COMMON MISTAKES IN POULTRY

Aspire for Excellence Foundation Mentorship Program

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Agenda

- Part One
  - Non Technical
- Part Two
  - Technical

POULTRY

- Poultry is a branch of agriculture that either commercially or domestically deals majorly with the production of meat, eggs, feather and bone meal from chickens, turkeys, geese, ducks, guinea fowls and squabs.

Poultry enterprises and allied industries

The poultry industry involves more than production of meat and eggs;

- Poultry meat production
- Eggs production
- Hatching and breeding of chicks
- Manufacture of poultry equipment
- Feed production
- Production of drugs and vaccines

Systems of keeping poultry

- Extensive system (free range system)

  In this system, birds are allowed to range at will over an undefined area of ground. The housing is simple and involves a sleeping and laying area.

- Semi-intensive system

  This system involves a permanent house attached to a fenced grass run. The birds are partly housed and allowed to free range. This system is best used for layers.

- Intensive system

  Birds are continuously confined indoors (reared on the floor or in cages) until they are disposed off in this system. This system saves labour, reduces production cost and increases production efficiency.

Part One - Non Technical

Factors to consider in setting up a Poultry

- Land requirement and location
- The size of the enterprise
- Housing and equipment
- Availability of market
- Finance
- Sources of birds
- Staffing

Constraints of the poultry industry

- Unavailability or high cost and poor quality of feeds
- Poor poultry health services, and high cost of poultry drugs and vaccines
- Insufficient water and electricity supplies
- Inadequate managerial and technical know-how and experience
- Losses due to pilfering
- Poor marketing, distribution and pricing
- Inconsistent and/or inadequate Government policies on livestock

IMPORTANT NOTES

- 1. Poultry farming is not a type of agricultural business you go into without adequate planning or very good feasibility study.
- 2. The fund must be available readily. Do not budget on fund you are expecting which may not be handy when there is a crucial issue for its need.

Location Of The Farm

- Easy access to good quality water supply from public works, well or borehole with consideration to cost.
- must be reachable at all seasons
- easy to source for right staff
- easy to move products to market
- it is important to fence against all forms of predators either human or otherwise
- Litter applications on fields or complete removal from farm with consideration to state laws.
- Topography of the land. Level, sloppy, hilly or stony.
- Neighbours

House Design

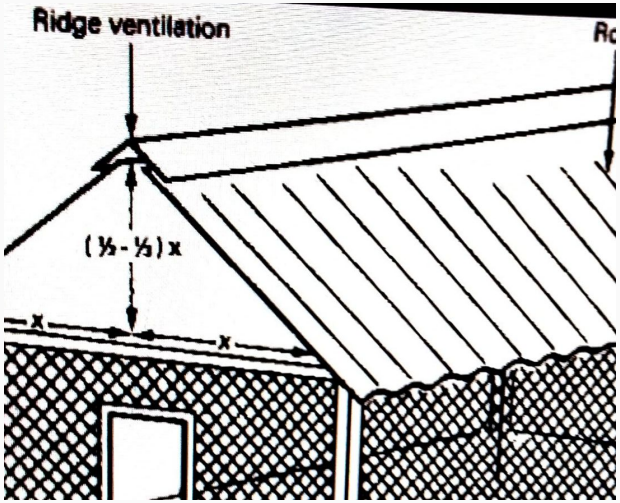
- Before the construction of poultry houses, it is important to seek for the right direction to prevent unnecessary sunlight to penetrate more than necessary into the pen.
- The direction should be east to west. The easiest way to get this right is to erect a wooden plank anywhere in the farm and took notice of the shadow of the plank in the morning between 8-10 am and repeat the same process towards evening between 4-6pm. This is the direction the poultry house should be.
- Then, the breadth and length of the poultry house. The long axis could be of any length as you desire but the width shouldn't be more than 30ft long.

