Housing: The birds need protected well ventilated night shelter which protects the birds from the predators and extreme environments. Poultry houses (Night shelter) are required to house the birds during night which are made up of with locally available low cost materials i.e. Mud, Stone, Wire mesh, Bamboo, Wood etc. The night shelter also protects the birds from rain and sun during day time. Birds should be provided 1.5 to 2.0 square feet floor space per bird in the night shelter. The shelter should have artificial lighting and windows for adequate ventilation.

Health care: Prevention and control of the diseases is quite challenging in rural poultry farming. Proper biosecurity measures and good management practices minimizes the incidence of diseases in poultry farms. Specific vaccination schedule during chick and adult stage is very important to control the diseases. The important diseases prevalent in rural areas causing considerable losses to farmers are Newcastle disease, fowl pox and fowl cholera under free range conditions. Endo and ecto-parasite infestation is common under free range conditions. Infestation of internal parasite can largely minimized by providing fresh drinking water with proper protection during early hours before the birds left for scavenging. Periodic deworming (preferably a week days before vaccination) will also help to reduce the incidence of internal parasites. Ecto-parasite infestation can be prevented by providing clean, dry and proper ventilated night shelters. The vaccination schedule followed for Janapriya variety is similar to the other rural chicken varieties.

Table 2: Vaccination program for rural poultry

Age	Vaccine	Strain	Dose	Route
Hatchery				
1st day	Marek's disease	HYT	0.20 ml	SC injection
Nursery				
7th day	Newcastle disease	Lasota	One drop	Eye
14th day	Infectious Bursal disease	Georgia	One drop	Oral
21st day	Fowl Pox	Fowl pox	0.20 ml	IM/SC injection
28th day	Newcastle disease	Lasota	One drop	Eye
Field (free range conditions)				
9th week	Newcastle disease *	R2B	0.50 ml	SC injection
12th week	Fowl Pox*	Fowl pox	0.20 ml	SC injection

*Repeat these two vaccines at every six months interval

Table 3: Performance of Janapriya birds

Economic Trait	Performance
Farm (Up to 6 weeks)	
Body weight, g	540-580
Shank length, mm	75-80
Survivability, %	95-97
Free range conditions	
Body weight at 12 weeks, kg	
Cocks	1.4-1.6
Hens	1.0 -1.2
Age at first egg, days	196-205
Egg production (1.5 years), nos	140-150
Egg weight at 40 weeks, g	50-52

Supply

Fertile eggs: Fertile eggs of Janapriya 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 Desi broody hen for better hatchability.

Day old chicks: Chicks are available on advance payment. The supply will be made only on receipt of advance through **SBI Collect Payment Gateway (DPR webpage) or DD drawn in favour of "ICAR Unit DPR or by paying Cash/ Card Swipe" at the hatchery office or by RTGS/ NEFT to Account No: 52114970338, Name: "ICAR Unit DPR", Bank: SBI, Budvel Branch, IFSC code: SBIN0020378**. Payment details may be sent to "The Director, ICAR-Directorate of Poultry Research, Rajendranagar, Hyderabad – 500 030" through e-mail @ pdpoult@nic.in, dprhatchery@gmail.com. Provide your contact address, telephone number and e-mail for correspondence. The customers are required to receive the birds from the Directorate. For further details please visit our website www.pdonpoultry.org

ICAR-DIRECTORATE OF POULTRY RESEARCH
ISO 9001:2015
Rajendranagar, Hyderabad - 500 030, Telangana, India
Ph: +91 (40) 24015651/24018687 Fax: +91 (40) 2401 7002
www.pdonpoultry.org, e-mail: pdpoult@nic.in

JANAPRIYA

Dual purpose chicken variety for rural poultry

ICAR-DIRECTORATE OF POULTRY RESEARCH

Sardar Patel ICAR Outstanding Institution

Rajendranagar, Hyderabad - 500 030, Telangana, India

JANAPRIYA

a dual purpose chicken variety for rural poultry

Rural poultry farming is one of the proven and potential tools to alleviate protein hunger and provide the livelihood security to the rural and tribal people across the country. Backyard poultry farming is a family enterprise generally practiced by rural people and the contributions of women clearly highlight their articulation of activities in poultry farming. The per capita availability of egg and chicken meat is 103 eggs and 3.6 kg, however wide gap exists in the availability of eggs in urban and rural areas up to 300 in urban pockets and as low as 5-20 eggs in rural areas. Backyard poultry farming offers a bright scope for increasing the availability of poultry produce in remote areas of the country. Production by masses (65% population) instead of mass production (few individuals) would certainly improve the availability of poultry produce uniformly all over the country and also improve the nutritional and livelihood security of the rural/tribal people. Sizable population in the rural areas is poor labourers and small farmers who need balanced proteins which are essential for healthy living. It is essential to provide nutritious food with supplementation of animal proteins to rural people to protect them from protein malnutrition to ensure proper growth and sound health. Chicken meat and egg are highly nutritious which can effectively supplement the typical high Carbohydrate rural diets. Rural poultry farming also provide subsidiary income with minimum inputs to the family and improves the economic status of rural/tribal family. The growth is faster and egg production is higher in the improved varieties developed for rural poultry, however, the predation is more in the free range conditions. Controlling the mortality due to predation is a real challenge and needs to be reduced either by management or developing suitable varieties.

