

How to Keep a Small Poultry Flock

Revised by Ron Parker, Extension Department Head—Animal Resources

Eggs provide an excellent package of nutrition for every member of the family. They are now used as the standard for comparison in nutritional experiments because of their high nutritional value. Chicken contains an amazing wealth of essential nutrients. Chicken and eggs are served in many ways and bring good eating and good food value to the family diet.

Preparing to keep a small flock doesn't have to take much time or money. Almost every farm and rural home has a place that can be fixed up to keep 25 to 100 chickens. Building a separate brooder house is rarely necessary. Anyone who can use a hammer and a saw can make feeders, waterers, and other equipment. Home-made equipment can be as good as any you can buy.

Even if you make your own equipment, you are likely to find that a backyard flock seldom returns a profit. Feed and incidental costs run higher per bird in small flocks than in large commercial flocks. But there are advantages to keeping a few hens. They can provide fresh eggs and an occasional chicken dinner. Children learn the importance of regular care of poultry. A small flock of chickens also provides many hours of enjoyment as a hobby.

On the other hand, backyard flocks sometimes cause neighborhood problems. Cities and towns often have ordinances either outlawing backyard flocks or restricting the ways they can be kept. Find out what laws your town and county have that may affect your plans for keeping a few birds.

For a small flock, do not plan to keep more than about 50 layers. Under most circumstances, there is little advantage in having more than 18 to 20 layers. A flock of 18 to 20 laying hens should supply a family of five or six persons with at least one egg per person per day. As a rule of thumb, for one egg per person per day, raise 12 baby chicks and keep three layers for each member of the family.

Owners of suburban flocks may find 25 to 50 laying hens more than they want, and a flock that size may prove uneconomical because of feed cost.

Choices, Choices

You may want to start the first year with an egg production flock by purchasing started pullets 6 to 20 weeks old, from a poultry producer who specializes in raising started pullets. This type of flock will give you eggs sooner than you would have by brooding chicks. Pullets start laying at 20 to 24 weeks of age. You are also likely to have fewer problems with started pullets than with baby chicks.

If you decide to start with baby chicks, make sure they originate from a pullorum-clean flock operating under the National Poultry Improvement Plan. Also ask that the chicks be vaccinated for Marek's disease before they are shipped. As for the kind of chicks to order, you need to decide whether you want them for meat or egg production.

BREEDS ARE TAILORED

Body size and rate of production are inherited traits. The smaller the hen and the more efficient her production (with no feed waste), the lower will be your feed cost per dozen eggs. Four or five pounds of feed should produce a dozen eggs.

For layers, select a leghorn-type bird or the inbred crosses. Such chickens have been bred for high egg production and disease resistance. They will produce more eggs on less feed per dozen than chickens bred for meat production or for dual purpose—meat and egg production. You may want to buy sexed day-old pullets

