

# BACKYARD POULTRY MANAGEMENT

## SCIENTIFIC MANAGEMENT OF BACKYARD POULTRY FARMING

### Improvement of traditional poultry can be achieved by

- Use of improved varieties of chicken suitable for rearing in backyard which are heavier and better layer.
- Rearing chicks in mother unit for first 3 weeks to minimize high chick mortality.
- Supplementary feeding of birds to meet their requirements. Replacement of stock with new birds every year.
- Medication and vaccination of birds.

### IMPROVED VARIETIES OF CHICKEN



Giriraja chicken

**GIRIRAJA:** The vernacular meaning “King of the hills”. Giriraja is strongly preferred for backyard farming. Giriraja is a synthetic Multicoloured breed resembling local birds in appearance, scavenging in habit with disease resistance and high survivability. The egg production is more than twice and meat production is two and a half to three times that of local birds.

**Table 1: Performance of Giriraja in comparison to native fowl**

Economic traits	Giriraja	Native fowl
Body weight at 8 weeks(g)	1300 – 1400	400 – 600
Feed conversion ratio (FCR)	3 : 1	4.2 : 1
Survivability % up to 8 weeks of age	85 – 98	80 – 90
Dressed weight %	75	65 – 68
Age at first egg (Days)	166	198 – 215
Body weight at 280 days of age(g)	3000 – 3800	1300 – 1500
Egg production, No.		
280 days	73	16
500 days	120 – 150	65 – 68
Egg weight (g)	50 – 55	42 – 45
Fertility eggs (%)	85 – 90	80 – 85
Hatchability of eggs (%)	80 – 85	45 - 50

**VANARAJA**: A multicoloured and dual purpose bird for Backyard farming.



Vanaraja chicken

**Promising features of Vanaraja**

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

**Table 2: Performance of Vanaraja in comparison to Native fowl**

Economic traits	Vanaraja	Native fowl
Body weight(g)		
Day old	34-40	25-28
6 weeks	700-850	250-400
40 weeks	3000-3200	1100-1500
Egg weight (g)		
28 weeks	42-44	28-35
40 weeks	52-58	42-45
Age at first egg (days)	175-180	220
Egg production, No.		
280 days	55-65	12-20
500 days	140-150	45-60
Survivability %		
up to 6 weeks of age	98	90
Dressed weight %	72	64

**KUROILER**: A multicoloured dual purpose chicken for backyard free range system. These birds lay about 120-140 eggs per annum. The average egg weight is 50-55 g. kuroilers gain 1500 g body weight at 90 days of age.

**GRAMAPRIYA**: A multicoloured egg producer for free range farming.

**Promising features of Gramapriya**

- ❖ Better egg producer.
- ❖ Better adaptability to backyard rearing.
- ❖ Tinted eggs.
- ❖ Low input cost
- ❖ Better survivability.



**Table 3. Performance of Gramapriya (female)**

Day-old body weight	35-38 g
Colour of egg	Tinted
Av. egg weight	53-55 g
Age at first egg	22 weeks
No. of egg up to 72 weeks of age	160-180

**Kamrupa**: A dual type multi coloured bird for rural poultry production developed by AAU



Kamrupa

**Promising features of Kamrupa**

- ❖ Perform well in rural condition by eating cultivated field produced grain and their by products, kitchen waste, insects, worms, larvae, snail, termites, maggots etc.
- ❖ Average body weight at 20 weeks 1400 g.
- ❖ Average male body weight at 40 weeks 2100 g.
- ❖ Average female body weight at 40 weeks 1600 g
- ❖ Lays her first egg at around 180-200 days
- ❖ Annual egg production of “Kamrupa” bird ranges from 118-130 nos.
- ❖ The average egg weight is around (at 40 weeks) 52 gms.
- ❖ Egg colour is brown.
- ❖ The survivability is around 96%.
- ❖ Taste of meat is like desi bird.
- ❖ Meat percentage without skin around 65-70%.

