



International Journal of Veterinary Sciences and Animal Husbandry



ISSN: 2456-2912

NAAS Rating (2026): 4.61

VET 2025; SP-11(8): 273-276

© 2026 VET

www.veterinarypaper.com

Received: 02-06-2026

Accepted: 08-07-2026

Yash R Mehare

PG Scholar, Animal Husbandry
and Dairy Science Section,
College of Agriculture, Nagpur,
Maharashtra, India

AB Motghare

Associate Professor (CAS),
Veterinary Science, College of
Agriculture, Nagpur,
Maharashtra, India

DT Undratwad

Head of Section of Animal
Husbandry and Dairy Science,
College of Agriculture, Nagpur,
Maharashtra, India

Bhavana R Wankhade

Assistant Professor, Section of
Animal Husbandry and Dairy
Science, College of Agriculture,
Nagpur, Maharashtra, India

MN Patond

Assistant Professor, Anand
Niketan College of Agriculture,
Warora, Maharashtra, India

Corresponding Author:

Yash R Mehare

PG Scholar, Animal Husbandry
and Dairy Science Section,
College of Agriculture, Nagpur,
Maharashtra, India

Socio-economics and feeding practices followed by Berari goat farmers in Nagpur tahsil

**Yash R Mehare, AB Motghare, DT Undratwad, Bhavana R Wankhade
and MN Patond**

DOI: <https://www.doi.org/10.22271/veterinary.2026.v11.i8Sd.3741>

Abstract

A field investigation evaluated the socio-economic profiles and dietary regimes of Berari goat owners in Nagpur (Rural) tahsil, Nagpur district, Maharashtra, India. A sample size of 100 Berari goat owners was randomly selected across ten distinct villages during the 2025–2026 academic year. Respondents were stratified into four herd-size tiers: Very Small (0–5 goats), Small (6–15 goats), Medium (16–25 goats), and Large (above 25 goats). Data collection was executed through structured personal interviews. Socio-economic profiling revealed that most respondents belonged to the middle-age bracket (44%), possessed no formal education (38%), lived in large families exceeding 7 members (39%), and relied on daily-wage agricultural labor (45%), with landless individuals constituting the single largest land-holding segment (34%). Regarding nutritional management, open grazing was the primary feeding system (72%). Neonatal colostrum feeding was universally recognized with an 88% adoption rate. However, advanced interventions like commercial concentrate supplementation (16%) and the chemical enrichment of poor-quality straw via urea treatment (7%) were critically low due to financial barriers. Upgrading subsistence caprine rearing into a commercially viable enterprise requires targeted vocational training camps, subsidized micro-credit distribution, shared community grazing banks, and strengthened village-level public veterinary delivery networks.

Keywords: Berari goat, socio-economic, open grazing, financial constraints

1. Introduction

India is predominantly an agricultural country, with approximately 70.00% of its rural population depending directly on agriculture for livelihood sustenance. Under prevailing socioeconomic realities where land fragmentation has shrunk the average per capita land holding to less than 0.2-hectare, goat rearing has emerged as an inseparable, high-utility component of smallholder mixed farming systems. Goat husbandry is widely recognized as an ideal entry-level enterprise for rural communities in developing countries due to its low initial capital requirements, high fertility and fecundity, low feed and management overheads, exceptional feed conversion efficiency, and quick financial pay-off. Small ruminant production plays a vital role in household income generation, capital storage, employment creation, and family nutritional security. Serving as a reliable financial buffer against volatile crop failures, goat rearing provides an alternate source of income to approximately 40.00% of the rural population living below the poverty line.

Within the broader agricultural framework, the animal husbandry sector functions as a cornerstone of the national economy. According to the 20th All India Livestock Census released by the Department of Animal Husbandry and Dairying, India possesses the second-largest goat population globally, standing at 148.9 million heads. This population baseline reflects a substantial 10.14% increase over the previous 2012 census lifecycle, with caprine species contributing approximately 27.8% to the cumulative livestock inventory. At the macroeconomic level, the livestock sector commands a 4.9% share of India's total Gross Value Added (GVA)/Gross Domestic Product (GDP), while representing a dominant 28.4% share of the overarching agricultural GDP portfolio.

