Dr. Maysem Hassan Ali
Theoretical poultry management
First stage

Poultry houses

Poultry physiology

1-Body temperature105°F -107°F

2-Comfort zone: 18-22 °C

3-Less tolerant of heat than cold

4-High yielding exotic breeds have temperate origin

5- Tropical environmental effect more high yielding birds

6-Strong effect of environmental factors

7-Poultry house design should be directly related to environmental conditions

Importance of housing

1- Comfort and Protection

2- Scientific management in a controlled manner

3- Easy, convenient and economic operations

4- Reduces the total cost of production

5- Maximizes flock performance

6- Ensuring better health and welfare

7- Proper micro-climatic conditions

8- Increased stocking density

9- Optimum and uniform growth rate.

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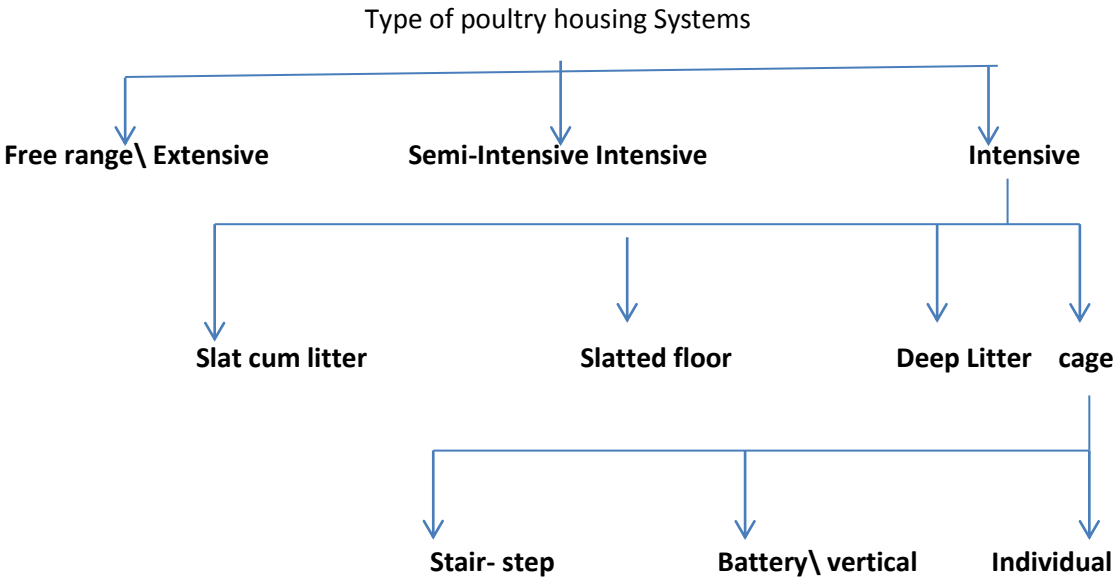

Free Range System

Oldest system and adopted only when adequate land is available, Rearing of poultry by letting them loose on ground (Field) called as range. A range should provide shelter, greens, feed, water, shade etc. Foraging is major source of feeding for birds. Shelter is usually provided by temporary roofing supported by ordinary poles. Stocking density: 300-400 birds per hectare. At present, almost outdated.

Semi-intensive System

Commonly used by smallscale producers . Birds are half way reared in houses and half way on ground or range. Birds are confined to houses in night or as per the need, they are also given access to runs. Houses may

be simple house, thatched roof, littered earthfloor or slatted. Provides protection from inclement weather predators and shade Stocking density: 4-5 birds m.sq. in houses.

Intensive

Deep Litter System

1-Poultry birds are kept in large pens on floor, mainly for broilers

2-Floor is covered with litters , such as straw, saw dust or leaves up to depth of 2-3 inches

3- Bird density: 5-7 birds per square meter

4- Easy assess for feed, water, egg collection, provide good protection

5- Disadvantage: Require high quality liter and litter born diseases

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Slatted or wire-floor system floor

Small houses with a slatted or wire mesh. Slats- wooden pieces of 2.5-5 cm wide , placed 2.5 cm apart, running through the length of house. Slats placed 3 ft above the ground floor to allow accumulation of dropping. Bird density can be 6–8 per square metre. Feeding, watering & egg collection handled from outside the house Cooler houses but expensive & suitable for adult bird only.

