

## Disease Prevention in a Small Poultry Flock

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### INTRODUCTION

A sound knowledge of flock management is the first step in preventing disease problems in poultry. Diseases can be minimised by keeping the flock under the best possible conditions and by understanding the nature of disease and its method of transmission.

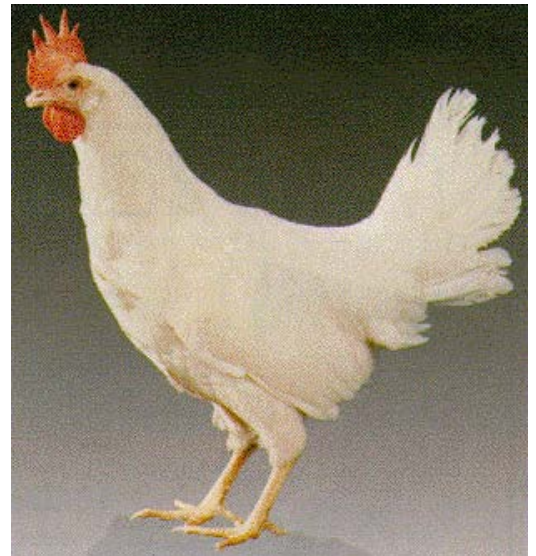
An unhealthy flock is usually a result of poor management.

### MANAGEMENT OF THE BIRD

Birds are more likely to develop disease when their resistance is lowered by stress. Stress can be the result of poor nutrition, inadequate housing or bad hygiene.

#### (a) Space

Overcrowding is an important factor in disease transmission as organisms can pass easily from bird to bird, or through droppings. When birds are penned at all times, allow 0.5 m<sup>2</sup>/adult bird.



There must be adequate feeder space for the whole flock. The recommended feeder length is 10 cm/adult bird.

#### (b) Nutrition

A balanced diet will give birds the correct amount of energy protein vitamins and minerals.

Commercial poultry feed is formulated to provide all the ingredients that birds need for maximum growth and production. When using commercial feed, make sure that growing birds are fed a grower ration and that laying hens are fed a layer ration. Kitchen scraps may be used, but only as a supplement to good commercial feed. Uneaten scraps should be removed daily so that the feed never gets spoilt and mouldy.

Make sure that birds have access to a calcium source, such as shell-grit.

#### (c) Water

Adequate cool, clean water should be available at all times. Each bird should have an average of 2.5 cm of drinking space.

#### (d) Buying new birds

Buy only young and healthy birds because older birds are more likely to carry diseases. New birds should be kept under quarantine for at least one month and watched carefully for any sign of disease.

### **(e) Housing of birds**

Young birds are more susceptible to disease than older birds as they have not yet acquired resistance. Therefore, house young chickens separately from adult birds. This will also prevent bullying of young birds. When attending to the flock, always go to the young birds first to avoid spreading diseases from older birds. Provide extra feeders and waterers for newly-purchased young chicks so that they get off to a good start.

House ducks, hens and turkeys separately as different types of poultry may have different susceptibilities to a particular disease. For instance, hens may carry blackhead without any symptoms, but can transmit it to turkeys.

### **(f) Sick birds**

Keep a close watch for signs of disease as early detection can reduce losses. All sick birds should be quarantined immediately and advice should be sought about the cause of disease and the correct treatment. Dead birds should be removed and their carcasses should be incinerated or buried as soon as possible.

If a bird is to be submitted to a veterinarian for examination, select one in an advanced stage of the disease. The behaviour of a sick bird can aid the veterinarian in his/her diagnosis.

When only dead specimens are available, they should be kept in the refrigerator until they can be taken to the veterinarian. Do not freeze carcasses.

Good nursing, correct medication and extra vitamins and electrolytes may assist in salvaging a small flock during sickness.

## **MANAGEMENT OF THE SHED AND THE RUN**

### **(a) Regular maintenance**

Both the shed and the run should be well-drained and have adequate protection from the sun and rain. The shed should always be well ventilated and have clean, dry litter to prevent the build-up of ammonia. Feeders and waterers should be designed to prevent contamination by bird droppings. The area around the waterers should be kept dry as many diseases, such as coccidiosis, thrive in wet, warm conditions. A wire or wooden platform under the waterers will keep birds away from the damp areas.

Litter in nest boxes should be removed frequently and replaced with clean litter to prevent eggs becoming dirty.

### **(b) Annual maintenance**

Thoroughly clean out the shed and the run once a year. Remove all old litter and manure from the shed and nest boxes and hose down the walls and ceiling. Spray the shed with disinfectant and insecticide, making sure that all cracks and crevices are penetrated. Dismantle and clean the feeders and waterers. If possible, leave the shed and run empty for a few weeks.

Cover the soil in the run with quicklime at the rate of 0.5 kg/m<sup>2</sup> and, after three weeks, dig over the soil. This will kill many of the organisms living in the soil.

### **(c) Other animals**

It is advisable to fence all wild birds and vermin out of the shed and run. They not only act as sources of disease for the poultry flock, but can also eat a significant amount of valuable feed. Hawks and kites may steal young chickens; goannas and snakes may take eggs and birds.

Insects, slugs and snails can transmit a number of diseases and parasites to poultry. Therefore, any breeding areas, such as piles of rubbish and manure, should be removed. As mosquitoes can transmit fowl pox, any areas of stagnant water should be cleaned up. Old paint tins and car tyres can hold sufficient water to breed large numbers of mosquitoes.

**(d) Toxic materials**

When poultry are allowed to scavenge in the garden, make sure that all toxic materials are removed, such as old paint tins and toxic plants. Do not allow birds to scavenge in gardens or orchards that have been sprayed with pesticides. Birds may be poisoned or they may take up and retain the pesticide and pass it on to humans in their meat or eggs. This applies also to any medication or treatment applied to the birds. Most such substances are eventually eliminated from the bird's body and the bird and its eggs become safe again to eat. The meat and eggs must not be consumed or sold during the 'withholding period', which differs for each drug or chemical. The 'withholding period' is marked on the container and must be observed.

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