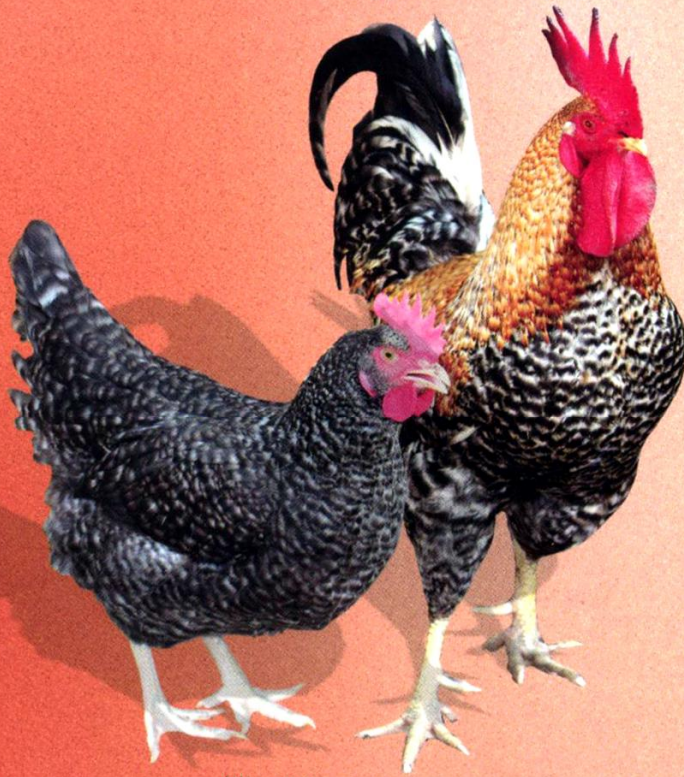


Extension Folder No.75/2016

Rural Backyard Poultry

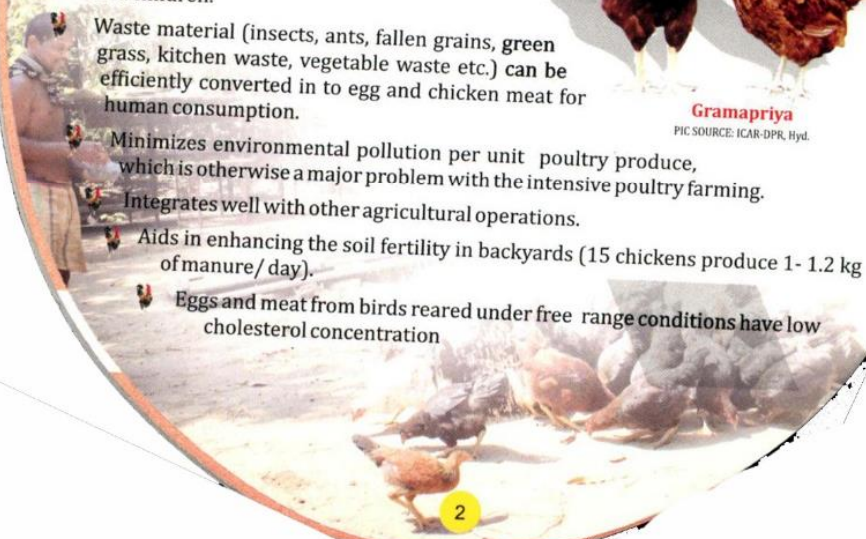
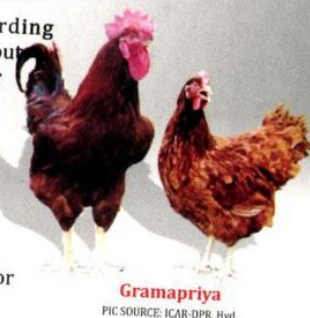
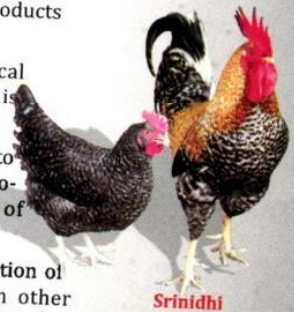
A Promising Technology for Coastal India



ICAR - Central Coastal Agricultural Research Institute
Ela, Old Goa - 403 402, Goa

Why to go for backyard poultry farming?