**CARE AND MANAGEMENT OF CHICKS:**

- ❖ Procure improved varieties of day-old chicks from reputed sources/ hatchery.
- ❖ Brood them by rearing in a corner of the house with provision of electric heating. Use one 40-watt bulb for 20 to 30 chicks. A chick guard should be used to prevent wandering of chicks. Charcoal Choolah (Bukhari) can be used where electricity is not available.
- ❖ Brood for 2-3 weeks and allow them outside for scavenging.
- ❖ Let out during day time to scavenge around to feed spilled grains and greens.
- ❖ Provide balanced feed for early start of chick life.
- ❖ Provide night shelter for growers and layers. Build a shed with locally available materials to protect the chicken from bad weather and enemies. Provide 10 sq.inch floor space for each chick.
- ❖ Provide cheap feeding trough and drinker.
- ❖ Provide clean and fresh drinking water.



Conventional method of brooding under rural condition

#### **Vaccination against Ranikhet Disease (RD):**

- Vaccinate the chicks (5 to 7 days old) with R.D. F-1/ La Sota vaccine against R.D.
- Mode of vaccination: by drops (1 to 2 drops)
- Route of vaccination: Intra ocular or intra nasal.
- Vaccinate the birds again with RD R<sub>2</sub>B strain vaccine at 8 weeks of age.
- Route of vaccination: Sub-cutaneously 0.5 ml. below the skin of wing.

#### **FEEDING**

- Poultry require water, carbohydrate, protein, minerals and vitamins in proper proportion to grow faster, survive and lay more eggs.
- Village birds scavenge around household compound feeding on available feed resources such as insects, earth worms, vermin, greens, residue from harvest, maggots, grains meat, feathers etc. This meets their requirements for vitamins and minerals, partly for energy but not for protein.
- Allow birds early in the morning for scavenging and continue until late in the evening to ensure that birds eat balanced pickings.

- Provide any supplementary feed that will contribute to the requirement for energy, protein and other micronutrients every day.

### REPLACEMENT OF FLOCK

- Chicken begins to lay when they are 6 to 8 months of age. Breeding one's own poultry is much cheaper than buying them. This costs less money.
- Replace 1/3<sup>rd</sup> of stock each year with new ones. Best time to raise chicken is rainy season from June to August. This season provide plenty of green foods a great deal of animal food. Trees and shrubs are in full folia provide shade and protection.

### DISEASE CONTROL

- Sometimes poultry diseases cause heavy mortality in rural poultry despite of their known natural disease resistance qualities.
- Chick survival is the key factor for flock productivity. Early chick mortality severely affects the village chicken production system.
- The main cause of death in village chicken has been Ranikhet Disease, infectious diseases, parasitic diseases, nutritional and deficiency disorders are also problems in village chicken.
- Rear day-old chicks up to 4 weeks in brooder house.
- Provide all optimum conditions of temperature, balanced feed and water etc.
- Maximum protection should be provided to the birds against Ranikhet disease through routine vaccination twice in a year i.e. during Feb.- March and Sept.- October.
- Remove inferior males and select the better hens so that more eggs are produced.
- Deworm birds periodically (monthly interval).
- Dip or spray the birds with insecticides to control ecto parasites.
- Dispose dead birds properly by deep burying or burning.
- Supplement vitamins and mineral mixture to feed resource base to prevent nutritional disorders.

**Table 4. Availability of germplasm for backyard poultry production**

Name	Plumage colour	Availability	Purpose
GIRIRAJA	Multicoloured	Professor & Head, Deptt. Of Poultry Science, Veterinary College, KVAFSU, Hebbal, Bangalore- 560024 Phone: 080-23414384 09448847995(M)	Dual purpose
VANARAJA	Multicoloured	Project Directorate on Poultry, Rajendranagar, Hyderabad-500 030 Phone: 40-24015652	Dual purpose

GRAMAPRIYA	Multicoloured	-do-	Egg type
GRAMALAXMI	Whitish brown	Centre for Advanced Studies in Poultry Science, KAU, Mannuthy- 680 651, Kerala	Egg type
CARI- GOLD	Brown	CARI, Izatnagar, Bareilly, U.P.	Egg type
Kamrupa	Multicoloured	Prof. & Head, Deptt. Of Poultry Science, College of Veterinary Science, AAU, Khanapara, Guwahati- 22 09435013880(M)	Dual type