

Extension Folder No. 31/2020
Published under SCSP Funds

Improved Backyard Poultry Birds



भा.कृ.अनु.प. - कृषी विज्ञान केंद्र, उत्तर गोवा
भा.कृ.अनु.प.- केंद्रीय तटीय कृषी संशोधन संस्थान
इला, जुने गोवा, गोवा

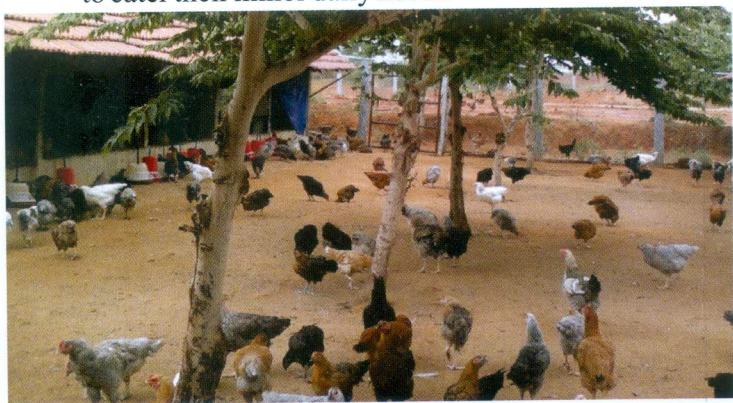


ICAR - Krishi Vigyan Kendra, North Goa

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

What is Backyard poultry Farming?

- Backyard poultry farming is the art and science of producing edible food stuffs i.e eggs and chicken by maintaining poultry birds in own backyard by the farmers.
- Birds are reared under free range or backyard system and show better adaptability.
- Either rural or native and improved poultry birds can be reared who lays tinted eggs or light brownish eggs.
- These birds have better (90%) survivability and can be reared with low or negligible input cost.
- The prices of backyard poultry birds and eggs are not affected with regular market fluctuations.
- These birds are more adoptive and disease resistant in rural and tribal areas and thus helping to cater their minor daily needs.



Importance of poultry farming:

- Being second most populated country in the world, there is always high demand for eggs and chicken etc.
- We are third largest producer of eggs and 4th in chicken production but there is lot of gap between supply and demand of eggs and chicken meat.
- In India per capita consumption of eggs and chicken is less than the recommended by Indian Council of Medical Research i.e. only 65 number of eggs against recommended 180 number of eggs/ person / year and same with chicken consumption i.e 3.8 kilo against required 11 Kg /

person/year.

- Poultry birds provide cheaper source of proteinous food in the form of egg (12.14gm/100g) and meat (18.60 g/100gm) and both cannot be easily adulterated.
- We can get good quality manure from poultry birds which contain Nitrogen, Phosphorus and Potash. A layer bird produces on an average 16kg dry manure / year in cage rearing while 18 kg in deep litter .
- Poultry manure can be used for Bio gas production.

ICAR Improved varieties of backyard poultry birds:

ICAR has two main poultry institutes i.e. ICAR-Directorate of Poultry Research –Hyderabad, Telangana and ICAR - Central Avian Research Institute, Izatnagar, Uttar Pradesh.

Following are the breeds by these institutes,

1. Egg purpose birds like Grampriya and CARI – Nirbheek, etc.
2. Dual Purpose birds like Vanaraja and Srinidhi.
3. Broiler Purpose birds like Caribro- Dhanraja and Krishibro

Difference between Desi poultry birds and ICAR developed improved backyard poultry birds:

Particulars	ICAR Improved Birds	Desi / Native Birds
Useful for, Commercial / Backyard poultry farming	Useful for both type of farming	Only for Backyard poultry farming
Age for first egg laying (weeks)	21-24	30-35
Broodiness character	No	Yes
Average egg production / month	12-18	5-7
Annual egg production (no.)	110-150	40-60
Average egg weight (gram)	55	35-40
Egg colour	Brown	Brown

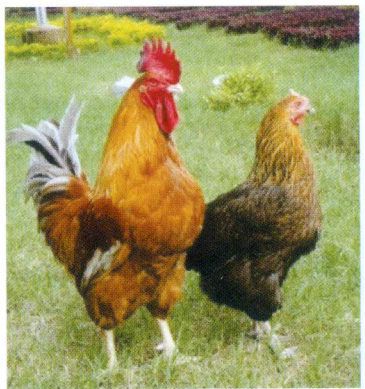
1. ICAR developed Dual purpose backyard poultry birds:

1. Vanaraja:

This is a choice bird for backyard farming in rural and tribal areas developed by ICAR-Directorate of Poultry Research (DPR), Hyderabad. It is a multi-coloured dual purpose bird with attractive plumage. Annual egg production of these birds is 100-110 numbers of eggs. These birds start laying from age of 175 to 180 days and give good egg production till 72 weeks of the life.

