Chapter 2 Housing

Why should poultry have houses or shelters?
Housing is essential to protect the bird from rough weather (rain, sun, very cold winds, dropping night temperatures), predators, thieves, and to provide shelter for hens laying eggs and broody hens. A suitable or comfortable poultry house is also important for efficient production and for the convenience of the poultry farmer. In the following, we will discuss simple guidelines for size and type of the chicken house, site selection, and lastly the equipment needed for keeping the poultry.

Fig. 2.1 Housing should first of all protect against predators and bad weather.

Depending on the availability of materials, the weather, and tradition, you will find different types of poultry houses and shelters in tropical regions. The choice of housing should build upon a rationale involving an estimate of the costs, the durability, and immediate gain of using a house for the poultry.

Fig. 2.2 Three night baskets kept in the stable during night
The simplest and most cost-effective housing system is the basket system (Fig. 2.2. and 1.3). Night baskets (Fig. 1.3) may be placed in a quiet and dry place inside the family house or in the stables on the farm during night, either on the floor or hanging from the roof. A night basket may hold 5–10 chickens depending on the size.

If the need for a bigger and separate chicken house arises, you need to consider carefully the site, the materials, and not least, the costs involved. When choosing the right site, you should consider the following points:

Choosing the right site:

- A shady and dry place on flat ground is preferable to keep the floor dry during the rainy season. It may be necessary to dig a drain around the house or to raise the ground first. Alternatively, the house can be elevated from the ground as in figure 1.4.
- A fertile well-drained soil is desired. The area must not get flooded during heavy rains. The chickens can drown. Furthermore, to have wet floors in a chicken house may lead to diseases. A sloping hillside provides good drainage and affords some protection also.
- Trees and bushes close to the houses provide shade and are therefore beneficial. Trees serve as a windbreak in the winter, for shade in the summer, and protect from flying predators.
- For security reasons it is also important to have the chicken house near the family house. You must be able to hear if predators disturb chickens at night, or perhaps a thief wants to steal birds or eggs.
- The orientation of a chicken house has to take into consideration the movement of the sun and the dominating winds, making the house naturally shaded and ventilated at certain times of the day. In most localities, it is best to select a site in which the poultry house faces South or East. Windows placed on the south side of the house will be a good source of light and warmth in winter and a good source of ventilation in summer. In a rectangular house, the end walls must face East and West. This will ensure that only the end walls face the hot morning sun or the even hotter sun during the afternoon.

Building the house

- *Always use cheap local materials like bamboo, wood, reeds, thatch grass, or clay bricks.*
- Remove the bark from the wood you use, as parasites often hide underneath.
• Clay houses should have windows. A hole in the top of the house will ensure good ventilation. These measures will also give light, making it easier to work in the house. However, make sure winds will ventilate the house without making chickens or hens cold.

• During the rainy season, rain and wind may cause severe chilling.

• Heat, humidity, and harmful gasses may be considerably reduced through good ventilation of the house or shelter. High temperatures can cause deaths or drop in egg production, low shell quality, and reduced weight gain. A combination of high temperatures and high humidity can kill young chicks.

• Placing perches and nests inside the house will safeguard against most predators. It will also help to keep the legs of the chickens and the eggs clean.

• If the nests are in a quiet place in the house, the hens will feel comfortable and at ease.

• The best protection against diseases and parasites is good hygiene. It is therefore important that the house or shelter is easy to clean. It should be tall enough for a grown-up person to work in there. In houses raised above the ground, cleaning will be easier if the floor is made of slats.

• Make the nests and perches easy to remove when cleaning.

• Houses or shelters may be sprayed or lime washed after cleaning to disinfect and reduce the quantity of parasite eggs from the walls and cracks. You may put some ashes or dry lime on the floor and in the nests to discourage parasites from living there.

• Clear the grass and bushes for about 3 meters on all sides of the house to keep snakes and rats away from your chickens.

• In wooden houses, use slatted, raised floors to remove droppings and avoid predators.

• In clay houses, use mesh windows to avoid predators.

• Houses may be built on poles, well above the ground to protect the chickens from predators like dogs, rats, and snakes.

• Build your poultry house to prevent possible injury to your birds. Remove any sharp-edged objects from the house.

• The house has to be so large that there is sufficient room for the birds, and so that the air inside does not become too heavy with humidity and gasses. A round or square house of 1.5–2.0 m² will hold 10–12 adult birds.

Figures 2.3 a and b illustrate a badly and a well constructed chicken house.
Fig. 2.3a A badly constructed chicken house is placed in the sun with a low flat roof and no windows, making it very hot and badly ventilated. It has a small door, which makes it difficult to get inside and clean it.

Fig. 2.3b A well-constructed chicken house is placed in the shade, has a high roof, and windows with wire mesh, providing good ventilation. The door is facing North to avoid direct sun. The door is big enough for a person to enter and clean the house frequently.
Theft

Often the entrance to the chicken house is very small and it is not easy to enter the house. The reason is that people are worried that their chickens will be stolen. This method of securing the chickens however presents a lot of problems. It makes cleaning and collection of eggs very difficult; and it causes poor ventilation. The opening to the chicken house must be big enough for an adult person to enter easily to work in the house. Consequently, other precautions against theft should be taken. The house should be placed near the family house in order for the owner to react on any unusual noises during night. Alternatively, a lock may be fitted on the door.