House Design (Contd)

- The size of the pen should be considered in relation to the intended capacity to have.
- Note that each broiler needs 2 square foot of floor space while a laying bird requires about 2.5 Square foot floor space. Anything short of these recommendations will definitely lead to cannibalism and uneven growth and poor performance.
- Open sided pen in the tropical countries like ours should not be more 30ft in width (in to in) so as to allow for ample ventilation and aeration taking into consideration the birds at the middle in a laying house.

House Design (Contd)

- Where the width should be longer than 30ft but not more than 40ft, there is need for ridge ventilation in a hanging form at the top roof of the pen.
- This will allow rapid upward movement of hot air and some obnoxious gases to escape through the opening at the top roof with ease.
- The overhang of the roof should not be more than 2.5ft to prevent rain from dripping into the pen.
- As much as possible, avoid using corrugated iron sheet for roofing but asbestos, Aluminum sheet or thatched materials for heat management issue.



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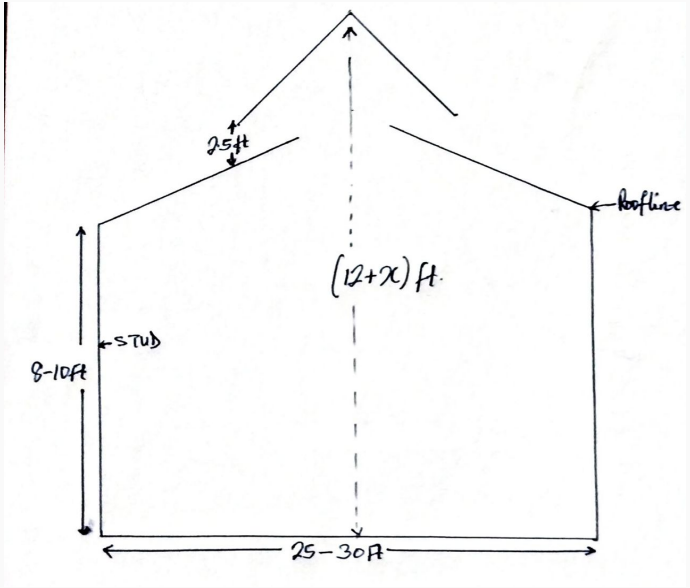
House Design (cont'd)

- The open sided house must have a stud that is not less 8ft long which is the distance from foundation to the roofline.
- Where the high temperature is very prevailing, the stud should be a minimum of 10ft long.
- At the entrance of the pen, a dip foot bath should be provided for biosecurity measure.
- The shoot-out from the roofing sides should not be less than 2ft but preferably a minimum of 3 ft to adequately sheild the birds and prevent droplets of water from coming into the pen when it is raining.



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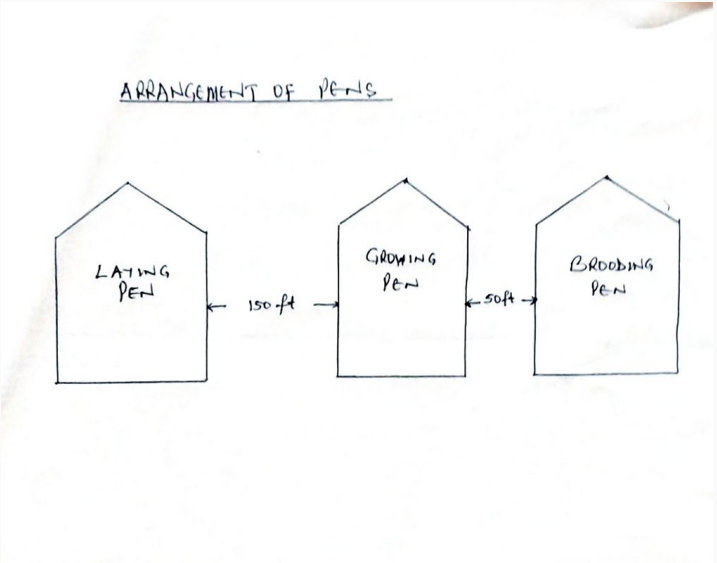
ARRANGEMENT OF PENS

- The houses should be arranged such that fresh air first passes through the brooding pen then to the growing pens and finally to the laying pens.
- This is necessary to avoid the pleading of infections fro the older birds to the newer ones in both the growing and the brooding sections.



