

MU Guide

Brooding and rearing chicks for the family flock

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Buy quality chicks from a reliable hatchery. There are some advantages in buying from local sources if they can provide quality chicks, information and service to their customers. For a list of Missouri hatcheries, write: Missouri Poultry Industries Association, PO Box 995, Columbia, MO 65205.

Buy the strain or type of chicks to fit your needs. If you are interested only in egg production, order sexed pullets of Leghorn or egg-type strains. If you are interested in meat, order one of the popular Cornish boiler crosses or White Plymouth Rocks. For growers interested in both eggs and meat there also are dual-purpose strains.

Space and equipment

Brooder floor space. The normal brooding period, when heat is required, is from day old to approximately six weeks. Chicks may be brooded many places on the farm. The main requirements are adequate space, a reliable source of heat (brooder) and proper ventilation. The following space is recommended:

Age of chicks	Floor space/bird
0-4 weeks	1/2 sq. ft.
4-8 weeks	1 sq. ft.
8-12 weeks	2 sq. ft.
12 weeks or longer	3 sq. ft. (light breeds) 4 sq. ft. (heavy breeds)

Example: A 10' x 12' brooder house will take care of 120 chicks to eight weeks of age.

Brooders. The most popular brooders are infrared heat lamps, propane catalytic and gas brooders. Your choice among these should depend on convenience, installation cost and operating cost.

The infrared heat lamp (pyrex-type) is ideal for brooding small lots of 200 chicks or less. Make certain lamp is equipped with a porcelain socket, lamp guard, and at least No. 16 heavy insulation wire. Provide one 250-watt lamp for each 50 to 75 chicks.

Gas brooders are very reliable and may be used if gas is used on farm and purchased in sizable volume. The main advantage of the catalytic brooder is that it is flameless and almost 100 percent efficient.

Feeder space. The amount of feeder space recom-

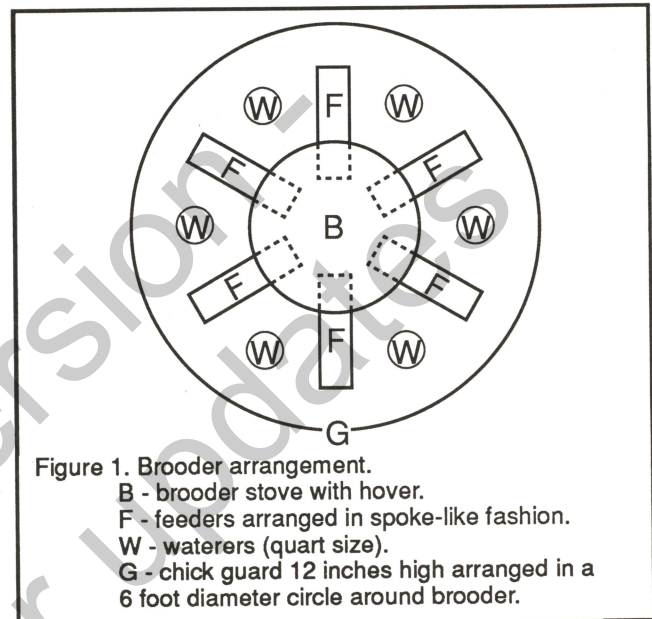


Figure 1. Brooder arrangement.
 B - brooder stove with hover.
 F - feeders arranged in spoke-like fashion.
 W - waterers (quart size).
 G - chick guard 12 inches high arranged in a 6 foot diameter circle around brooder.

mended per 100 chicks is:

Age of chicks	Feeder space
0-4 weeks	12 linear ft. or two 3-ft. feeders
4-8 weeks	20 linear ft. or two 5-ft. feeders
8-12 weeks	30 linear ft. or three 5-ft. feeders
12 weeks or older	40 linear ft. or four 5-ft. feeders

Waterer space. The amount of waterer space recommended per 100 chicks:

Age of chicks	Waterer space
0-1 weeks	Six 1-qt. jar waterers
1-4 weeks	Two 2-gal. waterers
4-12 weeks	Two 5-gal. waterers

Automatic waterers may be used after the first week. Many types are available from local farm supply stores.

Management of chicks

Before chicks arrive. 1. Remove old litter. Clean and disinfect ceiling, walls and floor of the poultry house. Let the house dry thoroughly before putting down new litter. Clean and disinfect all equipment including feeders, waterers and brooders.

2. Repair windows, doors, ventilators and other parts of the brooder house that need attention. Eliminate drafts to prevent chilling the young chicks.

