

POULTRY FARMING IN HOMESTEAD COCONUT GARDEN

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In India coconut is primarily a crop of small and marginal farmers. About 98 per cent of the 5 million holdings are below 2ha in size. Kerala is having about 2.5 million coconut holdings and destiny of these small holders depends to a considerable extent on the prospects of this crop. Under the typical socio-economic situation of Kerala where the average holding is small and many of the families do not have extra land to raise the necessary crops, the traditional method of coconut farming does not provide incentive to improve the present level of production and to raise the standard of living. In homestead coconut gardens, coconut forms the base crop and several crops are intermixed with it. In addition, one or two cattle, a few poultry birds are also included. As most of these crops and animal systems are not systematically managed the output of these units is only marginal. In Kerala, the gaps between demand and supply of poultry meat and the eggs are wide and most of the demand is met by importing from neighbouring states. A total of 183 million eggs are brought from neighbouring states every year to meet the egg demand in Kerala. To meet the meat requirement as much as 7 lakh bovines are brought from other states every year. So there is immediate need to increase the poultry meat and egg production

through systematic approach. In restructuring coconut gardens and improving the returns, one of the possible ways is to go in for integration of coconut gardening with other crops and farming systems. The very nature, growth and long initial gestation period to provide any returns in coconut, necessitates to go in for growing crops in the interspaces or to integrate other farming systems. In this direction, integration of poultry farming with coconut is one of the viable proposition. Accordingly, attempts were made to integrate broiler, layer and quail birds in the existing mixed farming system at CPCRI Kasaragod. The details regarding the management of the birds

and their cost and returns are highlighted below:

At CPCRI, Kasaragod, a unit consisting of 100 each of broilers, layers and Japanese quails is integrated with the existing mixed farming unit since 1989.

Broilers and layers are maintained in separate rooms giving a floor space of approximately 2sq feet per bird. The quails require an area of 0.5sq feet per bird. In poultry management selection of cheap litter which is easily available, soft and able to absorb water is important. Sawdust is one such material which can be used as litter. Spread the litter to 2-4 inches thickness 2-4 days before



putting the chicks. Hydrated lime is added at the rate of 1 kg per ten sq feet to render the litter dry. The litter is regularly raked and cakes which are formed due to high moisture are removed. After each batch litter is to be removed and new sawdust spread. Day old chicks of broiler, layer or quails need proper brooder management. A brooder is to be fabricated out of tin with a provision to hand minimum of two 60 watt bulbs. This will help in providing required heat for chicks upto the first 12-15 days. There should be provision for giving water through wateres and feed through feeder. When chicks are brought they are not given the feed for 2-3 hours. During that time 8% sugar solution is given. The feed schedule is as follows:

Feed schedule for poultry birds

Layer		Broiler		Quails	
Weeks/Percent egg production	g per bird	Days	g per bird	Days	g per bird
1st week	15	upto 3	10	upto 4	1.5
2nd week	25	4-7	20	4-8	3.5
3rd week	40	7-14	30	2nd week	7.0
4th week	60	3rd week	50	3rd week	9.0
5th week	70	4th week	70	4th week	15.0
6th week	80	5th week	80	6th week	20.0
7th week till	95	6th week	100	and above	
10% egg laying		7th week	110		
20% egg laying	98	above 7th	120		
30% egg laying	103				
40% egg laying	107				
50% egg laying	110				
60% egg laying	120				
70% and above	125				

To get a good batch of birds it is necessary to vaccinate the chicks. The schedule of vaccination is as follows:

Name of the disease	Name of the vaccine	Age at which it is given	Dose	Route of administration	Remarks
Ranikhet	RD. F1/ Lasota vaccine	4-7 days	1 drop	Each into nostril and eyes	Can be given at day old stage
	RD. F1/ Lasota	Fifth week	1 drop	Each into nostril and eyes	To be given in endemic areas
Fowl Fox	Chick embryo fowl fox vaccine	6-7 week	few drops	By pricking of the feather follicles	-
Marek's disease	HVT MD vaccine	Day old	0.2 ml	S/C cervical region or I/M into thigh muscles	-

Japanese quails usually are not given any vaccination and have been found to have in-built resistance against major diseases. However, major problem will be pecking injury. To overcome this it is necessary to debeak the birds.

In addition, the following schedule of medicines and vitamins (as given on page 4) are given as a precautionary measure against all the possible diseases.

