

Quail Farming: An Introduction

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ABSTRACT

The quail also known as Bater in hindi terminology. It is a small medium size game bird related with pheasant family. In India two species occurs namely Black breasted quail found in jungle (*Coturnix Coromandelica*) and other one Brown color Japanese quail (*Coturnix Coturnix Japonica*), which is bred for meat or the one used for commercial quail production. A broiler (meat purpose) quail can be sold at 5 weeks. Quails start laying eggs at about 6 weeks to continue to give high egg production up to 24 weeks of age. Adult Japanese quail weigh up to 250 gm and lays 250 eggs a year. The meat is used as ready to cook meat, pickled meat & tandoori quail. From the quails egg can make different recipes like Boiled egg and egg pickles The egg size is about 10 g. It requires smaller house for rearing. About 10 quails require space is equal to require space for one chicken.

Keywords: Quail, Bater, farming, perspective, India

INTRODUCTION

Quail is a small avian species belongs to the Pheasant family. In 1595 first domesticated in Japan. Two species of quail found in India *i.e.* The Black breasted quail found in Jungle (*Coturnix Coromandelica*) other species is the Brown color Japanese Quail (*Coturnix Coturnix Japonica*) which is bred for meat or the one used for commercial Quail production. Quail is fast growing bird with a short generation gap. Quail were first introduced in India in 1974 from California. The Japanese quail is the largest species, it is much smaller than pigeon. A broiler quail can be sold at 5 weeks. Quail start laying eggs at the age of 6 week, and continue laying eggs up to 24 weeks of age. The meat of quail is consider as delicacy. From the quails meat make different recipes pickled meat, tandoori quail and use as ready to cook meat. Also eggs used to eat as boiled or make egg pickles. Quail requires smaller house compare to chicken. Mostly, commercial chicks are kept in multitier cages, thereby increasing labor efficiency and better utilization of land space. Another

species of quail, Japanese quail (*coturnix japonica*) have created a big impact in recent years and many quails farms have been established throughout the country both for egg and meat production. It is due to fact that increasing consumer awareness for quality meat, it demanded the production of better quality broiler quail meat. It is of great importance to select the stocks, which have the inherent capacity to yield better quality meat and egg.

Benefits of quail farming

Require minimum space for rearing. Require small capital. Quails are robust bird. Birds can sale at the early age of five weeks. It becomes mature at the age of six to seven weeks then start laying eggs. High rate of clutch up to 280. Quail meat is tasty other than chicken and has low fat content. It promotes body and brain development in young ones.

As per the nutritional criteria, the quail eggs are far better compare to that of chicken eggs. It has low cholesterol percentage. Quail meat and eggs are good for the pregnant women and infant feeding womens.

Employment

Quail farming is a cheap enterprise compare to chicken farming. It is useful as choice of food. Quail is the important bird for scientific research. This species can be reared at interior places. It does not require the vaccination and medication. Quail litter has high fertilizer value and can be used for increasing yield of crops. Quail weighs up to 100 gm and lays 100 eggs a year, the Japanese quail weighs up to 250 gm and lays 250 eggs a year.

Future of the Quail farming

Today in the market quails meat in more demand. There is great potential in hotels hypermarkets, etc. Indian government has promotes the peoples to start quails farm and is trying to provide infrastructural facilities to assist the peoples. However, a government license is required to sell Japanese quail. The ministry of Environment and forest issue the license to the Dept. of Animal Husbandry. Central Avian Research Institute (CARI) at Izatnagar, Bareilly Uttar Pradesh is keen to propagate quails for commercial use & have shown willingness to supply hatching eggs to aspiring entrepreneurs.

