

CHICKEN BREEDS OF INDIA

Kashmir Favrolla



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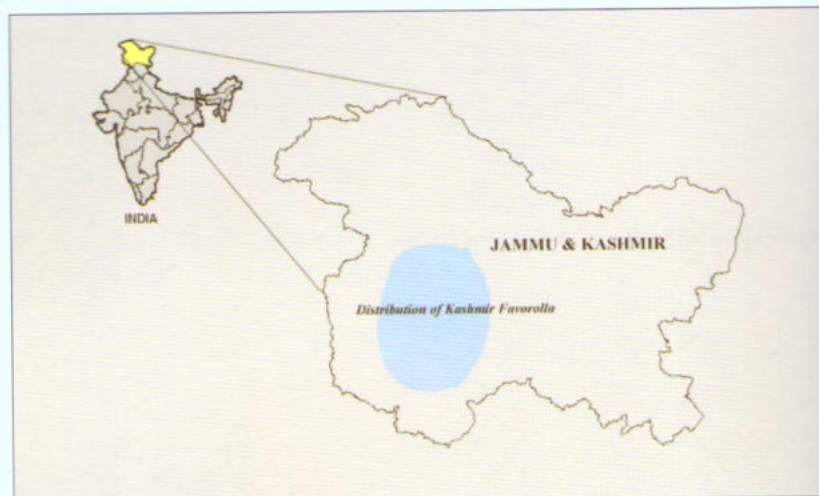


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Birds are basically reared as backyard poultry in the high altitude regions of Kashmir valley of Jammu and Kashmir state. The birds are basically interbreeding group of different phenotypes genotypes and are thus not uniform in their morphological attributes. The important feature of Kashmir Favorolla birds are that they are normally feathered, Naked neck and/or Bottle jawed. Most of the birds have feathered cap on their head. The most frequent comb types are single, pea, rose and walnut. The other features like tufts of feathers over the earlobes, feathered shanks, black shanks, multiple spurs are also present. The birds are known for their hardiness and can survive and produce during subzero temperatures. These birds are resistant to various bacterial and other infectitious diseases. The population of these birds is sufficiently large and contribute significantly to the economy of the people. The birds are locally known as 'Kashir Kukkar'. There is a need to devise and implement the breed improvement programs to benefit large population of this region. The survey was conducted to know the present status of these birds under NATP project.

Distirbution

The birds are available in Anantnag, Baramullah, Budgam, Kupwara, Srinagar and Pulwama districts of Jammu and Kashmir in an approximate area of 16000 square kilometers. The tract lies between 33-34.5 degree N latitude and 74-76 degree E longitude.



Utility

The birds are reared for meat and egg production and constitute one of the major sources of Animal Protein. It is more important because the commercial poultry farming could not make much headway due to extremes of temperature and increased maintenance cost.

Flock Size

There are about 6.5 birds of Kashmir Favorolla breed per household.

Management Practices

Housing is provided to the birds during night. The birds are kept in small hen houses. The houses are Kutchcha with thatched roof and there is no arrangement of light and ventilation. The floor of these houses is not padded. During day time the birds are let loose for scavenging. Very little supplementation in the form of choker, broken rice and maize is provided. The birds also



feed in the agricultural fields during the lean periods from Sept to March. When there are standing crops in the fields, the birds are confined in wire-mesh cages to prevent crop damage and avoid predation from canines/wild predators hiding in the crops. The birds are vaccinated against Ranikhet, Fowl cholera. The mortality is around 7% up to one week. A comparison of Kashmir Favorolla with commercial birds under the same management indicated the commercial broiler birds suffered a heavy mortality of above 60% from an infectious disease (bacterial) over 3 weeks time only, while Kashmir Favorolla birds virtually escaped the outbreak.

Morphological Attributes

The Kashmir Favorolla poultry have no specific plumage color. The birds with plumage of all shades varying from Jet black, dark brown and golden to pure white are available. Most of the birds have mixed



plumage color. The plumage pattern varies from solid to dull striped and spotted. The predominant skin color is white. The shank color is predominantly yellow. Few birds have black shank (4%). Ear lobes are mostly white (93% of birds). The comb is mostly single and red in color.

Performance

Parameter	Male	Female	Overall
Shank length (cm)	9.00 ± 0.76	7.50 ± 0.58	7.74 ± 0.87
Keel length (cm)	14.36 ± 1.13	12.38 ± 1.03	12.65 ± 1.27
Breast angle (°)	84.72 ± 10.7	76.48 ± 10.2	78.10 ± 11.15
Weight (kg)	1.875 ± 0.318	1.4152 ± 0.312	1.716 ± 0.356

