



## Attitude and Perception of Kadaknath Farmers Regarding Rearing of Kadaknath Poultry Birds in Jhabua and Alirajpur District of M.P

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### ABSTRACT

Kadaknath poultry is being maintained in large numbers as a pure breed in the Jhabua and Alirajpur of M.P. The average weight of Kadaknath female is 1 to 1.2 kg and that of male is 1.5 kg. Kadaknath is very popular among the tribes mainly due to its special capabilities such as adoptability to local environment, colour, disease resistance, meat quality, texture & flavour. This study was conducted in Jhabua and Alirajpur District of M.P State. Three tehsil of jhabua viz., meghnagar, rama and thandla, three tehsils of Alirajpur viz.; Kathiwada, Jobat and sondwa were selected purposely on the basis of more number of kadaknath poultry birds and popular breed in the area of the study. Three villages from each tehsil were selected randomly. Further ten kadaknath farmers from each village were selected randomly, consist a sample of 180 kadaknath farmers for the study. Nearly two third (63.33 per cent) of the kadaknath farmers had favorable attitude toward rearing of kadaknath poultry birds. Perception of kadaknath farmers regarding rearing of kadaknath poultry birds were; gives more economic return and economically feasible, identified through his skin colour morphologically and disease and heat resistant, and having low sitting ability on their eggs. Ranikhet was the major disease, required more care to chicks and less care to adult cock and hen. Due to high demand from other states farmers keep it on their backyard frequently.

**Keywords:** *Kadaknath, poultry, meat, breed, broiler, disease resistance, chicks and fibromelanosis etc.*

### Introduction

Kadaknath is a unique medium sized indigenous breed of fowl found in Jhabua and Alirajpur district of Madhya Pradesh. Locally known as Kala masi because the bird is black inside –out – skin, feathers, legs, meat, blood, etc. is a rare bird with slow growth rate (S. Jaishankar *et al.*, 2020). The black colour of this bird is due to hyperpigmentation associated with the fibromelanosis character. Three varieties of the Kadaknath breed have been identified based primarily on plumage colour: jet black, pencilled and golden (Haunshi *et al.*, 2021). The average weight of Kadaknath female is 1 to 1.2 kg and that of male is 1.5 kg. Kadaknath is very popular among the tribes mainly due to its special capabilities such as adoptability to local

environment, colour, disease resistance, meat quality, texture & flavor (Parmar *et al.*, 2006).

The tribals value the breed for its cultural as well as its health values and also consider it sacred. The bird is high in iron and amino acids and low in fat (Ezhil Valavan *et al.*, 2016). It tolerates extreme heat and cold climatic conditions and requires minimal management inputs (Mohan *et al.*, 2008). The breed is disease resistant and hardy and thrives well on kitchen/agriculture waste, azolla feed, and green leafy vegetables as well local grains like maize, soybean. Different strains of Kadaknath known to exist such as Kadaknath with black plumage, black with golden linings and black with white linings (Haunshi, *et al.*, 2020). Flesh of Kadaknath is very tasty and contains 25% protein against 18% in broilers (Pathak *et al.*,

2006). The meat and eggs are reckoned to be a rich source of protein and iron. It is reported to have some medicinal value. Kadaknath flesh has got an aphrodisiac property. In other words, kadaknath is a healthier alternative to broiler chicken (Haunshi *et al.*, 2021)

### Methodology

The main objective of this study was to measure attitude of the kadaknath farmers regarding rearing of kadaknath poultry birds and to study the perception of kadaknath farmers regarding rearing of kadaknath poultry birds. This study was conducted in Jhabua and Alirajpur District of M.P State. Three tehsil of jhabua viz., meghnagar, rama and thandla, three tehsils of Alirajpur viz.; Kathiwada, Jobat and sondwa were selected purposely on the basis of more number of kadaknath poultry birds in the area of the study. Three villages from each tehsil were selected randomly. Further ten kadaknath farmers from each village were selected randomly, consist a sample of 180 kadaknath farmers for the study. The teacher made test was carried out for measurement of attitude and perception was measured through frequency and percentage. Total 30 statements were identified for the measurement of attitude with consultation of veterinary expert and scientist of KVK Jhabua and response was taken from 50 faculties of veterinary colleges of India. Out of 30 statements 8 statement were finalized for attitude measurement. The attitude was calculated on the basis of five continuums viz; strongly agree, Agree, Undecided, Disagree and strongly disagree with score of 5, 4, 3, 2 and 1 for positive statement and reverse in negative statement. The data were collected through the use of structured interview schedule. The kadaknath farmers were interviewed personally and their responses were recorded. The data were tabulated and interpreted on the basis of frequency, mean and standard deviation.