With continuous feedback from the farmers, Janapriya, a promising rural chicken variety with native inheritance and higher survivability was developed at ICAR-DPR, Hyderabad to reduce the mortality from predation. The leanness, stronger shanks and presence of native inheritance make the bird to move fast in the free range conditions and reduce the predation.

The uniqueness of the variety is presence of Aseel inheritance, attractive gait, broodiness, low predation, high survivability and above all the consumer acceptability. The egg production of the bird is higher than the Vanaraja (100 eggs and less than the Gramapriya (160 eggs). The body weight of cocks at 3 months of age is also ideal with 1.3-1.6 kg similar to the native birds. The predominant brown plumage with shining glossy black tail feathers is an added attraction in the cocks. The acceptability of Janapriya is very good among the farmers and survivability is better than all the varieties due to the presence of native Aseel inheritance. The important features of the birds are

- **Attractive plumage pattern**
- **Stronger and longer shanks**
- **Higher productivity in terms of growth and production**
- **Agility of the birds**
- **Resemble native birds**
- **Presence of native Aseel inhertance**
- **Incidence of broodiness up to 15-20% of birds**
- **Low cost of production**

PACKAGE OF PRACTICES

1. Nursery rearing

Chicks are produced with artificial incubation and they need initial mother care in the form of nursery rearing, where they will be provided with balanced feed, artificial warmthness, protection from predators and health care up to 4 / 6 weeks of age. Nursery rearing of chicks up to 4-6 weeks of age plays a major role in success of backyard poultry farming.

Brooding: Brooding is essential to provide the required temperature. Before housing the chicks prepare the pen (where chicks are placed) by uniformly spreading the clean litter material (rice husk/ground nut husk/saw dust/sand) of 2-3 inches thickness. Spread the newspaper on the litter to prevent access of litter material to chicks and arrange the feeders and drinkers alternatively around the heat source. Hang the brooder hovers with electrical bulbs of different capacity (60 / 100 watt) based on the season of the year and temperature. The movement of the chicks can be restricted with the help of the chick guards which are arranged in circular manner near the heat source. If the temperature is higher the birds move away from the heat source and start showing the typical symptoms of panting. When temperature is inadequate, the chicks huddle under the brooder near to the heat source. At ideal temperature, chicks are uniformly distributed across the brooding area.

Feeding: Complete balanced feed containing all nutrients, minerals, vitamins, amino acids and other essential feed additives should be provided to the chicks during the nursery phase up to 6 weeks of age. In general, rural chicken varieties require about 2400-2500 kcal ME/kg, 16% protein, 0.77 % lysine, 0.36% methionin, 0.35 % available phosphorus and 0.7% calcium up to 6 weeks of age. Farmers can use commercially available feed (layer chick feed) or can prepare their own feed with the locally available ingredients as shown in Table 1.

Table 1: Typical diet with locally available feed ingredients (kg/100 kg)

Ingredient	Proportion, kg/100 kg
Maize/Bajra/Ragi/Broken Rice/Sorghum/ Korra	50 .0
Rice bran/Wheat bran/ de oiled rice bran etc.	20.0
Soybean meal/Ground nut meal/Sun flower meal/Till cake/ Linseed cake/ cotton seed cake/Rapeseed meal/guar meal (combination of protein source is ideal)	28.0
Vitamin, mineral , Calcium	2 .0

Health Care: Janapriya rural chicken variety is equipped with higher immune response to non specific antigen, the birds need vaccination against ND and fowl pox in addition to MD vaccine. The vaccination schedule was given in Table 2. Apart from the vaccination, it is essential to provide probiotics in water immediately on arrival of the chicks in nursery unit. Supplementation of B-complex vitamins in drinking water is recommended during, before and after the management stress (bird shipment, transportation, shifting the birds, debeaking etc.) All the rural chicken varieties has tendency to pick feathers of other birds (cannibalism) , it is essential to trim the upper and lower beak of the birds at 2nd and 10th weeks of age to prevent fighting injuries to the birds at lower social order of flock hierarchy.

2. Free range Rearing

The chicks are introduced into the farmer's backyards from 4-6 weeks of age depending on the season. The number of chicks per house hold depends on the area and availability of natural food base. However, 10-20 birds per house hold is ideal for successful and effective management of birds. The birds are let out for foraging during the day time while are kept in night shelter during the night. The birds under free range can easily pick up its food from the backyard under free range scavenging conditions. Based on the natural food availability, the birds have to be provided with supplementary feed (cereal grains and oil seed cakes) to meet the growth and production requirements in the evenings. Generally, birds meet their protein requirements through scavenging under backyards. Therefore, feeding the birds with available cereals is always beneficial to sustain the production. During the laying phase calcium supplementation (shell grit, stone grit and lime powder) is essential to avoid the shell less eggs and broken eggs. The laying hen need about 4 g of dietary calcium per day to produce an egg. Under natural scavenging conditions, it is hard to get required calcium. Prolonged deficiency of dietary Ca leads to production of eggs with poor shell quality, shell less eggs, leg weakness/lameness and eventually lead to death. To maintain leg health of the bird and also shell quality, it is recommended to offer 3-4 g calcium source/day/bird along with grain feeding.