



# Poultry for the Small Producer

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Although the major supply of eggs and poultry meat in the U.S. is produced by commercial producers, many people prefer to produce their own. A variety of reasons can be given for home production, not the least of which is the desire to care for and be around growing animals. Chickens can be raised in a small area and require a minimum of daily care. However, anyone considering small flock production must look at a variety of elements before arriving at a decision.

1. Are there zoning restrictions which preclude the raising of animals in the location being considered?
2. Is there a source of feed available for growing the type of chickens being considered?
3. Is the time or manpower available to maintain the premises in such a way that the chickens will not become a nuisance to the neighbors?
4. Is suitable housing available for the flock being considered?
5. Is there a market for the product, i.e. can eggs and chickens be sold in the area?
6. Are the facilities available for processing the product, i.e. picking and dressing the broilers or hens at the end of their productive period?
7. Are the facilities available for disposing of normal mortality within the flock?

## Housing

The first element in any poultry enterprise is to have adequate housing available. To provide protection from heat, cold, and rain. Any poultry house must have the capability for providing ventilation at all times. In the summer, this is the best means of keeping the temperature at a comfortable level. Ventilation in the winter is also necessary, not only to provide fresh air to the house, but also to remove moisture as an aid in the maintenance of dry litter.

In some cases there may be buildings on the property which can be altered or renovated for the poultry enterprise with a minimum of expense. The type of construction need not be elaborate or highly sophisticated. The drawings on the back of this fact sheet illustrate a type of house which can be used for producing either meat or eggs. The house, as illustrated, is a pole-type construction. However, concrete

or block stem-wall construction is equally good. The 10 x 15 house shown will provide adequate housing for up to 150 broilers or 75 laying hens.

This house can be used throughout the entire life-span of the chickens, if desired. For the producer who intends to keep chickens for egg production and who also intends to start each time with day-old chicks, two houses will be necessary. Separate housing is needed because it is not recommended that birds of significantly different ages be housed together. This is important from a disease standpoint and also because different ages require different temperatures, feed, and space. In order to maintain continuous production, the individual may want to consider the purchase of started pullets. These are birds which are approximately 20 weeks old and will start producing eggs soon after being placed in the house.

## Baby Chicks

Purchasing baby chicks from a hatchery is an excellent method of obtaining birds for either meat or egg production. Because there are only a few hatcheries in Oklahoma, it is important to plan and order chicks well in advance to insure getting the desired number and kind of birds. The chickens available today have been bred for specific purposes. For example, chickens bred for meat production will usually not lay enough eggs to make it economically feasible to keep them beyond the broiler-fryer age and, likewise, chickens bred for egg production will not grow rapidly enough to make good meat producers. There are some so-called "dual purpose" breeds available. With these breeds it is sometimes desirable to slaughter the males for food and keep the females for egg production. The breed should be selected for the purpose desired.

## Brooding

From the time the baby chick is day-old until it reaches about six weeks of age, some supplemental heat may be necessary for optimum growth. This will depend on the environmental temperature, but for the first week the chicks should be able to bask in 90 to 95°F. temperature if they desire. The temperature may be lowered 5° each week until a temperature of 70 degrees is reached, after which supplemental heat may be necessary only if the outside temperature is extremely cold.

The chick is the best thermometer available. Chicks which are scattered throughout the brooding area giving a contented sound are comfortable. Huddled, peeping chicks need additional heat, while chicks which are panting with their mouths open need cooler temperatures. Even though the chicks provide an idea about temperature, a small thermometer at chick level should also be considered a must. Supplemental heat may be from heat lamps or brooder stoves fueled by gas or electricity.

Plenty of feed and fresh water must be available to the baby chicks as soon as they arrive from the hatchery. A good start gives a better chance at a successful operation.

## Feed and Water

Rations are scientifically formulated for specific purposes. The starting ration is quite similar whether for broilers or egg production stock. Grower rations for broilers will be quite different from the grower rations for egg-laying stock. The rations which are fed to laying chickens are also quite different from any of the other rations. Specific recommendations are available for whatever brand of feed is used, and these should be followed closely for best results. The type of feed being fed is important. Small flock owners should ask questions about available feed and be sure that the correct feed is being used. Because feed is the major expense in raising birds, it is important to have accurate information. It is best to use complete feeds that do not require supplementation with other ingredients. In fact, if grains or other feed materials are available to the chickens, an imbalance of nutrients may cause mineral or vitamin deficiencies so that the birds may not exhibit optimum growth and/or production.

When the baby chicks are first placed in the house, the feeders should be well filled, but after birds have learned to eat, the feeders should be no more than three-fourths full to prevent waste. There should be enough feeder space available for all chickens to eat at the same time for most efficient production. It is desirable to clean the feeders and waterers frequently, since mold and fungus may develop on the equipment and cause slow growth or mortality in the flock.

