



Utilization of information sources by goat farmers in Uttar Pradesh

CHANDA SINGH¹, PRATIKSHYA PANDA^{2✉}, RASHMI³, AMIT SINGH⁴ and SANJEEV KUMAR SINGH⁴

*Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya
Evam Go-Anusandhan Sansthan, Mathura-281 001, India*

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ABSTRACT

This study assessed the extent of information sources utilized by goat farmers across Uttar Pradesh, India. A purposive research design was employed in Mathura and Mirzapur districts, with 180 respondents (90 from each district) selected through multistage random sampling from 12 villages across four blocks. Data were collected through a pre-tested interview schedule and statistical analysis including frequency, percentage, mean score, Pearson's correlation, multiple regression and Mann Whitney U test was performed using SPSS 26. The findings revealed that majority of farmers exhibited medium information-seeking behaviour with a mean utilization score of 13.08. The study indicated a dominant reliance on personal-localite sources such as friends (51.11% frequently used) and neighbours (51.11% frequently used). Mass media also played a significant role, with television (67.22% frequent use) and social media (40.56% frequent use) emerging as prominent sources. In contrast, personal-cosmopolite sources such as veterinarians were less utilized. Pearson's correlation analysis revealed a differentiated pattern of association between socio-economic variables and information source utilization across districts. In Mathura, education and landholding showed a positive and significant relationship, whereas in Mirzapur, education, landholding, farming experience and annual income were positively and significantly associated. These findings highlighted that education and resource endowment are key determinants of effective information utilization and underscored the need to strengthen extension strategies through targeted mass media and digital integration to enhance goat farming sustainability.

Keywords: Goat farmers, Information sources, Mass media

Goat farming is an important livelihood strategy in rural India, particularly among marginal and small farmers, providing supplementary income and nutritional security to farming families (Singh *et al.* 2021). In livestock farming systems, particularly goat rearing, access to quality information on breeding, nutrition, disease management, and market trends directly influences productivity and profitability (Singh *et al.* 2014). The dissemination of timely, relevant, and credible information through appropriate channels is essential for farmers to make decisions regarding production, health management, marketing, and resource utilization (Sinha *et al.* 2018). However, traditional extension services in India have often failed to effectively reach livestock farmers, particularly in remote areas, necessitating the need to understand farmers'

information-seeking behaviours and utilization patterns. Therefore, the present study was undertaken to examine the pattern of information source utilization among goat farmers in Mathura and Mirzapur districts and to explore the relationship between socioeconomic variables and information-seeking behaviour.

MATERIALS AND METHODS

The study was purposively conducted in the two districts namely, Mathura from west U.P. and Mirzapur from eastern U.P. due to their location and notable goat population. The goat farmers population for both the districts together was around 350. The power analysis of sample size was done and the sample size of 180 was finalised by using online sample size calculator. To minimize the sampling errors, two blocks were randomly selected from each district for the study, followed by the random selection of three villages from each selected block. Subsequently, 15 goat farmers were randomly selected from each village for data collection. Thus, the total sample size for the study was 180 respondents (90 respondents from each district). An ex-post-facto research design was used for the study and data were collected using a pre-tested interview schedule. A pilot study was conducted to pre-test the interview schedule and assess its internal consistency reliability before the main

Present address: ¹M.V.Sc Scholar, ²Assistant Professor, Department of Veterinary and Animal Husbandry Extension education, Uttar Pradesh Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU), Mathura-281 001, India. ³Associate Professor, Department of Dairy Business Management, DUVASU, Mathura, UP, 281001, India. ⁴Professor, Department of Veterinary and Animal Husbandry Extension education, DUVASU, Mathura-281001, India. ✉Corresponding author email: pratikshya.pandavet@gmail.com

data collection. The interview schedule was developed based on the objectives of the study and relevant literature. It consisted of structured items measured on a three-point continuum (frequently = 2, occasionally = 1, and never = 0). The instrument was pre-tested on a small sample of 30 respondents from a population similar to the target group. The instrument showed good internal consistency with Cronbach’s $\alpha = 0.86$. Simple statistical tools, such as frequency, percentage, and Pearson’s correlation, multiple regression, Mann Whitney U test were employed to analyze the data using the SPSS 26 package.

