

## Kadakhnath: The Black Chicken of India

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### SUMMARY

India is rich in many native poultry birds which are very colorful, easy to manage as backyard flocks and are disease resistant. Their meat as well as eggs are in good demand and also fetch good price. Kadakhnath, is one such breed of poultry reared by most of the tribes as backyard system of farming without any vaccination and hygiene and offered only kitchen waste and small amount of grains, therefore its growth rate is very low and mortality rate is high.

### INTRODUCTION

There were several well known chicken breeds in Indian continent, out of which nineteen breeds were registered by National Bureau of Animal Genetic Resources, ICAR. A large number of fowls of different body shapes, sizes, colour, pattern, plumage are found all over the country which resembles the red jungle fowls. These native fowls have remained an integral part of rural backyard poultry farming which has contributed immensely over the years to the agrarian economy of India. Kadakhnath is one of the well known registered indigenous poultry breed of India. This native chicken breed also named as Kalamasi meaning as the chicken with blackish flesh. However at present the name kadakhnath is more popular (spelled as Karakhnath) which was recommended by the collector of Jhabua district of West Madhya Pradesh. Geographical indication has also been set to this breed of Madhya Pradesh due to which demands for Kadakhnath breed has increased immensely on knowing the health benefits of consumption of this fowl breed. Kadakhnath breed of poultry are been reared since long time by the tribal communities of Madhya Pradesh under backyard farming system without any vaccination. Kadakhnath fowl are well resistant to extreme climatic conditions and stress and can thrive very well under adverse environments with minimal housing and feeding managements due to which it is responsible for being popular among farmers. Although the colour of the meat of this breed is not appealing, it is highly relished due to its delicious flavor and texture.

### Management

Kadakhnath breeds mostly inhabit vast areas of Western Madhya Pradesh mainly in Jhabua and Dhar districts. The farmers of the area mainly rear under backyard farming and tribals keep small flocks of birds along with other livestock like cattle, buffalo, goat etc. The birds are reared under scavenging system and let loose to allow them to move freely and they are kept in houses made of locally available materials only during night hours. Very little information is available about the nutrient requirement of Kadakhnath birds. The base of the nutrients requirement for Kadakhnath was considered on the basis of the data available in the book Nutrient Requirement of Poultry published by ICAR, New Delhi. Poultry farmers rear this breed on minimal feeding and offer only kitchen waste and small amounts of grains; therefore it hinders the growth rate, production rate and also causes high mortality.

### Physical Characteristics

There are three varieties of Kadakhnath available where the skin, beak, shanks, toes and soles of both males and females were dark grey coloured. In all the varieties most of the physical structures and internal organs exhibit intense black colouration which is due to the deposition of melanin pigment in the connective tissue of organs and in the dermis. This black pigmentation is more pronounced in trachea, thoracic and abdominal air sacs, gonads, elastic arteries, at the base of the heart and mesentery.

**Table 01: Physical characteristics of Kadakhnath chicken**

Traits	Characteristics
Plumage colour	Jet black, penciled and golden
Plumage pattern	Dark or solid black pattern
Shank colour	Grey, dark grey or black
Skin colour	black grey and dark grey

Ear lobe colour	Light to dark grey
Comb colour	Grey to dark grey
Comb type	Single type followed by pea comb and mixed comb
Wattle	Smaller size in females as compared to males; light grey colour
Beak	Black, stout and well curved
Eyes	Moderately large, round and were of black colored
Neck	Moderately long and nicely arched
Breast	Well rounded and carried forward
Wings	Large well folded and carried forward
Legs and shank	Legs set well apart, straight lower thighs, shanks moderately long; Shanks and toes were black and bluish black in colour.
Internal organs	Intense black colouration

### Performance characteristics

Ability to adapt to local climatic conditions, meat qualities and disease resistant are the factors accountable for the popularity of Kadaknath bird. The Kadaknath breed contains a high percentage of protein and believed to have aphrodisiac properties. So in order to grab the demand of the market for Kadaknath, farmers have started rearing Kadaknath bird intensively. Although Kadaknath breed is not a good brooder and is poor in egg production potential, but their black meat and eggs are very delicious. Its flesh is of higher value and is being used for the treatment of many diseases in human beings by tribal people living in Jhabua District of Madhya Pradesh.

**Table 02: performance traits of Kadaknath chicken**

Traits	Average values
Egg production	80-90 eggs annually
Age at sexual maturity	180 days
Marketable age	7 to 8 months
Live weight at slaughter (male)	1212.5g
Live weight at slaughter (female)	1111.25g
Dressed weight	862.63g (male); 825.88g (female)
Dressing percentage	72.73%.
Egg weight at 40 week	49 g
Fertility	80 %
Hatchability	72%
Shape index	73.95
Shell thickness	0.309 mm
Albumin index	7.03
Haugh unit	73.77
Yolk index	37.07

Dark brown shell colour is most common followed by light brown colour. The maximum numbers of eggs remain strong shelled followed by medium shelled and then brittle shelled. Poor shell quality may arise due to certain deficiency diseases as these birds are mostly maintained under low input rearing system. Generally there is no fixed age for slaughter of Kadaknath birds under field conditions. The tribals usually slaughter the birds during some festival, religious events or marriages or as when required for any money. Kadaknath, which is reared by most of the tribes as backyard system of farming without any vaccination and hygiene and offered only kitchen waste and small amount of grains, therefore its growth rate is very low and mortality rate is high. Now a days its demand have risen among rural as well as urban population due to its unique characteristics like black flesh and very low fat percent, but its availability is very low as compared to its demand. Even doctors, nutritionists, and dietitians recommend consumption of Kadaknath meat to old aged people, women and other sick patients.

Abundant clinical studies has showed that Kadaknath chicken has a peculiar effectiveness in treating women's discuss, sterility, irregular menstruation , habitual abortion, blood leucorrhoea, pulmonary problems (tuberculosis), heart diseases, asthma and nephritis etc. The eggs of Kadaknath is having nutritive values for old peoples and high blood pressure victims due to lower cholesterol content and free amino acids are higher than that of other kind of birds. The eggs of Kadaknath were sold @ Rs. 10-15 per egg meat @ Rs. 300-500 per kg. The high rate of Kadaknath chicken is due to its medicinal uses.

## CONCLUSION

Very little information available regarding the performance of Kadaknath birds in intensive system of rearing. Due to its unique native germplasm with the unique hardiness, their ability to thrive under adverse climatic conditions, and the desirable taste and flavour of eggs and meat, researchers have started initiatives for conservation of these germplasm. Under field condition, inbreeding takes place invariably among different breeds of poultry and also due to pressure from high yielding genetic stock it is on the verge of extinction. The conservation and systemic study of this breed using modern technologies is essential for assessment of its productive and reproductive potential along with other traits as a pure breed.

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