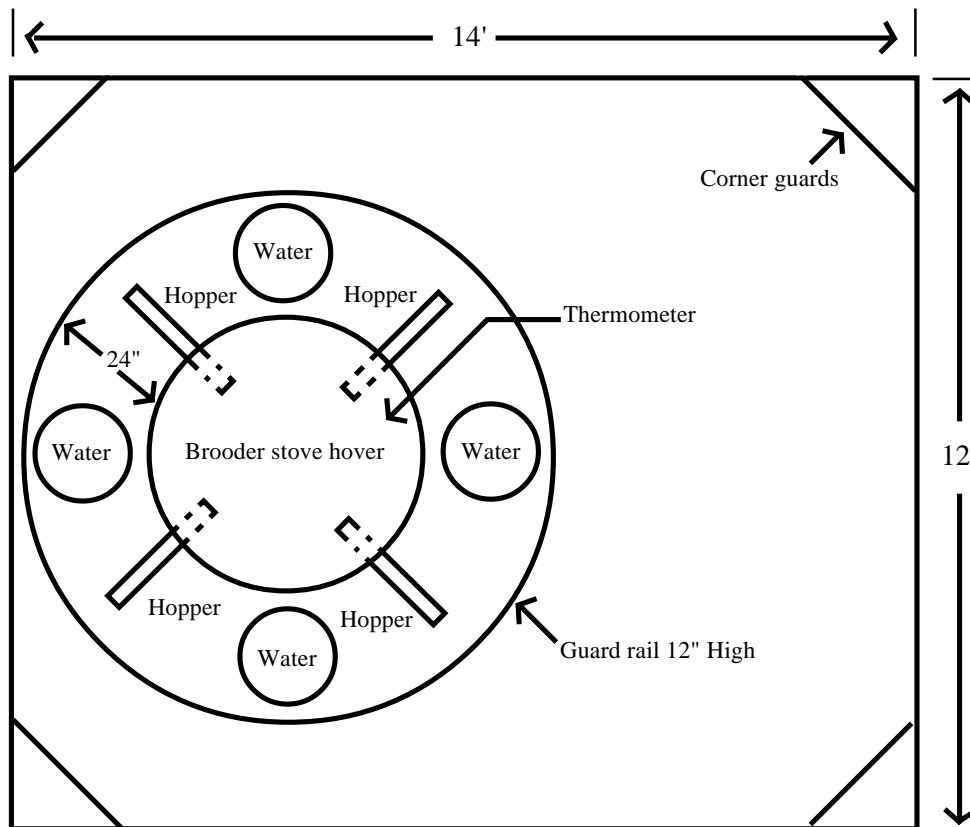


Fig. 1. Arrangement of equipment in brooder house. This arrangement encourages chicks to eat and drink and keeps them close enough to the heat to prevent chilling.

(female only) instead of straight-run chicks (pullets and cockerels) of the egg-type breeds.

Good broilers come from crosses of White Cornish males with either New Hampshire or White Plymouth Rocks females, or from straight White Rocks or New Hampshires that have been bred especially for producing meat.

White Leghorns and the inbred crosses produce white eggs. Dual-purpose breeds and broiler type of chickens produce brown eggs. Some people have strong preferences for brown eggs or white eggs. Shell color, however, makes no difference in the nutritional value of eggs. People who prefer a more exotic egg-shell color may want some layers of the Araucana breed, which produces bluish green eggs.

BROODING QUARTERS

Before you place an order for chicks, prepare a place to keep them. The building should be free from drafts. Rounded corners keep chicks from crowding. Take care to control rats and mice because they eat feed and spread disease.

Broilers are usually kept in a brooding house until they weigh about 4.25 pounds. They should attain this weight in seven to nine weeks. Then they are killed, dressed, and placed in the freezer. Allow 1 square foot of floor space for each chick.

Pullets for egg production should have more floor space after they are about eight weeks old. Allow them 2 square feet of floor space per pullet after eight weeks and let them run in a fenced-in yard, if available.

Clean the house and equipment at least two weeks before your chicks arrive. Scrape and wash the house thoroughly using a good disinfectant, which you can get from a hatchery or feed dealer. Be sure the quarters are dry before you put any litter on the floor.

Materials such as sawdust, wood shavings, straw, and peanut hulls make good litter. Cover the floor with litter 4 to 6 inches deep. Litter should be about 6 inches deep in winter and 4 inches deep in summer. Stir the litter often to prevent caking on top. Try to keep the litter dry. It will not be necessary to clean out and replace the litter until you are ready to start another brood of chicks, even if you start with laying-type chicks and keep the pullets until they are 18 months old or older. If the litter gets too deep, remove part of it, but be sure to leave at least 6 inches.

Brooders

If you start with chicks, you will need a brooder to keep them warm. This usually consists of a heat source under a canopy, or hover, which keeps the heat down close to the chicks. Electric, oil, and gas brooders are the most common types. Homemade feather brooders do not require any fuel, so they are economical.

For 25 to 75 chicks, you can buy or make a small, infrared heat-lamp brooder. Radiation from an infrared lamp warms only the objects to which it is directed; it does not warm the air. This eliminates the waste of heating those parts of the building not used for brooding.

Suspend the brooder by a chain (never by the electric cord) so that no part of the lamp is ever closer than 18 inches from the litter. Let the chicks tell you when the temperature is right. With an infrared heat lamp you heat chicks, not air. If chicks are cold, they crowd under the lamp; if they are too warm, they move to the outer limits of the "comfort zone." Adjust the lamp up and down to control the temperature. You will want to raise it about 2 inches each week as the chicks mature, until the lamp is about 2 feet above the litter.

