2. Free range Management

Management : At 6 Weeks of age, birds will attain 400 – 500 g body weight (Table 3). These birds can be let loose in backyard free-range conditions upto 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 which has adequate ventilation and also to protect from predators.

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 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 incidence of broken / shell-less eggs can be minimized by supplementing the calcium source (lime powder, shell grit, stone grit, etc.) @ 3-4 g / bird / day.

Healthcare : Repeat vaccination against Newcastle and Fowl pox (Table 2) at 6 months intervals to 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 should be cleaned throughly at regular intervals. Night shelter should have good ventilation and should give protection from predators. Taking care of all these aspects (Vaccination and Medication) on a community basis would offer effective solution to these issues.

Economic trait	Performance
Body weight, g	
6 weeks	400-500
At sexual maturity (restricted feeding)	1,600-1,800
Egg weight, g	
28 weeks	49-52
40 weeks	57-58
Age at first egg, days	160-165
Egg production, no. up to 72 weeks	160-180
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 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 : Chicks are available on advance payment. Payment can be made through Demand Draft (DD) drawn in favour of "Directorate of Poultry Research" and should be sent to "The Director, Directorate of Poultry Research, Rajendranagar, Hyderabad – 500 030". Provide your contact address and telephone number for correspondence. After receiving the DD, the Directorate will intimate the supply date. The customers are required to receive the birds from the Directorate.

Gramapriya chicks and fertile eggs are also available from our Poultry Seed Project Centres located in different states. Please visit our web site www.pdonpoultry.org for more details.

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Gramapriya

A prolific brown egg layer

ICAR-DIRECTORATE OF POULTRY RESEARCH
Sardar Patel ICAR outstanding institution

The average annual egg consumption in India is about 55 per person against 180 eggs required for a healthy human being as per ICMR recommendations. 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 in consumption pattern in rural and urban areas is due to non-availability of eggs, as the layer industry is concentrated mainly in urban and peri-urban areas of the country, as result, consumption of eggs is more in urban areas and considerably 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. The house hold backyards of rural / tribal regions are rich source of natural food base (fallen grains, insects, earthworms, kitchen waste, green grass, etc.). The natural food base can be brought back as human food by converting them into nutritionally balanced egg and meat by rearing improved rural chicken varieties, which survive and produce more number of eggs and more quantity of meat in rural areas and thereby increase nutritional and economic status of the people in this region.

To increase availability of eggs in rural / tribal areas, DPR has developed *Gramapriya, a* brown egg layer which gives more umber of eggs and resembles the native chicken morphologically. The female birds has a potential to produce upto 180 eggs in one year of production (i.e. 72 weeks of age). The males of *Gramapriya* are best suited for preparation of *Tandoori* type dishes. High 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 have been successfully introduced in to the rural areas by growing the chicks upto 6 weeks of age in nurseries and then leaving in farmers backyard for free range farming.

Promising features of *Gramapriya*

- Attractive feather pattern
- Moderate in body weight
- More egg production than the *Desi* hen
- Low predator threat
- Produce brown shell eggs

1. Nursery Management

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

Brooder: Spread the clean litter material *(groundnut husk/paddy husk/saw dust)* of 2-3 inches thickness uniformly in the house. 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 near the heat source. Uniform movement of chicks under the brooder suggestive of ideal temperature.

Feed: Balanced feed fortified with required minerals, vitamins and antimicrobial 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 kcalME/kg, 18% CP, 0.85% lysine, 0.38% methionine, 0.7% calcium and 0.35% available phosphorus (Table 1). Ensure easy access to feed and clean water to all chicks.

Table 1. Feed making with locally available feed ingredients

Maize/Bajra/Jowar/Ragi/Broken Rice etc.	50 parts
Rice bran/Wheat bran/De-oiled rice bran etc	20 parts
Soyabean meal/Groundnut meal/Sunflower meal/ Till Cake/Linseed cake	28 parts
Vitamin and Mineral mixture	2 parts

Health Care : *Gramapriya* need protection against Marek's, New castle, IBD and fowl pox (Table 2). It is essential to provide anti stress compound on the day of vaccination for better immune response. The Concentrations of the trace minerals and common salt should be optimum (100g and 400 g / 100 g feed) to prevent cannibalism.

Table 2. Vaccination program for *Gramapriya* Chicken

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

* Repeat these two vaccines at every 6 months interval