

## **What is Animal Farm?**

A farm is an area of land where animals are raised for use as food sources and economic profit.

Farm includes all buildings that used for animal house, stores for food and equipment.

### **Animal farm types According to production:**

1. Sheep Farm (meat, milk, wool)
2. Cattle Farm (meat, milk)
3. Poultry Farm ( Egg, Meat)
4. Aquaculture Farm (Fish)

### **Factors to consider in selecting a site for livestock farm:**

- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Distance to residence houses | 4.land for manure management |
| 2. Direction of winds           | 5. Topography of place       |
| 3. A suitable source of water   | 6. Soil type                 |
| 7. Close to main road           | 8. Depth to groundwater      |

### **Factors to consider in establishing new animal farm:**

1. The species, strain, and breed of the animal and individual characteristics, such as sex, age, size, behavior, experiences, and health
2. The ability of the animals to form social groups with conspecifics through sight, smells, and possibly contact,
3. The design of housing.
4. The project goals (e.g., production, breeding, research, testing, and teaching).

5. The intensity of animal
6. The duration of rearing.

### **Types of Livestock Houses:**

1. **Closed House**: including cage, pen, or stall
  - House should be built with good materials and they should have flat, water-resistant surfaces with minimal ledges, angles, corners.
  - Ventilation in this system should be very well and daily cleaning is very important to keep floor dry.

#### **Advantages of Closed House**

1. remain animals clean and dry
2. Allow adequate ventilation
3. Provide a secure environment
4. Are free of sharp edges
5. Allow observation

### **2- Open House:**

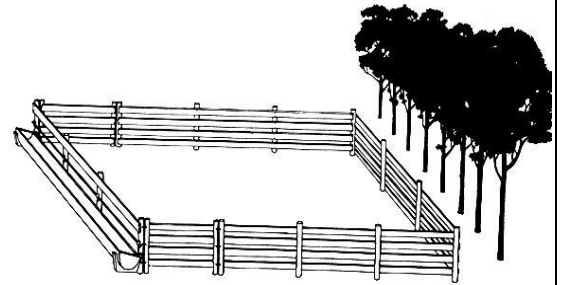
Is type of house that opened to air and fully roofed or half roofed.

Advantages of open house:

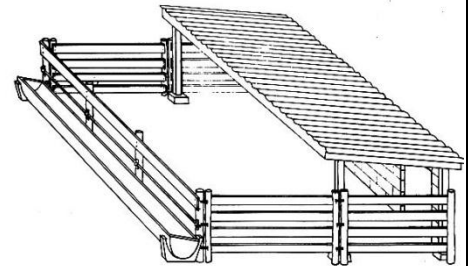
- 1- The system requires less roofed area per animal
- 2- This technique requires only 2 kg/animal/day
- 3- The system improves labour efficiency
- 4- Low cost to build

### Types of open house:

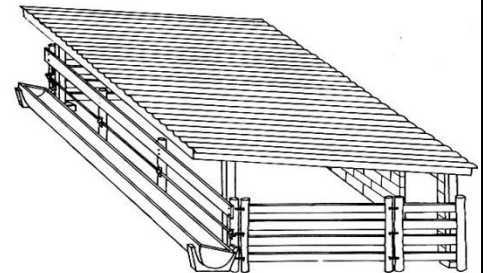
**1- The unroofed open house:** no-roof open-yard system is to be recommended where the conditions are suitable.



**2-Half roofed open house:** this system includes a covered area, the lying area, and an outdoor area for feeding and exercise. The system must always focus on the direction of usual winds. The shelter must be against the wind.



**2- Full roofing:** full roofing is housing completely protected by a roof, his kind of housing will only be recommended under highly specific conditions.



**3-Semi-open house:** it is a combination of close house and open, which include a close house with an open yard. It can be used for different season.

### Feeding system in farm

The feeding system must be well designed to succeed good performance.

**Characterize of feeder:** design feeder should be

- Provide livestock with free and continual access to feed
- Minimize waste, spilled feed and spoilage
- Easy delivery of feed and easy cleaning
- Minimize environmental impacts (odor, flies, dust)

### **Types of feeder:**

**1-Self-feeders:** a device for providing feed to livestock automatically.

#### **Advantages of self-feeders include that they**

1. Have own storage
2. Are transportable, can be installed quickly, and used as a temporary feeder
3. Can be moved around within pens.

**2-Bunk Feeder:** Most commercial feedlots use in the farm. Feed bunks should locate along the fence line.

**3-Hay feeder:** is type of feeder use to feed hay in the farm. Hay saver design will reduce waste by 35%-50%.

**4-Automatic feeding systems:** Feeding will be carried out fully automatically through computer control. Used to mix and distribution feed.

### **Water system in the farm**

Livestock watering systems vary with different livestock and pastures. It is necessary to provide fresh and clean source of water in the farm.

Water requirement depend on: animal type, level of production, season and ambient temperature, type of food.

Types of watering system: 1- surface water 2- pumping water

#### **1- surface water:**

**The advantages** are Low cost and freely available

**Problems** are Environmental Risk, Seasonal –drought/winter, health issue

#### **2-Pump Systems:**

**Advantages:** Can move water to different location, provide water in all season

**Problems:** Need electric power, expensive, need regular maintains, not portable