Whenever there is ailment, the advice of veterinary surgeon is to be strictly followed.

During early days i.e. upto 4 to 5 weeks, water can be given through a pot with a hole in the neck, which is placed inverted in the bowl. For older chicks it can be given through suspended drinking bowls. Clean water is to be given and care is to be taken that it is available throughout the day.

Age (weeks)	Amount of water per 100 birds (litres)
0-4	2.8-4
5-8	12-14
9-12	20-25
13-16	35-40
16 and above	45-48

Out-turn and returns

Broilers are usually kept upto 8 weeks and then they are disposed. The average weight of broiler birds at the end of 8 weeks was around 1.25 to 1.60 kg per bird. The out-turn of meat was about 1kg per 2.63kg of feed. Layer birds started laying eggs at the end of 16th week and they laid eggs for about 245 days. The mean egg weight was about 60g and the per cent egg laying went upto 70. Once the egg laying came down below 40 per cent they are disposed off. Quails started laying eggs after the 40th day and they laid eggs for 125

Schedule of medicines given to broiler birds

Days	Medicine	Dose
Upto 2 days	Strexia in water	One gram in litre of water
3 to 5 days	Hostocycline and Immolyte	2-3 g in 4 litre of water 5 ml for 100 birds
6 to 10 days	Vitamin B complex or Vimerol	15ml for 100 birds 5 ml for 100 birds
11 to 14 days	Hepatal	30 ml for 100 chicks
15 to 20 days	Codrinal	1 g in 2 litre of water
21 to 25 days	Rest	
26 to 30 days	Furasal	1 g in 2 litre of water
31 to 35 days	Toxol	1 g in 2 litre of water
36 to 40 days	Rest	
41 to 50 days	3 - care	1g in 1 kg feed

Economics of poultry keeping in coconut gardens

Broiler

Items	Cost	Returns
Day old chicks (100 Nos)	Rs. 750.00	Sale of
Feed Cost	Rs. 1200.00	Poultry birds Rs. 3,750.00
Medicine	Rs. 350.00	
Miscellaneous	Rs. 200.00	
Labour Cost	Rs. 400.00	
	<u>Rs. 2900.00</u>	
Net returns from one batch		Rs.850/batch
From five batches in a year		Rs. 4,250

Layers

Items	Cost	Returns
Day old chicks (100 Nos)	Rs. 700.00	Sale of eggs Rs. 16500.00
Feed Cost	Rs. 13000.00	Sale of birds Rs. 3000.00
Medicines	Rs. 400.00	
Miscellaneous	Rs. 200.00	<u>Rs. 19,500.00</u>
Labour Cost	Rs. 2500.00	
	<u>Rs. 16,800.00</u>	
Net returns from one batch		Rs.2700/-

Japanese Quails

Items	Cost	Returns
3 week old chicks (100 Nos)	Rs 400.00	Sale of eggs Rs. 1800.00
Cost of feed	Rs. 1350.00	Sale of birds Rs. 800.00
Cost of medicines	Rs. 40.00	
Labour Charges	Rs. 250.00	<u>Rs. 2,600.00</u>
	<u>Rs. 2040.00</u>	
Net returns		- Rs. 560/batch
From two batches in a year		- Rs. 1120/-

days. The weight of adult bird was 160-270g, and egg weight 15-20g.

All the three types of poultry birds i.e. layers, broilers and Japanese quails are profitable if properly maintained. Out of these, broiler farming is the most profitable enterprise. In one year five batches of broilers can be reared. The total net income realised from a 100 bird unit, by maintaining round the year (5 batches) is Rs. 4,250. Systematically managed layer unit with hundred birds will give a net return of Rs. 2,700. A unit of hundred quail birds maintained in two batches round the year will give Rs.1120 net income per year. Maintaining poultry birds in homestead coconut garden can be a profitable enterprise if they are kept in hygienic conditions and proper precautions are taken to check the outbreak of major diseases.

COCONUT MILK POWDER PRODUCED IN SWITZERLAND

Food Ingredients Specialities of Switzerland has developed a spray-dried coconut milk powder, designed to offer the food manufacturer coconut milk in a convenient form. The product is said to be as creamy and retain its flavour as fresh coconut milk. The dried product in its package has a 12 - month shelf-life if stored under recommended storage conditions.