The indigenous Berari goat is a hardy, well-adapted local breed from the semi-arid tracts of the Vidarbha region of Maharashtra, India. It is highly valued by smallholders and resource-poor farmers for producing meat and milk under harsh agroclimatic conditions. While the breed exhibits high resilience, its production potential remains severely suppressed among smallholders due to a traditional reliance on low-input extensive grazing, poor technical awareness, low adoption of scientific healthcare, and critical credit and resource limitations. To successfully transfer modern goat husbandry practices, it is necessary to take stock of the felt factors restraining adoption. This investigation was conceptualized to measure the perceived constraints in the adoption of recommended goat husbandry practices by goat owners in the Nagpur Tahsil of the Nagpur District.

2. Materials and Methods

2.1 Sampling Architecture and Sample Size

A multi-stage stratified random sampling technique was implemented to establish a representative sample framework. Out of the 131 total villages comprising the Nagpur (Rural) tahsil, 10 villages were randomly selected as primary data collection nodes: Davlameti, Fetari, Godhani, Gumthala, Kawtha, Nimbha, Sawanga, Shivangaon, Surabardi, and Walani. From each of these 10 selected villages, exactly 10 Berari goat owners were randomly selected, yielding a definitive study sample size of (N = 100) respondents. To isolate the effects of scale management adoption, the sample cohort was stratified into four distinct groups based on their operational herd size:

- **Very Small:** 0 to 5 goats (n=25)
- **Small:** 6 to 15 goats (n=25)
- **Medium:** 16 to 25 goats (n=25)
- **Large:** Above 25 goats (n=25)

2.2 Data Collection and Empirical Indicators

Primary data collection was executed through personal field interviews using a comprehensive, structured, and pre-tested questionnaire. The empirical indicators chosen for the research were operationalized as follows:

1. **Age:** Chronological age in completed years, classified into young (up to 28 years), middle (29 to 49 years), and

old (above 50 years).

2. **Education:** Highest level of formal schooling attained, categorized into illiterate, primary level (1st to 8th standard), and middle and above (9th to 12th standard).
3. **Family Size:** Total number of blood relatives and legally adopted individuals living together under a common roof, split into small (up to 4), medium (5 to 7), and large (above 7 members).
4. **Occupation:** Primary regional livelihood activity, divided into labor, farming, and farming integrated with goat husbandry.
5. **Land Holding:** Total agricultural land owned according to Maharashtra Government norms, classified into landless (0 ha), marginal (up to 1.0 ha), small (1.1 to 2.0 ha), and large (above 2.0 ha).

3. Feeding practices adopted by Berari goat owners.

1. Grazing
2. Satll feeding
3. Grazing+Stallfeeding
4. Feeding of Colostrum
5. Feeding of Concentrates
6. Enrichment of Urea

3.1 Husbandry Practices

The questionnaire tracked the adoption of feeding profiles, specifically looking at grazing systems, colostrum feeding, concentrating provision, and urea straw enrichment.

4. Statistical Analysis

The collected field data were classified, tabulated, and systematically analyzed using a simple tabular method. Frequencies and percentage distributions were used to summarize descriptions and draw inferences across operational strata.

5. Results and Discussion

5.1 Socio-Economic Profile of Berari Goat Owners

The personal, educational, and operational metrics of the 100 surveyed goat owners are cross-tabulated across the four herd-size tiers in Table 1.

Table 1: Distribution of Berari goat owners according to socio-economic characteristics

Sr. No.	Category	Very small 0 to 5 (n=25)	Small 6 to 15 (n=25)	Medium 16 to 25 (n=25)	Large Above 25 (n=25)	Total (n=100)
A.	Age					
1	Young (Up to 28 Yrs.)	6 (24%)	7 (28%)	11 (44%)	5 (20%)	29 (29%)
2	Middle (29-49 Yrs.)	11 (44%)	10 (40%)	8 (32%)	15 (60%)	44 (44%)
3	Old (Above 50 Yrs.)	8 (32%)	8 (32%)	6 (24%)	5 (20%)	27 (27%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)
B.	Education					
1	Illiterate	14 (56%)	12 (48%)	8 (32%)	4 (16%)	38 (38%)
2	Primary (1-8th Std.)	7 (28%)	8 (32%)	9 (36%)	10 (40%)	34 (34%)
3	Middle (Above 9-12th Std.)	4 (16%)	5 (20%)	8 (32%)	11 (44%)	28 (28%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)
C.	Family size					
1	Small size (Up to 4 members)	10 (40%)	5 (20%)	6 (24%)	5 (20%)	26 (26%)
2	Medium (5-7 member)	6 (24%)	9 (36%)	9 (36%)	11 (44%)	35 (35%)
3	Large size (Above 7 members)	9 (36%)	11 (44%)	10 (40%)	9 (36%)	39 (39%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)
D.	Occupation					
1	Labourer	14 (56%)	13 (52%)	15 (60%)	3 (12%)	45 (45%)
2	Farming	5 (20%)	6 (24%)	5 (20%)	8 (32%)	24 (24%)
3	Farming + goat husbandry	6 (24%)	6 (24%)	5 (20%)	14 (56%)	31 (31%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)