Also, you can make a good inexpensive brooder for 25 to 50 chicks using a light bulb for heat. This brooder is a box 25 inches long, 20 inches wide, and 10 inches high, with a cloth curtain at one end. The sides and one end sit on the floor, which should be covered with litter.

A 60-watt light bulb hangs through the cover of the box. The bulb is shielded by a tin can, open at the

bottom. As there is no automatic adjustment of temperature, you will have to watch the chicks closely to tell whether they are too hot or too cold. If they are too hot, raise the curtain on the front. If they are too cold, move the brooder to a warmer place or put in a larger wattage light bulb. Check the temperature with a thermometer once in a while. Check it more frequently in extremely cold weather.

Try out the brooder a day or so before the chicks arrive. In colder weather, allow the brooder to reach the brooder temperature before the chicks arrive. In extreme cold periods, 2 to 3 days of heating the brooder/litter area will allow the chicks to begin growing without being chilled.

CARE OF CHICKS

Keep your chicks comfortable by starting brooder temperatures at about 90 to 95°F, 2 inches from the floor at the edge of the hover. Lower the temperature about 5°(F) each week. If you buy a brooder, follow the directions that come with it. Chicks hatched before May 1 may need heat until they are about six to eight weeks old in some areas of New Mexico.

Place a 1 foot high brooder guard (made of tar paper, metal, or cardboard) around the hover and about 2 feet from it. Keep it there for five or six days until the chicks learn where the heat is. Solid brooder guards will keep chicks free of drafts.

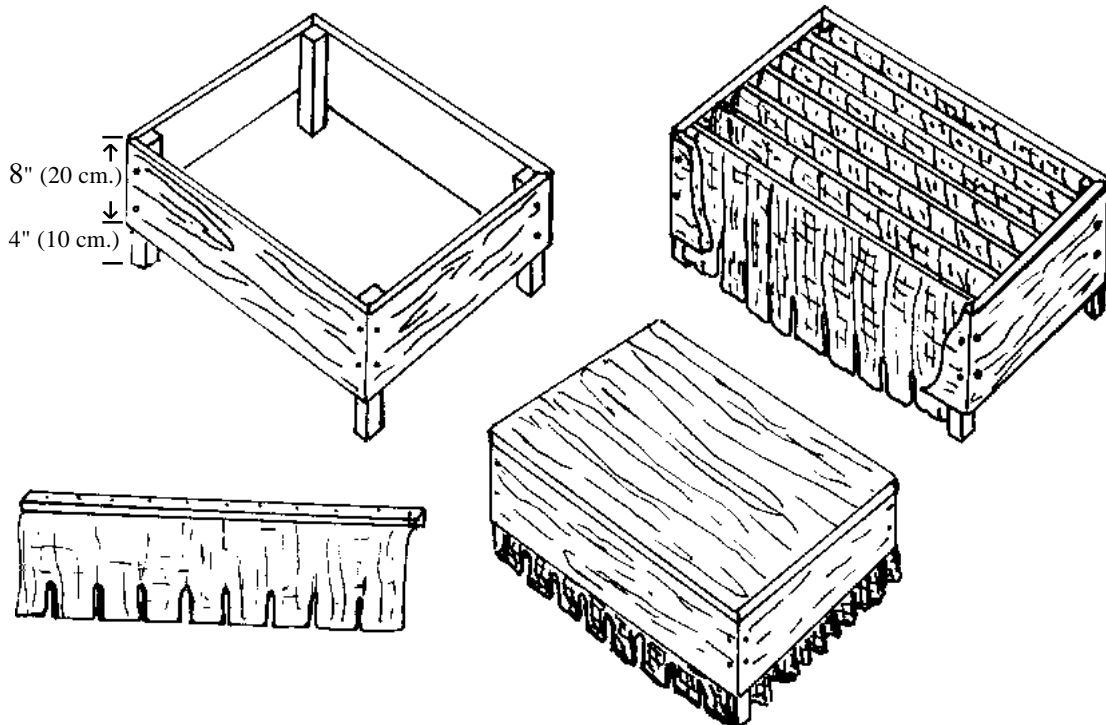


Fig. 2. Length and width of a "feather" brooder depend on the number of chicks to be brooded. Allow 6 square inches of brooder space per chick. Use materials that trap warmth—burlap, woolens, flannels, or artificial fabrics.

