

Small-Scale Poultry Housing

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In planning housing for your small poultry flock, you need to consider a variety of issues. Some are associated with the practical matters of having a coop on your property. Others are associated with the well-being and productivity of your birds.

Figure 1. Backyard Poultry Flock. Photo by Jacquie Jacob, University of Kentucky



Practical Aspects of Housing Poultry on Your Property

There are several logistical aspects to having poultry housing on your property. When deciding on a location and design for your poultry house, answer the following questions:

- How close are you to your neighbors? Do any city ordinances specify the minimum distance that certain structures must be from a property line?
- Do you want portable housing (suitable for pasture-raised poultry) or fixed housing?
- Will the structure be designed for your convenience—that is, for ease in gathering eggs, cleaning, disinfecting, accessing electrical components, watering the flock, catching birds, and so on?
- Is the design suitable for expansion? (Is there room to grow?)
- Can the structure be used for other purposes if it is no longer needed to house poultry?

Well-Being and Productivity of Your Flock

Many factors of poultry housing design relate to the health, safety, comfort, and productivity of your birds. To address these issues, answer the following questions:

- What species and breed will you raise? For example, will you raise meat chickens, egg chickens, ducks, or some other birds?
- What stage of production will you start with—eggs, chicks, or mature birds?
- How many birds will you raise?

- How will you ensure bird health, safety, and comfort (that is, through adequate space, adequate ventilation, appropriate lighting, appropriate sanitation measures, and so on)?

For the well-being and productivity of the birds, poultry housing should provide protection from the weather, protection from predators, adequate space, easy access to feed and water, sufficient light, and adequate ventilation.

Protection from Weather

Your coop should protect your flock from rain, snow, hot or cold temperatures, and other weather conditions.

Poultry housing should be dry and draft free. A simple, draft-free building with windows and/or doors that can be opened for ventilation when necessary will work.

It is important to build your coop in a high, well-drained area. Placing your coop in such a location prevents moisture from building up in the floor and outdoor runs (if present). Excess moisture can result in a buildup of ammonia in the coop. In addition, although chickens can endure quite low temperatures, they cannot tolerate being wet and cold. Consider placing a windbreak (natural or manufactured) on the side of the structure that faces prevailing winds.

In some parts of the country, winter temperatures can be stressful to birds. If you live in such an area, plan your structure to minimize this stress by using a draft-free design and installing proper insulation and heated waterers. If properly designed, poultry housing units need not be heated.

Protection from Predators

The best way to protect your flock from predators is to keep birds confined, remembering, however, that rodents, snakes, and other predators can dig under walls. Securely covering windows with heavy-gauge mesh wire or screening helps keep out predators as well as wild birds, which can be sources of disease. If you allow your birds to run outside the coop, install a fence to keep out land predators. It is important to bury the wire along the fence border at least 12 inches deep and to toe the fence outward about 6 inches. Taking these precautions will stop predators from digging under the fence—animals that typically dig at the base of the fence will encounter more fencing and be unable to continue. Another option is to run electric fencing around the outside of the pen. Electric fencing should be 4 inches off the ground and about 1 foot from the main fence. Energizers for electric fencing can be powered by battery or plugged directly into an outlet.

To prevent problems with hawks and owls, cover your outside runs with mesh wire or netting. Some flock owners have had success by using twine to create a grid cover 3 to 4 feet over the pen. Supplying ground cover, such as a bush or tall leafy vegetation, provides cover for the birds to hide under. If your outside runs are not predator-proof, it is best to lock up your flock before dark. Solar-powered units are available for taking this action.

To protect your flock from theft, lock the building and pens securely whenever you are not home. Also, keeping a protective dog near your coop usually works well to discourage predators and unwanted visitors. Door-closing systems are available and can be used to shut entryways automatically (controlled by a timer or by darkness).

Adequate Space

Birds need adequate space to move and exercise. The amount of space you need to provide depends on the type and size of the birds you raise. Spacing of .75 to 1 square foot per bird for small breeds to 3 to 3.5 square feet per bird for larger breeds is adequate.

Easy Access to Fresh Feed and Clean Water

Place feeders and waterers throughout the pen in locations that allow birds to access them easily. Ensure that the bottoms of the waterers and the top lips of the feeders are at the height of the birds' backs to keep the feed and water cleaner and to prevent waste. Also, make sure you provide enough feeder space for all the birds to eat at the same time. This spacing will depend on the type and size of birds you have. When possible, locate the waterers in the outside run, especially for waterfowl. This placement will help keep the moisture level down inside the coop. Birds will roost on feeders and watering units if permitted, so adapt the areas above feeders and waterers as needed so that birds cannot roost on or above them.

Sufficient Light

Supplying your flock with sufficient light includes providing the proper number of hours of light and intensity of light. If you wish to produce eggs from your flock year-round, you must supply the hens with supplemental light. Poultry come into production with increasing day length (number of hours of light in the day) and go out of production with decreasing day length. A 60-watt bulb every 40 feet at ceiling height is sufficient. For small poultry houses, one light above the feeding and watering area usually is sufficient. You are not exploiting the chickens' health by providing a consistent duration of light to birds through the seasons of short days.

Ventilation

It is important to have adequate ventilation, or air circulation into and out of the poultry house. The movement of fresh air into the coop brings in oxygen. Moisture, ammonia, and carbon dioxide are removed when the stale air moves out of the house. If the floor becomes damp or a buildup of ammonia occurs, the ventilation is not adequate. For small coops, windows or vents on one side of the house usually provide plenty of ventilation. Well-ventilated houses also must have plenty of insulation and a good vapor barrier. Failure to insulate or ventilate properly will result in moisture accumulation on the walls and ceiling in cool weather.

For More Information

[Small Scale Poultry Housing](#), Phillip Clauer, Virginia Tech.

[Housing Backyard Chickens](#), David Frame, Utah State University.

[Range Poultry Housing](#), Robert Plamondon, edited by Anne Fanatico and Richard Earles, National Sustainable Agriculture Information Service.

[Poultry Housing](#), Stephen Herbert, Masoud Hashemi, Carrie Chickering-Sears, and Sarah Weis, University of Massachusetts.