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## **Backyard Poultry Farming- A Foundation of Enhanced Livelihood for Rural Farmers**

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### **ABSTRACT**

*Backyard poultry production is an age old practice in rural India. Most of the backyard poultry production comprises rearing of indigenous birds with poor production performances. The potentiality of indigenous birds in terms of egg production is only 70 to 80 eggs/ bird/ year and meat production is also very less. However, the backyard poultry production can be easily boost up with improved varieties of chicken and can promise a better production of meat and egg. To improve the socio-economic status of the traditional farmers, backyard poultry is a handy enterprise with low-cost initial investment, but high economic return along with guarantee for improving protein deficiency among the poor.*

**Keywords:** *Backyard Poultry Farming, Indigenous Birds, Livelihood for Rural Farmers.*

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### **INTRODUCTION**

The backyard poultry farming in India has played an important role to meet the domestic as well as socio-cultural needs of the rural people. Recently, the traditional poultry farming in villages, which was the primary source of animal protein and supplementary income for more than 50 per cent of the population of this country, has suffered due to commercialization. In true sense, the backyard poultry rearing consists of 5 to 10 birds per household. The major constraints identified for this farming system were high incidence of diseases, lack of suitable germplasm and attack by predators.

Most of the farmers keep the birds in kutch house prepared using locally available materials like broken bricks, mud, tiles, wire net, wood etc. whereas, only a few people generally keep the birds in pucca house. The average length, breadth and height of the poultry house constructed normally are 4 feet, 3.5 feet and 2.5 feet, respectively. Such houses are easy to clean and help in frequent removal of droppings thus reducing susceptibility to diseases and parasites.

Hence, increasing meat and egg production from backyard poultry has been a major concern of Government of India for many years and supported by various programmes to improve backyard poultry production. This has resulted in release of some important backyard poultry varieties viz., Debendra, Giriraja, Gramapriya, Krishna-J, Swarnadhara, Vanaraja etc.

### **IMPORTANCE OF BACKYARD POULTRY FARMING**

- 1) Low initial investment but higher economic return.
  - 2) A unit can be started with as low as two chickens to a large flock.
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- 3) Feed cost is negligible due to better utilization of agricultural by-products and leftover feed and grains.
- 4) Egg and birds can be sold in local market with high price, because there is a growing demand for local chicken.
- 5) And the consumers are willing to pay higher prices for high quality desi chicken meat or egg.
- 6) Boost up in family income for better utilization of family laboures who are not able to perform other agricultural works like old family member or children.
- 7) Backyard poultry farming acts as an 'ATM', because as per family need the birds and eggs can be sold at anytime anywhere with cash in hand.
- 8) Quality of chicken and egg is better in terms of organic farming as the birds are raised in stress less environment with natural input.

### BREEDS AND THEIR PERFORMANCE

As mentioned earlier, few improved backyard poultry varieties have been developed for egg, meat and dual purpose. Four important varieties of backyard poultry are developed by ICAR-Central Avian Research Institute (CARI) which are:

#### CARI Debendra



Production Characteristics	
Body weight at 8 weeks	1100-1200 g
Body weight at 10 weeks	1400 - 1500 g
Body weight at 12 weeks	1700 - 1800 g
Feed conversion ratio (0 to 8 weeks)	2.5-2.6
Age at Sexual Maturity	155 - 160 days
Annual Egg Production	190-200
Livability (Growing)	97%
Livability (Laying)	94%

### CARI Nirbheek



<b>Production Characteristics</b>	
Body weight at 20 weeks	1350 g
Age at sexual maturity	176 days
Annual egg production	198
Egg weight at 40 weeks	54 g
Fertility	88%
Hatchability FES	81%

### CARI Upcari



<b>Production Characteristics</b>	
Body weight at 20 weeks	1285 g
Age at sexual maturity	165 days
Annual egg production	220
Egg weight at 40 weeks	60 g
Fertility	90%
Hatchability FES	84%

### CARI Hitcari



Production Characteristics	
Body weight at 20 weeks	1320 g
Age at sexual maturity	178 days
Annual egg production	200
Egg weight at 40 weeks	61 g
Fertility	92%
Hatchability FES	81%

### CARI Shyama



Production Characteristics	
Body weight at 20 weeks	1120 g
Age at sexual maturity	170 days
Annual egg production	210
Egg weight at 40 weeks	53 g
Fertility	85%
Hatchability FES	82%

## FEEDING MANAGEMENT

The feed cost alone is 70% of total expenditure in poultry production. In backyard poultry farming the feed cost is considered to be minimum. Hence, the birds are let loose for scavenging in the open yard and collect the required protein, energy, minerals and vitamins etc from insects, snail, termites, seeds of grasses and weeds, leftover grains, crop residues and household wastes. Feed ingredients like broken rice, ground nut straw, wheat, rice bean etc also can be given to the birds. In backyard poultry farming generally two times feeding is practiced; once at morning and another at evening. The space requirement for feeder is 2 to 7 cm at brooding period, 7 to 10 cm during growing stage and 12 to 15 cm / bird at laying stage. The water space should be 0.5 to 1.5 cm during brooding, 1.5 to 2.5 during growing and 2.5 cm during laying period. The birds may be supplied with extra concentrate ration @ 30 to 60 gm/ day/ bird for better performance.