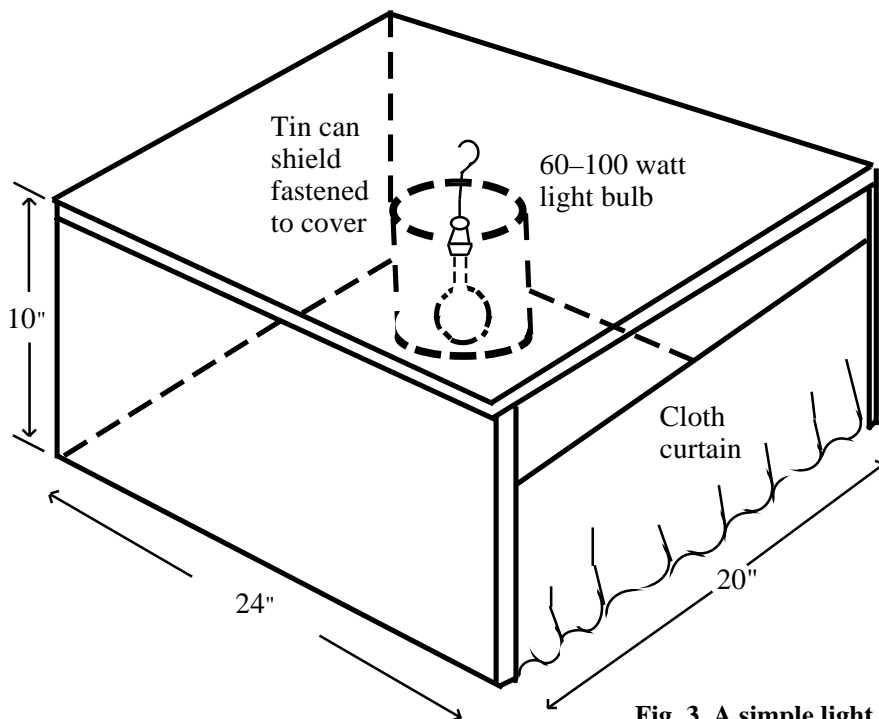


Fig. 3. A simple light bulb brooder for 25 to 50 chicks.

Feed chicks as soon as they are put under the hover. Use a commercial chick starter mash or crumbles. Place the chick feeders so that one end is slightly under the brooder. For the first few days, in addition to the feeders, sprinkle some mash on pieces of cardboard so that the chicks learn to eat.

Give chicks plenty of feeder and drinking space. Half of them should be able to eat at one time. Fill the feeders full the first two days, and after that do not fill them more than half full. Chicks waste feed from a full feeder. A piece of hardware cloth over the mash keeps the chicks from scratching out the feed.

Don't crowd the chicks. Each chick needs 1 square foot of floor space. Crowding is one of the worst things for chicks. It may lead to cannibalism, particularly if the chicks are brooded too warmly. If they are staying close to the brooder guard, reduce the temperature several degrees. Many people have a tendency to keep chicks too hot, which also may lead to cannibalism.

Clean, sanitary conditions are essential when chicks are kept in the brooder house all the time. Clean up wet spots and turn the litter. Rinse waterers each day and remove any caked manure.

Good ventilation is important. The quarters should be light and airy, without drafts. Once the chicks begin to feather out well, the temperature may be dropped rapidly, saving energy and preventing cannibalism. Chicks must have fresh air, but be sure they are not chilled.

You can put chicks on pasture at any age as long as the weather is favorable. They need shade. If there is none,

you can build a temporary shade of brush supported by four posts. Feed and water should be available in the shade. Chickens of all ages must have plenty of fresh, clean water at all times, especially in summer.

Beak Trimming

Beak trimming prevents cannibalism. This can be done whenever the problem arises. A common practice is to lightly trim day-old chicks and then trim the beak again at approximately 16 weeks of age. An alternative is to trim the beak at approximately 10 days of age.

Beak trimming can be done by removing part of both beaks or part of the upper beak only. Occasionally, when the upper beak only is trimmed, the lower beak will grow too long and the bird has difficulty eating. It may be necessary to remove part of the lower beak three or four months after removing the upper beak.

With electric beak trimming equipment, approximately half of the upper or both beaks is removed, and the cut is cauterized with a hot blade. In a small flock, beak trimming can be done with a sharp knife or dog toenail clippers, but the beak must not be cut deep enough to cause bleeding.