Feeders and waterers adequate for the small flock can be of home construction or may be purchased from a feed dealer or farm supply store. Both of these types of equipment need to be capable of being adjusted in size as the chicken gets larger, and also need to be so constructed that they can be sanitized or disinfected to prevent the spread of disease. For the baby chick, box lids will often suffice as feeders for the first two or three weeks; after this time, V-troughs of wood or metal with adjustable legs are quite satisfactory. Guards designed to keep chicks or adult birds out of feeders are essential to reduce feed wastage.

The first waterers used by baby chicks can be a fountain-type lid for ordinary glass jars. As the chicks get older or for the laying hens, troughs or automatic flow fountains can be utilized. Whatever type of equipment is used for watering, it should be such that the chickens cannot get in it with their feet and also should be such that it can be cleaned thoroughly at regular intervals. Fresh clean water is necessary for the efficient production of meat or eggs by the chicken.

## Lights

Commercial broiler operations often have lights on during the hours of darkness so that the chickens have 23-24 hours of light each day. For the home flock owner, this will increase the cost of production and, although maximum efficiency may not be attained, 12 to 14 hours of light per day will probably be sufficient. If lights are left on at all times at least 15 minutes of darkness should be planned. This allows birds to be accustomed to darkness and avoid a panic if the power is interrupted.

A similar situation will exist in the egg production flock. Maximum production efficiency will be attained when the lighting system is so arranged that there is an increase of 15 minutes per day on a weekly basis, for example, a day length of 12 hours one week, 12 hours 15 minutes the next week, 12 hours 30 minutes the next week, etc., until a total day length of 18 hours is reached. Some small flock owners, producing eggs for home consumption may want to eliminate the cost of artificial lighting and utilize only natural daylight for their laying flock. However, if natural light is used, producers should be aware that birds are very light sensitive and egg production will probably decline when the day length is reduced during fall and winter.

## Equipment and Litter

For the small flock owner, equipment need not be of a sophisticated nature. The broiler flock needs only feeders and waterers for adequate growth. Some type of nesting facilities need to be added for the egg producing flock. One nest for each four hens will be adequate under most conditions. There is not need to provide roosts in poultry houses. Of greater importance is the use of litter on the floor. Whether the floor is dirt, sand, wood, or concrete, some material on the floor is a necessity for either broilers or laying hens. This litter material should be absorbent so that it will keep the conditions within the house dry and comfortable for the chickens. Straw, wood shavings, peanut hulls, rice hulls, or other commercial litter material are all quite satisfactory. The litter should be stirred frequently to encourage drying and to prevent matting or caking. If the litter gets wet at any time, the wet portion should be removed and new litter put in its place. Wet litter is an excellent media for disease organism growth, which can affect the health and production of the flock.

## Disease and Parasites

No discussion of a poultry operation would be complete without mention of these two factors. A well-fed flock housed in comfortable conditions will have a minimum of these problems. At the time of purchase, the baby chicks should be vaccinated for many of the common poultry diseases. The supplier from whom the purchase is made will know whether this has been done or can arrange to have it done prior to delivery.

Sanitation is still the best known prevention of disease and parasites. Cleaning the house thoroughly between groups of chickens, maintaining dry litter, and providing sufficient floor space for the chickens (one square foot per broiler and two square feet per Leghorn-type layer) will prevent many of

the disease, parasite, and cannibalism problems that may be encountered in a poultry flock.

If problems develop, they need to be treated on an individual basis. Many of the medications for disease control and the drugs for parasite control are not only specific for certain conditions, but also are subject to changing regulations. Each condition needs to be specifically examined for accurate diagnosis and control recommendation. If the flock owner will contact the supplier of the chicks, the representative of the feed company, or the County Extension Office, qualified personnel can be obtained for help on poultry problems.

## **Processing Broilers**

The broilers of today will be ready to eat or put in the freezer at about seven weeks of age. If the birds are processed at home, is it desirable to process only a few birds each day in order to avoid fatigue. Considerable labor is involved in preparing the broilers for the freezer and one can often become discouraged if too many are done at one time.

Many communities do not have facilities available for custom processing, so individual producers may need to be ready to process their own birds. Sanitation of equipment is of paramount importance during the processing operation, as the conditions are quite suitable for bacteria growth. The bird should be hung from a clothes line or tree limb by the feet before cutting the throat at the base of the jaw.

After bleeding for one or two minutes, the bird should be immersed in 130-135°F. water to loosen the feathers for easy removal. This temperature is somewhat critical, as a high temperature scald will cook the skin and cause it to tear easily, while water that is too cold will not relax the muscles adequately, making the bird hard to pick. After the feathers head and feet have been removed the carcass should be washed thoroughly with plenty of clean water. Before washing, singeing and flaming the hair from the body may be desirable. Holding the carcass over a gas flame and turning the carcass so the entire body is flamed is quite adequate. The carcass must be kept moving at all times it is in the flame in order to avoid burning the skin.

