

Poultry Management



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Water for the Backyard Flock

Water is essential for the well-being of all living things. It is especially important for animals or birds reared in confinement that cannot find their own sources of water. Not only are living things made up of water to a great extent, but, digestive and metabolic activities also need water in which to take place. Water is also needed to replace that lost by respiration, panting, excretion, and perspiration.

Water for backyard flocks is just as important as that provided commercial flocks if they are to remain healthy. Water for backyard flocks may be provided in open pans, in troughs, or from nipple drinkers. Water troughs and drinkers or pans should be readily accessible to the birds; they should be able to get to it, and the height of nipple drinkers should be such that they can drink without having to strain their necks. Birds tend to drink very small amounts of water at a time so they drink more frequently than other animals. Birds have a greater need for water in warm months when temperatures are high. Some very heavy birds may be stressed enough to develop heat stroke, so access to good-quality water is always of paramount importance.

The bird requires more water than it actually consumes. The rest of the water is obtained from feed and from the bird's own metabolic activities. The amount of water birds drink depends on their environment (temperature, humidity), age and size of birds, type of bird, type of feed, and the quality of the water. Birds drink less water when the water temperature is extreme (too hot or too cold) and the mineral content is too high. When water temperature gets between 90 and 95 degrees F water consumption is reduced and it ceases at about 112 degrees F. Birds also reduce their water intake when the temperature of the water becomes too cold.

Water should be free of chemicals and harmful bacteria. As a simple rule, water should be free of color, tastes, and smells. If there is any doubt about the quality of water, it can be tested by a state lab.

Some dissolved salts contribute to water hardness and are not good for birds. Soft water (15 to 150 ppm) is better for poultry. Water can be treated to remove dissolved salts and minerals. A high concentration of dissolved nitrates is particularly bad since nitrates cause poisoning and interfere with the utilization of certain nutrients, thereby causing a deficiency. A state lab can indicate the types of minerals contained in a water sample and whether they exceed the allowable limits.

Harmful bacteria such as *Salmonella* and *E. coli* are detrimental to bird health. Decreases in both growth and egg production result from intake of contaminated water. Water can also be tested for these bacteria. When birds are very young, they have a tendency to hop into certain types of drinkers (water troughs and pans) and pollute them with feed and fecal material. They cannot be trained to stop this kind of activity so these need to be cleaned out periodically. Even when birds get older, it is wise not to let drinkers stand too long without cleaning. This allows the buildup of biofilms – a thin layer of organic material in which bacteria grow.

If the water does not come from a well, it may be disinfected by adding 1 part of ordinary bleach to 100 parts of water. It is also a good idea to clean out water pans and drinkers regularly. Water troughs and pans may be cleaned out daily and simply disinfected and rinsed out before filling with fresh water. Nipple drinkers can be flushed out monthly, disinfected, and rinsed out before refilling.

Water is a means for introducing medication should birds get sick. If a backyard flock is suspected of having a disease, a veterinarian, local Extension agent, or a diagnostic lab may be contacted. A state lab may require a few birds for testing and then may prescribe medication, to be used in the feed or more usually in the water. If eggs or meat from a treated flock is to be sold and consumed, medication should be withdrawn according to the veterinarian or manufacturer's instruc-

tions within a time limit before sale of birds or eggs. This will allow all residues to be removed before sale.

Water is very important for birds, and deprivation at some stages in their life cycle (when very young or when laying) can be detrimental in that the birds may not fully recover either their growth or production level. When week-old chicks are deprived of water for more than 36 hours, they never quite recover from the deprivation. Water supplied should be palatable, have no harmful minerals or bacteria, be of a comfortable temperature, and be easily accessible to the birds.

References

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