Growing Laying Pullets

When the chicks are about eight weeks old, change from chick starter to growing mash or crumbles. The simplest way to make sure chicks receive a balanced

ration is to feed a “complete” feed. Follow the directions that come with it. A feed labeled “complete” will have everything in it that chickens need, so you do not need to feed grain or other supplements. Feeding supplements could unbalance the ration, so that nutritional problems develop. These could slow chick growth.

If you want to feed home-grown grains, select a grower mash or crumbles prepared for this purpose. You will need about equal parts of the grower feed and grain. Milo is a good grain to use in New Mexico.

If you plan to feed grain to your growing pullets, sprinkle a few grains over the feed to teach the chicks to eat grain. Whole milo is good for this.

Pullets may be confined to the house all the time, but some growers prefer to allow pullets to run in a yard, especially if green feed is available. Like chickens of other ages, pullets need shade and water when they are outside.

VACCINATE AGAINST CONTAGIOUS DISEASE

It's good insurance to vaccinate all chickens kept for egg production to prevent Newcastle disease, bronchitis, and fowl pox. You can buy chicks already vaccinated for Marek's disease at the hatchery. Request this vaccination when you place your order for chicks.

Each vaccine produces immunity for only one disease. The most important thing to remember is that vaccination must be done properly to be effective. Follow the manufacturer's directions exactly, and make sure the vaccine is not outdated.

MANAGING THE FLOCK

Pullets begin to lay when they are 20 to 24 weeks old. When you begin to get a few eggs, change the feed from the grower mash or crumbles to a laying ration.

Feeding Layers

The simplest way to feed a small flock of chickens is to purchase a complete ration—mash, pellets, or crumbles—from a feed store. These complete feeds provide nutritionally balanced diets for your birds. Get the correct feed for the age and type of chickens you want to feed. Feed for turkeys, geese, ducks, or quail is different from feed for chickens, so do not substitute one for the other.

Mixing rations for a small flock is not recommended, because of the difficulty and expense in obtaining the many ingredients of the quality found in commercial feed. It is usually easier and less expensive to purchase feed ready-mixed.

The feeds sold in New Mexico have been formulated to be fed without any supplementation with grain, grass clippings, or table scraps. You may wish to put your birds on pasture. They like young tender plants, which provide some nutrients. Old, fibrous plants are of little value because they are not well digested.

If you have been feeding grain, reduce the amount, because it will fatten the birds too much. If you feed a 15 to 16 percent protein laying feed, do not feed more than a 1/2 pound of grain for 10 hens per day. This can be scattered in the litter in the evening. This induces the birds to scratch, which aids in keeping the litter in good condition.

Keep a well-formulated ration in the form of mash, pellets, or crumbles before the birds at all times.

Water

Keep plenty of clean, fresh water available for the layers. The temperature of hydrant water is best for chickens the year around; if water is too cold or too warm, chickens will not drink enough to keep egg production up. Adjust waterers to the shoulder height of the chickens. This will help keep the litter around the containers dry. Be sure waterers are cleaned every day.

Space, Roosts, and Other Things

Each layer needs 2 1/2 to 3 square feet of floor space, 4 inches of feed hopper space, and 2 inches of drinking fountain space.

You can make good roosts by placing 2 inch by 2 inch rails all on the same level, 14 inches apart, 18 to 24 inches above the floor. Provide each hen with 6 inches of roosting space. Roosts or dropping boards should be screened to keep the chickens out of the manure.

Use one nest, nailed to the wall about 24 inches above the litter, for every four hens.

Keep plenty of clean litter in the nests. Gather eggs three or four times a day and clean the eggs that need cleaning. Cool the eggs to 55°F and keep them that cool or cooler.

A laying hen normally lays for more than 12 months. However, during the winter, egg production may drop because of the shorter days. Adding all-night lights improves production of small flocks. Use a 60-watt bulb for each 200 square feet of floor space, roughly. Under good management, a layer in a small flock produces four or five eggs per week.

TURKEYS

Turkeys provide good meat for special-occasion or any-day dinners. You can use the same equipment and

follow the same instructions as for brooding and raising chickens, but the feed is different.