### Results and Discussion

Attitude is a tendency to act in some way toward some object, person, situation or idea. The kadaknath farmer's attitude toward rearing of kadaknath poultry birds was measured and depicted in Table 1.

It can be seen from Table 1 that nearly two third (63.33 per cent) of the kadaknath farmers had favorable attitude toward rearing of kadaknath

poultry birds followed by highly favorable attitude (21.67 per cent) and less favorable (15.00 per cent) attitude toward rearing of kadaknath poultry birds. It can be concluded that 85.00 per cent of the kadaknath farmers had favorable to highly favorable attitude toward rearing of kadaknath poultry birds. The probable reason was Kadaknath required management is easy and great market potentials. Perception is the process whereby an individual receives stimuli through the various senses and interprets them. The result of the perception was shown in the Table 2. The data shows in the Table 2 indicated that perception of kadaknath farmers regarding kadaknath chicks production and income in kadaknath poultry birds the almost all the kadaknath farmers perceived that kadaknath poultry birds gives more net return, economically feasible and the meat is best for health-conscious people, whereas, the perception of kadaknath farmers regarding breed purity in almost all the kadaknath farmers identified/recognized kadaknath birds through his skin colour, black colour of tongue, beak, feet *etc.* As far as perception of kadaknath farmers regarding hardiness and disease resistance is concern, all the kadaknath farmers perceived that Kadaknath poultry birds have more disease resistant power as compared to other poultry breeds, whereas, almost all the kadaknath farmers agree with Kadaknath poultry birds is resistant against heat in summer and no reduction in eggs production due to high temperature, while 60.56 per cent kadaknath farmers perceived that Ranikhet is the major disease in kadaknath poultry birds.

Regarding perception in management practices the kadaknath farmers agree with Kadaknath poultry birds required less care and attention especially in adult birds as compared to other poultry birds/broilers, whereas, 96.66 per cent kadaknath farmers perceived that kadaknath poultry birds is resistance against many avian diseases, 96.10 per cent agree with better body weight and healthy in normal housing facility and 89.99 per cent believed that due to less sitting ability kadaknath birds not easily sit on their eggs so people used to keep it under other desi birds.

**Table 1:** Distribution of the respondents according to their attitude towards rearing of kadaknath

| Sr. No.      | Attitude                                    | Frequency  | Per cent      |
|--------------|---|------------|---------------|
| 1.           | Less favorable (below 18.95 score)          | 27         | 15.00         |
| 2.           | Favorable (in between 18.95 to 34.85 score) | 114        | 63.33         |
| 3.           | Highly favorable (above 34.85 score)        | 39         | 21.67         |
| <b>Total</b> |   | <b>180</b> | <b>100.00</b> |

Poultry bird (n = 180)

Mean=26.90

S D =07.95

**Table: 2:** Distribution of the respondents according to their perception towards rearing of kadaknath poultry birds (n = 180)

