

**ARULMIGU PALANIANDAVAR ARTS COLLEGE FOR**

**WOMEN**

**(AUTONOMOUS)**

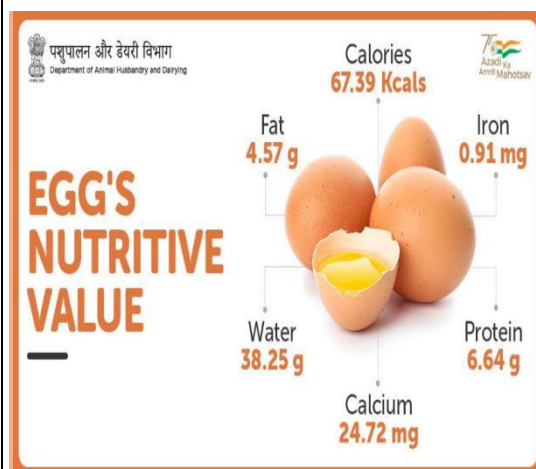
**P.G DEPARTMENT OF ZOOLOGY**

**LEARNING RESOURCES**

**POULTRY FARMING**

## Nutritive value of egg

Eggs are a common food, which are also incredibly nutritious as well. There are a number of important nutrients in it including vitamins A, B2, B5, B6, B12, D, E and K as well as folate, phosphorous, selenium, calcium and zinc. All of these are contained within just one boiled egg, which also contains 6 grams of protein as well as 5 grams of healthy fats. Not only do you get all of these nutrients with just one boiled egg, it's calorie count is pretty healthy as well. Nutritive value of eggs



A large egg contains

- Calories : 67.4 Kcal
- Protein : 6.4 grams
- Carbohydrates : 0.6 grams
- Total Fat : 5.0 grams
  - Monounsaturated fat : 2.0 grams
  - Polyunsaturated fat : 0.7 grams
  - Saturated fat : 1.5 grams
- Cholesterol : 213 milligrams
- Sodium : 063 milligrams

Nutritive value of egg white and egg yolk

The nutritional value of an egg is divided between the egg white and the egg yolk.

The white contains more than half the egg's total protein, niacin, riboflavin, chlorine, magnesium, potassium, sodium, and sulfur and all the egg's zinc.

The yolk contains all of the fat in the egg and a little less than half of the protein. It also contains the fat-soluble vitamins A, D, and E. Egg yolks are one of the few foods naturally containing vitamin D. The yolk also provides vitamin B 12 and folic acid, and the minerals iron, calcium, copper and phosphorus.

The yolk contains approximately 190 mg of cholesterol and 5 grams of fat, less than a third of which is saturated fat. In the 1980's science focused on the amount of cholesterol in eggs, however recent nutrition information indicates that it is more important to focus on reducing the intake of total fat and saturated fat rather than cholesterol. This is good news for eggs. It is not necessary to limit egg or egg yolk consumption unless recommended by your physician.

While each egg white is fat and cholesterol free, yolks contain 213 milligrams of cholesterol (approximately 22% less cholesterol than previously thought) and 5 grams of total fat. Only 1.5 grams of the yolk's fat is saturated, the kind of fat that is most likely to increase blood cholesterol levels. In fact, compared with dietary cholesterol, saturated fat exerts a four times stronger influence on blood cholesterol levels. Just published research actually saw an increase in the HDL or the "good" cholesterol levels of subjects who added an egg each day to their diet.

### Biological Value of eggs

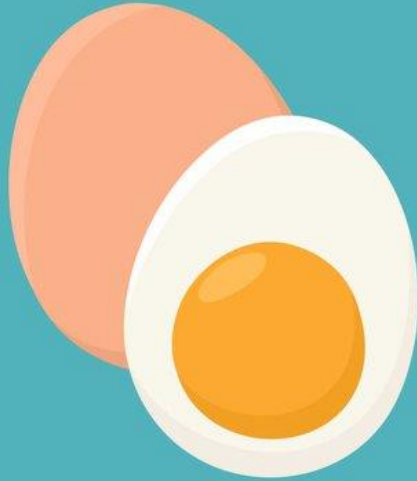
Eggs have been considered the standard against which all other protein foods are measured because their protein composition is so ideal.