## HEALTH CARE MANAGEMENT

For better health care in backyard poultry farming the birds should be vaccinated against virus diseases in time. The diseases that mostly effect the birds are Ranikhet disease, Marek's Disease, Fowl pox, Gumbroo disease etc. Regular vaccination schedule may be followed in a poultry farm (Table 1). Deworming for internal and external parasites also should be done to maintain a healthy flock. Other diseases that may affect the poultry birds are *Coccidiosis*, *infectious coryza*, *Salmonellosis* etc.

S. No	Age of birds	Age of birds	Name of Disease	Doses	Route of Vaccination
1	Day old Chicks	HVT MD Vaccine	Marek's Disease	0.2 ml	S/c or I/m
2	4 to 7 days	F-1/ Lasota	Ranikhet Disease	One drop	Eye or nostril
3	14 to 18 days	Intermediate plus	Gumboro disease		Drinking water
4	35 days	F-1/ Lasota	Ranikhet Disease	One drop	Eye and nostril
5	6 to 7 weeks	Chicken embryo adopted	Fowl Pox	0.5 ml	Wing stab method
6	8 to 10 weeks	Strain killed vaccine	Ranikhet Disease	0.5 ml	S/c or I/m

## CONCLUSION

Poultry play very important economy activities for Tribal people to meet immediate needs such as acquiring agricultural inputs, paying school fees and purchasing house hold commodities use poultry as ready cash. It also acts as a financial security for the rural poor this is because rural households find it easier to find a buyer for poultry than a goat, cow and Mithun. Most of rural people do not prefers milk and other milk products unlike other mainland Indians. The rural people prefer to have boiled egg. Chicken meats are readily used in rural area because slaughtering of chicken is more suitable to meet the requirement during visiting friends and relatives at home. Because a rural household can easily handle 2-3 kg of poultry meat compare to other livestock. In the North-eastern India, the demand for rural

backyard poultry is quite high especially in tribal areas. The small rural producers produce coloured birds and brown shelled eggs under backyard poultry and their products meet the requirements of the rural consumers.

### REFERENCES

- 1) Dr Asit Chakrabarti, <sup>2</sup> Dr Amitava Dey and <sup>3</sup> Dr S K Barari (2014) “Backyard Poultry Farming- A source of better livelihood for Rural Farmers” Division of Livestock & Fishery Management ICAR Research Complex for Eastern Region. 19 May 2014 Hits: 5535.
- 2) Dr. Tilling Tayo, Dr. Manish Kanwat, Dr. R. Bhagawati, Dr. S.V. Ngachan and Dr. DoniJini (2016-2017). Training Manual on backyard poultry production under tribal sub plan (TSP) for livelihood improvement of tribal society. F.NO.RC/PEM/PUB/2016-17/129.
- 3) <http://www.elearnvet.net/moodle/mod/resource/view.php?id=33338>
- 4) [http://www.elearnvet.net/moodle/file.php/32/Articulate/Chapter-5\\_Scavenging/player.html](http://www.elearnvet.net/moodle/file.php/32/Articulate/Chapter-5_Scavenging/player.html)
- 5) <http://www.krishisewa.com/articles/livestock/410-backyard-poultry-farming.html>
- 6) <http://www.isca.in/rjrs/archive/v4/iIVC-2015/1.ISCA-IVC-2015-2AVFS-003.pdf>
- 7) [http://eprints.cmfri.org.in/10823/1/Theeranaipunya\\_Pradeep.pdf](http://eprints.cmfri.org.in/10823/1/Theeranaipunya_Pradeep.pdf)
- 8) [http://www.poulvet.com/poultry/articles/backyard\\_farming.php](http://www.poulvet.com/poultry/articles/backyard_farming.php)
- 9) <https://youtu.be/i36SKJOOoFoo>
- 10) <http://vikaspedia.in/agriculture/poultry/backyard-poultry/breeds-availability>
- 11) <http://www.fnbnews.com/Poultry/poultry-production-in-india--the-current-scenario-38620>
- 12) [http://www.researchjournal.co.in/upload/assignments/8\\_86-91.pdf](http://www.researchjournal.co.in/upload/assignments/8_86-91.pdf)
- 13) [https://www.researchgate.net/publication/304742950\\_Status\\_and\\_constraints\\_of\\_backyard\\_poultry\\_farming\\_amongst\\_tribal\\_community\\_of\\_Jorhat\\_district\\_in\\_Assam](https://www.researchgate.net/publication/304742950_Status_and_constraints_of_backyard_poultry_farming_amongst_tribal_community_of_Jorhat_district_in_Assam)