Processing should be done in a location that can be easily cleaned because blood and feathers left unattended can result in fly and odor problems. Provisions will also need to be made for proper disposal of the offal from the processing operation. Burial is probably the most satisfactory method of disposal. For more information on home processing, refer to Home Processing of Poultry, OSU Extension Fact Sheet ANSI-8400.

## **Producing Eggs**

Successful egg production will probably depend on the correct feeding and lighting programs as well as good management of the layers. Nests located in a dark portion of the house should be provided. One nest for each four layers should be adequate.

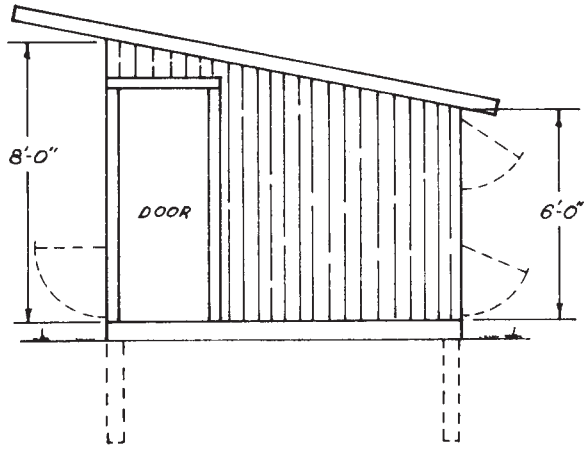
## **Egg Care to Minimize Quality Loss**

It is desirable to gather the eggs at least twice per day. This is particularly true if temperature conditions are extreme in the house. This procedure will also keep the breaking of eggs in the nest to a minimum.

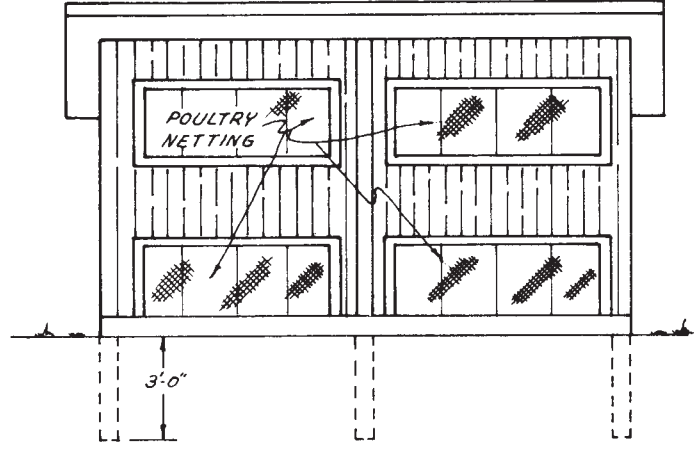
Eggs should be stored in a refrigerator or in an area where the temperature is between 50 and 60°F. as soon as gathered. Any dirty eggs should be scraped clean or sanded with a block of wood covered with sandpaper before being placed in the refrigerator. Material on the eggs will contain bacteria, and although the egg shell and membranes do not allow easy passage into the egg, the shell is porous and some penetration will result from continued exposure. Frequent replacement of litter in the nests will keep the production of dirty eggs at a minimum.

## **Economics of Small Flock Production**

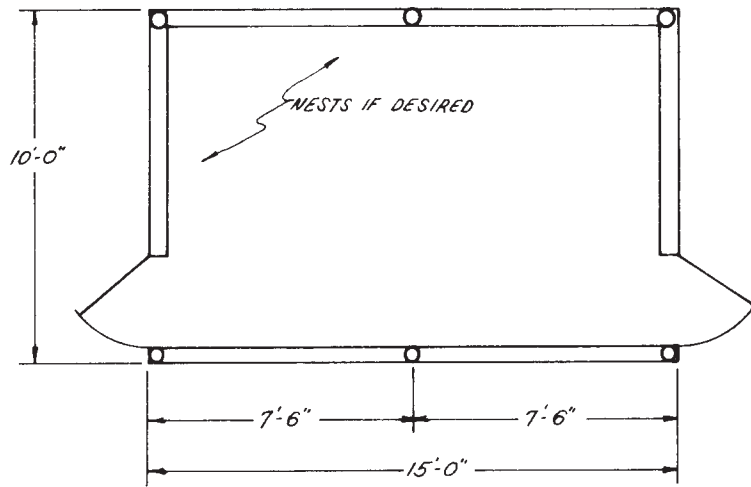
In many cases the cost of eggs or meat produced will be comparable with the purchase price in a retail store. This will be particularly true if any charge is assessed for home labor. For good production, a chicken must be well fed and well managed. The raising of chickens can be a satisfying experience, as well as a source of highly nutritious food items for the family table.



End



Front



Plan



Appreciation is expressed to George Newell, Pat Lewis, and A. L. Malle for portions or original material included in this publication.

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Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 20 cents per copy. 0803