

## Keeping Layers for the Family Egg Supply

Fact Sheet No. 2.510

Livestock Series/Health

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Many farm, small acreage and some urban 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 an egg supply most of the year.

Depending on local ordinances, a family could produce enough eggs to supply themselves as well as some local community members. Before selling to others check with the State's Department of Agriculture to see laws and regulations governing egg production and sales. Recent changes in laws in Colorado allow for small flock producers to be exempt from an egg license if you sell less than 40 cases a year or 1200 dozen. See <https://www.colorado.gov/pacific/aginspection/egg-producers> for more information.

With the decrease of small flocks in rural areas and the increased demand for locally produced food there might be a demand for eggs in your area.

### Getting Started

A family of four needs 16 to 20 layers to keep them supplied with eggs. It takes about four or five hens to furnish one person with two to four 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 chicks either by mail or at a local farm and ranch supply store. 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 (males) for meat. Others may prefer to buy pullet chicks. Chick sexing is only about 95% accurate so if you are ordering many chicks be prepared for a couple surprises. Cockerels (males) are not needed for egg production. 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 Fact Sheet 2.509, [Brooding and rearing chicks for the family flock.](#))



### Quick Facts

- Properly managed, a small laying flock requires little labor and assures a family of a supply of fresh eggs.
- Many urban, city and county codes allow for small flock production. Check with local governing ordinances to see what regulations need to be followed before starting small flocks.
- Waste products from the kitchen may be used to supplement a hen's regular diet or as a treat, as long as it is not overfed.
- Eggs should be produced as clean as possible. Store dry and in a refrigerator to keep them fresh.

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Another possibility is to purchase 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 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, equipment and work involved in brooding and rearing.

If a family is primarily interested in eggs, select a breed or strain of birds bred for high egg production. The White Leghorn type of hybrid or strain cross is preferred. For people interested in meat quality as well as egg production, the choice may be certain crossbreeds, Rhode Island Reds or other heavy breeds. In Colorado, you may also need to consider breeds that adapt well to elevation and cooler temperatures. If egg color is important to you identify breeds with tan, brown, or blue/green shells to suit your desires.

## 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. Small acreage and urban dwellers will need to build a coop and run. Urban backyard coops will need to meet setbacks and building codes for that municipality. Flock confinement 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 or yard.
- To prevent losses from predators.
- To prevent disease spread from wild birds and animals.

### Cages

The small colony cage makes an excellent shelter for a small flock. Place it in any outbuilding around the farmstead where it will fit most appropriately. Droppings can accumulate on the floor or provide a tray for them under the cage. Equip the cage with a feeder and waterer.

Since confined birds cannot scavenge for themselves, they naturally require a complete ration and regular attention. In some situations, it is necessary to de-beak caged birds to prevent cannibalism.

Each light breed bird needs from 2.5 to 3 square feet of floor space. Heavy breeds need from 3 to 3.5 square feet per layer. If the building selected for the colony cage is drafty, line the walls with plastic during the winter months. Use lathe strips 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.

## Coop

Many farms still have a 10 feet by 12 feet 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. Small acreage and urban dwellers will often need to build a new coop and run for their flock. Partitioning off an end of another building can also be an option but consider the uses of the building as well. For example, you would not want to house chickens in the same building you process foods in or store chemicals because of health and safety considerations. The brooder house should be well lit and comfortable for the flock. It should have plenty of fresh air, but not drafts. Insulate the ceiling of the house or pen 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 or equivalent for each 200 square feet 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 but advised. If they are provided, they should be spaced about 12 inches apart.

## Free Ranging

The term 'Free Range' has many interpretations, but typically refers to allowing chickens to be outdoors at least part of the day. In urban areas, this can mean a large run or, if you are not concerned about the care of your gardens, the entire yard. In more rural areas, it could mean allowing chickens to roam where they want and closing them indoors at night. 'Pasture raised' chickens may be in a fenced-in area and allowed to range during the day but spend the night in a mobile chicken coop that is moved around the pasture as conditions warrant.