RESULTS AND DISCUSSION

The utilization patterns of different information sources by goat farmers in Mathura and Mirzapur districts revealed a strong reliance on personal-localite networks, mass media, and limited professional contacts, as detailed in Table 1.

Goat farmers exhibited a strong preference for personal-

localite sources, with friends and neighbors being the most frequently consulted across both districts. In Mathura, 43.33 percent of farmers reported frequent reliance on friends and 45.56 percent on neighbors, while in Mirzapur, the figures were even higher. Family members and relatives were frequently consulted by 33.33 percent of farmers, although the majority (66.67%) relied on them only occasionally. Progressive farmers were another important source, with 36.11 percent reporting frequent use. These findings highlighted a strong dependence on close-knit local networks for practical guidance in goat rearing, reflecting the trust placed in peer experiences. The results were consistent with the earlier studies by Sinha *et al.* (2018), Gautam *et al.* (2018), and Rout *et al.* (2017), who similarly emphasized the centrality of informal networks in livestock knowledge dissemination in rural India, particularly where formal extension services are limited, supported by the findings of Biradar (2000) and Roy *et al.* (2015), who reported that minimal reliance on

Table 1. Distribution of the respondents according to information sources utilised

S. No.	Information sources	Mathura (n=90)			Mirzapur (n=90)			Pooled (N=180)		
		Frequently	Occasionally	Never	Frequently	Occasionally	Never	Frequently	Occasionally	Never
Personal-localite information										
1.	Family members/ relatives	26 (28.89)	64 (71.11)	0 (0.00)	34 (37.78)	56 (62.22)	0 (0.00)	60 (33.33)	120 (66.67)	0 (0.00)
2.	Friends	39 (43.33)	51 (56.67)	0 (0.00)	53 (58.89)	37 (41.11)	0 (0.00)	92 (51.11)	88 (48.89)	0 (0.00)
3.	Neighbors	41 (45.56)	49 (54.44)	0 (0.00)	51 (56.67)	39 (43.33)	0 (0.00)	92 (51.11)	88 (48.89)	0 (0.00)
4.	Progressive farmers	37 (41.11)	43 (47.78)	10 (11.11)	28 (31.11)	62 (68.89)	0 (0.00)	65 (36.11)	105 (58.33)	10 (5.56)
Personal cosmopolite information										
1.	Veterinarians	25 (27.78)	65 (72.22)	0 (0.00)	21 (23.33)	69 (76.67)	0 (0.00)	466 (25.56)	134 (74.44)	0 (0.00)
2.	Para-veterinarian	28 (31.11)	62 (68.89)	0 (0.00)	20 (22.22)	70 (77.78)	0 (0.00)	48 (26.67)	132 (73.33)	0 (0.00)
3.	Extension officer	0 (0.00)	32 (35.56)	58 (64.44)	0 (0.00)	24 (26.67)	66 (73.33)	0 (0.00)	56 (31.11)	124 (68.89)
4.	SHG/ NGOs/ cooperatives	0 (0.00)	24 (26.67)	66 (73.33)	0 (0.00)	33 (36.67)	57 (63.33)	0 (0.00)	57 (31.67)	123 (68.33)
Impersonal cosmopolite information										
1.	Television	65 (72.22)	25 (27.78)	0 (0.00)	56 (62.22)	34 (37.78)	0 (0.00)	121 (67.22)	59 (32.78)	0 (0.00)
2.	Radio	0 (0.00)	36 (40.00)	54 (60.00)	0 (0.00)	75 (83.00)	15 (17.00)	0 (0.00)	111 (61.67)	69 (38.33)
3.	Newspaper	13 (14.44)	30 (33.33)	47 (52.22)	0 (0.00)	32 (35.56)	58 (64.44)	13 (7.22)	62 (34.44)	105 (58.33)
4.	Social media	45 (50.00)	38 (42.22)	7 (7.77)	28 (31.11)	57 (63.33)	5 (5.56)	73 (40.56)	95 (52.78)	12 (6.67)
5.	Exhibition/ Pashu mela	0 (0.00)	33 (36.67)	57 (63.33)	0 (0.00)	17 (18.89)	73 (81.11)	0 (0.00)	50 (27.78)	130 (72.22)

(Figures in the parentheses indicate percentages)

neighbours or progressive farmers, suggesting variable interpersonal consultations according to district-specific social structures, awareness levels, or contextual factors within Uttar Pradesh.