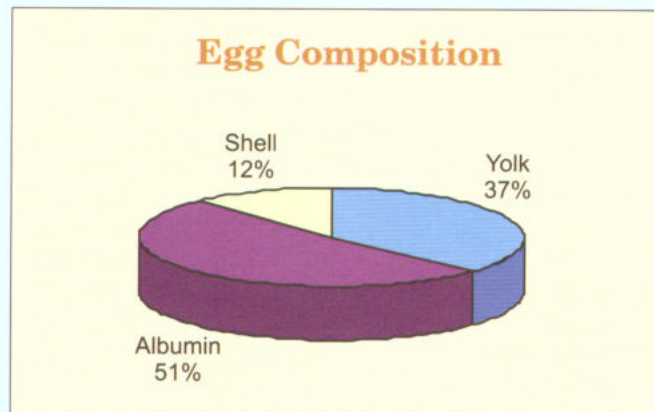
Growth Characteristics

Weight at hatching	30.43 ± 1.97 g
Weight at 8 weeks	219.1 ± 73.2 g
Weight at 12 weeks	407.74 ± 136.3 g
Weight at slaughter (1 year)	1189.56 ± 142.0 g

Parameter	Average
Average weight of cock (kg)	1.875 ± 0.318
Average weight of hen (kg)	1.415 ± 0.311
Age at first egg (days)	210
Average egg production per year	60 – 85
Hatchability % (total egg basis)	64
Mortality up to one week (%)	7.3

Egg Characteristics

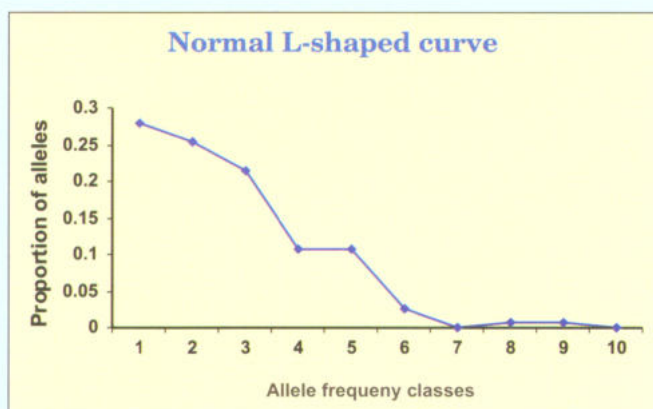
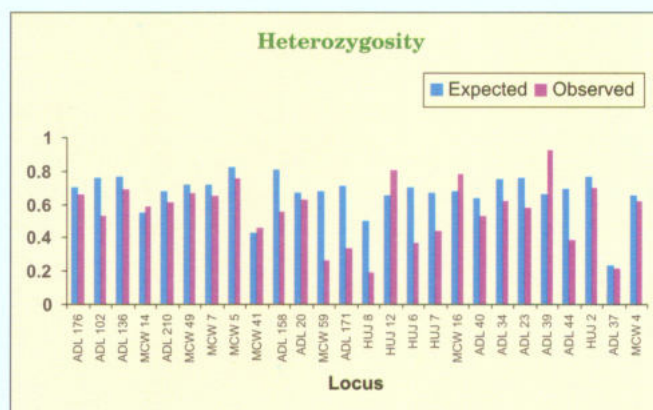
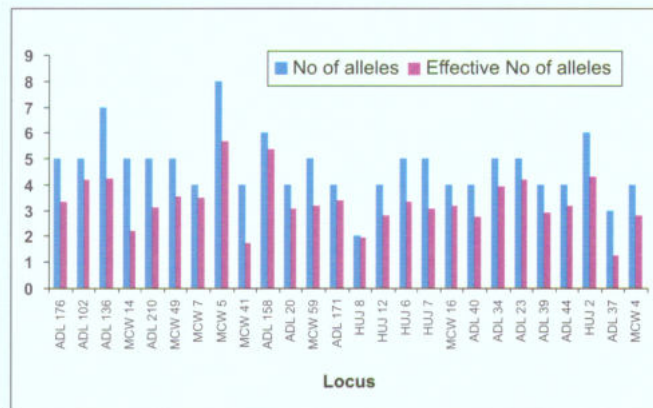
Parameter	Frequency/Average
Shell colour (in % of eggs)	light brown 65
	brown 19
	dark brown 16
Egg wt (g)	45.76 ± 2.188
Shell wt (g)	5.8 ± 1.4
Albumin wt (g)	23.67 ± 1.632
Yolk wt. (g)	16.97 ± 1.763
Shell thickness (mm)	0.25 ± 0.007
Albumin consistency	thick
Yolk colour (in % of eggs)	yellow 51
	deep yellow 16
	light yellow 33
Yolk index	0.47 ± 0.036
Albumin index	0.678 ± 0.011
Haugh units	70.26 ± 11.77



Genetic Architecture

Microsatellite loci used for generating the data for inferring population genetic parameters revealed average No of alleles and average effective No of alleles as 4.69 and 3.34 respectively. High numbers of alleles signify allelic richness. The average expected and observed heterozygosity are 0.67 and 0.56, respectively, which is quite high and does not point towards a loss of variability due to various forces acting on the populations and creating a population structure. The exact test

probabilities for each population have revealed 15 loci are not in Hardy-Weinberg Proportions at 95% level of confidence. The quantitative and qualitative tests were also employed to assess recent genetic bottleneck. The normal L-shaped curve revealed that the population has not experienced any genetic bottleneck in the last few generations.



Leaflet #1, 2005