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# Keeping layers for the family egg supply

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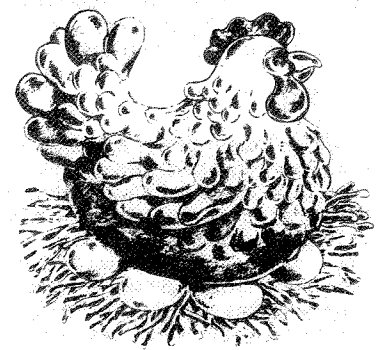
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## Quick Facts

- Properly managed, a small laying flock requires little labor and assures a family of a liberal supply of fresh eggs.
- It takes about four or five hens to furnish one person with two eggs per day.
- Providing adequate housing for a small flock is not a problem on most farms; facilities that can be remodeled for use usually are available.
- If given proper care and attention, hens do well in cages.
- Confined birds cannot scavenge for themselves and therefore require a complete ration and regular attention.
- The house or pen for the chickens should be well lighted and well ventilated.
- Waste products from the kitchen may be used to supplement a hen's regular diet, as long as it is not overfed.
- Eggs should be produced as clean as possible, and stored dry and in a refrigerator to keep them fresh.
- Eggs should be candled to remove those with blood spots or cracks.
- Eggs may be frozen either with the whites and yolks mixed or separated for use in cooking later.



Many farm families are finding it profitable to keep a few chickens to produce fresh eggs for home use. Properly managed, a small flock requires little labor and assures the family of having a liberal supply of eggs most of the year.

In many areas, small farm flocks have disappeared and the larger commercial sized broods have not replaced them. All this means that many small towns and rural communities are without a supply of locally produced eggs. The eggs that rural families do get are not always of the quality they desire, nor are they available during certain seasons of the year.

## Getting Started

A family of four will need 16 to 20 layers to keep it supplied with eggs. It will take about four or five hens to furnish one person with two eggs per day. Of course, there will be times

when the flock will produce more, or times when eggs aren't needed.

One way to start a flock is to purchase day-old chicks. A small group of 50 chicks or less can be brooded under a single heat lamp. Some people will want to buy straight-run chicks (about half will be of each sex) and grow the cockerels for meat. Others may prefer to buy pullet chicks. It usually is best to start the brood in the spring after the weather begins to warm. (For more information on brooding and rearing chicks, see Service in Action sheet 2.509.)

Another possibility is to buy started pullets. They usually are sold at 20 to 22 weeks of age and are ready to lay. Sources of started pullets can be obtained through a hatchery.

A person also may be able to buy a few layers from a local poultry dealer. Such pullets may have been laying for a short time or they may be older birds that are still in good laying condition. Starting with mature birds has the advantage of eliminating the time and work involved in brooding and rearing.

If a family is primarily interested in eggs, a breed or strain of birds that is bred for high egg production should be selected. The White Leghorn type of hybrid or strain cross is preferred. For persons interested in meat quality as well as egg production, the choice may be certain crossbreeds, Rhode Island Reds or other heavy breeds.

## Housing

Providing adequate housing for a small flock is not a problem on most farms. Facilities that could be remodeled easily and used probably are available already. Confinement of the flock is recommended for the following reasons:

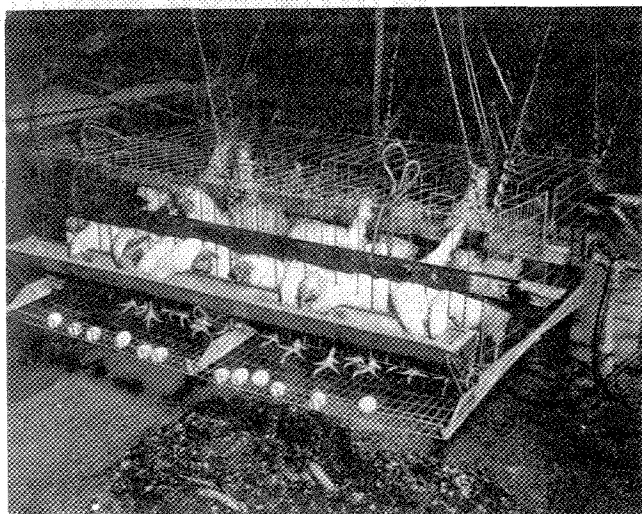
- To simplify care for the flock.
- To keep birds from gardens and yard.
- To prevent eggs from being laid in odd nesting areas about the farm.
- To prevent losses from predators.

**Cages.** The small colony cage, such as that shown in Figure 1, makes an excellent shelter for a small flock. It can be placed in any of the outbuildings around the farmstead where it will fit most appropriately. Droppings can accumulate on the floor or a tray can be provided for them under the cage. The cage should be equipped with a feeder and waterer.

For more information on constructing a colony cage, see Service in Action sheet 2.511, *Constructing a colony cage for layers*. Building a colony cage makes an ideal project for a youngster.

If given proper care and attention, hens do well in cages. Records on 13 White Leghorn hens housed in a colony cage showed that in 27 weeks they produced 135 dozen eggs. This averages 8.5 eggs per day, or about 65 percent of production. The cage was located in a non-insulated pen on the University

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**Figure 1: A small colony cage converted from used single bird cages. New or used cages can be purchased and hung in existing farm buildings.**

of Missouri poultry farm. The laying period was from late October 1964 through April 1965.

Since confined birds cannot scavenge for themselves, they naturally require a complete ration and regular attention. Caged birds should be properly debeaked to prevent cannibalism.