Special features of the bird:

- ✓ Attractive feather colour pattern
- ✓ Better survivability rate
- ✓ Low or negligible input cost
- ✓ Larger egg size
- ✓ High disease tolerance
- ✓ Desi hens can hatch Vanaraja eggs



Comparison of Desi and Vanaraja Birds

Particulars	Vanaraja Birds (Improved)	Desi Birds (Non-descript)
Weight of day old Chick (grams)	40-50	20-25
Body Colour	Multi coloured	Multi coloured
Body Weight in 8 weeks age (kg)	1-1.5	0.5 to 0.75
Survivability (%)	98	40-50
Total weight of males (kg) in 4 months	3	1.2-1.5
Total weight of females (kg) in 4 months	2.5-3	1-1.2
Quality of meat	Less tender than broiler	Elastic
Taste	Like Desi	Desi
Meat percentage without skin (dressing %)	60-65	40-50

2. Srinidhi: This is dual purpose bird and is developed by ICAR-Directorate of Poultry Research (DPR), Hyderabad. These birds have multi-coloured plumage, hence looks attractive. Eggs are



brown in colour and looks like desi eggs. Birds can perform well in backyard conditions. Birds can escape from predators attack due to their longer shanks.

Economic traits and performance of Srinidhi birds:

Economic Traits	Performance
Body Weight (grams)	
6 weeks	400-500
20 weeks (restricted feeding in the farm)	1700-2000
40 weeks (restricted feeding in the farm)	2200-2300
Egg Weight (Grams)	
28 weeks	48-50
40 weeks	52-55
Age for first egg laying	165-170 days
Annual egg production (72 weeks)	140-150
Survivability (%) up to 6 weeks	95

2. ICAR developed Egg purpose backyard poultry birds:

1. **Grampriya:** This is egg purpose bird and is developed by ICAR-Directorate of Poultry Research (DPR), Hyderabad. Annual egg production of these birds is 160-170 numbers of

eggs. These birds start laying from age of 160-165 days and give eggs till 72 weeks of the life.

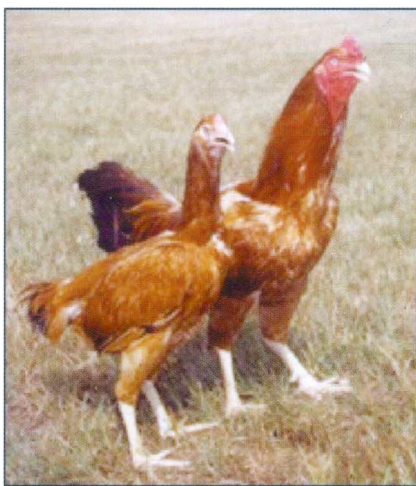


Economic traits and performance of Grampriya birds:

Economic Traits	Performance
Body Weight (grams)	
6 weeks	400-500
20 weeks (restricted feeding in the farm)	1600-1800
40 weeks (restricted feeding in the farm)	2300-2500
Egg Weight (Grams)	
28 weeks	52-53
40 weeks	57-58
Age for first egg laying	160-165 days
Annual egg production (72 weeks)	180-200 no.
Survivability (%) up to 6 weeks	99

CARI-Nirbheek : This is egg purpose bird and is developed by ICAR –Central Avian Research Institute, Izatnagar. It is a cross of Indian native breed Assel with CARI Red developed for free range as well as backyard poultry production. Annual egg production of these birds is 180-200

numbers. Eggs are brown in colour and looks like Desi eggs. These birds start laying from age of 176 days and give eggs till 72 weeks of the life. At the age of 20 weeks, male



birds weigh 1.8 kgs and female birds weigh 1.35 kgs. They are able to save themselves from predators due to their fighting characters and activeness. They are also adapted to all climatic zones of the country for backyard production.

3. ICAR developed Meat purpose backyard poultry birds:

1. **CARIBRO- Dhanaraja:** This is a broiler cross variety developed by ICAR –Central Avian Research Institute, Izatnagar. This bird is a commercial cross produced by crossing coloured synthetic male and female lines. This bird is characterized by its bright (multicolour) plumage colour with single comb.

It is also less susceptible to adverse environmental conditions.

Economic traits and performance of CARIBRO- Dhanaraja birds:

Economic Traits	Performance
Body Weight (grams)	
Day old chick	46
6 weeks	1500-1700
7 Weeks	2000-2125
Dressing Percentage (%)	73-75
Feed Conversion Ratio	1.92

2. Krishibro: This is a broiler cross variety and is developed by ICAR-Directorate of Poultry Research (DPR), Hyderabad.



Economic traits and performance of Krishibro birds:

Economic Traits	Performance
Body Weight (grams)	
6 weeks	1440
7 Weeks	2920
Dressing Percentage (%)	72.6
Feed Conversion Ratio	2.05

Compiled by:

Dr. Sanjaykumar Vithalrao Udharwar

SMS (Animal Science)

Dr. Nibedita Nayak

Scientist (Poultry Science), ICAR-CCARI, Goa

Shri H. R. C. Prabhu

Programme Coordinator Incharge

Designed by:

Shri Vishwajeet Prajapati

Technical Officer (Computer)

Published by:

Dr. Eaknath B. Chakurkar

Director (A), ICAR - CCARI, Goa

Contact:

ICAR - Krishi Vigyan Kendra, North Goa

ICAR -Central Coastal Agricultural Research Institute

Ela, Old Goa, Goa - 403402

Telefax : 0832-2285475, Email : pckvknorthgoa@gmail.com

Website: www.kvknorthgoa.icar.gov.in