

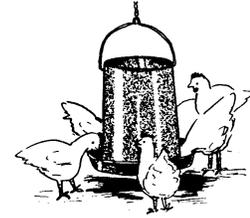


*The University of Georgia*

**Cooperative Extension Service**

*College of Agricultural and Environmental Sciences / Athens, Georgia 30602-4356*

SEPTEMBER 2007



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

### **EGG LAYING BEHAVIOR**

Many people enjoy gathering eggs from their backyard flocks of chickens to use in their own kitchens, give to friends, or even to sell in local markets. Although hens typically prefer to lay eggs in nests, it is not unusual for some eggs to be laid on the floor of the hen house or on the ground. In some situations, the prevalence of these eggs can be quite high. Floor eggs have increased risk of being soiled by manure or being cracked. They may also not be found in a timely manner by whomever collects them. Therefore, floor eggs are more likely to be contaminated by bacteria, which reduces their shelf life and makes them more likely to carry food-borne pathogens. Broken floor eggs may also trigger egg eating by birds in the flock, a vice that can be hard to stop once it starts. Knowledge of egg laying behavior can help a flock owner minimize the percentage of eggs laid on the floor.

Hens like to lay eggs in enclosed places. In a hen house, these enclosures are provided by nest boxes. Many hens like a dark enclosure, but others prefer the nest to have more light. In a flock with many laying hens, a little variation among nest boxes in appearance and interior illumination may help individual birds select sites that they will use preferentially. Enclosed areas other than the nest boxes, e.g. under structures or behind equipment, should be minimized to discourage floor laying. The lighting in the house outside the nest boxes should minimize shadows, e.g., in corners, which hens might perceive as nesting areas.

The space provided by the nest box should be large enough to allow the hen to stand comfortably and turn around easily. Nest boxes may be single bird or multi-bird units. Single bird nests are suitable for small flocks. Commercial producers with large breeder flocks typically use nests big enough to hold several hens at a time. Litter material in the nest box, such as wood shavings or straw, is attractive to hens because they like to perform nest building activities before laying. Failure to put litter into nests will encourage floor laying. The litter should be replaced periodically to keep it clean and free of parasites. Loose litter in other secluded places should be avoided because it may encourage hens to not to use nest boxes.

### **PUTTING KNOWLEDGE TO WORK**

The University of Georgia and Ft. Valley State College, the U.S. Department of Agriculture and counties of the state cooperating.  
The Cooperative Extension service officers educational programs, assistance and materials to all people without regard to race, color, national origin, age, sex or disability  
An equal opportunity/affirmative action organization committed to a diverse work force..

The egg laying habits of a hen are very persistent. Pullets should be allowed to investigate nest boxes for a couple of weeks before coming into production so that they recognize appropriate nest sites when they start to lay. If pullets begin laying before being introduced to proper nests, it may be difficult to correct their tendency to lay floor eggs.

When nest boxes are above floor level, it is important that pullets have the chance to learn to use raised perches or ledges while young so that they will find and use the nest boxes in the hen house without difficulty. Light bodied egg-type hens have relatively little trouble reaching perches if they have enough space in front of the perch to manage the angle of ascent or descent. Heavier breeds of chickens can't jump as high, so perches or nest boxes should be low enough for them to access (e.g., no more than 18 inches from the floor for a heavy meat-type hen) unless a ramp to the nests is provided. Nest boxes that are hard to reach will encourage hens to lay eggs elsewhere. An elevated nest box should have a perch at the entry for hens to jump to and use as a stage for investigating and entering the nest.

Hens are strongly motivated to perform pre-laying behavior before oviposition, consisting of a search phase, selection of a nest site, and formation of a nest hollow. Different breeds may emphasize some aspects of prelaying behavior more than others. White Leghorn hens can have pronounced search and nest selection behavior during which they visit and investigate a number of potential nest sites before choosing one. Other types of hen, for instance medium-weight hybrid brown egg layers, tend to sit longer in nests and perform nest building activities, such as gathering litter around the hen to form the nest hollow. Prelaying behavior can only occur during a certain period on any given day because it is triggered by hormones associated with the last ovulation, and not by the mere presence of an egg in the shell gland. Normally, it begins an hour or two before the egg is ready to be laid and culminates with the hen settling in a nest and laying an egg. If egg laying is delayed for some reason, the period for prelaying behavior will pass and the hen will no longer be motivated to seek a nest. The egg will be laid outside the nest while the hen goes about other activities. Too much competition for nest boxes can cause subordinate hens to learn to use alternate nest sites or to delay egg laying beyond the critical period for pre-laying behavior, in either case leading them to lay floor eggs, because they are prevented from entering nests by dominant hens. It is advisable to provide at least one nest space for every five hens to insure that all hens can access nests when needed.



Bruce Webster  
Extension Poultry Scientist

Extension County Coordinator/Agent

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