



Tikrit University
College of Veterinary Medicine



Administration of Poultry Houses and Equipments

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SCAN ME

Lecturers link

Lecture (1) : Poultry houses

Q / Define Poultry houses ?

A / They are houses that keep poultry to protect them from the different circumstances and natural enemies , It supports to them the optimal environmental circumstances to give the best product , Given that the poultry are of hot blood , the conservation of temperature of poultry and their inner organs must be harmonious and stable .

Q / What are the kinds of poultry houses ?

1- Poultry houses that contain arenas .

They are houses wider than the stable ones , besides the buildings constructed as houses of poultry , a site of land is devoted to plant different corps to feed birds as well as planting some falling trees or permanent green trees to raise birds and kept under them .

The land is surrounded by a fence . It is a sandy land , provided by provender and places of water and other equipments . The birds walk in the arenas and get back to buildings at night or in the hard environmental circumstances .

2- Poultry houses of condensed raising / breeding :

Given that the poultry industry and specialization in their production , the technology has developed to construct the houses and their kinds according to the production and poultry activation to wide arenas composed of one layer or several layers that birds dwell in , continuously by great numbers in the period of production.

Kinds Of Poultry Houses

In a nut shell : Poultry houses system is open like big normal barn supplied by windows and separated doors of the outer middle completely .

It is suitable / appropriate climate and it is a system of building barns that is locked , without windows , completely non-conducted from the outer middle that it is possible to control the inner environmental circumstances of the barn like lights , humidity , temperature , air conditioning by special equipments to do so .

Q / What are the essential factors that must be taken into consideration while constructing poultry ranches ?

1- The Role of Temperature in poultry barns / houses : The temperature must be set up according to the age of the poultry and in sort of , a stable way , without raising or reducing in a great way .

It is important to indicate that succeeding the breeding and treating poultry which requires optimal set to temperature especially during the first weeks that feathering birds is unfinished .

2- The role of humidity in poultry houses / barns . It is an important factor and plays a major role in the rest heat arena , that is , it contributes in a way or another in relieving poultry .

3- Air movement in poultry ranches .

Air movement affects the rest of temperature for birds because it enters / intersects with the range of hotness loss by connection . The air movement may be natural vastly , and air movement with the aid of special equipments .

4- The importance of brush and piling up of the ammoniac in poultry barns .

The kind of brush affects bird production because it plays a separating role to protect the temperature of surrounding middle , so the thickness of the brush is approximately 10 cm . Getting the excrements out leads to their accumulation during breeding and their contents of the azotes is high and this is according to the kind . After 3 weeks of the treatment , it composes a huge mass of organic substances cab able of fermenting easily .

L (2) : Poultry houses / barns

Q / What are the required stages to construction and execution the ranch ?

There are five stages . Each stage requires collecting information that tolerates the farmer to take a decision and that is after knowing the necessary factors that enter in constructing / building the required building .

1- Analysis the required technologies to the poultry houses before starting designing , an analysis must be made to the product , and that is after taking decision of constructing . Then , it is possible to interpret the product in a shape of plan that clarifies the following characteristics :

- circumstances of labor of workers in heating , cleanness and conformity .

- circumstances of living of poultry like , hotness , humidity , lights and air conditioning .

- How to enter the building constructed / built in the area .

- The possibility of changing the building in the future .

2- Requirements connected with the process of production .

This includes the total surface of the building like natural lightings – artificial lightings , method of transmitting products – heating and preparing circumstances of preserving and excrements of poultry – special equipments to raise excrements distributing provender .

3- Requirements connected with the building

It includes corridors , entering doors , distributing there corridors and their dimensions : length and width , and the nature of heat proof building , resisting fire and to resist water sprinkle , and resisting to natural circumstances and ground and cargo and heat proof , treatment of walls from inside and outside that it is possible to enter vastly to do maintenance and security .

Q / What are the units existed in breeding barns and raising cattles of meat hens ?

1- Auditoria of hatching :

They are wide auditoria or buildings constructed either of cement or of previously made substances , divided into several divisions regularity , as follows : receiving , cleaning and isolating eggs section ; then , isolating and that is after changing / transferring egg to rooms of hatching .

2- Nurture and treating barns :

They are barns of newly hatched chicks from age one day until they grow stronger and able to depend on themselves . These barns must be of well separation to set the inner environmental conditions that include , hotness , air conditioning , humidity / moisture , and light .

Whereas houses of treatment , they are used to treat chicks , from the end of nurture until the time of putting the first egg or starting the maturity of the reproduction system . They are specialized / devoted to the egg – productive chickens cattle or cattle of the mothers . They are done in stable houses with stable areas .

3- Production Nurture :

They are nurture where the cattle's are raised in to produce meats or eggs . They are of 1000 m² to raise and treat cattle's with huge numbers in a condensed way to get high production of meat and egg . They are raised in these nurture in terms of two methods : grand / ground method and battery raising method .

L (3) : Poultry Houses and Nurture

Q / How do we choose a site to construct a poultry ranch ?

When we want to choose a geographic site to construct a poultry ranch and build nurture in this ranch to do any poultrice activity , there are several specifications that must be taken care of to choose sites . These are :

- 1- It must be , sort of , high expecting floods and to drain the used water in cleaning and washing .
- 2- That the location is healthy and far a way from pollution sources and good at air conditioning and light .
- 3- The price of the lands must be economic .
- 4- That the site is near from transition ways to be easy to transmit the production requirements and discharge the products .
- 5- That the location is near from energy sources .

Q / How do we distribute buildings inside the ranch ?

