

# DUCK REARING

- a promising  
enterprise in Nagaland



भारत  
अनुप  
ICAR



भारत  
अनुप  
ICAR-RC-NEH

Krishi Vigyan Kendra  
Dimapur, Nagaland  
ICAR, Research Complex for NEH Region,  
Nagaland Centre, Medziphema -797106

**D**ucks are being reared all over the world and almost 75% of them are found in Asia. Domestication of wild ducks first started in china (as early as 4000 BC), and it posses the highest duck population in the world. India has a population of 107 million ducks with an annual growth rate of 16.8% (FAO, 2002). The population of duck in Nagaland is 228 thousand (17th Livestock Census, 2003; Govt. of India). Duck eggs and meat are an important source of nutrient in the human diet. The per capita availability of eggs in India is only 43 per annum against the ICMR recommendation of 180 eggs per annum.

### **Breeds of duck available**

Sylhet Mete, Nageswari, *Pati Hanh*, Khaki Campbell, Sera Chameli, Muscovi (*China Hanh*) and Indian Runner

### **Advantages of duck rearing**

- ◆ Rearing of duck is comparatively easier than chicken.
- ◆ Growth rate is high: Hybrid duck will attain up to 3 kg live weight in 50 days.
- ◆ Duck meat is uniformly dark and palatable.
- ◆ Duck lay more eggs per bird per annum than chicken (Avg. 250 eggs annually per khaki Campbell bird).
- ◆ Duck eggs are larger and heavier than chicken eggs, and have slightly higher nutrient value.
- ◆ Duck feather can be used to manufacture high quality bedding materials.
- ◆ Duck is generally hardy, resistant to a wide variety of diseases.
- ◆ Water for swimming is not essential, though ducks come under the category of water fowl.
- ◆ They are suited to a wide range of housing systems.
- ◆ Ducks play an effective role in controlling of pest. They exterminate grasshopper, snails, slugs, potato beetles, mosquito larvae, etc.
- ◆ Ducks are well suited in an integrated farming system, e.g. duck-fish farming, duck-paddy farming, duck-fish-paddy farming.



**Table 1.** Comparative status of nutritive value of chicken and duck egg

Parameter	Chicken	Duck
Mean egg weight (g)	57.0	75.0
DM (%)	26.4	30.3
Protein (%)	12.9	13.5
Lipid (%)	10.9	14.5
Ash (%)	0.9	1.0

Source: Smith A.J. (1990)

**Table 2.** Performance chart of Khaki Campbell (egg type)

1	Age at first lay	120 days
2	Annual egg production	250 eggs
3	Body weight at 40 weeks	1.8kg
4	Egg weight at 40 weeks	66 gms
5	Daily feed consumption per bird	120-130 gms
6	Duckling mortality( 0-8 weeks)	2-3%
7	Grower mortality( 8-20 weeks)	0.2-0.5%
8	Adult mortality( 20-72 weeks)	2-3%

Source: CPDO, Govt. of India, Hessarghatta

### Housing of ducks

- ◆ Ducks may be reared in an intensive, semi intensive, free ranging or backyard system.
- ◆ No elaborate housing is required for ducks. House with shed type roof with concrete floor and an outside run is best suited. The house should be well ventilated and rodent proof.
- ◆ Ducklings are brooded at 29 to 30°C temperature for a period of 3-4 weeks in litter, wire floor or batteries during the first week. It is reduced by about 3°C per week until reaches up to 24° C during the fourth week.
- ◆ Under the intensive system, a floor space of 4 to 5 sq. ft per adult bird is essential, whereas, a floor space of 2.5 to 3 sq. ft. per adult bird should be provided as night shelter in case of semi intensive system of rearing.

- ◆ Water in a drinker (5" to 6" deep) should be provided to allow immersion of their head. Under a range system, a flock of 1000 birds can be reared in one acre of land.

### Feeding of ducks

- ◆ Duck may be grown on wet mash. During the first eight week, birds should be fed *ad libitum*, and later they may be fed twice at the morning and late afternoon. An adult duck consumes about 100 to 120 gm of feed per day.
- ◆ Duck feeds should be stored at cool and dry environment to avoid mould formation. Weeds and phytoplankton like Lemna, Wolfia and Azolla may be fed to the ducks. The use of range, ponds and supplemented green significantly reduces feed cost. Kitchen waste like broken rice, vegetable peelings, etc. can be effectively utilized in the backyard rearing system.
- ◆ It is always to be kept in mind that duck should never have access to feed without water.

### Health care

- ◆ Ducks are resistant to common avian diseases. Duck plague is the most common viral disease and there is no treatment for it. However it can be prevented by administering Duck Plague Vaccine at 8 to 12 weeks of age
- ◆ Duck cholera is another common disease caused by bacteria *Pasteurella multocida*. Inappetance, fever, thirst, diarrhea and sudden death is observed in birds suffering with Duck Cholera. Antibiotics like Enrofloxacin, Tetracycline, Sulpha quinoxaline, Erythromycin etc. can be used effectively to control the disease. Duck cholera vaccine should be administered for prevention of duck cholera outbreak.
- ◆ Botulism caused by *Clostridium botulinum*, is a serious disease in duckling and adult. The disease can be

prevented by avoiding ducks to scavenge on decaying organic materials.

- ◆ Ducks are also highly susceptible to aflatoxicosis caused by a mould called *Aspergillus flavus*. High humidity, rain or improper drying of feed favours this mould growth. There is no treatment for aflatoxicosis. Birds usually recover when the source of aflatoxin is removed.
- ◆ Ducks are usually resistant to internal parasites.

**Table 3:** Vaccination schedule against common diseases in duck

Name of the vaccine	Route	Dose	Age of Duck
Duck Cholera	Subcutaneous	Duckling 1ml	3-4 weeks
		Adult	2ml After one month of last vaccination
Duck plague	Subcutaneous	1 ml	8-12 weeks

Source: CPDO, Govt. of India, Hessarghatta

### Conclusion:

Low input, high disease resistance and feed efficiency provides ample scope in this enterprise. The misconception that water is imperative for duck farming that has discouraged people of North-East from this enterprise. However, Duck rearing in scientific way is advantageous and profitable like any other poultry farming particularly in Nagaland and as a whole in the North-Eastern part of India.

**Prepared by:**

Ebibeni Ngullie SMS, Animal Science,  
Anamika Sharma, PC, KVK Dimapur and  
Debojyoti Borkotoky RA, Mega Seed Project on Pig

*For further information please contact:*

**Joint Director**

ICAR Research Complex for NEH Region, Nagaland  
Centre, Medziphema – 797106

**Published by**

Director

ICAR Research Complex for NEH Region  
Umroi Road, Umiam-793103  
Meghalaya (India)

*Designed and printed by :*

**print21**, Ambikagirinagar Path, RG Baruah Road, Guwahati 781024