Eggs are considered a complete protein because they contain all nine essential amino acids, or the building blocks of protein.

One large egg contains 6.3 grams of protein. The protein is almost equally split between the egg white and the egg yolk. The white contains 3.5 grams of protein while the yolk contains 2.8 grams. The protein in an egg contains all the essential amino acids used for growth and development.

Based on the essential amino acids it provides, egg protein is second only to mother's milk for human nutrition.

## EGG NUTRITION



### YOLK

CALORIES - 55  
FAT - 4,5 g  
SAT.FAT - 1,6 g  
CHOLESTEROL - 184 mg  
CARBOHYDRATES - 0,5 g  
PROTEIN - 2,5 g

### WHITE

CALORIES - 15  
FAT - 0 g  
SAT.FAT - 0 g  
CHOLESTEROL - 0 mg  
CARBOHYDRATES - 0 g  
PROTEIN - 4 g

Essential amino acids must be provided by the food we eat because our body cannot produce them. Nine amino acids cannot be made by the body. These nine are known as essential amino acids and you must get them from the foods you eat. Foods that contain all nine essential amino acids are called complete protein foods. The nine essential amino acids are : Valine, Leucine, Isoleucine, Threonine, Histidine, Tryptophan, Phenylalanine, Methionine and Lysine The remaining acids if not supplied in the diet is produced mostly from the essential amino acids.

Scientists frequently use eggs as a standard for measuring the protein quality of other foods. Protein quality is expressed as biological value, which measures the rate of efficiency that protein is used for growth. At 93.7%, eggs score higher than any other food. On a scale with 100 representing top efficiency, following are the biological values of proteins in several foods.

- Fish : 76.0
- Beef : 74.3
- Soybeans : 72.8
- Polished rice : 64.0

- Wheat, whole : 64.0
- Corn : 60.0
- Beans, dry : 58.0

The egg is a wholesome, nutritious food with high nutrient density because, in proportion to its calorie count, it provides 12% of the daily value of protein and a wide variety of other nutrients such as vitamins, essential amino acids and minerals.

While protein itself is an important constituent of healthy diet, the egg has been found to have two newly-recognized nutrients - lutein and zeaxanthin - that has put the egg in the "functional food" category. A functional food is one that provides health benefits beyond its basic nutrient content.

The health benefits you get by eating eggs are as follows.

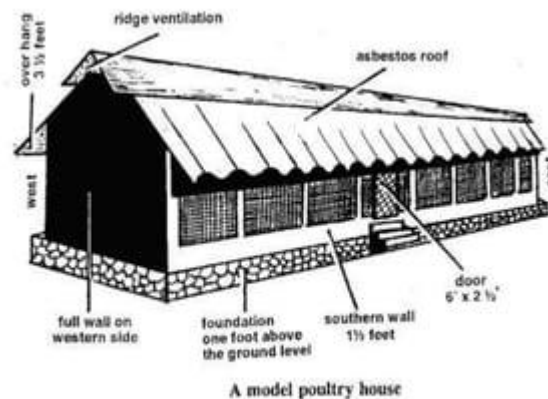
- **Eggs do not raise blood cholesterol:** It is true that when you eat eggs, cholesterol enters your body. However, eggs also give a signal for the liver to stop producing the cholesterol it usually produces. The increase in the intake of cholesterol compensates for the decrease in the cholesterol produced by the liver and therefore keeps the blood cholesterol levels constant.
- **Eggs have choline:** Choline is an incredibly important nutrient for your body. This is because it helps build cell membranes and is also crucial when it comes to the production of certain signalling molecules in the brain. A single egg has about 100 milligrams of this nutrient and therefore is one of the best sources of it.
- **Eggs are good for your eyes:** Eggs have two very important nutrients for your eyes. These are Lutein and Zeaxanthin. These nutrients stop degenerative processes from occurring in the eye. Recent studies have shown that consuming lutein and zeaxanthin can significantly lower risk of age-related macular degeneration (AMD), a leading cause of blindness affecting people over the age of 65. In addition, these reduce the likelihood of cataracts.
- **Eggs have high levels of Omega-3 fatty acids:** Eggs that are boiled have a high level of Omega-3 fatty acids in them. Omega-3 fatty acids are crucial for reducing the chances of you suffering from heart disease due to the fact that it reduces your triglyceride levels.

