CHICKS & REARING

Brooding Methods

For the best brooder house, infrared lamps provide a convenient heat source. The porcelain lamps should be suspended no closer than 15 inches to the litter and suspended using chain or wire (and not the electric cord). One 250 watt infrared lamp is usually sufficient to heat 80 chicks at an average temperature of 50°F. One chick can be added to this estimate for every degree over 50°F. You should always use more than one lamp so the chicks will not be without heat if a lamp burns out. Supply more heat by lowering the lamps to 15 inches above the litter or by using more or higher-wattage lamps. To reduce heat, turn off some lamps, use smaller lamps, or raise the lamps to 24 inches above the litter. You are heating the chicks only and not the air, so air temperature measurements cannot be used as a guide to chick comfort when using infrared lamps.

Small brooders with an electric heating element can be purchased for brooding small numbers of chicks. Variations of a simple light bulb brooder can be made using the below picture as a guide. Change the bulb size in this unit to adjust the temperature. Most of the larger brooders use gas or oil as fuel to more adequately supply heat.

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![Diagram of brooder for 25-50 chicks]

Above is an example of a brooder for 25-50 chicks

When using a brooder, start the chicks at 90° to 95° F, measured 2 inches off the floor under the edge of the hover. Reduce the temperature by 5° per week until the supplemental heat is no longer needed. Observe the chicks to gauge their level of comfort. If they crowd together under the brooder, increase the heat, but lower the temperature if they tend to move away from the heat source. Allow 7 -10 square inches of space under the brooder for each chick. Start the brooder the day before the chicks arrive and adjust to proper operating temperature.
Space and Equipment Recommendations

Provide half a square foot of brooder house space per chick from 1 day to 6 weeks of age. Allow 1 ½ to 2 square feet of floor space for wyandotte pullets and 2 to 2 ½ square feet for heaving pure breed pullets confined during the growing period. Place feed on chick box lids or trays from cut-down card-board boxes for the first few days. Feed and water should be available to the chicks as soon as they arrive. Provide 1 lineal inch of feeding space per chick at the hoppers at first and increase to about 2 inches after chicks are 2 weeks old. After 8 weeks, provide 3 to 4 inches of feeding space for growing pullets. A hanging tube-type feeder 15 inches in diameter will feed about 30 birds. Less feed is wasted by filling hoppers only half full and adjusting feeder height or size to bird size.

Provide a one-gallon water fountain per 50 chicks during the first 2 weeks. Increase the number or size of waterers from 2 to 10 weeks to provide 40 inches of watering space per 100 birds or 1 gallon capacity per 10 birds if using fountains. Roosts may be used with pullets after 6 weeks of age. Use poles of 2-inch lumber with top edges rounded and placed 12 to 15 inches apart. The roosting rack can be on a slant, from floor level to about 24 inches high at the rear, or it can be placed on a screened platform over a droppings pit. Allow 6 lineal inches of roosting space for pullets.

Feeding

For the small flock owner, a complete feed obtained from your local feed dealer is convenient. Farms that have adequate mixing facilities for other livestock operations can use local grains mixed with the appropriate commercial concentrate. Follow the directions provided by your local supplier. A starter mash is generally fed for the first 6 to 8 weeks. Pullets are then fed a grower or developer mash until they are ready to lay at about 20 weeks of age. They should be fed a laying pellets when they start to lay eggs.

Pullets having access to a yard or range can supplement their diet with green feed. Chicks or pullets should have some chick- or pullet- size grit available at the appropriate age.
Health and Sanitation Practices

Isolation from other birds is the first rule in preventing disease. Restrict unnecessary traffic of people and pets into the poultry house. If different ages of chickens are present on the farm, physically separate the flocks as much as possible and care for the younger birds first. Disease and parasite control will be easier if the birds are kept confined. Rotate yard and range areas so that birds are not on the same ground year after year. Keep the premises free of rodents and screen free-flying birds from the poultry house. Have chicks vaccinated at the hatchery for Marek’s disease. Good sanitation and a low-level coccidiostat drug in the feed during the brooding and growing period will usually prevent coccidiosis. Examine birds occasionally for lice and mites.

Clean waterers daily and periodically wash with a sanitizing solution. Maintain litter in good condition and remove caked and wet spots. Add additional litter as necessary. Adjust ventilation to avoid moisture and ammonia build-up in the house.

Cannibalism often occurs in growing and laying flocks and is difficult to control once it has started. Various factors contribute to cannibalism, including crowding, nutrient deficiencies, inadequate ventilation, too little drinking and eating space, too much light, idleness, and the appearance of blood on injured birds. Good management can frequently control many of these contributing factors. In many small flocks, a pick-paste remedy can be used with success in many instances if the problem has not gotten out of hand. Beak trimming is a more permanent solution to the problem. Many hatcheries will beak-trim chicks at day-of-age, if you request. Birds can be beak-trimmed at any age if done properly, but avoid times of stress or when pullets are coming into production.

Good layers develop from healthy, well-bred chicks raised under good feeding and management.

It’s best to delay the sexual maturity of pullets to permit better body growth before they begin egg production. An increase in day length encourages early sexual maturity of the pullet. Chicks hatched between April and August can be exposed to the natural day length because the day length is decreasing during the latter part of the growth period. These birds will respond favourably to increased light stimulation when they are physically ready to come into production. Producers with small flocks should consider starting chicks after March, since less heat will be required to brood them.
Housing and Equipment

Housing requirements for brooding and rearing chicks and pullets can be quite minimal if done in late spring and summer. Almost any small building that meets the floor-space requirements for the desired-size flock can be used. A small number of chicks can even be brooded in a corner of a garage. After the brooding period, pullets can be reared in a fenced range or yard with only a covered shelter for protection from the weather.

Brooding, feeding, and watering equipment can be purchased from local feed and farm supply outfits or mail-order houses. Much of the equipment can be home-built. Used equipment may be available locally from farmers who no longer keep poultry. Usually, three sizes of feed hoppers are recommended so that birds, as they are growing, can easily eat without wasting feed.

Hanging tube-type feeders that can be adjusted in height as the birds grow are becoming very popular. It is desirable to place a platform under waterers to avoid wet litter. Automatic waterers save labour, even with small flocks.

The house and equipment should be thoroughly cleaned and disinfected before starting chicks. If chicks have been in the house previously, remove all the litter and wash the house and equipment with pressurized water. Scrub and scrape all organic matter from building and equipment surfaces. After cleaning, disinfect building and equipment using an approved compound according to the product manufacturer’s directions. Dry and air the building and then place 2 to 4 inches of wood shavings, straw, or other litter material on the floor. Place a cardboard fence around the brooding area to confine the chicks to the heat source for the first week. The below diagram shows a suggested arrangement of the brooding area.

![Diagram of a brooding area](image-url)