

Poultry Production

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STAGE 3

Animal Resource Department

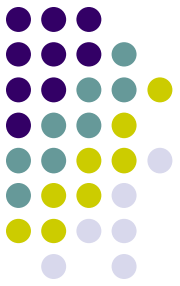
College of Agriculture Engineering Sciences

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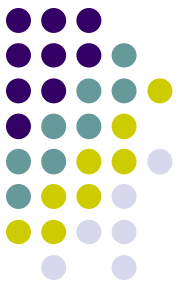
Lecture, Theory

Quail production



Quails are small birds and commercially grown for their eggs and meat. Commercial farming of these birds is increasing day by day as the investment and maintenance is very less compared to other birds.

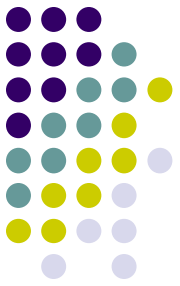
Quail eggs are very nutritious than poultry eggs. Japan quails are very famous in the world and first commercial farming of quails is started in Japan and now it spread across the globe.



The main advantage of the quail farming is, these birds can be raised along with other poultry birds. In the world due to the high population, meat requirement is growing day by day and there is no doubt that quail farming will be popular like poultry farming in near future.



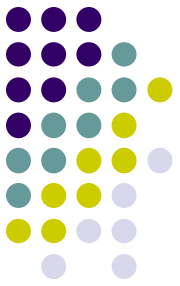
Japanese quail (Pharaoh Variety)



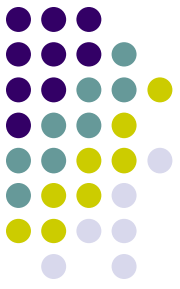
Old World quail are native to Asia and Europe. In the wild, Old World quail prefer temperate climates, with northern habitats reaching 38°C. They are omnivores, eating a mixture of insects, seeds and grains.

They have been domesticated for thousands of years, especially in Asia. They continue to be raised widely and are popular in Japan. Originally raised for ornamental value as songbirds, in the early 20th century Japanese breeders selected for meat producing domestic birds.

Advantage of Quail Farming



1. Quail birds requires less floor space when compared to other birds
2. Quail farming requires low investment to set up and labor cost is very low
3. Quail will become ready for marketing in 5 weeks time
4. Quail starts laying eggs in about 6 to 7 weeks of age



5. Quail lay about 300 eggs/year which is considered as a very high rate of egg laying

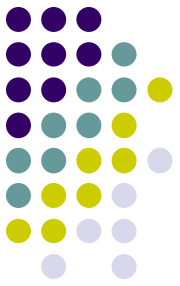
6. Commercial farming of quails is very successful in Kurdistan region .

7. Quail eggs contain less cholesterol and its meat is tastier than chicken

8. Quail eggs meat are a nutritious diet for pregnant and nursing mothers

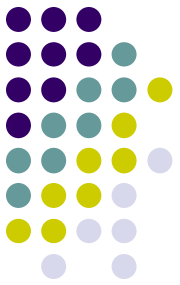
9. Quail meat is low in fat, so quail meat is good for blood pressure patients.

Quail Bird Characteristics



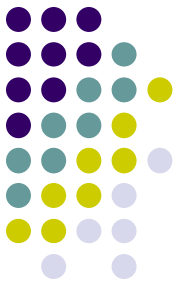
- Quail birds are small in size and an adult quail weighs about 200 – 250 grams
- Quail eggs weigh about 10 to 15 grams
- Quail start laying eggs within 6 weeks and they lay one egg daily
- Quails lay about 300 eggs in the first year. Thereafter, their egg laying capacity will be going down every year.

- Quail eggs look beautiful due to multi color



- For hatching quail eggs, incubator or brooder chickens should be used as they do not incubate on their own. The Incubation time for quail egg is about 15 to 18 days.
- Quail generally survive for 3 to 4 years.

Housing Management in Quail Farming



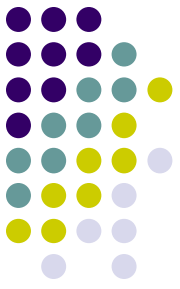
There are two ways to rear the quails.

- 1. Deep litter system:** As they occupy less floor space, about 6 quails can be reared in 1 square feet of space for two weeks and can be moved to cage system.

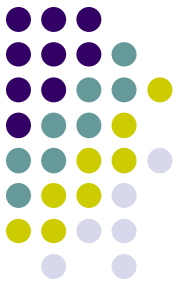


2. Cage System: For first 2 weeks, the cage size of (94 x 76 x 45)cm can accommodate about 100 quails. From 3 to 6 weeks, the cage size of (122x 76 x 45)cm will accommodate 50 quails.