- Provides additional income to the rural households, with low or negligible input cost and higher economic returns.
- A unit can be started with as low as two chickens to a large flock.
- Feed cost is negligible due to better utilization of agricultural by-products and leftover feed and grains.
- Egg and birds can be sold in local market with high price, because there is a growing demand for local chicken.
- Preserves tradition while contributing to a balanced diet and safeguarding the agrobiodiversity and the sustainable use of natural resources.
- Boost up in family income for better utilization of family labor who are not able to perform other agricultural works like old family member or children.
- Raising backyard chickens can be a rewarding experience and a great way to teach kids about nature, agriculture, and responsibility of caring for animals.
- Alleviates protein malnutrition in vulnerable groups viz. expectant women, feeding mothers and children.
- Waste material (insects, ants, fallen grains, green grass, kitchen waste, vegetable waste etc.) can be efficiently converted in to egg and chicken meat for human consumption.
- Minimizes environmental pollution per unit poultry produce, which is otherwise a major problem with the intensive poultry farming.
- Integrates well with other agricultural operations.
- Aids in enhancing the soil fertility in backyards (15 chickens produce 1- 1.2 kg of manure/ day).
- Eggs and meat from birds reared under free range conditions have low cholesterol concentration



Improved strains of poultry for backyard farming

Desi or indigenous birds are generally poor performers in egg and meat production. To obtain maximum profit from backyard poultry, ICAR has developed improved strains of backyard poultry Viz., **Gramapriya, Vanaraja, Srinidhi, Krishibro**

Characters of Improved chicken:-

- Resembles Native or Desi Chicken
- Adaptability in diverse climatic conditions
- Adaptability in rural backyard and free range condition
- Good brooding and mothering ability
- Hardy and Disease resistance with Better survivability (90%)
- Good scavengers
- Attractive plumage colour
- Escaping capacity from predators



Vanaraja



Krishibro

PIC SOURCE: ICAR-DPR, Hyd.

Important economic traits of Improved Strains of Backyard Poultry

Economic trait	Gramapriya	Vanaraja	Srinidhi
Purpose	Egg	Dual	Dual
Body weight 6 weeks, g	400-500	650-750	44-450
Body weight 40 weeks, g	2300-2500	2200-2300	2200-2300
Egg weight, g 40 Weeks	57-58	52-58	52-55
Age at first egg, days	160-165	175-180	165-170
Annual egg production (72 weeks)	200-230	100-110	140-150
Survivability (%) up to 6 weeks	99	98	95

* Dual: Both for Egg and meat purpose.

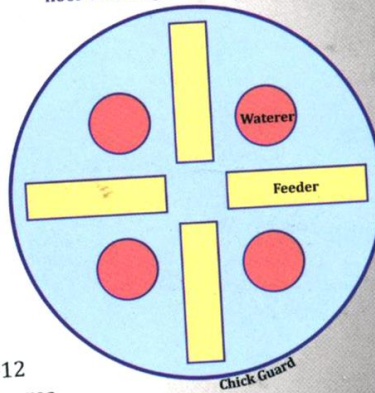
Economic Traits of KrishiBro (Colored Broiler Variety)

Parameter	At 42 Days of Age
Body Weight, g	1500
Feed Conversion Ratio	2.0
Mortality %	<3
Dressing %	70

Nursery Management (0-6 Weeks)

- Rural chicks need brooding care during the initial 6 weeks of age.
- Prepare the brooder house well before the arrival of the chicks.
- Spread uniformly clean litter material like saw dust, paddy husk, coconut husk of 1-2 Inches on the floor of the house.
- Spread newspaper on the litter material to avoid chicks feeding on litter material.
- Arrange feeders and waters in a cart wheel pattern.
- Secure the brooding area with a brooder guard.

Feeders and Drinkers arrangement in floor brooding (Cart wheel Pattern)



Free Range Management

- After 6 weeks, they can be let free for scavenging in the backyard.
- The preferred size of the flock is 10-12 birds/ household depending upon the area and natural food available.
- The excess males can be reared separately and marketed for meat purpose.
- The birds need to be initially trained foraging/ scavenging during daytime and to return to the nest in the evening for night shelter.
- The night shelter should have good ventilation and protection from predators and plenty of clean water should be made available.