- **Eggs are an excellent source of protein:** This is the biggest reason to eat eggs. Eating eggs helps you to lose weight, optimizing bone health and lowering blood pressure.
- **Egg may reduce the risk of stroke:** Studies have shown that eggs are not only good for your heart, but they also reduce the likelihood of suffering from a stroke.

## POULTRY HOUSE

### Introduction

Housing is necessary to protect chicken against predators, thieves, bad weather and to provide shelter for egg laying and broody hens.



### Site selection

- Location should be dry and flat
- Poorly drained sites should be avoided or alternatively the house can be elevated from the ground
- Select a secure site away from predators and thieves
- In rectangular houses the end walls should face an East-West direction
- Clear all grass and bushes for about 3 meters on all sides of the house to keep away rodents and reptiles
- Ensure winds ventilate the house without causing draughts (cold)
- To protect against build-up of disease causing agents and parasites the house must be easily accessible and easy to clean
- Poultry houses should have openings on either side for ventilation
- A hole or ridge on the roof will ensure proper ventilation and give light

### Building materials

- Use locally available material like timber, iron sheets, off-cuts and/or clay bricks
- Remove all barks from wood to reduce the parasite load

### Floor

- Use slatted or raised floors to remove droppings and avoid predators
- Remove any sharp edged objects from the floor to prevent possible injury
- A concrete floor is recommended for easy cleaning and disinfection



### Litter

Litter should be provided on all deep litter floor systems and laying nests. Types of litter include:

- Wood shavings
- Shredded paper
- Hay





### Lighting

- Mostly important for laying hens in controlling number and weight of eggs
- Light intensity should be such that a person can read a newspaper at the center of the house
- In a crowded house, transparent roofing sheets should be fitted to improve lighting
- Excessive lighting may lead to cannibalism and other vices

### Perches

- Perches are important for chicken to roost on at night and during daytime.
- They also reduce boredom, which can lead to vices like pecking and fighting.

<i>Age in weeks</i>	<i>Light intensity</i>	
1-3	3-4 W/m <sup>2</sup>	High
4-16	1-2 W/m <sup>2</sup>	Medium
17-78	2-3 W/m <sup>2</sup>	Low

- Each one-meter perch may roost five adult birds.

- Perches are best made from rounded sticks, which match the size of the birds' feet

### *Laying nests*

Laying nests ease egg collection and help avoid dirty and cracked eggs and should be provided at the onset of laying (18 weeks of age).

- Avoid placing nests on the ground or outside the chicken house as this will expose the eggs to predators and thieves
- Remove eggs continuously from the nests to stop hens from going broody
- Nests should be placed inside the chicken house and preferably above the ground
- Provide one laying nest for every 5 hens
- The front is about 30cm high and the back 45cm high
- To prevent egg eating, laying nests should be placed in dark areas of the house
- Brooding nests are individual nests and should be placed in quiet and dark places where they are easily removed for cleaning
- Once the hen is broody it may be necessary to move her to an isolated place to avoid other hens disturbing her or going broody as well

*There are two types of nests*

- Communal nests (more than one hen sharing)
- Individual nests where one hen lays at a time

*Bio Security*

- Biosecurity is a set of management practices which when followed, reduces the likelihood of introducing or spreading disease causing organisms. Infectious agents can survive for a certain period in the environment and spread via persons, animals and materials that might carry the agent.

