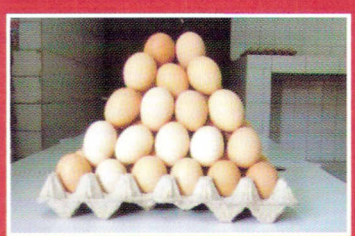
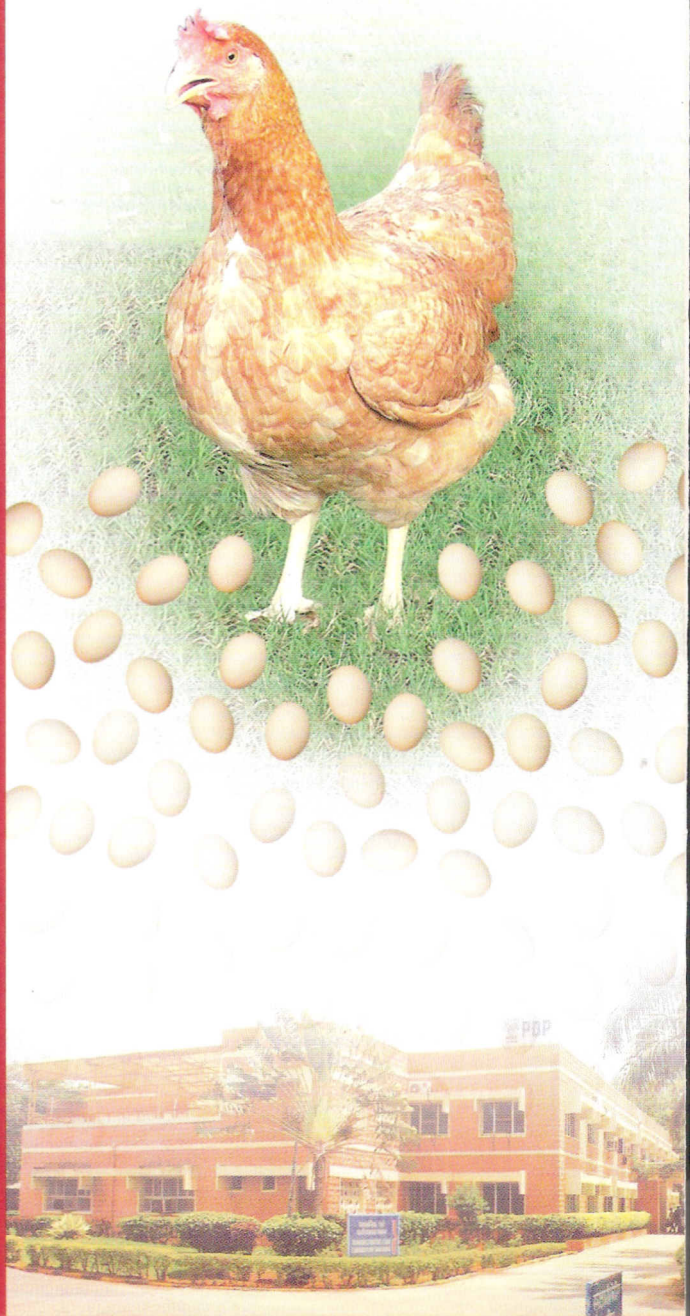


Gramapriya

An egg producer in rural backyards

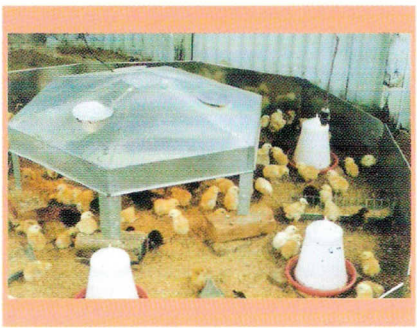


The average annual egg consumption in India is about 40 per person against 180 eggs required for a healthy human being. There is a great disparity in egg consumption among urban, semi urban and rural areas with lowest of 5 to 20 eggs in rural areas. The disparity is mainly due to non-availability of eggs, which are produced mainly in urban areas. Therefore, consumption of eggs and meat is very low in rural areas. Protein malnutrition in rural population particularly pregnant women, nursing mothers, growing children and ill health people is common in rural / tribal areas. However, house hold backyards of rural / tribal regions are rich in Natural Food Base (fallen grains, insects, earthworms, kitchen waste, green grass, etc.). The natural food base can be brought back into the human food chain, by converting them in to nutritionally balanced egg and chicken meat by adopting backyard poultry farming. Rearing of improved chicken varieties, which survive and produce more number of eggs may increase the availability of egg in rural areas and thereby increase nutritional and economic status of the people in this region.

To increase the availability of egg in rural / tribal areas, our Institute has developed *Gramapriya* which gives more number of eggs and morphologically resembles the native chicken. Because of moderate body weight, the males of *Gramapriya* are best suited for preparation of *tandoori* type dishes. High disease resistance/immune competence in *Gramapriya* provides strength for better survivability under free-range conditions. Due to its moderate body weight, the bird can easily escape from predators. These birds has been successfully introduced in to the rural areas by growing the chicks up to 6 wks of age in Nurseries and then leaving in farmer's backyard for free range farming.

