

Poultry Housing

Housing

Housing means giving shelter to the poultry birds to a particular confinement house for getting better performance (egg, meat etc).

Advantages of housing:

1. To provide more comfortable environment.
2. To protect the birds from inclement climate (rain, sunshine, storm etc.)
3. To protect the birds from thieves.
4. To protect the birds from insect, pest, predators.
5. To protect the birds from parasites.
6. To protect birds from infectious & contagious diseases.
7. It helps a close supervision.
8. Easy treatment procedure.
9. Easy to follow vaccination schedule.
10. Individual care is possible.
11. To make birds more docile.
12. Easy management procedure.
13. It is easy to supply feed and water to the birds.
14. Desire breeding is possible.
15. Easy to collect eggs
16. Easy to clean litter.
17. Less labor cost.
18. Reduces per unit production cost of egg and broiler.
19. Increases work efficiency farm employees.
20. Saves unnecessary land wastage.
21. Easy to maintain farm records.
22. Easily identify diseased birds.

Disadvantages of housing:

1. Costly to make house
2. Spread out contagious diseases
3. Ventilation problem
4. Less exercise
5. No foraging
6. Developed some vices
7. Spread out of bad smell at farm surroundings
8. Needs committed and honest workers
9. Devoid of sunshine
10. Reduction of organic meat and eggs
11. Probability of zoonotic disease

Site selection for livestock farm:

The following points should keep in mind during site selection for a poultry house or farm:

1. Setting the objective for what type of farm to be started
2. Volume of capital should be kept in mind
3. Who will be the consumer of the farm product?
4. Marketing facilities
5. Well road communication
6. Dry and high flood free land
7. Good drainage system
8. House should be east- west long
9. Regular electricity supply
10. Availability of poultry feeds
11. Transport facilities

12. Labor: honest and economic
13. Source of drinking water
14. Farm should not be constructed near residential area
15. Away from jungle, market, highways or other sound producing mills
16. Free from wild birds and animal
17. Exposure to the sun and protection from storms

Classification of Poultry House

Poultry houses are classified in different ways. These include type of construction, purpose, size, portability and style.

A. Types of construction:

- a) Wood house
- b) Hollow tiles house
- c) Concrete block house
- d) Metal house

B. Purposes:

- a) Brooding house(0-8 wks.)
- b) Growing / rearing house (9-16 wks.)
- c) Laying house (17-72 wks.)
- d) Sick house or Isolation house
- e) Hatchery house or buildings.
- f) Broiler house

C. Sizes of house:

- a) Colony house
- b) Multiple-unit house
- c) Multiple-story house.