Bear in mind that free ranging is a way to allow chickens to display natural behaviors, which will include rooting and digging, roosting in trees, and will lead to finding excrement in any place they have access to. If your desire is to keep areas of your property tidy, prevent chickens from entering into those areas.

Free range birds need indoor protection for inclement weather, nighttime, and to escape predators. Make sure a coop that meets the above standards is accessible to all free-ranged birds at all times.

## Feeding

Twenty-five light breed hens in good production will eat 6 to 7 pounds 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 ration of 60 parts mash to 40 parts grain.

Urban flocks, or those raised on a small acreage, should be fed a complete layer ration available at most farm and ranch supply stores. Such feed is a mixture of various grains that have been processed into either a pellet or crumble. Automatic or free-choice feeders can be used with the ration to decrease labor.

Hens need supplements for digestive health and for egg quality. Provide a small hopper divided into two sections for the hens to provide these supplements. 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, feed the flock 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. Care should be taken when feeding table waste as over feeding can create unsanitary conditions from rotting waste.

For more information on feeding chickens, see 2.503, [Practical feeding methods for small poultry flocks](#).

### Flock Health

Keeping a flock in a comfortable, well-ventilated house is essential to having a healthy flock. Check birds regularly for lice or mites. Remove extreme culls in the flock as soon as they are noticed. A cull

bird is not difficult to spot in a small flock. Do not waste feed on a bird that is out of condition and not likely to develop into a profitable layer.

Dispose of all dead birds by burying deep in the ground or burning in an incinerator. Always check with local codes and ordinance to make sure burying deceased animals is not prohibited or requires a permit. Colorado State University Avian Diagnostics Center provides diagnostic testing for a wide array of diseases and conducts autopsies. <http://csu-cvmb.colostate.edu/vdl/avian-diagnostics/Pages/default.aspx> e-mail [dlab@colostate.edu](mailto:dlab@colostate.edu) Phone: (970) 297-1281 Fax: (970) 297-0320

### Care of Eggs

Produce as many clean eggs as possible by keeping nesting boxes clean. Wash dirty eggs in water that is warmer than the eggs (see Colorado State University Fact Sheet 9.377 "[Home-Produced Chicken Eggs](#)"). Use an egg-cleaning detergent-sanitizer in the wash water to make the job of cleaning easier. Dry eggs before storing them.

For freshness, store eggs in the lower part of the refrigerator not in the door (the door is warmer than the rest of the refrigerator and the lower part is the coolest). If a family has more eggs than it can use, dispose of them weekly, thereby guaranteeing top-quality eggs.

Use a purchased or homemade candling light to detect blood spots and cracked eggs. A suitable light can be handmade by cutting a 1 ¼ inch diameter hole in the

end of a coffee can. Insert a light bulb fixture through the lid, using a 40-watt bulb.

View the egg interior 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, you will see them.

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, freeze them. 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 necessary. No further treatment is needed. Pour the whole egg mixture into convenient-size containers and freeze.

To freeze the whites and yolks separately, separate the eggs in the usual way. Be careful to avoid getting any yolk into the whites; they will not whip if mixed with yolk. Mix the whites to a smooth foam-free consistency, and then freeze in suitable containers.

Frozen, separated yolks will gel unless you add salt or sugar when they are mixed. To prevent gelling add 1 teaspoon of salt or 2 tablespoons of sugar, corn syrup or honey to each cup of yolks. Allow for the salt and sugar in the added ingredients when using frozen yolks in recipes.

## References

### Fact Sheets:

- 2.501, Vaccination program for chickens in Colorado.
- 2.502, Brooding and space requirements for poultry.
- 2.503, Practical feeding methods for small poultry flocks.
- 2.505, Ailments of chickens
- 2.507, Raising poultry the organic way – disease control and feeding.
- 2.508, Raising poultry the organic way – management and production
- 2.509, Brooding and rearing chicks for the family flock.
- 2.512, Sanitation and disease prevention for poultry.