**Common bio-security measures**

- **Location:** Avoid locations close to existing premises (between farms 500m-1km); Use prevailing wind directions when planning to minimize risk of airborne infection.
- **All-in-all-out:** Reduce buildup of disease causing organisms by breaking the rearing-cycle for different ages.

- **Litter disposal:** Remove used litter and properly dispose and disinfect it.
- **Site security:** Reduces possible introduction of infection to premises mainly from personnel moving between houses and flocks, equipment and other innate objects. Use foot and vehicle bath.

### ***Stocking density***

- Stocking density on a deep litter floor system

<b>Age</b>	<b>Floor space</b>
1-10 weeks	10 birds/m <sup>2</sup>
11-18 weeks	8 birds/m <sup>2</sup>
19-78 weeks	5 birds/m <sup>2</sup>

### ***Equipment***

#### ***Feeders and drinkers***

Feed troughs should be provided in the house. Naivasha chicken long feeders have proved suitable and economical. Round plastic or metal trough feeders are available and good but may lead to feed wastage.



- Feeders should be filled to about  $\frac{1}{2}$  to  $\frac{2}{3}$  full

Age	Space
1-10 weeks	7 cm per bird
11-78 weeks	12 cm per bird
<ul style="list-style-type: none"><li>• Feed without restrictions</li><li>• Avoid feed wastage</li></ul>	

## **Brooding**

### **Introduction**

The livestock sub sector contributes 7.9-10% GDP to the Kenyan economy. Out of the Agricultural GDP, which is 25% of the national GDP, the poultry industry is estimated to contribute about 1.7 %. The industry has over the years, progressed to become one of the most important livestock enterprises particularly in rural households where over 70% of the country's population live and derive their livelihood.

Poultry are the most abundant livestock species, and domestic chicken (98%) are the most important, with other poultry species constituting 2% of the current total estimated population of 32 million birds.



### **Requirements**

1. Brooding houses should be isolated from other houses containing older birds. The producer should follow an “all-in, all-out” program, never mixing birds of different ages.
2. All facilities must thoroughly be cleaned, and disinfected.

3. Before the arrival of chicks the brooder ring and heaters must be checked to ensure that they are working properly.
4. On arrival chicks should be offered fresh feed and water containing glucose where chicks are stressed.

### ***Brooder preparation***

Cut an 8 x 4 ft hardboard sheet or the equivalent into two equal parts lengthwise and join the pieces to form a circle as shown below (How to make brooder ring).

### ***Chick placement***

- Feeders and drinkers should be cleaned and disinfected two days before use.
- All equipment should be arranged and the litter spread.
- The brooder ring should be prepared and curtains fixed on the open sides for insulation of the brooder house. Spray with good quality disinfectant two days before the chicks arrive.
- Provide foot bath at the entrance with lime powder or any other disinfectant.

### ***Temperature Management***

- Ideal brooding temperatures are as measured 5 cm above the litter surface
- Evening is the best time to observe the chicks and make temperature adjustment
- Thermometers may not always be available. Therefore, use the behavior of chicks as a guide
- Adequate floor, feeder and drinking spaces are also important
- Relative humidity, light and ventilation should be provided for optimum comfort of the chicks.

### ***Source of heating***

- Domestic heaters (jiko) 1 for 100 chicks

- Infrared lamps (250 watts) 1 for 250 chicks
- Pancake heater 1 for 1000 chicks



## Layer

Layer poultry farming means raising egg-laying poultry birds for commercial egg production. Layer chickens are a particular species of hens which need to be raised from one day old, and they start laying eggs commercially from 18-19 weeks of age. They remain to lay eggs continuously till 72-78 weeks of age. They can produce about one kg of eggs by consuming about 2.25 kg of food during their egg-laying period. To produce hybrid eggs layer, consider the various characteristics of cock and hen before breeding. Different types of highly egg-productive layer breeds are available worldwide. Apart from this article, we have also compiled Layer Poultry Farming Project PDF under our website's free veterinary books section.