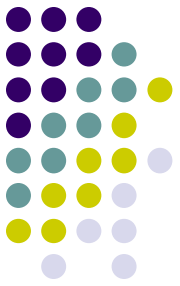
- It can be up to 4 cages in any row. Cage bottoms should allow for cleaning the bird droppings, for this cage bottom should be fixed with removable wooden plate. Plastic cages are most convenient for commercial quail farming.



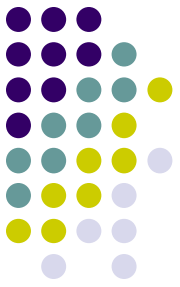
- Make sure to have proper ventilation flow of air and light inside the shed or farm. To feed the birds in the cage, long narrow feed troughs should be placed in front of the cages and water troughs should be placed at the back of the cage. for breeding purpose, there should be 1 male quail for 4 female quails in the cage.



Cage System



The following factors are important while raising quail chicks



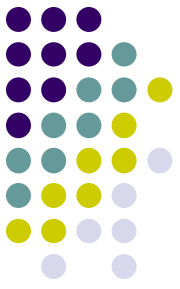
1. Adequate temperature
2. Sufficient light
3. Proper air movement
4. Density of quail chicks
5. Supply of food and water
6. Hygienic rearing rules

Table 1. Temperature, humidity and space requirement



	Starter	Grower	Layer/Breeder
Temperature	37-38	21-22	21-22
Relative humidity (%)	60-65	55-60	55-60
Floor space (sq.cm)	75	110	150

Debeaking



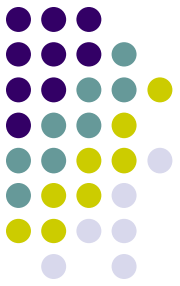
Severe picking is frequently observed when Japanese quail are mate after sexual maturity. This results in reduced egg production and birds (male and female) may actually be killed. Not only the actual loss of birds, but the chance of losing selected individuals or genetic strains is of concern.

Quails may be debeaked at an age of 3-4 weeks or whenever required to control cannibalism. Simple nail cutter may be used for debeaking. Over cutting should be avoided to counter the problems of mating which lowers fertility.

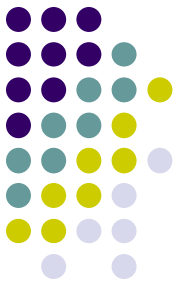
Breeds in Quail Farming

There are two types of breeds, broilers and layers.

- 1. Broiler (Meat Purpose) Quail Breeds:** Bobwhite (American), White Breasted (Indian).
- 2. Layer (Eggs Purpose) Quail Breeds:** British Range, Tuxedo, English White, Pharaoh and Manchurian Golden



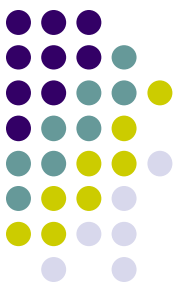
Feed Management in Quail Farming:-



Feed management is very critical part of quail farming. A well balanced nutritious feed ensures the proper growth of birds result in good body weight gain.

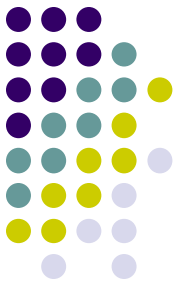
- Make sure to have feed in small particles
- A 6 month old adult quail consumes about 25 to 30 grams of feed/day
- Quails require about 450 grams of feed for laying 12 eggs.

Table 2. Practical levels of nutrients (%) in the diet of Japanese quails



Nutrient*	Starter (0-3 weeks)	Grower 4-6 weeks	Layer/Breeder (7 weeks onwards)
ME (Kcal/Kg)	2,750	2,750	2,650
Protein (%)	25-27	22-24	20-22
Calcium (%)	1.0	0.8	3.0
Phosphorous avail.(%)	0.45	0.45	0.45

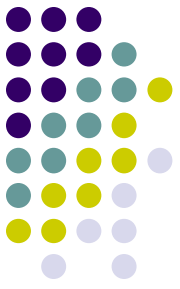
Disease Management in Quail Farming:-



Generally, diseases in quails are less compared to other birds. However, proper care will result in less death rate and good profits. There is no vaccination required in quail farming. Daily cleaning and keeping the farm or floor dry, providing clean water, feeding of quality concentrate, disinfecting the entire farm, proper ventilation for air flow and light will make the environment disease free.

As part of other disease preventive measures, make sure to separate the sick birds from healthy quails. If the birds are dead, burn them immediately. Don't mix up different age groups of quails. Maintain the hygienic conditions in the farm throughout the quail growth.

Some kind diseases possible with sudden weather change.



- 1. Ulcerative Enteritis Disease:** If the quails get affected by “Ulcerative Enteritis” disease, mix 1 gram streptomycin with 1 liter of water and serve it to the quails for 3 days. This will control the disease.
- 2. Coccidiosis Disease:** If the quails are suffering from coccidiosis disease, feed them coaxial20 by mixing with water (2 grams/ liter) for 3 days.