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. 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 condition 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	Performance
Body weight, g	
6 weeks	600-650
20 weeks	1700-2000
Egg weight, g	
28 weeks	48-50
40 weeks	52-55
Age at first egg, days	165-170
Annual egg production	140-150
Survivability, % (up to 6 weeks)	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. 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.

Srinidhi chicks and fertile eggs are also available from our Poultry Seed Project Centres located in several states. For further details please visit our website www.pdonpoultry.org





# ICAR-DIRECTORATE OF POULTRY RESEARCH

ISO 9001-2008

Rajendranagar, Hyderabad - 500 030, INDIA Ph; +91 (40) 24017000/24015651/24018687 Fax: +91 (40) 2401 7002

Email: pdpoultry.nic.in Website: www.pdonpoultry.org





ICAR-DIRECTORATE OF POULTRY RESEARCH
Sardar Patel ICAR outstanding institution

Today poultry industry has concentrated around urban and peri urban areas. Wide gap exists between the urban and rural areas in the availability and consumption patterns of poultry produce. The per capita consumption of egg and chicken meat in urban areas ranged between 100-120 eggs and 3-5 kgs, respectively against 5-20 eggs and 750g meat in rural areas. Further, these poultry products are expensive (10-40%) 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 which leads to protein deficiency in rural sector people, particularly pregnant women, nursing mother and growing children are becoming vulnerable to many common diseases. The backyards in rural/tribal areas are rich source of "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 into nutritionally balanced and delicious egg and chicken meat. Adopting the rural poultry farming can alleviate the protein hunger besides providing subsidiary income.

Srinidhi, a dual-purpose chicken variety developed by Directorate of Poultry Research 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 a high quality protein which is readily available to the rural/tribal masses.

## Important features of Srinidhi

- Attractive-multi-coloured plumage
- Longer shanks
- 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. Essentially, *Srinidhi* day old chicks need to be reared under nursery management up to 4-6 weeks and let them loose in open under free range backyards after 6 weeks of age.

## **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: 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: Complete balanced feed containing all nutrients should be given while rearing the birds under nursery management. Feeders and drinkers should be arranged alternately in the brooder, for initial two days finely ground maize should be spread on newspaper in the brooder. It is important to ensure easy access of feed to all the chicks. In nursery reading, *Srininidhi* chicks need 2550 Kcal ME, 18% protein, 0.85% lysine, 0.36% methionine, 0.35% available phosphorus and 0.7% calcium. Layer grower feed or broiler feed available commercially can be fed during initial 6 weeks of age. The diet can be formulated using the locally available feed ingredients to meet the above nutrient specifications (Table-1),

Table 1. Making of feed with locally available feed ingredients

Maize/Bajra/Jowar/Ragi/Broken Rice etc	50 pars
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 Hatcher	y			
Ist day	Marek's Disease	HVT	0.20 ml	SC Injection
In the Nursery				
5th day	Ranikhet Disease	Lasota	One drop	Eye
14 <sup>th</sup> day	Infectious Bursal Disease	Georgia	One drop	Oral
21" day	Pox	Fowl pox	0.20 ml	IM/SC Injection
28th day	Ranikhet Disease	Lasota	One drop	Eye
In the Field				
9th Week	Ranikhet Disease*	R2B	0.50 ml	SC injection
12" week	Pox*	Fowl pox	0.20 ml	SC injection

Repeat these two vaccines at every 6 months interval

### Free Range Management

At 6 weeks of age, birds will attain 600-650g body weight (Table-3). These birds can be let out under backyard free-range conditions @10-20 birds/house hold depending on the area and natural feed base available. The birds are allowed for foraging during the day time and kept in night shelter during night time. 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 to 2.5 kg. Female birds of Srinidhi on an average lay up to 140-150 eggs per year under free-range conditions.

Feeding: Generally, Srinidhi birds under free-range conditions can meet their protein requirement through scavenging. The birds can easily pick up its food from the backyards once it adopts to scavenging in the backyards. Therefore, feeding the birds which 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/birds) every day in the evening. For meat purpose feeding the birds with commercial broiler chick feed is suggested. If the purpose of rearing is for egg production, the birds should largely depend on food available in free-range conditions. Care should be taken to control body weight of pullets (female) between 1.9 to 2.0 kg at maturity 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.



