Department of Animal Sciences

poultry

A Guide for Housing, Brooding, and Handling Chicks Safely

By Ryan Meunier and Dr. Mickey A. Latour

Knowledge of housing, brooding, and handling chicks safety makes raising poultry a rewarding experience. Before deciding to raise poultry, or any livestock, it is important to investigate local codes and/or city ordinances. Information regarding local codes pertaining to livestock can be found through visiting your county extension educator. You may also consult with a local veterinarian or animal health supplier.

Poultry can be housed in a variety of locations. The most important factors to consider when housing young birds are a) cleanliness, b) space, c) availability to feed and water, and d) safety from predators.

Young birds are susceptible to environmental insult. In order to prevent any possible problems, the first step is to remove old litter and excretory materials from the house. The second step is to clean the house and equipment with a commercial detergent that will remove all organic matter. Follow this by disinfecting the house and all equipment. Next, feeders and waterers should be placed in the house. The last step is to make sure the house is sealed from predators.

The process of brooding is necessary during the early period of growth (3-4 weeks) because chicks are not able to maintain their body temperature without the aid of supplemental heat (Nesheim and Austic, 1990). One of the most common problems in poultry flocks is improper brooding, which in turn causes stress.

The guidelines for the three basic methods used to brood chicks are outlined below (Smith, 1997).

1. Localized brooding. The chicks have localized heat source and access to a cooler, unheated area. This approach allows the chicks to determine their own heating needs by moving from hot to cold areas and vice versa. This method is known as spot brooding.
2. Whole-house brooding. A large area around the brooders is warmed to the same temperature with whole house. The chicks have no choice between warm and cool areas.
3. Partial-house brooding. Partial-house brooding is much like whole house brooding, because the total brooding area is warmed. To save energy, however, the brooding area is reduced to the minimum amount needed for the size of chicks. As the chicks grow, the brooding area is increased in accordance to their sizes. Good ventilation is essential with all brooding systems, but especially partial-house brooding.

Brooding Recommendation

Under most circumstances, method number one is the easiest and most effective method for raising chicks. A few days prior to receiving chicks, a brooding area should be established. Corrugated cardboard makes an excellent brooder guard and can be discarded when it becomes soiled. During hot weather, hardware cloth or a similar mesh material may be used instead of solid guard (Nesheim and Austic, 1990). Mesh material allows for greater airflow during the summer months. It is important when using a boundary material (cardboard or mesh) that it be arranged in a circular fashion. Circular boundaries minimize huddling and loss due to suffocation. As the chicks increase in age and size, the boundary should continue to expand until it is no longer necessary. When brooding a small number of chicks, ($n < 20$) a box may be used for the first few days of life. A gooseneck lamp placed over the box will provide an adequate source of heat when brooding a small number of chicks.

Waterers and feeders for chicks can be purchased from a local feed supplier. These facilities have reusable plastic waters and feeders specifically designed for this application. Chicks have a build-in protection mechanism for food; that is, newly hatched chicks can survive a couple days without food. However, in order to reach their full potential, they need nourishment quickly, so they should be introduced to feed and water immediately post-hatch. The same is true when chicks are purchased from a hatchery; they should be introduced to feed and water upon arrival.

Temperature is a major concern when brooding young chicks. Table I (seen below) provides an age specific range of brooding temperatures that are applicable to methods 1 and 3 of brooding. The schedule should be altered during periods of stress or vaccination. At these times the temperatures should be increased about five degrees. Environmental temperature should be recorded approximately two inches from the floor directly under the heat source. Chick behavior should be monitored carefully, specifically noting chick panting or huddling. Panting is an indicator that the environmental temperature is too high, while huddling indicates the environmental temperature is too low. It is important for chicks to be reared in their comfort zone (North and Bell, 1990).

Table I.

Brooding Temperature based on Days of Age

Days of Age	Brooding Temperature (F)
1-7	90-95
8-14	85-90
15-21	80-85
22-28	75-80
29-35	70-75
36-42	70

Additional tips for the brooding process:

1. Use dry litter material for brooding chicks.
2. Check the accuracy of brooder thermostats and thermometers to insure proper heating.

Handling Chicks Safely

Newly hatched chicks release droppings (excreta) after hatching. This allows the newly hatched chick to rid its body of excess waste products generated during the incubation process. Care should be taken when handling live animals. More specifically, persons with open areas of skin (cuts, sores, or rashes) should avoid animal contact with these open areas when handling animals. Skin is a natural barrier to most environmental insults, and open areas of the skin are susceptible to insults. After handling any animal, care should be taken in cleansing your skin. Specifically, all areas that came in contact with an animal should be washed with soap and warm water. Remember, handling chicks is relatively harmless; however, proper precautionary methods should always be practiced.

References

Austic, Richard E., and Malden C. Nesheim. (1990). *Poultry Production*. Lea & Febiger Publication, 13th Edition pp. 122, 126.

North, Mack O. and Donald D. Bell. (1990). *Commercial Chicken Production Manual*. New York: Van Nostrand Reinhold p. 237.

Smith, Tom. W., 1997. *Brooding Chickens and Quail*. Mississippi State University Extension Publication (http://www.msstate.edu/dept/poultry/is1338.htm)

NEW 6/99

1-888-EXT-INFO

http://www.agcom.purdue.edu/AgCom/Pubs/menu.htm