### **Layer Breeds:**

According to the nature and colour of the egg, layer hens are of two types. A short description of these two types is listed below.

**White Egg Laying Hens:** This type of hen are comparatively smaller in size. Relatively eat less food, and the colour of an eggshell is white. Isa White, Lehman White, Nikchik, Bab Cock BV-300, Havard White, Hi Sex White, Sever White, Hi line White, Bovanch White etc., are some popular white egg-laying chickens.

**Brown Egg Laying Hens:** Brown egg-laying hens are relatively larger. They eat more foods than white egg layers and bigger eggs than other laying breeds. The eggshell is brown-coloured. There are many types of brown layers available. Lehman Brown, Hi Line Brown, Bab Cock BV-380, Gold Line, Bablona Tetro, Bablona Harko, Havard Brown etc. are very suitable for commercial layer poultry farming.

### **Layer Hen Selection:**



Before selecting the layer hens for your poultry farming business, you must remember some essential information. First, choose breeds suitable for your layer poultry farming business and can produce well in area.

For commercial egg production, you must choose highly productive laying hens correctly.

All types of hens do not produce an equal number of eggs.

The chosen breeds must have to have good production capability.

chosen breed contains the desired characteristic and has a reputation for egg production, that breed is suitable for business.

Always purchase healthy chicks from a famous and popular hatchery.

### **Keeping Chicks for Layer Poultry Farming:**

During the first weeks after birth, many chicks do not want to drink the water due to transporting them from one place to another. So you must make adequate water drinking systems in their brooder house and train them to drink water. Mix Electral Energy with water so that they can quickly get energy. Please provide them with high-quality multivitamins, ie. Growvit Power by mixing with water. Multivitamins and electrolytes are very effective when transporting chick from a long distance. It reduces tiredness and lack of water and helps to make the chick normal. You must follow Layer Poultry Medicine Schedule for the best production and the highest profit.

### **Vaccination and its Importance for Layer Poultry Farming:**

The vaccination program is a must for chicks to keep them free from all types of diseases. The main advantage of poultry vaccination is listed below.

Timely vaccination makes disease resistance power in the body of a chick.

Help to keep the hen free from infective poultry diseases.

Disease prevalence will be less.

The mortality rate will reduce.

And low mortality rate = more production = more profit.

There are many types of poultry vaccines available for layer hens. Marex, Ranikhet, Gamboro, Bruchaities, Bosonto, Salmonella etc., are used for layer chickens.

### **Before Vaccination of Layer Poultry:**

You have to maintain some rules before vaccination.

Hold the chickens very carefully.

Vaccinate the chickens without any strain.

There is no need to vaccinate the ill hen.

Wash the vaccination equipment with a water solution of Viraclean

Do the vaccination program in cold weather conditions.

A preventive vaccine is always applicable to a healthy bird. Never vaccinate an infected bird.

### **Keeping Growing Chicks:**

provide the growing chicks special care until they reach 4-5 weeks.

After brooding, serve them good quality pellet feed. The high-quality pellet will make the chickens healthy and increase their body weight.

So it is essential to provide them with quality pellet feed during growth.

must follow the Layer Poultry Medicine Chart. This chart will be beneficial in terms of FCR, least or no mortality, disease resistance, and finally, more and the best quality of eggs.

### **Egg Production for Layer Poultry Farming:**

Egg production from a Layer Poultry Farming depends on care and farm management. good care of your birds and manage them properly, the production and profit will be high.

Within the first 20 weeks of age, about 5% of hens start laying eggs.

About 10% of birds start laying at 21 weeks of age.

When they reach 26 to 30 weeks of age, they produce highly. Although, it may be different depending on their strain.

After laying a maximum number of eggs, they usually stop laying for a few days.

And after this period, their egg production might reduce slowly.

The egg-laying rate and size of eggs increase gradually.

The hens grow till 40 weeks of age.

The weight and size of eggs increase till 50 weeks of age.