Feeding

- During the initial 6 weeks of age under nursery rearing/ brooding, chicks are reared on standard chick starter ration
- For the Grower birds in the second phase, besides the feed material available in the free range, natural food/greens like waste grains germinated seeds, mulberry leaves, azolla, drumstick leaves and subabul leaves (high protein sources).
- The need for extra feed depends on the free range available, intensity of vegetation, availability of waste grains, insects, grass seeds.
- During foraging the birds can meet the protein requirement but the energy may be deficient. So to overcome that cereal supplementation (Rice, ragi, bazra, jowar etc) should be given.
- Feed restriction should be followed during the 6 months of age (age of sexual maturity in layers) to restrict the weight of the birds not more than 1.8 Kg.
- Supplemental calcium sources like lime stone powder, stone grit, shell grit at 4 to 5 gms/bird/day especially during laying phase.

Maize/Bajra/Jowar/Ragi/Broken Rice

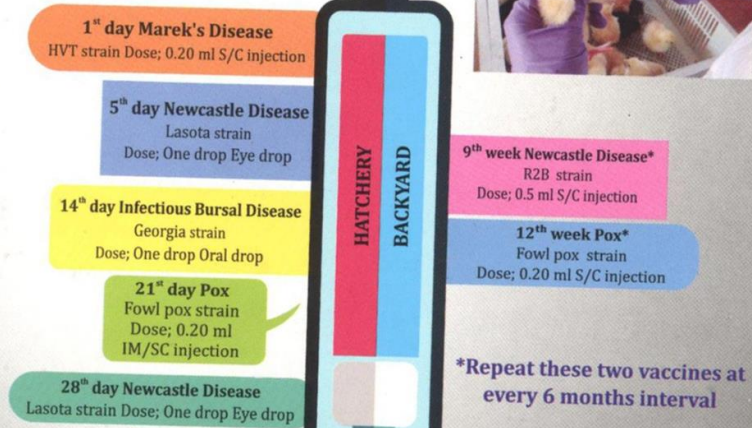
Rice Bran/Wheat Bran/De-oiled Rice Bran



Health Care:

- Bio-security measures has to be followed to prevent and control infectious diseases in Backyard poultry.
- Measures to be taken for restriction of movement of people, vehicles, equipments, birds etc., entering the farm.
- Newcastle (Ranikhet) disease is the most important diseases that affect birds under free range farming.
- The birds reared under free range system are prone for both ecto and endo parasitic infestation. The deworming at 2-3 months interval is required.
- Vaccination of native birds along with improved varieties is recommended.
- The recommended vaccination schedule is as mentioned below

Recommended Vaccination schedule for Backyard birds





ICAR-Poultry Seed Project

Indian Council of Agricultural Research under XII five year plan has identified ICAR - Central Coastal Agricultural Research Institute (CCARI), Goa as one of the center for implementation of ICAR-Poultry Seed project. The main objective of this program is to increase the availability of eggs and chicken meat in remote rural/tribal areas through rural poultry farming (RPF) with improved chicken varieties in the state of Goa. Under this project parent stock of improved chicken varieties (Gramapriya, Vanaraja and Srinidhi) developed by ICAR-Directorate of Poultry Research, Hyderabad will be maintained and propagated for the distribution to the farmers of Goa. Capacity building programs will also be conducted to the beneficiaries with regard to the rural poultry farming.



Prepared by

Dr. R. S. Rajkumar

Scientist & Principal Investigator
ICAR-Poultry Seed Project

Dr. E. B. Chakurkar

Principal Scientist and Incharge
Animal Sciences Section

Dr. Sanjay Kumar Udharwar

Subject Matter Specialist (Animal Sciences)

Dr. Narendra Prathap Singh

Director



Published by

Dr. Narendra Prathap Singh

Director

ICAR-CCARI, Old Goa-403 402



Technical Assistance

Ms. Sinny Kerkar

Senior Research Fellow



For Further Details Contact

The Director

ICAR - Central Coastal Agricultural Research Institute (CCARI)

Ela, Old Goa - 403 402, Goa

Ph : 0832-2284678 / 79, Fax : 0832-2285649

e-mail: director.ccari@icar.gov.in

Website: <http://www.icargoa.res.in>



All rights Reserved

© 2016, ICAR - Central Coastal Agricultural Research Institute