Perches

Perches (Fig. 2.4 and 2.5) are important for chickens to rest on during night. Diseases and parasites may attack poultry resting on the floor, and perches often reduce the risk of external parasites entering the feathers at night. It is also natural behaviour of chickens to sleep above the ground in trees. Each one-meter perch may roost five adult birds. Perches are best made of bamboo or round sticks to accommodate for the size and structure of the birds' feet (Fig. 2.5). If the sticks are too big or too small, the birds may fall (Fig. 2.4). Perches can also be square and flat: 5–10 cm broad. To prevent infection external parasites, the perches may be treated with waste oil or kerosene, where they join the wall.

![Fig. 2.4 Avoid using either too big or to small sticks as perches.](image-url)
Fig. 2.5 Sticks should match the size of the birds’ feet.

Nests

In many villages, nests are not provided for the hens, which will lay their eggs on the ground, in high grass or in natural shelters, where they may be difficult to find. Some poultry farmers build nests on the ground outside the chicken house. This should be avoided, as eggs outside houses are more exposed to predators and thieves. Nests should be placed inside the chicken house and preferably above the ground. For laying you could have a battery of nests where more hens can lay at a time (Fig. 2.6). There must be 1 nest for every 5 hens.

Fig. 2.6 Battery of nests for laying hens

The nests for brooding, on the other hand, must be individual, placed in a quiet and dark place, and they must be easy to move (Fig. 2.7). Once the hen is broody, it can be necessary to move her to a different place, preferably a quiet place, e.g. a storage house, to prevent people and other hens from disturbing her. Other hens can go broody as well, if they are close to a broody hen. If broodiness is unwelcome, the hen should be removed from the nest and placed in a cool and light environment, see figure 1.12.

Simple nests may be clay pots, calabashes, or baskets made of local fibres, cardboard, or wooden boxes (Fig. 2.7). Nests should be of the right size for the hen.
to feel comfortable. A nest box will typically measure 30 x 30 x 30 cm. Do not make them too big, as the hen will not feel comfortable. A calabash or nest basket may measure 40 x 20 x 25 cm (upper diameter x height x lower diameter). A clay pot, more or less the same.

Fig. 2.7 Simple nests for broody hens are easily made and can easily be moved to a quiet place.

A healthy and attractive nest for the broody hen may be prepared by following these three steps (Fig. 2.8):

1. Take a clean pot or basket and fill sand mixed with ashes up to 1/3 of the depth;
2. Put clean, soft nesting material (hay or straw) on top up to 2/3 of the depth;
3. Then place the eggs in the nest.

Fig. 2.8 Preparing a nest, step by step
Nesting material should be changed at least once a week except if a hen is brooding on her eggs. You should assure that the rim is 1/3 of the depth to make the hen feel secure, and if necessary put “dummy eggs” (e.g. boiled or stone eggs) in the nest to attract a hen. Mixing ashes, tobacco leaves, dry lime, or other anti-parasitic substances with the nesting material will keep out most external parasites. External parasites in nests may reduce the hatchability of eggs, as the hen will use too much time and energy leaving the nest, cleaning and scratching her body, leaving the eggs to cool.

Providing nests also makes it easier to collect eggs. You may avoid dirty and cracked eggs, if the eggs are collected twice a day. Collect eggs at the same time every day, in the morning and the evening. Removing eggs continuously is important if you want to avoid that the hens become broody, as broody hens stop laying eggs.

**Shelters for the mother hen and chicks**

After hatching, it is important to keep the hen and the chicks closely together in a separate cage: the basket (see also Chapter 1, Management of small chickens – basket system). Such a shelter should primarily protect against adult poultry competing for feed and against predators; and it should provide a stable environment, sheltering against sun, rain, and wind.
A shelter of basketwork with a top hole (diameter 20 cm) is useful, as feed and water may be changed without disturbing the birds unnecessarily. It also gives the necessary ventilation.

A woven mat on the floor may provide additional protection during cold periods. The mat should be cleaned daily to remove droppings and leftovers from feeding (Fig. 2.9). Droppings may be recycled as manure in a vegetable garden.

**Hygiene of chicken houses or shelters**

Chicken houses should at all times be kept clean. Depending on the number of birds in the house, it should be cleaned on a daily basis. 2–3 times a year the entire house should be disinfected by lime washing the floor, walls and perches. A rule of thump is to apply new lime wash when the old is worn off the walls.

**Chicken runs**

In some regions, chicken runs are very popular; a fenced open air space of 25 m² or more, where poultry may be kept protected against predators and thieves. Fenced areas are also used for feeding, watering, observation of the flock, and collection of eggs. Fences, 1.5 – 2 meter high, can be made of woven mat or other local material (Fig. 2.10). A chicken run is relatively costly, but may provide a sort of security against thieves and predators. It is, however, crucial that adult birds are left free to scavenge outside during daytime in order to keep feed costs low.
Fig. 2.10 Chicken runs may be used for feeding, watering, and observation of the flock.

Ten simple rules for good housing

1. Build houses out of local materials to reduce costs;
2. In wooden houses, use slatted, raised floors to remove droppings and avoid predators;
3. In clay houses, use wire mesh for the windows to keep out predators;
4. Place the perches and nests inside the house, and make them removable to facilitate cleaning;
5. Make sure winds will ventilate the house without making chickens or hens cold;
6. Place the house so that heavy rains will not damage or enter the house, and the sun will not overheat it.
7. Provide nests with clean straw, and make sure that you can easily control, clean, and move them;
8. Make sure that houses are easy to enter and clean;
9. Always house young chicks with their mother away from other adults. To reduce chick mortality and reduce costs, use baskets for night and day shelter;
10. A chicken house or shelter should be disinfected on a regularly basis by applying lime wash on the floor, walls and perches. A rule of thump is to apply new lime wash when the old is worn off the walls.