### **Method and Importance of Lip Cutting:**

Cutting the lip of laying hens is very important. The main benefits are listed below. Lip cutting help to reduce mutual fights.

It helps to prevent food waste.

You have to cut your chick's lip at the age of 8 to 10 days.

Cut the lip of growing chicken at 8 to 12 weeks of age.

Cut the lip of chicks 0.2 cm from their nose.

Cut 0.45 cm in case of growing chickens.

Cut both upper and lower lips.

Don't cut both lips together. Cut one after another.

Use a block chick trimming machine to cut the lips.

Don't cut their lip two days after or before vaccination, after or before using some medicines like Sulfur. Also, don't cut the lip if the hen is in a strain, during adverse weather conditions and if the hen starts laying eggs.

Serve the chicken water mixed with vitamin "K" three days before cutting lips. Wash the lip-cutting instrument with Viraclean. Test the edge and temperature of the blade.

Choose cold weather for cutting their lips. An experienced technician should observe the lip-cutting process. After cutting the lips, serve them water in a deep pot. Please provide them with some extra energy-enriched feed.

### **Feeding for Layer Poultry Farming:**

There are many companies available throughout the world, which are producing commercial feed and feed supplements for layer chickens. To be sure that the feed and feed premixes you bought are enriched with essential food value.

Protein, Vitamins and minerals are essential for laying hens which affect the quality of eggs, layer poultry fertility and layer bird health.

Provide Layer Poultry Supplements Schedule

If notice they are not gaining the expected weight, serve starter feed for eight weeks.

Serve feed two or three times a day till they are 18 weeks of age.

The demand for feed increase very fast when the birds start laying.

Serve them a layer of poultry feed according to their age and weight.

Don't decrease the amount of feed while laying (even if their weight increase).

### **Water Management for Layer Poultry Farming:**

Layer Chicken's health depends on the supply of pure, clean and fresh drinking water. to provide adequate water according to the demand of laying hens. For purifying the water, mix Aquacure. Determine a suitable place to keep the water pot inside the poultry house. Supply cold water during the summer and hot weather and slightly hot water in cold weather or winter.

The chickens' age and species and the food provided can control the chickens' weights. Use sufficient calcium, phosphorus, vitamins, amino acid and other mineral substance in their food. If you follow the abovementioned methods, **Layer Farm**

### **Sequence:**

A standard procedure is followed for the Layer Farm Sequence. This procedure starts when female chicks are raised into pullets for commercial egg production. This stage is called 'rearing', and several standard rearing systems exist. For example, some farms grow layer chicks on a litter floor in a shed, similar to a meat chicken shed. Other pullets are either finished off or reared entirely in wire-floored cages.

### **Brooding for Layer Poultry Farming:(Day-old to 6 weeks):**

She is said to be broody' when a hen sits still for a prolonged period without eating or drinking normally. This is a normal process during which the hen stops producing eggs to incubate a nest full of eggs. When the eggs hatch, the hen cares for the chicks by keeping them warm and finding feed and water. Modern chicken strains have been selected not to go broody so that more eggs are laid over time.

When rearing chicks commercially, the aim is to do the same thing as the hen. The stage of life when chicks need some additional heat is called the brooding stage. It lasts up to six weeks, depending on the environment's temperature, until the chicks can control their body temperature themselves. From day old, they usually receive chick starter feed which aims to ensure they have plenty of protein (19%) and energy for body growth.

### **Growing Layer Birds (6 to 20 weeks):**

Once chicks can control their body temperature, they still need to be protected from climate extremes. At this stage, they receive pullet grower feed which is less expensive and contains only 15% to 17% protein and 7% less energy than the starter feed.

Beak trimming and some vaccinations are done during the grower stage to prepare the birds for their adult life as laying hens. Anything that limits growth at this time can affect their ability to apply well. However, excessive feeding at this time can be harmful, again leading to poor production.