The assessment of personal-cosmopolite information sources revealed that veterinarians and para-veterinarians were the most frequently consulted across both districts. In Mathura, 27.78 percent of farmers reported frequent use of veterinarians and 31.11 percent of para-veterinarians, while in Mirzapur, the figures reduced to 23.33 percent and 22.22 percent, respectively. The extension officers were not frequently used, with only 31.11 percent farmers reporting occasional engagement with them. The representatives of SHGs, NGOs, or cooperatives also showed a similar pattern. These findings point to persistent challenges, such as limited access, infrequent outreach, and perceived lack of relevance, underscoring the need for stronger field-level support. The observed trends aligned with Kumar *et al.* (2014), who identified veterinarians as the most trusted source of information among livestock owners in Uttar Pradesh, while ranking extension workers much lower. However, the results diverged somewhat from Singh and Singh (2020), who reported that goat farmers in Punjab engaged with extension personnel at low-to-medium levels, suggesting that regional differences in social structures, institutional presence, and awareness also play a role in shaping the extent of reliance on cosmopolite sources.

Television emerged as the most frequently utilized mass media source in both districts, with 67.22 percent of the pooled sample using it frequently. These results were in agreement with the findings of Kumar *et al.* (2014), who reported television as one of the most effective mass media for agricultural information dissemination in India. Radio showed a distinctly different pattern from television, as no farmer in either of the districts reported its frequent use. This suggested that radio played only a supplementary role in information access, which was consistent with the observations of Tegene *et al.* (2022). However, the present findings partially contradicted with the reports of Bandyopadhyay *et al.* (2001), Meena and Chauhan (2005), and Kumar *et al.* (2014), who identified radio as a leading or important source of livestock information in rural areas. Social media emerged as the second most frequently utilized mass media source after television, with 50.00 percent of farmers in Mathura and 31.11 percent in Mirzapur reporting frequent use. Newspaper use was limited, with 58.33 percent of farmers never used newspapers as a source of information, pointing towards low accessibility, literacy constraints, or limited perceived relevance of print media in the study area. This pattern supported earlier evidence of generally low mass media utilization among goat and livestock farmers reported by Biradar (2000), Roy *et al.* (2015), and Singh and Singh (2020), where only a narrow set of channels were also routinely used for livestock-related information. Exhibitions and animal fairs (Pashu Melas) were rarely used as information sources. This very low participation was consistent with the observations

of Singh *et al.* (2020), who reported underutilization of animal fairs and related events despite their high potential as extension platforms. The limited use of exhibitions and Pashu Melas in the present study underscored a missed opportunity for experiential and demonstrative learning, which could be addressed by better mobilization, awareness campaigns, and integration of such events with other media and institutional channels.

Table 2 shows the distribution of the respondents according to their level of information seeking behaviour. The majority of farmers in Mathura (91.11%) and Mirzapur (97.78%) fell under the category of medium information seeking behaviour, while a small proportion exhibited high information seeking behaviour, accounting for 2.22 percent in both districts. Very few respondents were in the low category, with 6.67 percent in Mathura and none in Mirzapur. The Mean utilization score was found to be 13.08. The Mann–Whitney U test was employed to examine the differences in information source utilization among goat farmers from Mathura and Mirzapur districts. The test result ($p=0.963$) indicated no statistically significant difference between the two districts, suggesting that the farmers across both regions exhibited similar patterns of information source utilization. This finding was consistent with the results reported by Narendra *et al.* (2022), where similar nonsignificant Mann–Whitney U tests were observed in ICT utilization, highlighting uniform utilization patterns despite regional variations.

Pearson's correlation analysis examined how farmers' socio-demographic characteristics influenced their use of different information sources, with detailed coefficients presented in Table 3. Information source utilization among goat farmers in the present study exhibited a differentiated pattern of association with socio-economic variables across Mathura and Mirzapur districts. In Mathura, education ($r=0.322^{**}$) and landholding ($r=0.256^{*}$) showed a positive and significant correlation with information source utilization, whereas age, farming experience, and annual

Table 2. Distribution of the respondents according to information seeking behavior