3. Cover the floor with 3 to 4 inches of dry litter. Use shavings, sawdust or other materials that are economical and have good moisture absorbency.

4. Use a chick guard (circular fence about 12 inches high) to confine birds near the brooder (see Figure 1). Some people cover litter for first few days of brooding. If you do, use rough, crinkled paper. Smooth paper causes chicks to slip and develop spraddled legs. Molds will develop if paper is left on the litter more than three or four days. Remove guard after seven days.

5. Check all equipment to see that it is working properly. Operate brooder stoves for at least 24 hours before the chicks arrive. This will warm the house, dry the litter and demonstrate to you the accuracy of the brooder control and thermostat.

6. Put out feed and fill waterers a few hours before the chicks arrive. When chicks arrive, be ready for them and place them near the waterers.

After chicks arrive. 1. Adjust brooder stove to 90 to 95 degrees F, measured 2 inches above the litter at edge of hover. Maintain this temperature for the first week. Reduce temperature five degrees each week until 70 degrees F is reached.

2. Watch chicks closely for the first few days and nights to see that they are comfortable. They will crowd under the hover if they are too cold and away from the hover if they are too warm.

3. If infrared lamps are used, raise the lamps when chicks appear to be too warm. Normally, lamps should be set 18 inches high the first week and raised 3 inches each week.

4. Provide plenty of fresh air for chicks. Do not close house up tight to keep it warm. Chicks need fresh air, and air is used to carry moisture out of the house. The floor will be drier and the chicks healthier when proper ventilation is provided.

5. Keep litter dry. This is important in preventing coccidiosis and other diseases. Remove caked litter and wet spots. Frequent stirring of litter helps keep it dry. Add supplemental litter as needed.

Light. A 15-watt bulb for each 200 square feet of floor area should be kept on the chicks at night for the first week. Thereafter, the lighting system used depends on the type of building. Any system that provides a maximum of 14 hours total light per day during the entire brooding and growing period should give satisfactory results.

Roost. Roosts are not used for broilers. They can be used for layer replacement pullets if desired. Install low roosts at four to six weeks of age provid-

ing each chick with 4 inches of roost space.

Feeding programs. Keep feed and water before chicks at all times. Clean waters daily and place them on slatted or wire platforms, so birds will be kept away from wet floor areas. Prevent feed wastage by filling feeders only one-third to one-half full.

Proper feeding programs are necessary to produce good broiler and egg production performance. Complete feeds provide all nutrients at the proper level for each age. Broilers require a starter feed from 0-21 days and a grower feed from 22-49 days. The Leghorn (table egg bird) utilizes a starter from 0-6 weeks followed by a pullet developer to 18 weeks. At 18 weeks the pullet should be fed a layer diet to optimize skeletal development and egg production. Diluting a complete feed with a grain such as corn, milo, or table scraps will produce an imbalance and result in poor performance. Detailed diet and feeding recommendations can be found in other publications listed at the end of this guide.

Cannibalism. Any time birds are raised in significant numbers they are subject to cannibalism. If possible, buy chicks that have been beak-trimmed at the hatchery. Watch for early signs of feather picking. Beak-trim the birds before it becomes an established habit. Trim off tip of the beak with a dog's toenail clippers or electric beak-trimming machine.

Protecting flock. Young chicks and growing birds should be protected and isolated from other animals and birds. Cats, rodents and various wild animals will kill young chickens. These animals can also spread diseases and parasites. They can contaminate and consume large amounts of poultry feed in addition to being destructive to the building structure.

Sources of information

Local sources include hatcheries, feed and farm supply firms, and drug stores that deal in animal health products. The following publications are available through University Extension Centers.

Guide 7030	Fly Control in Caged Layer Buildings
Guide 8352	Nutrient Requirements of Chickens and Turkeys
Guide 8550	Sanitation Program for Quality Egg Producers
Guide 8903	Prevention of Poultry Disease
Guide 8904	Control of Poultry Disease Outbreaks
Guide 8450	Small Poultry Building

"The Family Poultry Flock" book is available from Heart of Missouri Poultry Farm, PO Box 954, Columbia, MO 65205; Farmer's Digest, PO Box 363, Brookfield, WI 53005; Sears Farm & Ranch Catalog.



■ Issued in furtherance of Cooperative Extension Work Acts of May 8 and June 30, 1914 in cooperation with the United States Department of Agriculture. Gail L. Imig, Director, Cooperative Extension Service, University of Missouri and Lincoln University, Columbia, Missouri 65211. ■ An equal opportunity institution.