The nurture and the rest of the buildings of the ranch are characterized by the multiple living creatures and the activities in them . In addition , they differ in each other by areas and aims . The random distribution inside the ranch leads tallow production in the ranch and to have troubles that hinder the production process in it's optimal . So , the ideal distribution of the buildings and houses is going to be according to groups including :

- 1- Poultry nurture .
- 2- Restores .
- 3- Equipments auditoria .
- 4- Buildings of labors , employees and administration .

5- Other appendices .

* When there are more than one poultrice activity in the launch (this is not preferred) , the nurtures of younger birds (nursery nurtures for example) must be built in the direction that wind flows from , whereas the nurtures of older birds (production chickens) are built after the young birds or chicks , not vice versa .

In this ease , the distance must not be less than 20 m . If these conditions are not satisfied , the production activity then must be restricted to one / single production Whether (meats or eggs) , turkey , goose or ... etc .

Q / What are the factors that determine the design and the construction of poultry houses and their supplements ?

When deciding to designate poultry houses , several important points must be determined ; abbreviated in the following :

1- Determining the kind of breeding : that poultry nurtures of meats – producing chickens differ from that of eggs – producing chickens . It is possible , in some cases, to construct nurtures that fulfill concerted specifications or general specifications to facilitate changing breeding from raising eggs – producing chickens to meats – producing chickens breeding for example .

2- The decided numbers of raising birds in the nurture .

3- Equipments that are used in nurtures : the design of ranches that depend on automatic system in administration differ from those that depend manual system and laborers in serving the ranch , especially in what concerns breeding eggs – producing inside the cages or ferry and other .

4- The size of the nurture .

Q / What are the most important equipments that are required to poultry houses ?

The most important equipments required to poultry houses are :

1- Irrigations : they are of types :

a- Upside down irrigations :

These are used basically for chicks . They are made of wood whose capacity is about 5 Lt . It is made of two parts : container that is filled of water and put upside down on the second part represented by the plate . The container contains a puncture

at about 3 cm height from the brim in order to make water flow to the plate whose edge is about 5 cm height and irrigations whose capacity is 5 Lt , that suffices 100 chicks up to 3 week old and 50 chicks up to 6 week old chicks . Irrigators are used only in small ranches . Whereas , in big ranches , automatic irrigators are preferred to save effort in filling huge numbers of there irrigators several times daily and what accompanies this of wetting the brush and the difficulty of being sure of seeing all the irrigators fill .

- b. Ground automatic irrigators .
- c. Hanged automatic irrigators .
- d. Nipple / tit automatic irrigators .

2- feeders : it is of two types :

- a. Manual or normal feeders :

They are the feeders by which ratio are introduced manually and are used in limited ranches , because they require filling two times to three times daily . The level of ratio inside the feeder to it's half height must be taken care of because of the huge lass in the provender . It's types are the normal rectangular feeders that are composed of rectangular plates of wood whose length varies from 50 – 150 cm and the normal circle feeder . The provender is introduced by there two feeders at the beginning of breeding period .

- b. Automatic feeders : these types are used in big poultry ranches to save time , effort and the workers . They are of several kinds :

First : chain feeder .

Second : pipe feeder .

Third : automatic feeders that have plates .

3- Silo (s) : they are specialized to store provender when breeding birds in huge numbers in one nurture in that automatic feeders are used to feed them .

The container of the provender that feed the inner feeders may not be sufficient to feed the birds along the day . It must continually be refilled especially to the nurtures of fattening that birds are feeding in it nightly and daily .

4- Provender containers / tanks : these containers are often made of iron in a figure of rectangular boxes that the provender is put in the container .

The container is supplied by an axis to fluctuate provender in order not to stick in each other .

5- Eggs – places :

These are places where eggs are put in . It is singular but the chain of collecting the eggs is one for all eggs .

6- Equipments of making eggs be gradual : that the eggs are made step – by – step according to size , color , and quality .

7- Heating equipments (the arms) : They are either electric equipments or gaseous .

8- Pool of collecting poultry wastes .

9- Deep plating the types of substances used in the plating differ according to the that which is available in the market . The used kinds : sawdust and rice detritions and other. Moreover , the thickness of the plating differs according to the type of breeding and the circumstances that (are around / surround) the cattle .

Q / Explain briefly , poultry of meats – producing chickens hens , and how it is possible to know the efficiency of hens growth ?

Meats – producing hens' nurtures are divided to : open nurtures and closed nurtures , or pre – equipped breeding in belfries .

a- Open Nurtures :

These are the nurtures that depend in their air conditioning on windows and gaps of airing that are represented at about 20 – 30 % of the ground area and nurtures are made of cement , often it is 50 x 10 or 40 x 12 m dimensions / 5000 chicken hens are devoted to this nurture until marketing . The majority of meats – producing chicken's producers depend on this kind of nurtures .

b- Pre – equipped closed nurtures :

These nurtures have walls and roofs that are made of aluminum . The walls are decal, inside them separating substance like cork . The closed nurtures are completely separated from the outer atmosphere . Controlling the inside atmosphere accurately is done via automatic systems of heating , air conditioning feeding , specialized for one

(m²) in these nurtures females and males resulted from the mothers which farmers require for fattening . Here , the farmer's choice lies on the generations that have the suitable characteristics for the economy of producing chickens that is summarized by the speed of growth to reach to the living weight that the consumer or the butcher asks by the less possible amount of provender with low ratio of paying . All this is compared with any other generation available to him :

The measurement of breeding meats – producing chickens efficiency is of two important main things – the first is the factories of changing the provender to the living weight ; the second is in the ratio of paying up to selling . In addition to these two main things , the factor of the speed of the growth . That is , the span of time that special generation takes to react to the desired weight . So , lately the basis measuring the efficiency of meat chickens production is based on , which is called European efficiency factor " that takes into consideration the for factors to get a number whenever it gets high , because this shows that the efficiency of meat chickens is not good and vice – versa.