



The Outside figure of the chicken body

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Lecturer name: PhD. Ali Q. Jalil

Academic Email: alijalil85@tu.edu.iq



Q / What is the importance of the study of the outside figure of the chicken body?

- 1- It is useful in the classification and the science of types.
- 2- It is useful to observe the behavior of certain in heretic characteristics.
- 3- It is useful to know the health states of the birds.
- 4- It is useful to predict the production of the chickens.

Q / What meant by body shape? and What are the famous shapes?

- A / Body shape : it is the surrounding of the outside body (lengths and directions of the surrounding of the body) . The famous shapes are :
- 1- The perpendicular frame Malaya chicken.
- 2- The triangle frame / shape (the leghorn).
- 3- The oval rectangular shape (sasix & rod eland).
- 4- The oval rounded shape (Plymouth rook).
- 5- The rounded (cogent & Orrington & Wyandot).

NOTE:

- * The dominant figure in the oviparous chicken the triangle figure; Whereas dud purpose chicken had the oval figure which is a type of meat chicken which tends to be rounded figure or oval rounded figure.
- * The shape of the body decides the type of the chicken .

Q / Does the body weight differ among the kinds of chickens?

It varies in about 650 g in the midget chicken to 6 kg in the huge jersey chicken.

Generally, the chickens are divided according to weight into two parts:

- 1- light kind: oviparous chickens and midget.
- 2- heavy kind : the duel purpose chickens .
 - * There is as reverse relation between body weight and production of egg.

Q / What are the outside parts of the chicken body?

1- Skin:

The skin consists of to layers: epidermis and dermis stuck tightly together. The skin does not contain any perspiration or oil glands, that exist in the rear of the body above the tail, on the last disc. It might be rounded or oval – it is call preen gland.

It's function is to excrete an oleic substance that covers the feathers preventing it from getting wet, especially in the birds that contact to water.

Skin is very sensitive because it contains a huge number of nerves especially in the roots of feathers. There are also some soft muscles that control the motion of the feathers. It might be believed that the coloring of the skin in certain places is considered as an evidence to the production case of chickens. In other words, when the yellow color is pale in the leg, it can be taken as an evidence in chicken production of eggs. This appears with the increase of the production and to aging, because a gradual withdraw in the saved colors in these areas in that they are used in coloring the yellow of the eggs because the colors existed in the ratio are inadequate.

The difference in the foot of the chickens is back to the difference in the colors existed in the inner (dermis) and outer (epidermis) layers. The white color of the leg is because of the lack of colors in the dermis and the epidermis. In the case of the existing of the light or dark blue in the foot of the chickens, it is because of the existing of the melanin color in the dermis and no any other color is existing / found in the epidermis. Whereas, the yellow color in the foot is because of the existence of the Lebo chrome in the epidermis, and the foot / shank with the black color because of the existence of melanin color in the epidermis.

2- Feathers:

Feathers are considered what make birds distinct from the rest of animals. The feathers is basically composed of a kind of protein which is called (certain). Since the feathers may to tore or, broken, or taken off, the nature give the birds a method to renew the feather one time per year, during the falling of the left feathers. The operation of growing new feathers.

Parts of the feather:

The feather is composed of a stock which many lines barbules and barbs connected together to extend from it forming the speeches of the feather. The connection is not available in the low part.

The feather is constructed from the complexion layer. Part of it is planted in the scabbard of the skin. The feathers are of types, long feathers represented in tail

feathers and wing feathers . The second important type is the body feathers . The tired kind is the fluffy feathers . The feathers plant in the body in organized rows in specific areas . The feathers organize the temperature of the body . it's look determines the bird's health state and it's nutrition level . The feathers weigh about 4.5-7% of the total weight of the body of the bird , according to type , age and sex .

The feather consists of the quill which extends to form the shaft . The vane is the wider part which exists beside the shaft . The wide part consists of a lot of barbs . Many barbules branch from the barbs . Moreover , many of what is called as barbicels branch from these barbules .

