

## Knowledge Level of Tribal Livestock Owners about Different Livestock Management Practices in Banswara District of Rajasthan

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### ABSTRACT

*The present study was carried out to assess the knowledge level of tribal livestock owners about different livestock management practice in Banswara district of Rajasthan. The study was conducted in 8 selected villages of two tehsils of Banswara district by personally interviewing 120 tribal livestock owners. The study reveals that majority (69.17%) of the respondents had moderate level of overall knowledge followed by low (15.83%) and high knowledge (15%). It was also found that tribal livestock owners had moderate level of knowledge regarding breeding (62.5%), feeding (84.17%), management (90%) and health care practices (80.83%). The relationship analysis reveals that age of the tribal livestock owners had negative and significant correlation ( $r = -0.300$ ) with knowledge level of tribal livestock owners at 5 per cent level of significance while education ( $r = 0.445$ ), land holding ( $r = 0.343$ ), membership of milk co-operative society ( $r = 0.234$ ), livestock holding ( $r = 0.851$ ), socio-economic status ( $r = 0.517$ ), mass media exposure ( $r = 0.564$ ), total income ( $r = 0.302$ ) had positive and significant correlation with knowledge level of tribal livestock owners at 5 per cent level of significance and income from animal husbandry ( $r = 0.226$ ) had positive and significant correlation with knowledge level of tribal livestock owners at 1 per cent level of significance.*

**Key words:** Knowledge; Breeding; Feeding; Management; Health care; Tribal;

The tribals are the weakest among the weaker sections of the society because of the long periods of isolation and economic deprivation. The crop enterprise could not help the tribal farmers to increase their income and employment because of poor productivity, low availability of per capita arable land and also lack of other income generating avenues. Hence, there is heavy dependence of tribal households on animal husbandry activities. Thus, livestock keeping generates a continuous stream of income and employment, makes it an inevitable component of tribal development (Meganathan *et al.*, 2010). Due to its high human population and the comparatively low milk yield of its dairy animals, India has a very low per capita milk production. (Hemme *et al.*, 2003).

Enhancing the knowledge of tribal livestock owners would be the first step towards attaining a higher-level

adoption of the recommended livestock management practices. Knowledge is a pre-requisite to the proper utilization of improved livestock management practices by the tribal livestock owners and is ultimately linked with the increased economic returns from dairying. Therefore, in order to assess the existing knowledge level of tribal livestock owners regarding different livestock management practices, the present study was undertaken among tribal livestock owners in a selected tribal settlement in Banswara district of Rajasthan.

### METHODOLOGY

The study was conducted in Banswara district of Rajasthan. The district was selected purposively for the study because it has highest tribal population in the state. Kushalgarh and Bagidora tehsils were selected for the study because these collectively share 48.19 per cent

(6,61,634) tribal population of the district (*Census of India, 2011*). From the selected tehsils, villages comprise more than 98 per cent of tribal population were listed out. Among them, four villages were randomly selected from each tehsil. Thus, total eight villages were selected for the purpose of study. Prior to collection of data, a comprehensive list of tribal families who possess livestock for their livelihood was prepared for each selected village with the help of voter’s list, Panchayat Officials and villagers. From those prepared lists, 15 tribal families from each selected villages were randomly selected as respondents. Thus, total 120 tribal families who possess livestock for their livelihood were selected as respondents for the present study.

*Knowledge level of tribal livestock owners:* The knowledge of tribal livestock owners was measured through developing interview schedule that included all the important recommendations of livestock breeding, feeding, management and health care practices of the study area.

The knowledge was measured on three-point continuum scale i.e. correct answer, partially correct and incorrect answer. The score of 2, 1, and 0 was allotted to each correct, partially correct and incorrect answer, respectively. The knowledge score of each area viz. breeding, feeding, management and health care of

a respondent was added up to know the level of knowledge in a particular area so as to prioritize the areas according to mean knowledge score obtained.

The mean knowledge score of one respondent in a sub-area/area was calculated by:

$$MKS = \frac{TSO}{TOS}$$

MKS=Mean Knowledge Score

TSO= Total Score Obtained

TOS+ Total Obtainable Score

Meaningful inferences were drawn using frequencies, percentage and standard deviations (S. D.).

## RESULTS AND DISCUSSION

*Level of Knowledge of Livestock Owners about Different Livestock Management Practices:*

*Breeding:* Data from Table 1 revealed that in composite group, majority (62.5%) of the tribal livestock owners had moderate level of knowledge followed by 22.5 per cent of livestock owners had low and 15 per cent of tribals had high knowledge level. Among different livestock holding category-wise, 60, 25 and 15 per cent of small livestock holders, 75, 11.84 and 13.16 per cent of medium livestock holders and 25,54.17 and 20.83 per cent of large livestock holders were having moderate, low and high knowledge level, respectively in each

**Table 1. Distribution of Tribal Livestock Owners According to Their Knowledge Level in Different Areas of Livestock Management Practices (N=120)**