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House Design (Cont'd)

- This type of roofing is only allowed when the width is less than 30ft.

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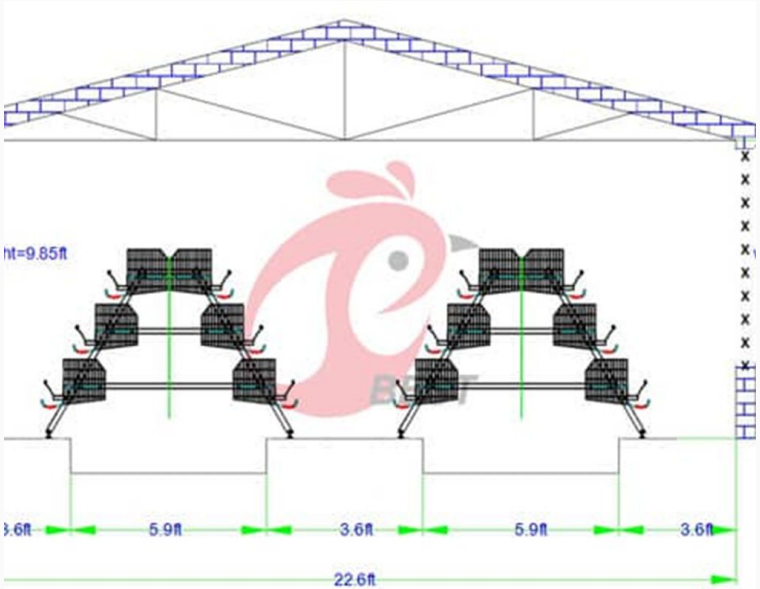
Houses Design (cont'd)

- 1.It is most important to have not more than two rows of cages in a laying pen.
- 2.let the distance from each row to the side pen walls be a minimum of 3.5feet to avoid rain and sun disturbances. It could be longer if the roofing sheet is not well extended out.
- 3.It is not advisable to have three rows in a pen without an exhaust fan installed to drive out hot air and obnoxious gases from the pen.
- 4.The distance between each row of cages shouldn't be less than 3.5ft to allow for easy movement of staff within. 5ft is highly recommended if the cost can accommodate it.



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SPACE REQUIREMENTS IN HOUSES

- Adequate space is needed for optimum performance
- Factors to consider when calculating stocking density are :
- 1. targeted weight of birds at maturity
- 2. House dimensions
- 3. Environmental issues such as temperature, humidity & ventilation
- In a commercial broiler production, the length of the pen is calculated as follows:
- Lenght of pen (ft) = Number of birds/ width of pen(ft)

SPACE REQUIREMENTS (CONTD)

- In the case of growers/pullets, in a deep litter pen, the length of the pen is calculated as follows :

  Length of pen (ft) = 1.25*N/width of the pen

  where N = number of matured growers at 18 weeks of age.

- * The space required in cage rearing is highly dependent on the manufacturer's recommendations and space needed for movement within.

LIGHTING DURING BROODING & REARING

- In an open sided pen, 24 hours light should be adhered to for the first 6 days to allow for good body weight gained from onset and ease of movement from one place to another avoiding stampeding.
- There must be one hour of darkness to acclimatise them to darkness in case of power supply interruption.
- Artificial lighting helps in the production of melatonin which helps in improvement of immune functionality, growth rate and reproductive hormones.
- When implementing artificial lighting programme, it is highly recommended that you increase the day light by one hour per week until a maximum of 14 hours per day is reached.

Thank you for listening

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