



# HOUSING AND VENTILATION

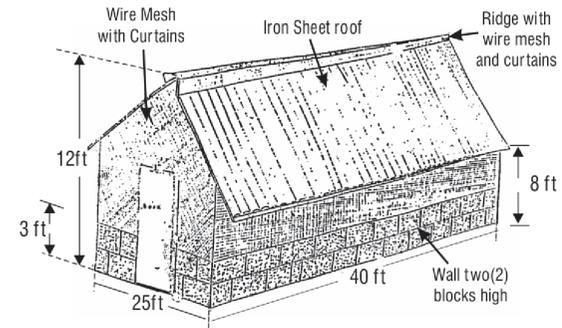
The ideal house should provide the birds with a comfortable environment and protect them from the extremities of the prevailing weather (rain, wind, sunshine etc). The house should provide adequate space for the flock to be kept in the house. The ideal stocking density is two square feet per bird (2 feet<sup>2</sup>/bird) for layers while broilers require one square foot per bird (1 foot<sup>2</sup>/bird). In the tropics, the ideal house is open-sided to allow natural ventilation and have an east- west orientation to minimize the amount of sunlight entering the house directly.

It is important that the house be rectangular in shape and have a wall not higher than three feet (3) on the longer side. The wall can be made from stone, iron sheet, silver board or bricks. The rest of the side of the wall should have a wire mesh. The roof of the house should have a reflecting surface and pitched with overlaps (see diagram). All these factors aid in ensuring that the house is comfortable and well ventilated.

Cement floors are the best finishing as they are easier to clean. There should be a foot-bath at the entrance of the house for those entry the house to disinfect their foot wear. To reduce the risk of rodents gaining entrance into the flock house, clear all the vegetation in an area 3-5 meters around the flock house. The feed store should also be separate from the house. The flock house should be constructed in isolated areas to decrease the risk of contamination. The house should be fenced to exclude stray animals and visitors. The doors should always be locked. The wire mesh on the sides of the house should be of a small gauge to prevent wild birds, cats, dogs and rodents.

In poultry farms an all-in all-out system is the best management practice as it prevents the build up of disease-causing organisms and disease outbreaks. In cases where farmers want to keep flocks of different ages, then each flock MUST be housed in its own house.

BROILER HOUSE WITH DIMENSION FOR 500 LAYERS / 1000 BROILERS



## VENTILATION

Ventilation can be described as the circulation of fresh air through the flock house. This is achieved by the air passing from one side of the house and exiting through the opposite side.

- Ventilation of poultry houses serves several functions, including:
  - Removing excess heat and moisture.
  - Providing oxygen while removing harmful gases.
  - Reducing dust, hence improving the air quality.

In the tropics, where house are open-sided, ventilation is managed by opening the curtains when it gets warm. This lets air from outside into the house. When it gets cold the curtains are closed to restrict the flow of air. Curtains are normally made from clean and disinfected feed sacks stitched together. The curtain should be fastened to the side-wall at the bottom and opened from the top. This will minimize wind or drafts blowing directly on the birds. To ensure effective ventilation, every effort should be made to open the curtain on both sides of the building to the same level unless wind is consistently from one side of the flock house then the curtain on this side should be opened less than the other side. Houses should be constructed to take advantage of the prevailing winds to improve efficiency of natural ventilation. Narrow house (10 meters/33 feet or less) with higher pitched roofs provide more natural air movement. An east-west orientation of the flock house on its long axis reduce the solar heat level in the house.

