



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 growers, some 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 to provide protection from heat, cold, inclement weather and predators. A dry, draft free house with ventilation is essential to the health and wellbeing of every bird. In the summer, ventilation provides a way to keep the interior 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. For small coops, windows or vents on one or two sides of the house usually provide plenty of ventilation. Windows or vents should be placed on sides of the house away from prevailing winter winds; the south or east side is best.

In some cases, there may be buildings on the property that can be altered or renovated for the poultry enterprise at minimum expense. Depending on bird size, space requirements for laying hens will be 1.5 to 2 square feet per bird inside the

house. Broilers need slightly less room at 1 square foot per bird.

The type of construction need not be elaborate or highly sophisticated. Illustrations on the last page of this fact sheet show a type of house that can be used for producing either meat or eggs. As illustrated, the house is a pole-type construction. However, concrete or block stem-wall construction is equally good. The 10-foot x 15-foot house shown will provide adequate housing for up to 150 broilers or 75 laying hens. For a backyard producer with limited space, a 4-foot x 4-foot house would be sufficient for a flock of six 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 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. To maintain continuous production, consider the purchase of started pullets. These birds are approximately 20 weeks old and will start producing eggs soon after being placed in the house.

For those who desire to keep their chickens confined, a run will be necessary to provide sunlight and exercise for the birds. Protection from predators is another big reason for small-scale producers to confine birds. When developing accommodations for a backyard flock, be sure to construct the poultry house and runs in a way that protects birds from invading predators. Depending on bird size, space requirements will be 8 to 10 square feet per bird in the run.

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 ensure getting the desired number and kind of birds. Additionally, chicks can be purchased from various farm supply stores throughout Oklahoma. Often, there will be options to purchase straight-run or sexed chickens. When purchasing straight-run chickens, the likelihood of getting some roosters is higher than if chicks are sexed.

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. Likewise, chickens bred for egg production will not grow rapidly enough to make good meat producers. There are some 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 one 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 chick area should be kept at 90 F to 95 F. The temperature may be lowered 5 F each week until a temperature of 70 F 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 that 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 is 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 optimal production.

Feed and Water

Chicken rations are scientifically formulated for age and specific purpose. The starting ration is quite similar whether for broilers or egg production stock. However, grower rations for broilers will be quite different from the grower rations for egg-laying stock. Likewise, the rations fed to laying chickens are quite different from any of the other rations. Regardless of brand, specific feeding recommendations should be provided and these should be followed closely for best results. Small flock owners should consult a feed representative about available feed, and verify that the correct type 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 and the birds may not exhibit optimum growth and/or production. It is recommended scratch, grains and kitchen scraps should be provided at no more than 10 percent of the total daily diet. For a mature hen that consumes only 0.25 pounds of feed each day, additions to the diet or treats would account for a very small amount.

When the baby chicks are first placed in the house, the feeders should be well filled. 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. They also need to be constructed so 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 waste.

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, the chickens should not be able to get in it with their feet. It also should 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 the chickens have 23 to 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 arranged so 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 who produce 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 amenities need to be added for the egg-producing flock. One nest for four hens will be adequate under most conditions. There is no 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 conditions within the house will be 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 disease and parasites. 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 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 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 to certain conditions, but also are subject to changing regulations. Each condition needs to be specifically examined for accurate diagnosis and control recommendation. The flock owner should contact the supplier of the chicks, the representative of the feed company or the local county Extension office, for qualified help.

Processing Broilers

The broilers of today will be ready to eat or put in the freezer at about seven weeks of age. To avoid fatigue when processing at home, process only a few birds each day. Considerable labor is involved in preparing the broilers for the freezer and it can be discouraging 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 F to 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. When in the flame, the carcass must be kept moving at all times to avoid burning the skin.

Processing should be done in a location that can be easily cleaned. 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. In small scale production, burial is probably the most satisfactory method of disposal.

Producing Eggs

Successful egg production will 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 four hens 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 F and 60 F as soon as they are 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.

