

POULTRY NO. 36

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Brooding Chicks

Successful poultry production must start with a healthy, well-bred chick. In order to develop its greatest potential, the chick must be raised properly. The following procedures outline some of the steps necessary in the management of chicks during the first 8-week period.

Follow an all-in, all-out replacement program. Keep birds of different ages in separate houses. The chances of spreading diseases are greater when birds of different ages are kept close together.

Preparing the Brooder House

The house and equipment should be thoroughly cleaned and disinfected before starting the chicks. Remove all old litter and wash the house and equipment with water under pressure. All organic matter must be removed by scrubbing or scraping from building and equipment surfaces. Brooder houses should have a cement floor or other impervious surface that can be properly cleaned. After the house and equipment have been thoroughly cleaned, they should be disinfected. Phenolic and cresylic acid compounds have been widely used for this purpose. Follow directions for use supplied by the manufacturer of the compound. Fumes left from the disinfectant, if any, must be removed from the house before chicks are placed in the building.

After the house has been properly cleaned and disinfected, place at least 2 inches of litter on the floor. Wood shavings, straw, ground corn cobs, and other materials have been used satisfactorily. Choice of litter will depend on what materials are readily available and their cost. It must be free from mold or other injurious materials and reasonably free from dust. During the growing period stirring and addition of more litter may be necessary. Clean out wet spots around waterers and replace with dry litter as needed.

Brooding Systems

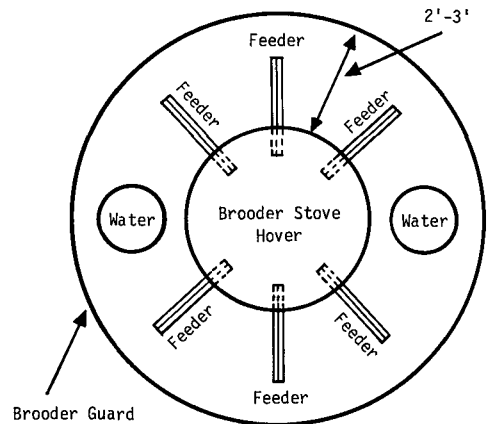
Chicks can be started under brooders or a warm-room brooding system can be used. In warm-room brooding, the entire room is heated to the desired temperature by means of a circulating hot water or hot air system. Birds can be raised on the floor using warm-room brooding, or in specially designed starting cage systems. Temperature regulation is more critical with this method of brooding, since the chicks can't move to or away from the heat source to seek comfort as they can under brooders.

When using brooders the chicks are confined to the heat source so the entire room is often not heated to the temperature surrounding the hover. Choose a brooder that has a reliable thermostat, can be raised and lowered easily, and is easy to clean. Many heat sources are available, but gas and oil are the most commonly used fuels in this area. Consider the dependability of fuel supply in your area and the heating requirements for the brooding period. Brooders may vary in ease of operation, heat output, and hazard from fire.

Day-old chicks should be started at a temperature of 90-95° F. measured at the level of the chicks just under the outer edge of the hover. The temperature can be reduced 5° per week until temperatures around 70° F. are reached. The actions of the chicks serve as a guide to their comfort. If the chicks are too warm they will be drowsy and move away from the heat source. If too cold, they will chirp and pile up under the brooder hover. Comfortable chicks should peep contentedly and distribute themselves evenly around the edge of the hover.

Do not place too many chicks under each brooder. Allow 6 to 7 square inches of hover space per bird. Operate brooders at least 2 days before chicks arrive to be sure brooders function properly.

Arrange feeders and waterers around each hover as shown in the diagram. Place a guard of corrugated cardboard or wire mesh around the brooder 2 to 3 feet outside the hover to keep chicks confined to the heated area. Move the guard away gradually until it is no longer needed after a week or two.



Provide $\frac{1}{2}$ square foot of brooder room or house space for the chicks up to 4 to 6 weeks old. Then they should have 1 square foot of floor space per bird until 10 to 12 weeks old. The exact space requirement will vary somewhat with body size and room temperature. During hot weather more space is required.

Plenty of fresh air should be provided, but the birds must be kept from drafts. Ventilation is necessary to provide oxygen and to remove dangerous products of combustion from brooder stoves, as well as to remove moisture from the house. Proper ventilation also serves to equalize the temperature throughout the room and is necessary to remove excess heat during the hot summer season.

Feeding and Watering

Be sure to allow sufficient feeding and watering space for the growing chicks. One inch of feeding space per chick should be provided at the start. This requirement should be increased to about 2 inches after chicks are 2 weeks old. Two, 1-gallon water fountains, or their equivalent, per 100 chicks should be provided for the first 2 weeks. Start chicks on automatic waterers to save labor. Increase the number or size of waterers at 3 weeks to provide 40 inches of watering space per 100 birds. Provide additional feeding and watering space in hot weather.

This Poultry Fact Sheet is one in a series produced jointly by faculty and staff members of the University of Minnesota and the University of Wisconsin. Members of both institutions cooperated in the planning and production of the series.

For best performance, chickens must be fed rations that supply the nutrient requirements for the specific age of the bird. Follow a reputable commercial feeding program or obtain a copy of Special Report No. 20 for recommended rations and information on their formulation.

Feed and water should be placed in the house as soon as the chicks arrive. Place mash on clean shallow boxes or egg case flats to encourage chicks to start eating. These can be removed gradually as the chicks learn to eat from the feeders. Change sizes or adjust height of feeding and watering equipment gradually as chicks grow. Empty and clean waterers daily.

Light Management

During the first week provide the chicks with a 16-hour day length. See Poultry Fact Sheet 39 on light management for pullets for details on lighting programs during the rearing period.

Disease Prevention and Control

A well-planned health program is a must to protect the grower's investment in his poultry flock. Detailed information is provided in Poultry Fact Sheet 40.

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