Livestock Management Practice	Knowledge Level	Tribal livestock owners having Different Livestock Holding			Composite Group
		Small (N= 20)	Medium (N=76)	Large (N=24)	
Breeding	Low (<0.57)	5 (25)	9(11.84)	13 (54.17)	27 (22.5)
	Moderate(0.57-0.80)	12 (60)	57 (75)	6 (25)	75 (62.5)
	High (> 0.80)	3 (15)	10(13.16)	5 (20.83)	18 (15)
Feeding	Low (<0.16)	00	00	00	00
	Moderate(0.16-0.42)	15 (75)	65 (85.53)	21 (87.5)	101 (84.17)
	High(>0.42)	5 (25)	11 (14.47)	3 (12.5)	19 (15.83)
Management	Low (< 0.20)	1 (5)	2 (2.63)	00	3 (2.5)
	Moderate(0.20-0.36)	19 (95)	68 (89.47)	21 (87.5)	108 (90)
	High(>0.36)	00	6 (7.90)	3 (12.5)	9 (7.5)
Health Care	Low (< 0.69)	3 (15)	9 (11.84)	2 (8.33)	14 (11.67)
	Moderate(0.69 -0.84)	14 (70)	61 (80.26)	22 (91.67)	97 (80.83)
	High(> 0.84)	3 (15)	6 (7.90)	00	9 (7.5)
Over all	Low (<0.43)	3 (15)	7 (9.21)	9 (37.5)	19 (15.83)
	Moderate(0.43-0.58)	12 (60)	59 (77.63)	12 (50)	83 (69.17)
	High(>0.58)	5 (25)	10 (13.16)	3 (12.5)	18 (15)

\*Data in parentheses indicate per cent of respondents

category. The highest knowledge was possessed by medium livestock holders followed by small and large livestock holders regarding breeding practices. These findings are in accordance with the findings of *Devi et al. (2008)* and *Singh et al. (2013)*.

**Feeding:** Data in Table 1 reflected that in composite group, majority (84.17%) of tribal livestock owners were possessing moderate level of knowledge followed by 15.83 per cent of respondents had high level of knowledge regarding feeding practices. None of the respondent in composite group had low level of knowledge regarding feeding practices. Among different livestock holding categories, 75 and 25 per cent of small livestock holders, 85.53 and 14.47 per cent of medium livestock holders and 87.5 and 12.5 per cent of large livestock holders were having moderate and high level of knowledge, respectively. Tribal livestock owners having large herd sizes were found to have high knowledge level followed by medium and small herd size farmers. These findings are in line with the findings of *Sharma and Singh (2008)* and *Singh et al. (2013)*.

**Management:** Data from the Table 1 revealed that in composite group, majority (90%) of the tribal livestock owners had moderate level of knowledge followed by 7.5 per cent and 2.5 per cent of tribal livestock owners had high and low knowledge level, respectively. Among different livestock holding categories, 5 and 95 per cent of small livestock holders, 87.5 and 12.5 per cent of large livestock holders had moderate and high level of knowledge regarding management practices, respectively. As high as 2.63, 89.47 and 7.90 per cent of tribal livestock owners from medium livestock holding category possessed low, moderate and high level of knowledge regarding management practices. It is clear from the data that tribals from small livestock holding category were having comparatively high knowledge followed by tribals of medium and large livestock holding category. *Singh et al. (2013)* in his study also found the similar results.

**Health care:** As evident from Table 1 that in composite group, majority (80.83%) of the tribal livestock owners had moderate level of knowledge followed by 11.67 per cent of tribal livestock owners had low and 7.5 per cent had high level of knowledge. Among different livestock holding categories 70, 15 and 15 per cent of small

**Table 2. Distribution of tribal livestock owners according to correlation between independent variables and knowledge regarding overall livestock management practices (N=120)**

Independent Variables	'r' value
Age	-0.300**
Education	0.445**
Land holding	0.343**
Membership of milk co-operative society	0.234**
Livestock holding	0.851**
Socio- Economic status	0.517**
Extension contact	-0.093
Mass media exposure	0.564**
Income from AH	0.226*
Total income	0.302**

\*\* Correlation is significant at the 0.01 level \* Correlation is significant at the 0.05 level

livestock holders; 80.26, 11.84 and 7.90 per cent of medium livestock holders were having moderate, low and high level of knowledge, respectively. Whereas, 91.67 per cent of large livestock had moderate and 8.33 had low level of knowledge regarding health care practices. These findings are in accordance with the findings of *Singh et al. (2013)*.

**Overall knowledge level:** It is clear from Table 1 that in composite group, majority of the tribal livestock owners (69.17%) possessed moderate level of overall knowledge followed by 15.83 per cent had low and 15 per cent of tribal livestock owners had high knowledge regarding livestock management practices. Among different livestock holding category-wise, 60, 15 and 25 per cent of small livestock holders, 77.63, 9.21 and 13.16 per cent of medium livestock holders and 50, 37.5 and 12.5 per- cent of large livestock holders were having moderate, low and high level of knowledge, respectively, in each category. These findings are in accordance with the findings of *Sharma and Intodia (1990)* and *Binkadakatti et al. (2012)*.

**Correlation between Socio-Economic Characteristics and Knowledge Level about Animal Husbandry Practices of Tribal Livestock Owners :** The relationship analysis given in Table 2 reveals that age of the tribal livestock owners had negative and significant correlation ( $r = -0.300$ ) with knowledge level of tribal livestock owners at 5 per cent level of significance while education ( $r = 0.445$ ), land

holding( $r=0.343$ ), membership of milk co-operative society( $r=0.234$ ), livestock holding ( $r=0.851$ ), socio-economic status( $r=0.517$ ), mass media exposure ( $r=0.564$ ), total income ( $r=0.302$ ) had positive and significant correlation with knowledge level of tribal livestock owners at 5 per cent level of significance and income from animal husbandry ( $r=0.226$ ) had positive and significant correlation with knowledge level of tribal livestock owners at 1 per cent level of significance. These findings were in accordance with the findings of Gaur, S. et al. (2015).

## CONCLUSION

Knowledge about various livestock management practices is the pre-requisite for acceptance and adoption of modern technology. Tribal livestock owners can adopt new technology if they have knowledge about it. So, exposure to and use of appropriate information by poor livestock owners will help them to improve knowledge enabling them to obtain more output from their livestock. Thus, a realistic planning for education and training need to be done to enhance the knowledge level of tribal people pertaining to livestock rearing.

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