S. No.	Category	Mathura (n=90)	Mirzapur (n=90)	Pooled (N=180)
1.	Low (less than 9)	6 (6.7)	0 (0.0)	6 (3.3)
2.	Medium (9-17)	82 (91.1)	88 (97.8)	170 (94.4)
3.	High (more than 17)	2 (2.2)	2 (2.2)	4 (2.2)
	Mean Utilization score	13.03 ^{NS}	13.14 ^{NS}	13.08
	Mann-Whitney U test		4034.000	
	p value		0.963	

NS: Not significant; ** - Significant at 1% level, * - Significant at 5% level; (Figures in the parentheses indicate percentages)

Table 3. Correlation between socio-demographic characteristics and information source utilization

Information Source Utilised	Age	Experience	Education	Land holding	Annual income
Mathura (n=90)	-0.162	-0.140	0.322**	0.256*	0.014
Mirzapur (n=90)	0.086	0.211*	0.389**	0.336**	0.271**
Total (N=180)	-0.074	-0.015	0.344**	0.289**	0.146

**Significant at the 0.01 level; * Significant at the 0.05 level

income had non-significant relationships. In contrast, in Mirzapur, education ($r=0.389^{**}$), landholding ($r=0.336^{**}$), experience ($r=0.211^*$), and annual income ($r=0.271^{**}$) were all positively and significantly associated with information source utilization, while age remained non-significant. The results suggested that formal education and resource availability, particularly landholding were the most consistent factors influencing goat farmers’ effective utilization of information sources in the study region.

Education and landholding consistently emerged as the strongest determinants of information-seeking behavior among goat farmers, enabling better access and utilization of information sources (Yadav and Yadav, 2024; Narendra *et al.* 2022). Age showed no significant influence, echoing earlier findings (Yadav and Yadav, 2024; Lahoti *et al.* 2011), while experience and annual income played a more pronounced role in Mirzapur, suggesting that in resource-constrained settings these factors directly affect farmers’ ability to access information (Suman *et al.* 2025). A positive but context-dependent role of income was significant only in Mirzapur, and aligned with the studies by Nazari and Hassan (2020) and Chauhan and Kansal (2014), which highlighted that farmers with stronger socio-economic status utilize a wider variety of media sources. Overall, the results resonated with Sinha *et al.* (2018) and Singh *et al.* (2014), reinforcing that education, landholding, and exposure to extension agencies were key drivers of effective information

The multiple regression analysis (Table 4) conducted with age, experience, education, landholding, and annual income as independent variables revealed an R^2 value of 0.291, indicating that these factors collectively accounted for 29.1 percent of variation in the information source utilization scores of goat farmers. Among the variables, education and landholding were identified as significant predictors ($p<0.01$), while annual income did not show significant effects.

An analysis of information source utilization among 180 goat farmers in Uttar Pradesh highlighted a robust dependence on interpersonal networks, particularly friends, neighbours, and progressive farmers, reflecting deep trust in peer wisdom amid sparse formal extension. While personal cosmopolite sources, such as veterinarians and para-veterinarians, offered valued expertise occasionally, extension officers see minimal traction, underscoring systemic gaps in accessibility. Mass media shines through television’s and social media’s dominance due to its wide rural reach, visual demonstration capacity,

Table 4. Regression of information source utilisation score with socio-economic parameters

Independent Variables	B	Sig
Age	-0.060	0.113
Experience	0.042	0.454
Education	0.856	0.000**
Land holding	1.306	0.000**
Annual income	-0.013	0.060
R^2		0.291
F value	8.237	

(* significant at 5% level of significance; ** significant at 1% level of significance)

and independence from literacy barriers, and also enables real-time exchanges through WhatsApp and YouTube. In contrast, radio has declined due to irregular programming and competition from visual media; newspapers struggled with literacy constraints and limited rural customization; while exhibitions faced logistical challenges, including remote locations, high travel costs, and inadequate outreach.

To address these gaps and strengthen information dissemination, extension agencies should expand goat-focused television programming on Doordarshan, while simultaneously leveraging digital platforms through targeted WhatsApp and YouTube campaigns integrated with the National Digital Livestock Mission (NDLM) and Bharat Pashudhan app. Radio can be revitalized with scheduled vernacular bulletins and farmer-centric content, and participation in livestock fairs can be encouraged through subsidized travel and improved outreach. Furthermore, literacy and digital training programs can democratize access to information and ensure equitable participation across farming communities. This integrated approach would enhance the flow of knowledge, bridge communication barriers, and empower goat farmers with timely and practical guidance for sustainable livestock management.

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