Each light breed bird needs from 0.5 to 1 sq ft (.05-.09 sq meter) of floor space. Heavy breeds will need from 1 to 1.5 sq ft (.09-.14 sq m) per layer.

If the building selected for the colony cage is drafty, the walls can be lined with plastic during the winter months. Lath strips can be used to fasten the plastic securely to the walls.

Flies sometimes become a problem with poultry flocks. To combat this problem, use only those insecticides recommended for use in and around poultry houses.

For more information on raising poultry, see Service in Action sheets 2.501, 2.502, 2.503, 2.504, 2.505, 2.507 and 2.508, as well as references at the end of this sheet.

**Floor.** Many farms still have a 10 x 12-foot (3 x 3.7-m) brooder house that can be used to house the home flock. Such a house will take care of 40 to 60 confined layers very nicely. If a building of similar size is not available, a person can partition off a part of another building. The brooder house should be well lighted and comfortable for the flock. It should have plenty of fresh air, but not drafts. The ceiling of the house or pen may be insulated to make it cooler in the summer and warmer in the winter.

The equipment needed includes:

- Nests—one individual nest for each four to five hens.
- Feeder—one hen-size hanging-type feeder is adequate for 25 to 30 birds.
- Waterer—preferably automatic. Many types of waterers are available.
- Lights—one 60-watt bulb for each 200 sq ft (18 sq m) of floor space. Use lights to provide a 14-hour day from September through early March. The purpose of lights is to stimulate egg production.
- Roosts are not necessary. If they are provided, they should be spaced about 12 inches (30.5 centimeters) apart.

## Feeding

Twenty-five light breed hens in good production will eat 6 to 7 pounds (2.7 to 3.2 kilograms) of feed per day. This feed may be supplied as a complete 16-percent protein all mash or as a 20-percent protein mash plus whole grain. The latter system is most practical on farms where a good supply of homegrown grains is hand-fed in late afternoon in the ratio of 60 parts mash to 40 parts grain.

A small hopper divided into two sections should be provided for the hens. Keep one end filled with granite grit; the

other end may be filled with oyster shell or hen-size limestone grit. For birds in cages, sprinkle a handful of grit and oyster shell across the feed about once a week.

Waste products from the kitchen may be used to supplement a hen's regular diet. Once a day, the flock should be fed only what it will eat in 5 to 10 minutes. Be careful not to overfeed and remember that some kitchen scraps, such as onions and fruit peelings, can cause off-flavor in eggs.

For more information on feeding chickens, see Service in Action sheets 2.503, *Practical feeding methods for small poultry flocks*, and 2.504, *Home mixing of poultry feeds*.

## Flock Health

Keeping a flock in a comfortable, well-ventilated house is essential to having a healthy flock. Birds should be checked regularly for lice or mites. Extreme culls in the flock should be removed as soon as they are noticed. A cull bird is not difficult to spot in a small flock. Feed should not be wasted on a bird that is out of condition and not likely to develop into a profitable layer.

All dead birds should be disposed of by burying deep in the ground or burning in an incinerator.

## Care of Eggs

It is wise for the family to produce as many clean eggs as possible. Dirty eggs may be washed in water that is warmer than the eggs. An egg-cleaning detergent-sanitizer can be used in the wash water to make the job of cleaning easier. Eggs should be dried before storing them.

For freshness, eggs should be stored in the refrigerator. If a family has more eggs than it can use, it is best to dispose of them weekly, thereby guaranteeing top-quality eggs.

A purchased or homemade candling light can be used to detect blood spots and cracked eggs. A suitable light can be handmade by cutting a 1¼-inch (3.2 cm) diameter hole in the end of a coffee can. Insert a light bulb fixture through the lid, using a 40-watt bulb.

The interior of the egg can be viewed by holding the large end up to the hole cut in the bottom of the can. As the light passes through the egg, twirl the egg several times. If blood spots are present, they will be detected in this manner.

For more information on grading and candling techniques, see *Egg Grading Manual*, Agriculture Handbook no. 75, U.S. Department of Agriculture.

## Freezing Eggs

To store eggs for longer periods of time, they can be frozen. To freeze the white and yolk of eggs together, break the eggs and thoroughly mix the yolk and white, using an electric mixer at low speed to avoid incorporating any more air than is necessary. No further treatment is needed. Pour the whole egg mixture into convenient-size containers and freeze.

If it is desirable to freeze the whites and yolks separately, separate the eggs in the usual way, being careful to avoid getting any yolk into the whites; they will not whip if mixed with yolk. The whites should be mixed to a smooth foam-free consistency, then frozen in suitable containers. The frozen, separated yolks will gel unless salt or sugar is added when they are mixed. To prevent gelling, add 1 teaspoon (5 milliliters) of salt or 2 tablespoons (30 ml) of sugar, corn syrup or honey to each cup of yolks. Remember to allow for the salt and sugar in the added ingredients when using frozen yolks in recipes.

## References

- U.S. Department of Agriculture publications:  
*The Home Chicken Flock*, Leaflet 497.  
*Brooding Chicks with Infrared Lamps*, Leaflet 397.  
*Culling Hens: A Way to Increase Egg Profits*, Leaflet 465.  
*Lights for More Winter Eggs*, Leaflet 377.  
*Frostproofing Water Systems in Poultry Houses*, Leaflet 434.  
*Egg Grading Manual*, Agriculture Handbook no. 75.  
*Farm Poultry Management*, Farmers Bulletin no. 2197.