parasites can easily be spread from bird to bird and are often a consequence of overcrowding and poor hygiene.

If the recommendations below are followed external parasites should be controlled.

1. Use the correct insecticide and follow the manufacturer's directions.
2. Birds may be sprayed, dusted or dipped, depending on the size of the flock. Dusting is more convenient if there are only a few birds in the flock. Whatever method is used, ensure that the bird is completely covered with insecticide. The vent (anus) and underwings are often missed - these are favourite areas for parasites.
3. If poultry are dipped, make sure they are completely dry before nightfall in regions where nighttime temperatures are low.
4. It is not enough to treat just the birds since some parasites spend a significant part of their life cycle off the bird. The roof and walls of the shed should be treated, as well as perches, nesting boxes and litter. Make sure that all cracks and crevices are well penetrated with insecticide. Parasite eggs may be laid on feathers so clean up litter in the nest boxes and shed when treating for parasites.



5. As insecticides have no effect on parasite eggs, follow-up treatments are required. The timing of these will depend on the life cycle of the parasite.
6. It is advisable to fence all wild birds out of the poultry shed as they can be a constant source of parasites.
7. When using insecticides always wear protective clothing. Avoid skin contact and inhalation of the chemical.

### **LICE (VARIOUS SPECIES)**

Lice are small, flat, oval-shaped insects, 1-3 mm long, and grey-white in colour. They can usually be seen scurrying for cover when one inspects the vent and underwings of birds. There are a number of species of louse that infest poultry.

- i. The body louse is the most important pest of poultry as it punctures the base of the quill and lives on the blood which oozes from the puncture.
- ii. The shaft louse is more common, but as it feeds on feathers it does not cause as much irritation.

Lice are spread from bird to bird by contact and are therefore spread more quickly in overcrowded situations. Eggs are laid in clusters and may be stuck onto feathers. After 8 days the eggs hatch and larvae begin feeding. Lice spend their entire lives on the bird, their life cycle being completed in 2-3 weeks. A louse will die in 4-5 days if separated from its host.

**Treatment:** Birds may be sprayed, dusted or dipped with an appropriate insecticide. Because lice live only a few days off the host emptying a shed or yard for a week will clean it.

### **MITES**

Mites are very small parasites, barely visible to the naked eye, which live by sucking the blood of the bird. Mites can live for several months without food, so destocking a shed for a short time will not eliminate the problem.

#### **i. Red Mite (*Dermanyssus gallinae*)**

These mites feed only at night. During the day they hide in dark cracks, crevices and nesting material. Unfed mites are grey-brown in colour, but when engorged with blood they can be seen as bright red dots.

Eggs are laid in cracks and crevices and when they hatch the larvae move about in search of a bird. The whole life cycle can be completed in 7 days.

If a thin bladed knife is forced into cracks in the poultry shed and blood seen on the blade, then mites may be sheltering in these cracks.

**Treatment:** Treat birds and shed with insecticide, making sure that all cracks are penetrated. Nesting material should be removed and burnt or buried. Treatment must be repeated at seven days to break the life cycle.

**ii. Scalyleg Mite (*Cnemidocoptes mutans*)**

This mite is especially indicative of overcrowding and bad hygiene. It burrows into the skin of the feet and shanks of the bird, causing ulcerations. The bird may eventually become lame. The mite is spread by direct contact between birds and infected litter.

Treatment: Isolate the birds. Soften the scales by rubbing with warm soapy water. Then liberally apply petroleum, jelly/vaseline or vegetable oil (eg linseed oil) to the entire legs and shanks to smother the mites. Repeat every ten days until the legs are clean. If few birds are affected it may be easier to cull them.

Spray and clean the shed as for red mite and repeat in ten days.

**iii. Feather Mites (various families)**

Feather mites can be seen as flesh-coloured specks scurrying across the bird's skin when the feathers are parted. They are often most visible around the vent and underwings. These mites do not cause major irritation to the birds, but still should be controlled.

**Treatment:** Spray birds and shed as for red mite.

**FOWL TICK (*Argas persicus*)**

The adult tick feeds only at night and shelters in cracks during the day. The larval form remains on the bird for 5-10 days. Eggs are laid in crevices and hatch after 10-15 days. As with the red mite its presence can be indicated by poking cracks and crevices with a knife.

**Treatment:** As for red mite with follow up treatment at 1 month.

**STICKFAST FLEA (*Echidnophaga gallinacea*)**

This flea may occur on dogs, cats, pigs, cattle and horses, as well as poultry and wild birds. It may also attack humans.

The flea attaches itself to the skin and forms clusters on the combs and wattles. It remains attached for its entire life. A heavy infestation can cause death in young birds. The eggs are usually laid by the female at night and drop into the litter. The larval stages then develop in the litter. The whole life cycle will take three to six weeks.

**Treatment:** Birds and surroundings should be sprayed with insecticide. A study of the life cycle suggests that control of this flea may be achieved by treating the birds, removing them from the infested area for three weeks and treating the area and birds (again) before returning them. Treatment of the area would entail removing droppings and litter and spraying with a suitable insecticide. Domestic animals having contact with the poultry should be treated at the same time. A range of insecticides is available for treating birds and their environment.

**USE OF INSECTICIDES**

Birds, particularly ducks, are susceptible to poisoning by most insecticides if they are used too frequently or in high concentration. The directions on the container should be followed carefully. Do not use insecticides that are not intended for poultry. Some insecticides suitable for treating sheds and yards are not suitable for treating the birds themselves and birds should not even be in the shed when they are being applied.

Even if insecticides do not seem to affect the birds they may be absorbed and appear in the eggs or meat, making these products unsuitable for human consumption. This can happen from treatment of the birds themselves or from living in a treated shed or yard. If exposure to insecticides is temporary the effect will wear off, so eggs and meat become safe again after a 'withholding period'. The withholding period for a particular insecticide is stated on the label and must be observed.

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