E.	Source of information					
1	Radio	4 (16%)	4 (16%)	6 (24%)	4 (16%)	18 (18%)
2	TV	8 (32%)	10 (40%)	10 (40%)	7 (28%)	35 (35%)
3	Radio + TV	7 (28%)	9 (36%)	8 (32%)	11 (44%)	35 (35%)
4	Relative and neighbours	6 (24%)	2 (8%)	1 (4%)	3 (12%)	12 (12%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)
F.	Land holding					
1	Landless	10 (40%)	12 (48%)	8 (32%)	4 (16%)	34 (34%)
2	Marginal (up to 1.0 ha)	6 (24%)	5 (20%)	6 (24%)	6 (24%)	23 (23%)
3	Small (1.1 to 2.0 ha)	5 (20%)	5 (20%)	7 (28%)	7 (28%)	24 (24%)
4	Large (above 2.0 ha)	4 (16%)	3 (12%)	4 (16%)	8 (32%)	19 (19%)
	Total	25 (100%)	25 (100%)	25 (100%)	25 (100%)	100 (100%)

The field data reveals that a plurality (44.00%) of the aggregate sample belongs to the middle-age bracket (29–49 years), followed by young producers (29.00%) and older rearers (27.00%). Middle-aged owners predominate within the large flock bracket (60.00%), indicating that a combination of physical labor capacity and mature management experience is required to maintain large herds. Illiteracy remains a prominent challenge in the study area, affecting 38.00% of the total sample, while primary education and middle school completion stood at 34.00% and 28.00%, respectively. A clear linear correlation is observed between literacy and operational scale: 44.00% of the large flock owners completed higher formal schooling, whereas 56.00% of the very small tier are illiterate.

Expanded household structures containing more than 7 members constituted the highest sample share (39.00%), providing a vital source of zero-cost, domestic labor required for herding, grazing, and forage management. Daily-wage labor functioned as the primary livelihood source for 45.00% of the total cohort, highly concentrated among very small (56.00%), small (52.00%), and medium (60.00%) owners. Conversely, 56.00% of large-scale producers treat integrated agriculture and goat rearing as a core business enterprise. Modern communication via television (35.00%) and combined radio-TV platforms (35.00%) served as the primary paths for gathering livestock updates, peaking inside the large flock tier (44.00%). Reflecting the status of the goat as the "poor man's cow," 34.00% of the surveyed population are entirely landless, while large land holdings (> 2.0 ha) are restricted to 19.00% of the overall sample, peaking at 32.00% inside the large flock tier. This indicates that land security

provides a better resource base for feed cultivation and fodder storage.

5.2 Dietary and Feeding Practices

Open grazing emerged as the most widely adopted feeding practice among goat rearers (72.00%), while exclusive stall feeding showed the lowest adoption rate (18.00%). The data reveal a strong positive relationship between herd size and the adoption of structured grazing routines, with medium and large herd owners (92.00% each) significantly outpacing very small-scale farmers (44.00%).

The administration of colostrum immediately after birth was a highly prioritized practice, demonstrating an exceptionally high overall adoption rate of 88.00%, peaking at 96.00% in the large flock category.

Conversely, the regular inclusion of concentrated feeds was critically low, with an overall adoption rate of just 16.00% and complete non-adoption (0.00%) among very small herd owners. The high recurring financial outlay required for commercial feeds prevents resource-poor farmers from integrating concentrate management.

The lowest adoption metric recorded was the chemical treatment or enrichment of poor-quality straw with urea, yielding a minor overall adoption rate of 7.00% and an overwhelming non-adoption rate of 93.00%. Complete non-adoption (100.00%) was observed in the very small category. This stark non-adoption highlights a widespread deficiency in technical extension training, lack of field confidence, and structural storage constraints required to carry out chemical crop-residue processing.