D. Portability of houses:

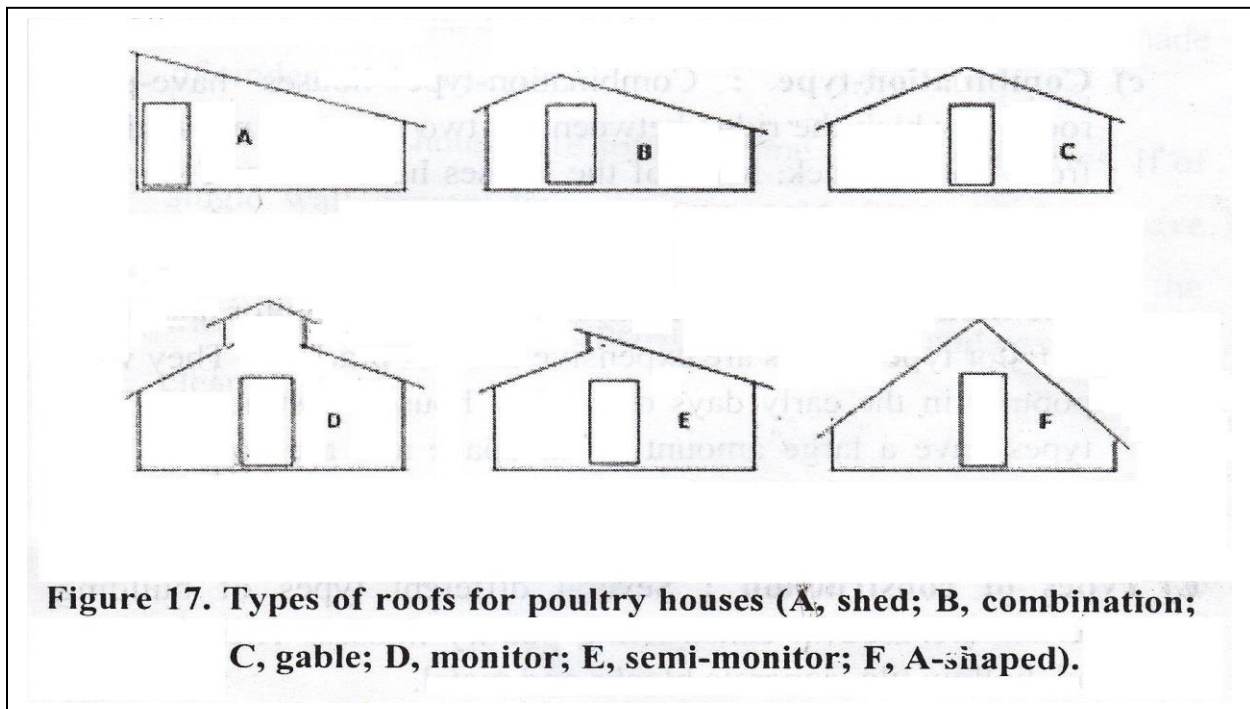
- a) Portable house

b) Permanent house.

E. Style of houses:

- a) Shed type
- b) Combination type
- c) Gable type
- d) Monitor type