Rearing system

i. Deep litter system

Six quails can be reared in a sq feet of floor space after two weeks, quails can be reared in cages. This will help to gain good body weight. (Fig.1)



Fig. 1: Battery system in quail rearing

Table 1: Requirement of space for rearing

Age	Cage Size	No. of birds
First 2 weeks	3 x 2.5 x 1.5 ft.	100
3- 6 weeks	4 x 2 .5 x 1.5 ft.	50

ii. Battery system rearing

Each unit is about 6 feet in length and one feet in width and subdivided in to six subunits. For saving the space, the cages can be arranged up to six tiers in height. There should be 4 to 5 cages in a row. The bottom of the cage is fixed with removable wooden plates to clean the bird droppings. Long narrow feed troughs are placed in front of the cages. Water troughs are placed at the back of the cages. Commercial egg layers are usually housed in colonies of 10-12 birds per cage. For breeding purposes, male quails are introduced in the cages in the ratio of 1 to 3 females.

Feeding arrangement

Feeding material should be made of small particles. Five weeks old quail consumes around 500 gram feed. At the age of six months quail consumes around 30-35 gram of

feed per day. It require about 400 grams feed for the production of dozen of eggs. Broiler starter mash can be used by adding 5 kg of oil cakes to 75 gram feed. The particle should be finely grounded.

Table 2.- Feed can be formulated as follows:

INGREDIENT	Chick mash	Grower mash
Maize	27	31
Sorghum	15	14
Deoiled Rice Bran	8	8
Sunflower Cake	12.5	12.5
Soya meal	8	-
Fishmeal	10	10
Mineral Mixture	2.5	2.5
Shell grit		5

Rearing management

In the age of six week, female birds gain weight upto175-200 grams and the males weight upto125-150 grams. Female birds start laying eggs at 7 weeks of age and continue up to twenty two weeks Usually Eggs laying happens in the evening time of the day and weighs about 9-10 gram. (Fig 2)



Fig 2 : Quail farming

Table3: Components of egg

Water	Protein	lipid	Carbohydrates	Total Ash	Calorific value
74%	13%	11%	1%	1%	649 kJ/100g liquid

Sources: <http://www.aeb.org/food/nutrient.html>

The male breast is narrow and covered with equally distributed feather of brown and white in color. While the females breast is broad and covered with brown and black dots feathers. At the age of four weeks male and females birds should be separated. Egg laying quails required the sixteen hours light per day.



Fig 3 : Quail Eggs

Reproduction

Quails start clutch at the age of 7th week. They attain 50% egg production at 8th week of age. For the fertile eggs production, the male quails should be reared along with the females at 8-10 weeks of age. The male, female ratio is 1:5. Incubation period in quails is 18 days .Quail egg is roughly one-fifth the size of a chicken's egg and weight around 10gm. The eggshells are spotted, with colors ranging from white to brown. (Fig.3) As per the nutritional criteria, the quality of these eggs is far better that of chicken eggs; rather they contain less cholesterol. The proportion of yolk (the yellow inside part) to albumen (the white part), at 39:61, is higher compared to chicken eggs (Table.3) .We can produce 1500 quail chicks per week from the 500 laying quails.

Quail meat

From a healthy quail, we get dressed meat upto 70 73% of their body weight. A Quail has 140 gram body weight gives the 100 grams of dressed meat. (Table. 4).

Table 4: The comparison between quail and chicken meat (uncooked meat)

Meat	Moisture	Protein	Fat	Carbohydrate	Minerals
Quail	73.93%	20.54%	3.85%	0.56%	1.12%
Chicken	73.87%	20.66%	3.61%	0.78%	1.08%

Health problems in quail farming

If the parents quail suffering from vitamin and mineral deficiency, resulting the chicks obtained from their fertile eggs are often lean with weak legs. To control this problem in female breeders should be supplemented feed with optimum minerals and vitamins. Quails are immune to infectious diseases than chicken. Hence there is no vaccination required for disease protection. Proper management of quail chicks, disinfecting farm premises, providing clean drinking water to quails and feeding of quality concentrate feed will prevent disease outbreaks in quail farms.

Hurdles in quail farming

Male quails usually make a different sound which is usually disturbing to the human. When rearing the male and female quails together the male quails peck the other quails and make them blind.

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