Poults (baby turkeys) are often slow to start eating and drinking. Dip each poult's beak in water, then in feed, as you put it under the brooder. If you have some bright-colored marbles, put a few in the drinking water and on top of the feed in the feeders. The poults will peck at the marbles, and as their beaks slip off into the feed or water, they will get started eating and drinking. Remove the marbles when the poults learn to eat and drink, before the birds are large enough to swallow them.

Buy regular turkey starter for the first eight weeks, then switch to a complete turkey-growing feed that contains grain. Grain alone is never a satisfactory feed for turkeys.

A turkey is usually marketed when it is 20 to 30 weeks old. Turkeys can be eaten any time after they reach 4 to 5 pounds.

GEESE AND DUCKS

Geese and ducks are raised with the same equipment and the same kind of feed used for turkeys. However,

it's better to get crumbled or pelleted feed, which is easier for them to swallow and doesn't gum up in their mouths.

Geese and ducks grow fast, and by the time they are four to six weeks old, they eat large amounts of grass. If you have plenty of young tender grass, you can reduce the amount of feed per bird.

Swimming water is not necessary for geese and ducks. But they must have fresh drinking water always available.

Geese are ready to eat when they are 12 to 15 weeks old. At this age, the meat will be juicy, without the extra fat common on older birds

Geese are much harder to dress than chickens or turkeys. Before you kill a goose examine the feathers close to the body. If there are lots of new feathers just coming in, wait a week or two. These small feathers make the bird hard to pick clean. A detergent in the scalding water will wet the feathers thoroughly and make clean picking easier.

Originally prepared by Dave Francis, Extension Poultry Specialist, deceased.

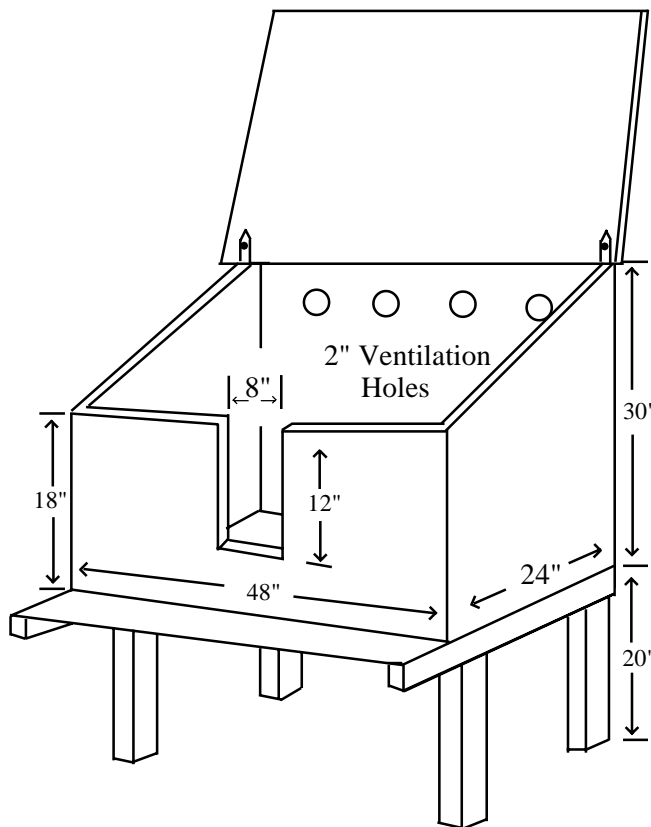


Fig. 6. Community nest.

A SANITATION PROGRAM FOR POULTRY RAISERS

- Do not expose your flock to birds from other flocks.
- Buy chicks from known sources.
- Buy chicks from pullorum-clean flocks.
- Keep young chicks away from older birds.
- Burn or bury dead birds.
- Allow no contaminated equipment to be brought on your premises.
- Keep visitors away from your poultry houses or ranges.
- Keep chickens that have left the premises from getting back into the flock.
- Dispose of sick chickens.
- Should disease appear, seek authoritative advice promptly.
- Use preventative and control medications with extreme caution.
- Treat droppings as potential disease spreaders.
- Try to eliminate rats, lice, and other pests.
- Handle vaccines properly. Follow the manufacturer's directions.
- Keep different species of fowl segregated.
- Do not sell birds known to be diseased.
- Clean poultry buildings carefully and thoroughly.
- Enforce a strict program of sanitation and quarantine.