- e) Semi-monitor type
- f) "A" Shaped house.

Design of Style house



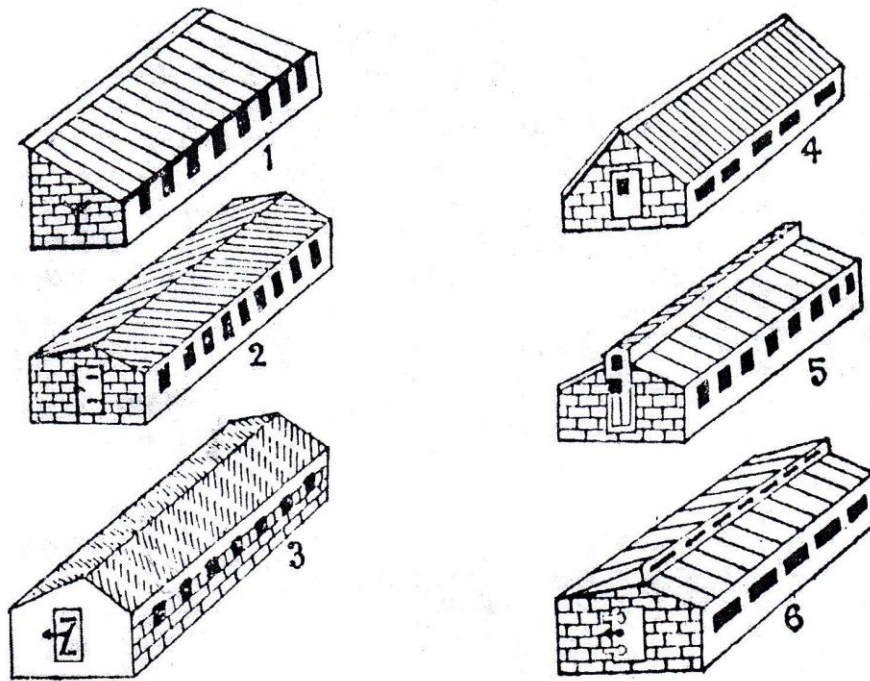
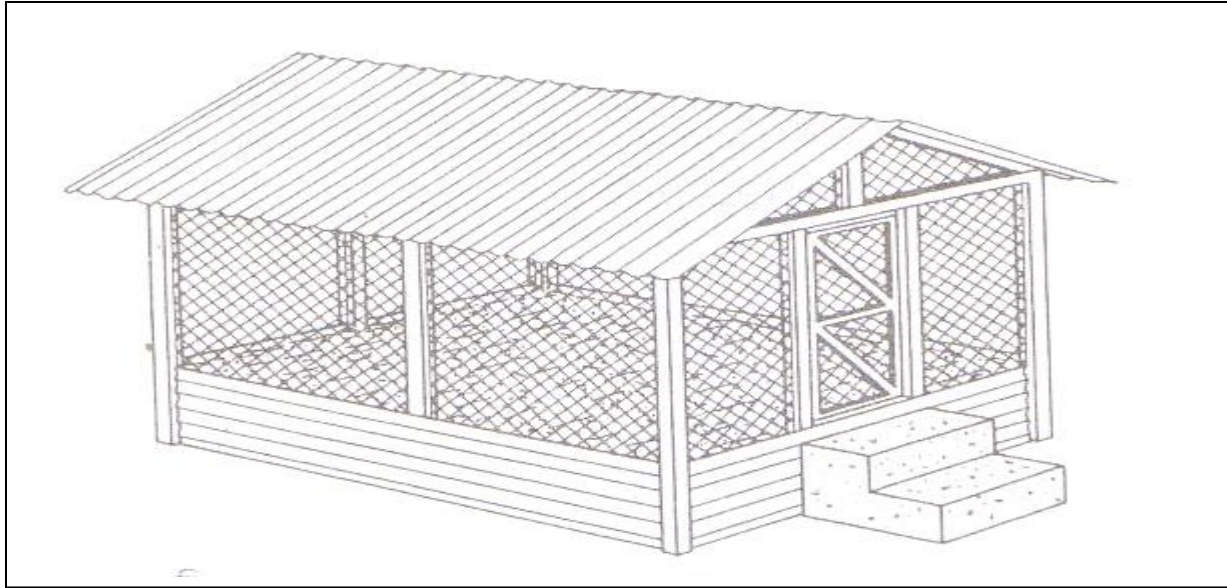
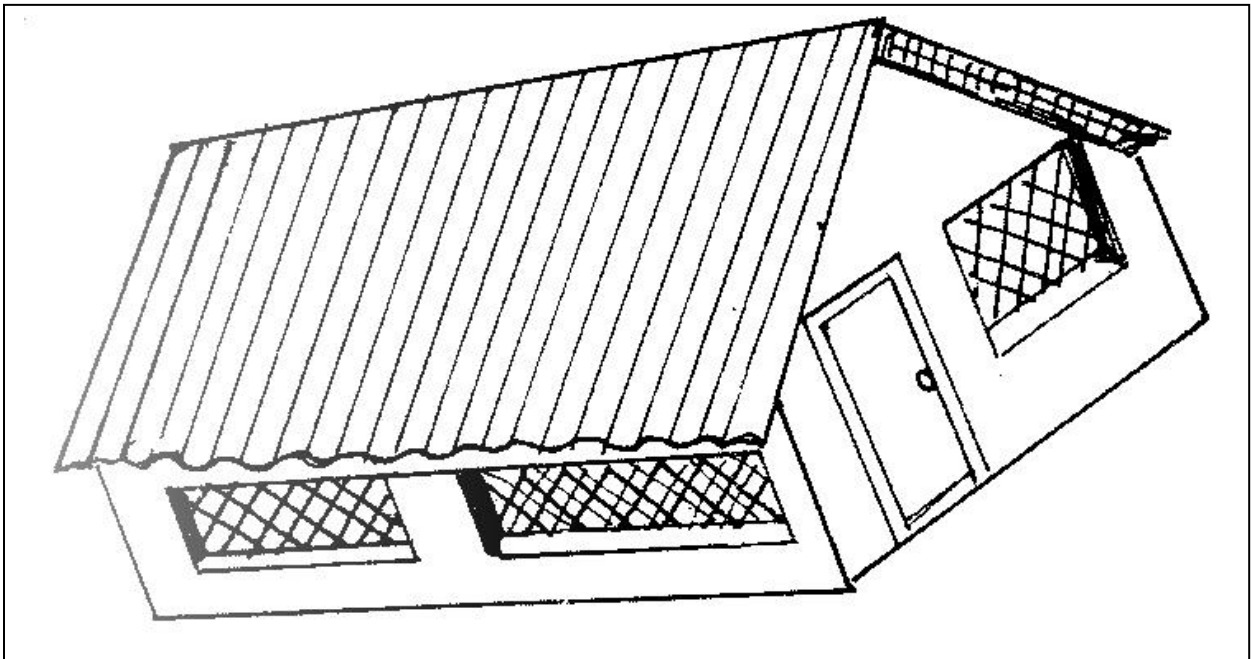