Promising features of *Gramapriya*

- Multi color feather pattern
- Moderate in body weight
- Longer shanks
- Better egg production
- Low predator threat
- Produce brown shelled eggs



I. Nursery Management

Brooding is essential for *Gramapriya* during the initial 6 weeks of age. Balanced feed, comprehensive health care and management are similar to that of layer chicks of the age.

Brooder: Spread the clean litter material (groundnut husk / paddy husk/saw dust) uniformly in the house at thickness of 2-3 inches. Spread the newspaper on the litter. Arrange the feeders and drinkers alternatively. Heat source (electrical) of 2 watts /chick is adequate up to 4/6 weeks of age. At the higher environmental temperature the birds move away from the heat source. If it is too cold, the chicks move closer and pile up nearer the heat source.

Feed: Balanced feed fortified with required minerals, vitamins, antimicrobial, and anticoccidial should be provided during the nursery period. Feed can be prepared using local feed ingredients (*bajra*, *jowar*, *korra*, *ragi*, rice broken, tapioca, sal seed meal, sunflower cake, ground nut cake, sesame cake, maize glutein meal, etc.) to achieve 2400 kcal ME/kg, 18% CP, 0.85% lysine, 0.38% methionine, 0.7% calcium and 0.35% available phosphorus. Ensure easy access to feed and clean water to all chicks.

Health care: Gramapriya need protection against common diseases like

Table 1. Vaccination program for Gramapriya chicken

Age	Name of the Vaccine	Strain	Dose	Route
In the Hatchery				
1st day	Marek's Disease	HVT	0.20 ml	SC
In the Nursery				
5th day	Newcastle Disease	Lasota	One drop	Eye drop
14th day	Infectious Bursal Disease	Georgia	One drop	Oral drop
21st day	Pox	Fowl pox	0.20 ml	IM / SC injection
28th day	Newcastle Disease	Lasota	One drop	Eye drop
In the Field				
9th week	Newcastle Disease*	R2B	0.50ml	SC injection
12th week	Pox*	Fowl pox	0.20 ml	SC injection

*Repeat these two vaccines at every 6 months interval.

Newcastle, IBD and fowl pox (Table 1). It is essential to provide anti stress compound on the day of vaccination for better immune response. The concentrations of trace minerals and common salt should be optimum (100g and 400g/100kg feed) to prevent cannibalism.

II. Free range Management

Management: At 6 - 7 weeks of age, birds will attain up to 400-500 g body weight (Table 2). These birds can be let loose under backyard free-range conditions up to 10 -20 birds / household depending on the area and natural food base. The birds are let out for foraging during daytime, while at night they are kept in night shelter. Provide clean drinking water every day before the birds are let out under backyards.

Feeding: These birds can efficiently utilize the natural food base available on scavenging. Generally, the birds under free-range conditions can meet their protein requirement through scavenging, but the possibility of energy deficiency is common. Therefore, feed the birds with different cereals

available in rural areas (like *bajra, ragi, jowar, korra*, broken rice, with equal parts of rice polish or rice bran) to sustain the production under free-range conditions. Depending on the need provide the required cereals preferably in the evening. Clean, fresh and cool drinking water should be offered early in the morning while leaving birds from the night shelter. Care should be taken to restrict the weight of pullets (female) between 1.6 to 1.8 kg at 6.0-6.5 months of age (i.e. at the age of sexual maturity). The broken/shell-less eggs can be minimized by supplementing the calcium sources (lime powder, shell grit, stone grit, etc.) @ 3-4 g /bird / day. The males can be sold at any time after they attain the desired body weight. The males can be grown separately on balanced compounded feed under intensive management for meat purpose.

Healthcare: Repeat vaccination against Newcastle and pox (Table 1) at 6 months intervals protect the bird from these diseases. Periodic de worming at 3-4 months interval is essential. The material used for night shelter such as wood and bamboo offers a good hiding place for external parasites and therefore cleaned throughly at regular intervals. Night shelter should have good ventilation and should give protection from predators. Taking care of all these aspects on a community basis would offer effective solution to these issues.

Table 2. Performance of Gramapriya

Economic trait	Performance
Body weight, g	
Six weeks	400-500
At sexual maturity (restricted feeding)	1600-1800
Egg weight, g	
28 weeks	52-53
40 weeks	57-58
Age at first egg, d	160-165
Egg production, no. at 1.5 years	200-230
Survivability, % (up to 6 weeks)	99

Supply

Fertile eggs: Fertile eggs of *Gramapriya* can be procured from this Directorate on all working days on payment basis. Eggs have to be stored in a cool place (10°C) till they are set for hatching. About 12-15 eggs can be set under a broody *Desi* hen for better hatchability. *Chicks:* Day old chicks are available on advance payment. Payments can be made through DD drawn in favor of "Project Director, Project Directorate on Poultry" and should be sent to "Director, Project Directorate on Poultry, Rajendranagar, Hyderabad 500 030". Please give your contact address and telephone number. After receiving the DD, the Directorate will intimate the date of supply. The customers are required to arrange for lifting the chicks from the hatchery of the Directorate.

Contact address

Project Director

Project Directorate on Poultry

Rajendranagar, Hyderabad - 500 030

Ph : 040-24017000/24015651, Fax : 040-24017002

Hatchery : 040-24018687

E.mail : pdpoult@ap.nic.in; www:pdonpoultry.org