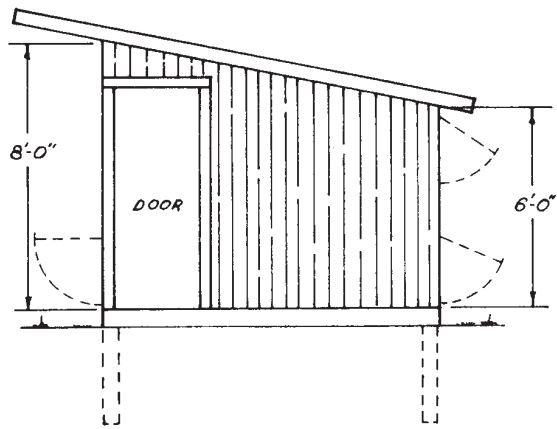
Molting

Molting is a natural process chickens go through each year that allows egg production, shell thickness and quality to improve during the next egg cycle. During molting, the chicken will go through both internal and external physiological changes. Internally, the reproductive tract will regress and go into a period of rest. Externally, chickens will lose weight due to some loss of body fat, liver tissues, musculature and skeletal mass. Loss of old feathers and the growth of new will also occur during molting. Typically, egg production will slow and may even stop until the molt is complete.

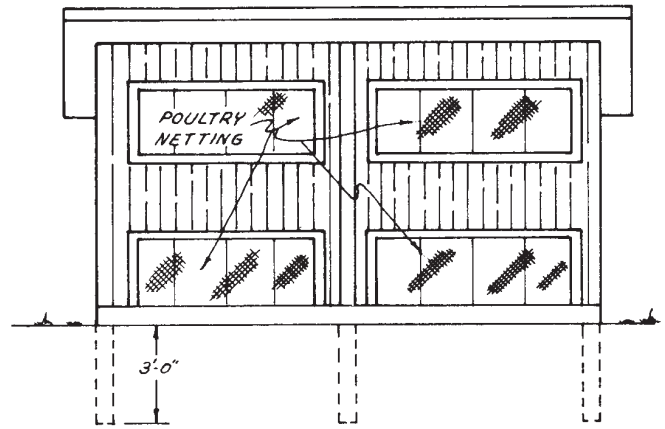
Chickens will either be late molters or early molters. Late molters lay for 12 to 14 months before molting, whereas early molters may begin their first molt after only a few months of production. Generally better producing, late molters will have a more ragged appearance. This is due to the short duration of their molt (two to three months) and loss of old feathers and regrowth of new feathers taking place at the same time. Early molters will molt for a longer duration (four to six months), losing one or two feathers at a time. Early molters will have a smoother, better groomed appearance, but will not be as productive during their lifetime compared to late molters.

Economics of Small Flock Production

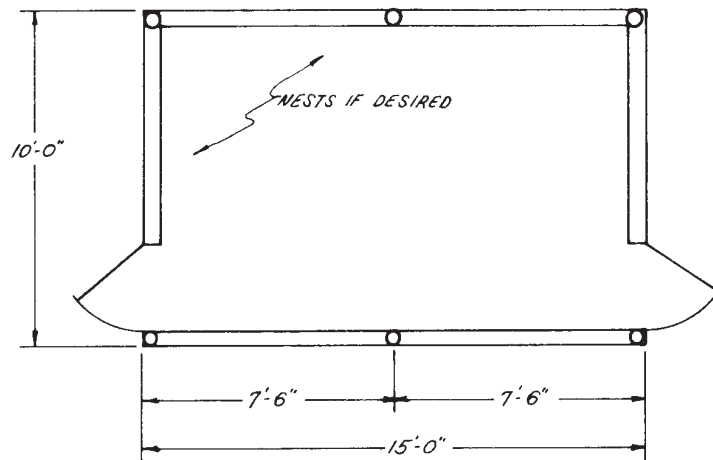
In many cases, the cost of eggs or meat produced will be comparable with the purchase price in a retail store. This will be particularly true if any charge is assessed for home labor. For good production, a chicken must be well fed and well managed. The raising of chickens can be a satisfying experience,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



End



Front



Plan

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