Fig. 33 Types of roofs for poultry houses. (1) Shed type, (2) Combination, (3) Gable, (4) 'A' shaped, (5) Monitor type and (6) Semi monitor type.

Poultry house in Bangladesh condition



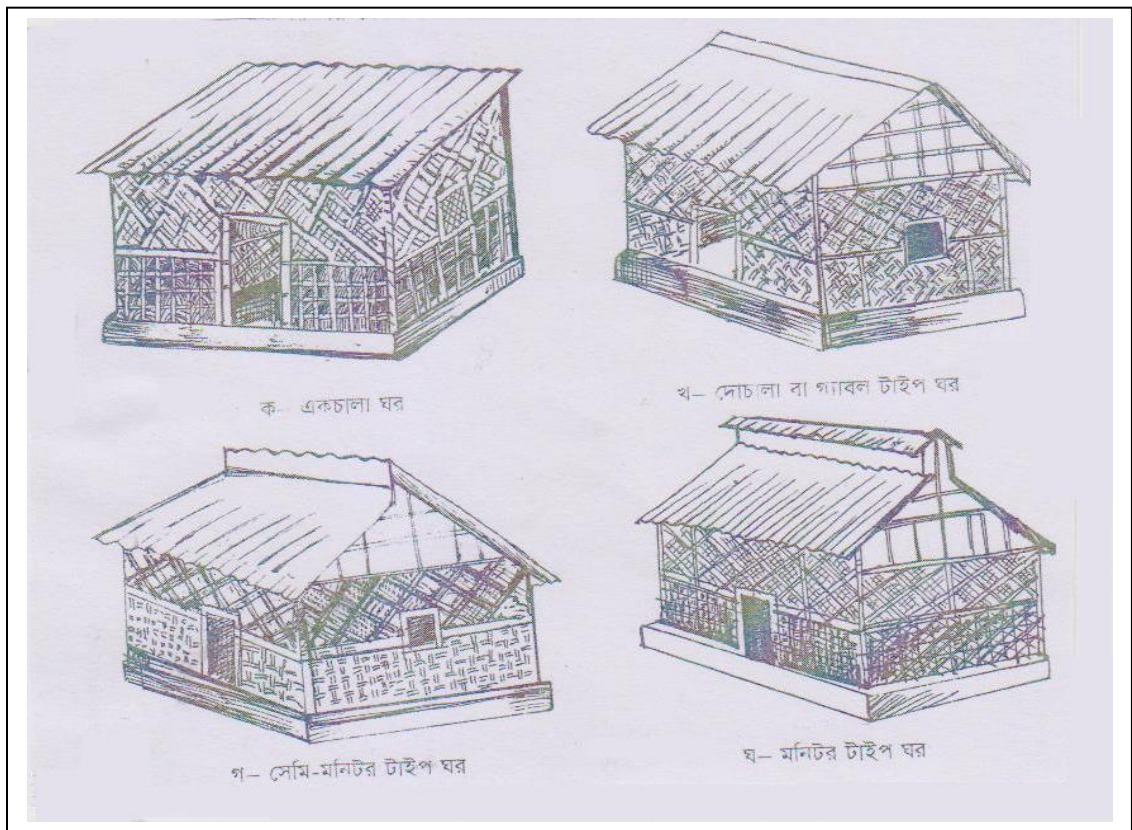
Gable Type Broiler House



Gable Type Layer House



Gable Type Poultry House



Low Cost Poultry House in Rural Condition

Housing Principles of Poultry

There are several advantages of poultry housing. But some housing principles influence poultry production. These principles or factors are also related with poultry welfare issue. These factors are location of farms, house dimension, design of house, litter (beddings), floor space or cage space (stocking density), ventilation, temperature, light, humidity, feeder space, drinker space, poultry feeding, sanitation, vaccination etc.

Discussion

1. Location of farms: Satisfy site selection conditions
2. House dimension: South facing (East-west long)
3. Design of house: on the basis of climate and rainfall
4. Litter (beddings): Rice husk, rice straw, saw dust, dry leaves, sand, ash, calcium oxide etc
5. Floor space or cage space (stocking density): Litter and cage
6. Ventilation: Cross ventilation (An adult produces 50 liter CO₂ gas /day)
7. Temperature: Brooding Temperature (35-26⁰C), housing temperature (10-25⁰C), Panting at 29.4⁰C. The average temperature ranges between 21⁰C to 34⁰C in summer, 23⁰ to 35⁰ C in rainy season, 9⁰C to 29⁰C in winter ([Climate of Bangladesh, 2007](#)). During summer season in Bangladesh, environmental temperature could raise 35-40⁰C ([Climate of Bangladesh, 2007](#)), birds will lie prostrate and gasping on the floor. The bird maintains heat by panting, however, at higher temperatures water also evaporates from the air sacs within the lungs during panting, lowering the levels of blood carbon dioxide and inducing a process called respiratory alkalosis.
8. Light: Stimulate growth and reproduction

9. Humidity (40-60%): High humidity creates problem. The average relative humidity of Bangladesh in the rainy season remains around 76-83%,
10. Feeder space:
11. Drinker space:
12. Poultry feeding: Balance ration with appropriate form of feed
13. Sanitation: Cleaning, disinfection, fumigation etc
14. Vaccination: This is one on the most important bio-security concerned factor which must be followed in the poultry farm to keep disease away from the poultry farm.

Temperature

The body temperature of an adult chicken is **105-107°F (40.6 to 41.7°C)**. The thermo neutral zone is **65-75°F (18-24°C)**, which allows chickens to maintain their body temperature. If the temperature is above this zone, heat must be lost in some way. Chickens have no sweat glands. Since eating increases body temperature, chickens reduce their feed intake during hot weather, and therefore gains will be less. Chickens begin panting at **85°F (29.4°C)** to help dissipate heat, and drink more to avoid dehydration. A combination of high temperature and high humidity is a problem, because panting does not cool them under these conditions (1). In the U.S., heat is usually more of a problem than cold. Fast-growing broilers are particularly susceptible to heat stress due to their high level of production. Producers should provide abundant cool drinking water in close proximity to the birds inside and outside