Combination of slatted floor and deep litter

1- 60% slat area and 40% litter area.

2- Slats on either side of house against each side wall leaving central portion for litter floor

3-The area is raised above the concrete floor by 0.5 metres or more to accumulate manure below the slatted area

4-Waterers and feeders are placed on the slatted area.

5-Bird density upto 5-7 per sqaure meter.

6-Expensive & complicated management.

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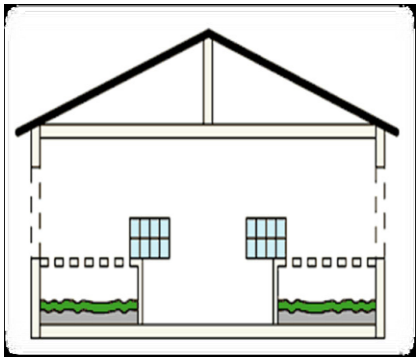


Aviaries

1- Multi-tiered buildings for cage-free housing

2- Several levels of flooring

3- Use of vertical space (perches and platforms) – allow birds to jump to different levels

4- High density of birds upto- 25 birds per sqaure meter

Cage System

1- Rearing of poultry on raised wire netting floor in smaller compartments, called cages

2- Initially introduce for individual egg & pedigree recording & culling of poor layers

3- At present, 75% of commercial layers in the world are kept in cages

4- Suitable for keeping high density of birds, when space is limitation

5- Scientific managemental practices can be followed

6- Feeders and waterers are attached to cages from outside, except nipple waterers, for which pipeline is installed through or above cages

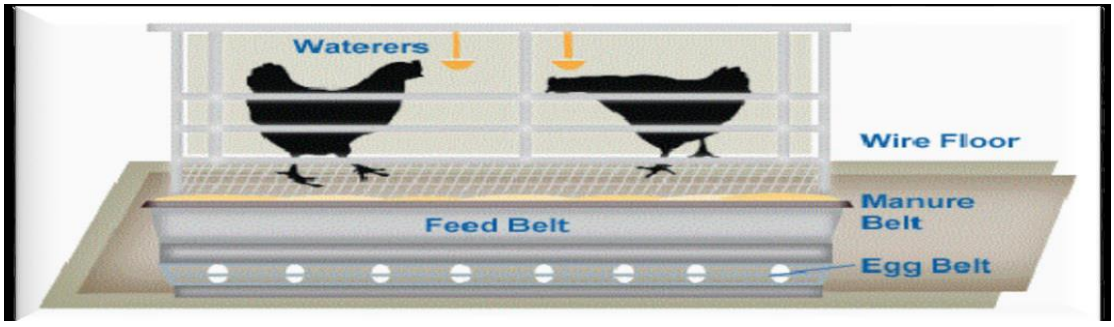
7- Auto-operated feeding trolleys and egg collection belts can also be used

8- The droppings are either collected in trays underneath cages, on belts or on floor or deep pit under the cages

9- **Recommended Floor space** Chick (0 to 8 weeks) = 0.3 Sq.ft

Grower (9 to 16 weeks) = 0.5 Sq.ft

Layer (Above 17 weeks) = 0.6 Sq.ft



Types of cages

Based on the bird density 1- Single or individual bird cage (Only one bird in a cage) 2- Multiple bird cage (From 2 to 10 birds) 3- Colony cages (More than 11 birds per cage)	**Based on arrangement of cages** 1- Battery cages (Vertical cages) 2- Stair-step cages a) M-type cages b) L-type cages
Based on the number of rows 1- Single-deck 2- Double-deck 3- Triple-deck 4- Four-deck	**Based on the type of bird reared** 1- Brooder / chick cages 2- Grower cages 3- Layer cages 4- Breeder cages

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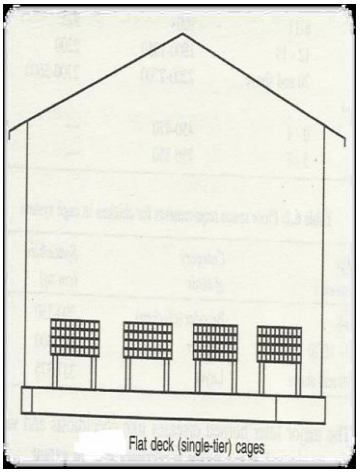
individual cage



Battery cage

Colony cage