Table 2: Feeding practices adopted by Berari goat owners

Adoption of Feeding Practices	Very Small (0 to 5) n=25 Adopter / Non-Adopter	Small (6 to 15) n=25 Adopter / Non-Adopter	Medium (16 to 25) n=25 Adopter / Non-Adopter	Large (Above 25) n=25 Adopter / Non-Adopter	Total n=100 Adopter / Non-Adopter
Grazing	11 (44.00%) / 14 (56.00%)	15 (60.00%) / 10 (40.00%)	23 (92.00%) / 2 (8.00%)	23 (92.00%) / 2 (8.00%)	72 (72.00%) / 28 (28.00%)
Stall feeding	2 (8.00%) / 23 (92.00%)	3 (12.00%) / 22 (88.00%)	5 (20.00%) / 20 (80.00%)	8 (32.00%) / 17 (68.00%)	18 (18.00%) / 82 (82.00%)
Grazing + stall feeding	3 (12.00%) / 22 (88.00%)	8 (32.00%) / 17 (68.00%)	9 (36.00%) / 16 (64.00%)	12 (48.00%) / 13 (52.00%)	32 (32.00%) / 68 (68.00%)
Feeding of colostrum	20 (80.00%) / 5 (20.00%)	21 (84.00%) / 4 (16.00%)	23 (92.00%) / 2 (8.00%)	24 (96.00%) / 1 (4.00%)	88 (88.00%) / 12 (12.00%)
Feeding of concentrates	0 (0.00%) / 25 (100.00%)	6 (24.00%) / 19 (76.00%)	6 (24.00%) / 19 (76.00%)	4 (16.00%) / 21 (84.00%)	16 (16.00%) / 84 (84.00%)
Enrichment Urea	0 (0.00%) / 25 (100.00%)	1 (4.00%) / 24 (96.00%)	2 (8.00%) / 23 (92.00%)	4 (16.00%) / 21 (84.00%)	7 (7.00%) / 93 (93.00%)

6. Conclusion

The field investigation establishes that the socio-economic status of Berari goat owners in the Nagpur (Rural) tahsil heavily influences their management capabilities. A

significant portion of the rearers are middle-aged, live in large families, possess minimal formal education, and rely on daily labor while being completely landless. Consequently, caprine dietary and rearing regimes remain dominated by low-input,

extensive open grazing systems. While primary interventions such as neonatal colostrum feeding are widely integrated into local routines, advanced scientific nutritional practices—including commercial concentrate supplementation and the chemical enrichment of crop residues via urea treatment—remain heavily restricted due to financial constraints and a lack of field technical expertise among resource-poor keepers. To transition these traditional, subsistence caprine-rearing practices into economically profitable operations, it is crucial for government bodies and extension networks to lower economic entry barriers. Deploying specialized vocational training camps can effectively bridge critical technical knowledge gaps. Furthermore, establishing collective community grazing banks and distributing subsidized micro-credit options will empower resource-poor farmers to safely navigate feed deficits and unlock the true commercial production potential of the native Berari breed.

Conflict of Interest

Not available

Financial Support

Not available

References

1. Bodhade MS, Motghare AB, Ingole AS. Phenotypic characteristics and reproductive traits of Berari goats in Parseoni Tahsil of Nagpur District. Nagpur: Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Nagpur Campus; 2019.
2. Katekhaye S. Phenotypic characterization of Berari goat in Hingna Tahsil of Nagpur District. Nagpur: College of Agriculture, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola; 2011.
3. Kuralkar SV, Verma NK, Kharkar K, Kuralkar P. Berari goats: characterization, management, performance and population status. *Indian J Anim Sci.* 2013;83(12):1292-1298.
4. Mandavkar PM, Hanmante AA, Talathi MS. Status of goat farming practices, knowledge and adoption status of technologies in north Konkan coastal zone of Maharashtra. *J Krishi Vigyan.* 2015;3(2):93-96.
5. Sabapara GP. Socio-economic profile of goat rearers and marketing practices of goats in southern Gujarat, India. *Livest Res Int.* 2016;4(2):83-87.
6. Tanwar PS. Constraints perceived by goat keepers in adoption of goat husbandry practices in semi-arid Rajasthan. *J Community Mobilization Sustain Dev.* 2011;6(1):108-111.
7. Thombre BM, Suradkar DD, Mande JV. Adoption of improved goat rearing practices in Osmanabad district. *Indian J Anim Res.* 2010;44(4):260-264.

How to Cite This Article

Mehare YR, Motghare AB, Undratwad DT, Wankhade BR, Patond MN. Socio-economics and feeding practices followed by Berari goat farmers in Nagpur tahsil. *International Journal of Veterinary Sciences and Animal Husbandry.* 2026;SP-11(8):273-276.

Creative Commons (CC) License

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.