The chick does not almost have feathers in the incubate , except the wings and the tail which are covered with fluff . The beamic fluff (shifty) spreads during days . After that , the feather tissue apparently appears . In the age of 4-5 weeks , the feathers construction completes , and the sooner the first feathers disappear . At the age of 8 weeks , a new collection grows , and the third spurt is constructed before reaching the sexual maturation forming the first complete feathers cover .

3- The Head:

The outer parts of the head consist of the following:

- a- Beak : the mouth does not contain teeth or lips ; but it is a / an cornea substance . It consists of two jaws : upper and lower used to get and cleave food .
- b- Nostrils: they are two gaps in a form of fission placed in up the upper jaw of the beak. They are open from inside the mouth.
- c- Eyes: There are two eyes existed in the sides of the head, for each eye there are three lids, two outer lids, one of them up and the other is in the button of the eye, and the third is inner. The upper lid has a restricted movement; whereas, the lower eyelid motion has a wider scope which covers the whole eye, when closing. The inner lid is a white membrane which moves in a very fast motion over the eye. The direction of it's motion is from up to down.
- d- Ear openings: They are behind the eyes. they carry some feathers around them.

e- Ear lobe: a meaty growth under the ear. It is with white color as in the egg-laying chickens, or red color as in duel – purpose chicken and Asian chickens. It may extend to backward or down on the sides and cover almost the face.

In this case, the chicken is called white face chicken.

- f- Wattles: they are meaty growth extending to the button of the lower jaw of the beak and the lower beak. It is bigger in masculine chickens than that in females. The dewlap contains two wattles, whether in the tamed chickens or the wild / non domestic ones, except the chickens of the benzoic forest, which have one wattle.
- g- Face: it is the empty parts of the feathers around the eye.
- h-Beard: it is the collection / group of feathers that are under the lower jaw.
- i- Muff: is a collection of feathers that exist in the sides of the face under the eyes or extends to the beard.
- j- Crest: it is a collection of feathers that exists on the top of the head. Often, there is a height in the skull of the bird under the tress.
- Comb : is a meaty growth exists on the head . it's function is to attract sex , and is considered , with the wattles and ear lobe , as one of the secondary sexual characteristics . Comb in chickens has multiple figures : single , pinky , walnut , green pea and others .

4- The Neck:

The neck joins the head with the truck . It curves in a form of (S) in $180^{\rm o}$ angle . This is a necessary condition / adaptation to escape from the enemy and the search for food .

5- The Trunk:

The trunk Starks from the end of neck to the beginning of the tail. it is covered with the feathers in streamlined figure which is suitable for flying. It is composed of a big chest, and small belly. Strong The chest is supported from the belly side by a big sternum all the chest muscles are stabilized in it. (it has an important role in the process of flying).

6- The Wings:

It is an alternation in the front sides to the wings and they are the important factor to complete the flying process. These two wings may be very big like condor which may reach to 3 m and may also be weak as in the Ostrich. Or , they may be emancipative as in the Kenny the Newsstand.

7- The Tail :

It is a protruding of the coccyx bone. The feathers of the tail that direct the direction of the bird are stabilized on it (the coccyx bone). There is an oil gland on the surface of the back of bird that excretes an oleic liquid that prevents the feathers from mingling with water in order that feathers do not stick to each other. There is the "cloacae opening" in the connection of the tail with the body.

8- The Legs:

They have the following:

- (1) Femur: they contain the bone of femur, muscles, and the skin that covers them.
- (2) Drum stick: it has the two bones: fibulas tibia and what around it of muscles and skin.
- (3) The shank: it is composed of the shank and the skin which covers it (without muscles). There is an excrescence in the shank of birds in the shape of dagger which is called spur. It prominent and bigger in muscular is than that in females.
- (4) Foot: it is the button of the feet. It is composed of the fingers whose number are four , in most of the chickens . Some kinds of chickens have fine fingers like hodan , fafirol , sultan and door king . The fifth finger in these kinds occurs / lies under the spur and directly above the back finger.