| S.N.     | Statement   | Strongly Agree | Agree          | Un decided    | Dis Agree     | Strongly disagree |
|----------|---|----------------|----------------|---------------|---------------|-------------------|
| <b>A</b> | <b>Economic Feasibility</b>   |                |                |               |               |                   |
| 1        | Kadaknath poultry have less disease problems  | 124<br>(68.88) | 48<br>(26.66)  | 04 (2.22)     | 03<br>(1.66)  | 01<br>(0.55)      |
| 2        | Keeping kadaknath poultry birds gives more net income   | 73<br>(40.55)  | 94<br>(52.22)  | 00<br>(0.00)  | 09<br>(5.00)  | 04<br>(2.22)      |
| 3        | Raising of Kadaknath poultry birds is economically feasible   | 148<br>(82.22) | 24<br>(13.33)  | 05<br>(2.77)  | 03<br>(1.66)  | 00<br>(0.00)      |
| 4        | Meat of Kadaknath poultry birds is best for food  | 173<br>(96.11) | 07<br>(3.88)   | 00<br>(0.00)  | 00<br>(0.00)  | 00<br>(0.00)      |
| <b>B</b> | <b>Purity of Breeds</b>   |                |                |               |               |                   |
| 1        | Kadaknath poultry birds can be identified through skin colour etc   | 67<br>(37.22)  | 108<br>(60.00) | 05<br>(2.77)  | 00<br>(0.00)  | 00<br>(0.00)      |
| 2        | Majority of the kadaknath farmers adopt natural breeding but kadaknath eggs put under desi/ non-descript birds for natural incubation | 98<br>(54.44)  | 62<br>(34.44)  | 00<br>(0.00)  | 06<br>(3.33)  | 14<br>(7.77)      |
| 3        | The egg laying period of Kadaknath poultry birds is throughout year but quantity is less and gives eggs in interval                   | 26<br>(14.44)  | 77<br>(42.77)  | 43<br>(23.88) | 21<br>(11.66) | 13<br>(7.22)      |
| 4        | The hatchability is very good in Kadaknath poultry birds in artificial incubation method  | 48<br>(26.66)  | 67<br>(37.22)  | 29<br>(16.11) | 12<br>(6.66)  | 24<br>(13.33)     |
| <b>C</b> | <b>Disease Resistance</b>   |                |                |               |               |                   |
| 1        | Kadaknath poultry birds is resistant against heat in summer   | 98<br>(54.44)  | 78<br>(43.33)  | 04<br>(2.22)  | 00<br>(0.00)  | 00<br>(0.00)      |
| 2        | No mortality and adult due to high temperature  | 104<br>(57.77) | 65<br>(36.11)  | 00<br>(0.00)  | 03<br>(1.66)  | 08<br>(4.44)      |
| 3        | Kadaknath poultry birds is more disease resistant as compared to other  | 162<br>(90.00) | 18<br>(10.00)  | 00<br>(0.00)  | 00<br>(0.00)  | 00<br>(0.00)      |

|          |  |                |                |              |               |               |
|----------|--|----------------|----------------|--------------|---------------|---------------|
| 4        | Ranikhet disease problem in kadaknath poultry birds  | 41<br>(22.77)  | 68<br>(37.77)  | 15<br>(8.33) | 24<br>(13.33) | 32<br>(17.77) |
| <b>D</b> | <b>Management</b>  |                |                |              |               |               |
| 1        | Kadaknath poultry birds required less labour and knowledge as compared to broiler poultry birds                            | 154<br>(85.55) | 19<br>(10.55)  | 00<br>(0.00) | 01<br>(0.55)  | 06<br>(3.33)  |
| 2        | Resistance against many diseases   | 78<br>(43.33)  | 96<br>(53.33)  | 03<br>(1.66) | 02<br>(1.11)  | 01<br>(0.55)  |
| 3        | Kadaknath poultry birds have higher body weight in extensive system of housing   | 89<br>(49.44)  | 84<br>(46.66)  | 07<br>(3.88) | 00<br>(0.00)  | 00<br>(0.00)  |
| 4        | Due to high medicinal property and good market demand nature kadaknath farmers prefer less to keep kadaknath poultry birds | 28<br>(15.55)  | 134<br>(74.44) | 11<br>(6.11) | 02<br>(1.11)  | 05<br>(2.77)  |
| 5        | Kadaknath poultry birds required less care as compared to other cross breed poultry birds/ broilers                        | 167<br>(92.77) | 13<br>(7.22)   | 00<br>(0.00) | 00<br>(0.00)  | 00<br>(0.00)  |

\*The data shows in the parenthesis is in percent

### Conclusion

Nearly two third (63.33 per cent) of the kadaknath farmers had favorable attitude toward rearing of kadaknath poultry birds followed by highly favorable attitude and less favorable attitude. Perception of kadaknath farmers regarding rearing of kadaknath poultry birds were; less disease problems, more net return and economically feasible, identified through his black colour of skin, feet, beak and tongue, less adaptation in

natural incubation, disease and heat resistant, and no reduction in chicks production due to high temperature, Ranikhet was major disease, required less care and, resistance against many diseases, body weight is optimum in normal housing and feeding facility, due to high market demand in other states farmers used to keep it for their livelihood security.

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