Restriction to feed supply to birds during growing stops them from growing fast and results in both feed savings and increased egg production when the birds mature. Careful weekly weighing of the birds is essential to restrict body weight and work out how even the flock is growing. Breeding companies recommend what weight birds should be at each age.

### **Moving the Layer Birds:**

Pullets are usually moved into their laying quarters at 16-18 weeks before they reach sexual maturity. This ensures that they are settled in before egg production begins. Handling birds at any time must be done with care to avoid injury. As pullets mature into laying hens, they are fed layer feeds designed to enable them to perform best.



#### **Adult Layer Birds (20 to/up to 78 weeks):**

Adult hens are the real workers of the industry. For best performance, they must be fed carefully and kept in a house at 21-28°C. This means that hen houses are designed to keep as near as possible to this temperature year round. The hens are checked regularly to monitor their health, and medicines may be administered as needed. Tinted egg strains usually require less feed (105g feed/hen/day) than brown egg strains (120g feed/hen/day).

The quality of feed provided to hens may vary for the production level. This is because hens need more nutrients before and during their peak production than at other times. This is called phase feeding. Therefore, it can be economical to adjust rations for such high-demand periods.



### **Egg Collecting and Grading:**

Automated collection of eggs is common in modern layer farms. It takes about 26 hours for each egg to develop, and each hen lays an egg a little later each day. This is not exact; most eggs are laid in the morning. Eggs should be collected regularly and transferred from the hen house to an egg room, graded or checked for weight and damaged shells. A sample of eggs is often broken open to check internal quality. Eggs are packed into cartons for 12 eggs or trays of 30 eggs for sale. Prices vary with egg size, so eggs must be separated based on weight. This is done automatically by a machine called an egg grader.



### **Marketing of Eggs:**

Eggs are stored in a cool room at about 13oC and transported in an insulated truck.

Unfortunately, many shops selling eggs do not keep them under ideal conditions. It is best to store them at average refrigerator temperature (4-6oC) in the home and shop.

Marketing involves a range of prices, depending on the different sizes of eggs, different brands, or other differences which attract particular buyers. Free-range and fat-modified eggs are among the varieties available. It would help if you also read Layer Poultry Medicine Schedule Chart.



## **Debeaking**

**Debeaking**, also called **Beak trimming** in poultry management is the act of reducing the length of the beak of poultry birds. The purpose of doing this is to prevent feather pulling and cannibalism and to reduce feed wastage. It is a delicate operation, and if it is improperly done, it may lead to difficulties in drinking and eating, which directly leads to poor growth, unevenness in flock and even mortality as a result of blood loss.

The operation can be carried out at one week-old (7-9 days) and few weeks-old (8-10 weeks). The advantage of debeaking at one-week-old is that, the operation would have a minimum effect on chick's body weight and it is not necessary to carry it out again a second time during the rearing period.

For precise beak trimming operation, the birds should be few weeks old (8-10 weeks). The general disadvantage of debeaking or beak trimming is that, when it is improperly done, it could take long for the birds to regain body weight.

Debeaking Broilers may not be necessary as they are raised for a maximum of 3 months. At this age, they are likely to cause less harm to one another. However Cockerels and Layers should be debeaked as they are kept for a longer period of time.

The major reason for debeaking Cockerels is to prevent pecking and its attendant problems while Layers are debeaked to prevent them from pecking and from also breaking their legs.

Some farmers do debeak the birds in the first few days of life or any time after ten weeks. It is better done before the birds start laying or any time signs of pecking is noticed on the birds.

### **Advantages of Debeaking**

- Beak trimming not only stops a chicken from pecking one another. It also promotes excessive mortality in egg production and most significantly, the vicious habit of cannibalism.
- Numerous studies have backed up beak trimming, suggesting that it is beneficial to the pullet production criteria.
- Also, this practice is effective when it comes to the reduction of feed consumption as well as the improvement of feed efficiency.

