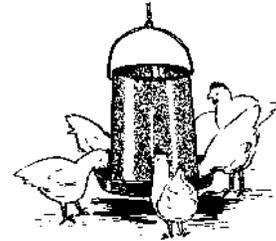




NOVEMBER 2009

## ***BACKYARD FLOCK TIP . . .***



### **WATER: POULTRY HEALTH'S MOST OVERLOOKED NUTRIENT**

No nutrient is more important to the overall health of your backyard flock than water. Restricting access to an unlimited supply of clean, cool water will cause detrimental effects faster in your flock than restricting any other nutrient in your flock's diet. That's because water plays a vital role in every aspect of poultry metabolism. Water is essential in controlling body temperature, assists in food digestion, and aids in the processing and elimination of body wastes.

Although water is regarded as the most essential nutrient in a bird's diet there is no hard and fast rule as to the amount of water a bird will consume on a given day. A general rule of thumb is that a bird will consume about twice as much water as feed at normal temperatures. However, when outside summer temperatures increase birds can double, triple or even quadruple their water intake! That's why an unlimited supply of water is essential to your backyard flock.

Poultry water intake can be restricted in two ways. First, water may not be available. Because of the importance of water to overall flock health, the commercial broiler industry continues to develop new drinker technologies aimed at improving water quality, lower daily maintenance, and reducing spillage. The commercial broiler industry has abandoned v-troughs, cups and bell-type drinkers in favor of new nipple drinking systems that improve availability of drinking water. However, most backyard flocks are still supplied water by means of manually filled and cleaned v-trough or bell-type drinkers. These drinkers are effective if well maintained, but often they can become clogged with litter, feed and other debris, limiting access to water.

Second, water may be unappealing. Too many backyard flock owners simply look to see if drinkers are clear and free-flowing and forget to take into account factors like water temperature or take notice of changes in water intake by their flocks. Again there is no hard and fast rule, but a general rule of thumb is that birds consume more water when it is at cooler temperatures. Warm water is often rejected by birds even though it is clean. Also, birds will often consume less water if it has an off-taste. Off-tastes are most often associated with pollutants present in the source of the water or from some type of additive. Water additives used to deliver medications or nutritional supplements are popular and can be effective, but bird water intake should be closely monitored to ensure that intake levels remain normal.

### **PUTTING KNOWLEDGE TO WORK**

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The source of drinking water can also affect taste and thus amount of water intake by your flock. Ideally, drinking water should be clear, colorless, odorless and tasteless. If your water is colored it usually indicates the presence of an undesirable substance. Common undesirable colors in drinking water include:

1. **Red, Brown or Black** – Red, brown (or rust color) or black discoloration of water is often an indication of high levels of iron or manganese,
2. **Yellow** – A yellow discoloration in water is often caused by source water that passes through marshlands and peat soils,
3. **Blue or Green** – A blue or green color is generally associated with excessive copper usually associated with copper piping and corrosive water,
4. **Cloudy/Milky White** – Cloudy or milky white water occurs under two conditions. The first is turbidity. Turbidity is caused by the presence of very fine particles suspended in the water. These particles can be organic and/or inorganic. The second condition is the presence of dissolved air. This condition occurs when air is entrapped in water lines and dissolved in the water under pressure. When the pressure in the water line is released very fine bubbles form and give water a milky appearance.

An undesirable taste or odor in drinking water is also an indication of an undesirable condition or substance. Common off-tastes and nuisance odors that can cause unappealing drinking water include:

1. **Strong Chlorine taste or smell** – Various forms of chlorine are used to disinfect water during the treatment process. Chlorine kills harmful bacteria and other microorganisms but can cause unappealing odors or taste if levels are too high,
2. **Metallic taste** – A metallic taste in water is most often associated with high levels of iron and manganese,
3. **Rotten egg smell** – An odor of rotten eggs in water usually indicates the decay of organic matter under anaerobic (non-oxygen) conditions. The actual rotten egg smell is hydrogen sulfide gas which is generated during the decomposition of organic matter under septic conditions. This odor in water is an indication of a serious contamination problem in the drinking water source,
4. **Musty smells** – Water that has a musty smell often contain organic matter or even selected pesticides. Even low levels of these substances can produce noticeable and unappealing odors.

Providing unlimited access to good quality water will maintain the overall good health and performance of your flock. Should you suspect that your drinking water source for your backyard flock might not be as clean as possible, contact your local Cooperative Extension Office for detailed information on how you can have your flock's drinking water analyzed by the University of Georgia's Feed & Water Laboratory.



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“Your local County Extension Agent is a source of more information on this subject.”