

available in free-range conditions. Care should be taken to get optimum weight of pullets (female) between 1.9 to 2.0 kg at 20 weeks and 2200-2300 g at 40 weeks of age to get better production. Lower / excess body weight may reduce the total egg production. 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.

Health care : The most important disease that affect birds under free-range farming is the Ranikhet disease. Night shelter should have good ventilation, required light and protection from the predators. The material used for night shelter such as wood and bamboo offers a good hiding place for external parasites. Therefore periodic cleaning of the night shelter is essential. Since the chicks move in free range, there is a possibility of parasitic infestation. Deworming at 2-3 months interval is required. Under free-range conditions adult *Srinidhi* birds should be vaccinated against Ranikhet disease at six months interval, preferably one before the onset of summer. Vaccination of native birds in the vicinity along with *Srinidhi* is recommended.

Table-3. Performance of *Srinidhi* birds

Economic trait	Farm	Field
Body weight, g		
6 weeks	600-650	450-550
20 weeks (Restricted feeding in farm)	1,900 - 2,100	1700-2000
40 weeks (Restricted feeding in farm)	2300-2500	2200-2300
Egg weight, g		
28 weeks	50-51	48-50
40 weeks	54-55	52-55
Age at first egg, days	150-155	165-170
Annual egg production	220-230	140-150
Survivability, % (up to 6 weeks)	98	95



Supply

Fertile eggs : Fertile eggs of *Srinidhi* are available at this Directorate on all working days on payment basis. Eggs should be stored in cool place till they are set for hatching. About 10-12 eggs can be set under a *desi* broody hen for better hatchability.

Day old chicks: Chicks are available on advance payment. Payments can be made through Demand draft (DD) drawn in favour of " Project Director, Project Directorate on Poultry", and should be sent to "Director, Project Directorate on Poultry, Rajendranagar, Hyderabad 500030" giving full details of contact address and telephone number of the sender. After receiving the DD, the Directorate will intimate the supply date. The customers are required to receive the birds from the Directorate.



कुक्कट परियोजना निदेशालय Project Directorate on Poultry

Rajendranagar, Hyderabad - 500 030
Website: www.pdonpoultry.org, E-mail: pdpoult@nic.in
Ph: 040-24017000/24015651/24018687, Fax: 040-24017002



कुक्कट परियोजना निदेशालय Project Directorate on Poultry



Srinidhi

A rural variety for meat and egg purpose



Srinidhi : A new dual purpose variety for rural poultry

The per capita consumption of egg and chicken meat in urban areas is between 100-150 eggs and 3-5 kg, respectively against 5-20 eggs and 750 g in rural areas. Further, these poultry products are expensive in rural/tribal areas due to their non-availability. Rural families in our country consume rice or wheat as staple food, which is rich in energy and low in protein that leads to protein deficiency in rural people. Protein malnutrition leads to poor growth and reduced disease resistance, particularly among pregnant women, nursing mothers and growing children. The backyards in rural/tribal areas are rich with "Natural Food Base" (fallen grains, insects, earthworms, kitchen waste, green grass, etc). These waste food materials can be recycled back into the human food chain by converting them in to nutritionally balanced and delicious egg and chicken meat. Rearing improved chicken varieties in rural backyards will increase the availability of eggs and meat as household produce, which will alleviate the protein hunger besides providing subsidiary income.

Srinidhi, a dual-purpose chicken variety developed by Project Directorate on Poultry by adopting specific breeding strategies has potential to produce more eggs and meat than *desi* chicken. These birds have ability to recycle the "Natural Food Base" as well as waste feed in to high quality protein which is readily available to the rural/ tribal masses. Important features of this bird include..

- Attractive-multi-coloured plumage
- Longer shanks to run away from predators
- High general immune competence
- Performs on low plane of nutrition
- Grows faster than Desi hen
- Produces more eggs which are brown in colour

A small number of birds (10-20) can be reared for egg and meat purpose in areas where plenty of natural feed resources are available, under free-range conditions. If the local demand is for meat, birds can be reared in large number under intensive/semi-intensive system. Essentially, *Srinidhi* day old chicks need to be reared under nursery management up to 6 weeks and let them loose in open free range after 6 weeks of age.



I. Nursery Management

Brooding is essential for *Srinidhi* chicks from hatch to upto 4/6 weeks of age depending on season to provide required temperature, balanced feed and protection from predators.

Brooders : Before housing the chicks, good quality litter material (rice husk/saw dust/groundnut husk) of 2-3 inch thickness should be spread on the floor. Old newspaper is to be placed on the litter. Metal or wooden brooders can be used and generally electrical bulbs are used as source of heat. Heat source of 2 watts/chick is required. The movement of chicks can be restricted around the heat source with the help of chick guard which is of one feet height. At higher brooder temperature the birds move away, while at lower temperature birds huddle under the brooder. Uniform spread of chicks in the brooder indicates optimum brooding temperature.

Feed : While rearing the birds under nursery management, complete balanced feed containing all nutrients should be given. Feeders and drinkers should be arranged alternatively in the brooder. For initial two days finely ground maize should be spread on newspaper in the brooder. This makes chicks to be accustomed to picking the grains from the floor. It is important to ensure easy access of feed to all the birds. Feed should be offered everyday. In nursery rearing, *Srinidhi* Chicks need 2550 kcal ME, 18% protein, 0.85% lysine, 0.36% methionine, 0.35% available phosphorus and 0.7% calcium. The diet can be formulated using the locally available feed ingredients to meet the above nutrient specifications (Table-1). Layer grower feed or broiler feed available commercially can be fed during initial 6 weeks of age.

Table-1. Farmer can make the feed by mixing the coarsely ground (not fine powder) form of the feed ingredients as follows:

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

Health care : Though *Srinidhi* has better immune competence, they need protection against Ranikhet disease and fowl pox. Vaccination schedule is given in Table-2.



Table-2. Vaccination Programme for *Srinidhi* chicken

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

* Repeat these two vaccines at every 6 months interval

II. Free Range Management

At 6 weeks of age, birds will attain 450-550 g body weight (Table-3). These birds can be let out under backyard free-range conditions @ 10-20 birds/house depending on the area and natural feed base available. The birds are let out for foraging during the day time while at night they are kept in night shelter. Clean drinking water is to be provided every day before the birds are let out from the night shelter. The males can be sold at any time after attaining minimum body weight of 2.5 to 3.0 kg. Female birds of *Srinidhi* on an average lay up to 140-150 eggs per year under free-range conditions.

Feeding : *Srinidhi* under free range can easily pick up its food from the backyards once it learns to scavenge in the fields. The additional feed supplementation depends on the food base available in the backyards. Generally, the birds under free-range conditions can meet their protein requirement through scavenging. Therefore, feeding the birds with cereals (bajra, ragi, jowar, korra, broken rice, rice polish, rice bran etc.) available is always beneficial to sustain the production. These grains can be offered (10-20 g/bird) every day in the evening. The nature of supplemental feed depends on the purpose of rearing. For meat purpose, feeding the birds with commercial broiler/layer chick feed is suggested. If the purpose of rearing is for egg production, the birds should largely depend on food