- Beak trimming can also delay sexual maturity in your flock. Most importantly, it improves egg production because it minimizes cases of hens eating their own eggs.
- Chicken debeaking will promote a positive attitude in your flock. This is true especially in breeds of chickens such as White Leghorn where it reduces the loss of feathers by preventing pecking and fearfulness.
- Taking into account the practice of beak trimming at the right time can help minimize some problems in your bird's future life. Which could affect the performance of your birds in general?

### **Disadvantages of Debeaking**

- Contrary to the positive contributions brought about by chicken debeaking. Animal welfare groups have criticized the practice, claiming that it is inhuman. The groups further explain that by trimming your birds' beaks. You are inflicting pain to them and this can have a negative impact on their wellbeing.
- Even though beak trimming to solve many problems among poultry. The practice is also destructive in one way or the other. Your flock could show visible physical damage as a result of debeaking.
- This process causes wounds to the birds, leading to bleeding from their beaks. The wounded areas can affect the feeding habits of your chickens. This can promote pecking from other birds due to the presence of open wounds around their beaks.
- There are stories of excessive beak trimming. This could cause permanent impairment to the beak functionality. One should use lot of care when performing beak trimming. This will protect your birds against injuries and possible impairment.
- Insufficient beak trimming can lead to beak regrowth. This means that you will have to subject your bird to yet another session of debeaking. Which is painful, costly and stressful to the affected chickens.

### **Beak Trimming**



Not everyone can carry out the chicken debeaking exercise even though it looks so simple. Experienced individuals who are qualified to debeak should be used. Many of the chickens are debeaked by professional contract teams. It has been suggested that any backyard chicken farmer that has less than 50 chickens to not debeak but use peepers

### **Equipment For Debeaking**

#### **Automatic Debeaking Machine**



#### **2. Hand-Held Debeaking Machine**



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### How to Use the Debeaking Machine



The debeaking machine makes it faster and easier to debeak chickens. There are automatic and semi-automatic poultry beak trimming machines. Follow the procedures below to use the automatic debeaking (beak trimming) machine.

1. When the switch is turned on, adjust the temperature of the movable blade till it looks reddish or bright.
2. When the movable blade glows, start the motor switch and the boat-shaped switch.
3. Adjust the aperture of the micro cutter blade according to the beak size.
4. Hold the chicken's feet with the left hand, the neck with the right thumb, and pin the throat with the forefinger of the right hand. Stick the beak of the chicken into the aperture.

5. Bleeding stops in 2 – 4 seconds after the movable blade drops.

### How to Use the Debeaking Knife

You can use the normal kitchen knife to debeak your chickens. How to do this:

1. You will need a partner to do this comfortably
2. Place the knife on burning stove or coal and allow to be red hot
3. Let your partner hold the chicken's legs and hold the head (toward the mouth) of the chicken with one hand and gently cut the pointed tip of the chicken's beak using the hot knife.
4. Release the bird afterwards.

### Rules in Debeaking or Beak Trimming

#### Before beak trimming:

- Do not debeak birds if the flock is not in good health or if it is undergoing from vaccine reactions.
- Add Vitamin K to the drinking water 48 hours prior to trimming and after to prevent haemorrhages.
- Check the equipment and make sure that the trimming blade has the right temperature to cauterize, but not so high to form a blister on the beak later.

#### During beak trimming:

- The operator should be installed and seated comfortably in such a way that each beak will be cut in the same manner.
- Do not rush the process: a too high rate (number of birds/minute) could lead to a higher chance of errors and poor uniformity.
- Clean the blades with sandpaper after use of 5,000 chicks or birds.
- Make sure the tongue of the bird is not burned.

#### After beak trimming:

- Increase the water level in the drinkers and the pressure in the pipes to make it easy for the birds to drink.

- Make sure that the depth of the feed is adequate. Do not empty the feeders for a week following beak trimming.
- It is important to give birds anti-stress or multivitamins before and after the operation so as to reduce the stress effect on the birds' performance.

It is highly beneficial to debeak poultry birds to reduce mortality due to pecking, and wastage of feed to save cost.