



ISSN (E): 2277-7695
ISSN (P): 2349-8242
NAAS Rating: 5.23
TPI 2022; SP-11(9): 2067-2069
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www.thepharmajournal.com
Received: 16-06-2022
Accepted: 19-07-2022

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Study on knowledge level of the farmers on improved livestock rearing practices

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Abstract

Though India is number one country in the world in livestock population, yet animal husbandry is still not being perceived as the “primary occupation” by our farmers. And, this may be the reason behind their low/poor level of awareness about recent advances in the field of animal husbandry. The present study was conducted in Ranchi district of Jharkhand state. Four blocks of Ranchi district and total of 8 villages were selected for the study. A total of 160 respondents were selected randomly. The result of study revealed that majority of farmers were having medium level of knowledge in improved breeding practices, management practices, feeding practices as well as in health care and disease control.

Keywords: Livestock, primary occupation, breeding practices

1. Introduction

Agriculture and related activities are important for rural farmers' socio-economic development, income generation, and well-being in India. Agriculture is a source of income for a large number of illiterate and unskilled people in India (Bhattacharjee *et al.*, 2021) ^[1]. Agriculture, on the other hand, is a seasonal employment sector with just 180 days of employment per year. Landless and low-land people rely on animals to supplement their income during the lean agricultural season. Livestock is a secondary source of income for many Indian families, particularly the resource poor who retain a limited number of animals. Animal husbandry which includes dairying, goatary, poultry farming, pig farming etc. ensures food and nutritional security to the millions of people living in rural, urban and semi-urban areas. Also, livestock plays very important role in economy of the Indian farmers. India is having a huge diversified livestock population, enriching the lives of million of people of rural India. Livestock is the integral component in sustainable agriculture, and one cannot think of sustainable agriculture without livestock. Livestock are also considered as ‘moving banks’ because they have the potentiality of being disposed off at the time of emergencies. It serves as a source of capital and many times in case of landless labourers livestock are only capital source they possess. It also serves as an insurance against crop production risks and as a coping mechanism against livelihood shocks.

Assessment of knowledge level of farmers is the prerequisite of implementation of any development programme. Knowledge helps in adoption of any improved or new technology or practices many times. Before implementation of different development programme an assessment of the existing knowledge level of the farmers is the need of the hour. Knowledge is the amount of information and understanding, which can be recalled through memory of ideas or content by the respondents at the time of interview. Knowledge is one of the important components of behaviour and hence it plays an important role in adoption behaviour of farmers. Knowledge in the present study was operationalised as a body of understood information by the livestock farmers in respect to improved animal husbandry practices.

2. Research Methodology

The present study was conducted in the Ranchi district of Jharkhand state. An Ex-post-facto research design was used in the present investigation. The Ranchi district is one of the twenty-four districts of Jharkhand state in eastern India. Out of the 24 blocks of Ranchi district, four blocks, namely, Kanke, Ormanjhi, Angara and Nagri were selected randomly for the study. Two villages were selected at random from each block. Twenty respondents from each village were selected randomly for eliciting information from the farmers.

Thus 40 farmers from each block were selected and finally a total of 160 respondents were selected for the present study. The data were collected by using the personal interview method.

3. Result and Discussion

3.1 Knowledge level of the farmers on improved Breeding practices

The knowledge level of respondents on improved breeding practices is depicted in table 1. It was found that majority of the respondents (62.50 percent) were having medium level of knowledge on improved breeding practices. The above

findings is due to fact that majority of respondents have understood the importance of knowledge of accurate and timely heat detection, A.I./natural service at proper time of heat and pregnancy diagnosis at 60-90 days after A.I./natural service, for better breeding efficiency of dairy animals but lack of contact with veterinary surgeons/staffs because of high cost involved in calling them for treatment of breeding related problems, lack of Artificial Insemination (A.I.) centers, ill equipped and poor services at A.I. centers and distant location of veterinary hospital/A.I. centers discourage them to adopt improved breeding practices.

Table 1: Distribution of Respondents on the basis of their Knowledge on improved Breeding practices

SS SL. No.	Level of knowledge	Frequency	Percentage	Remarks
1.	Low Level Knowledge <(Mean – S.D) (<5.58)	21	13.13	Maximum Score=15 Mean = 6.78 S.D =1.2
2.	Medium Level Knowledge (Mean - S.D) to (Mean +S.D) (5.58 to 7.98)	100	62.50	
3.	High Level Knowledge >(Mean +S.D) (>7.98)	39	24.37	
Total		160	100	

(n=160)

3.2 Knowledge level of the farmers on improved Feeding practices

The data related to the level of knowledge of the respondents on improved feeding practices is presented in table below. Data presented in table 2 clearly indicates majority of the respondents (81.87 percent) having the medium level of knowledge on feeding practices. It also indicates 11.25

percent of respondents having low level of knowledge and 6.88 percent of respondents having high level of knowledge on improved feeding practices. The reason for having medium level of knowledge on feeding practices are might be due to lack of interest of respondents on feeding management, lack of knowledge about the methods of conservation of feed, urea treatment over the straw to enhance its nutritive value etc.

Table 2: Distribution of Respondents on the basis of their Knowledge on improved Feeding

SL. No.	Level of knowledge	Frequency	Percentage	Remarks
1.	Low Level Knowledge <(Mean – S.D) (<4.54)	18	11.25	Maximum Score=12 Mean = 6.31 S.D =1.77
2.	Medium Level Knowledge ((Mean - S.D) to (Mean +S.D) (4.54 to 8.08)	131	81.87	
3.	High Level Knowledge >(Mean +S.D) (>8.08)	11	6.88	
Total		160	100	

(n=160)

3.3 Knowledge level of the farmers on improved Management practices

Data related to knowledge of respondents on improved management practices is presented in table no 3. The data reveals majority of respondents (74.37 percent) having medium level of knowledge on improved management practices. 22.5 percent of respondents were found to have low level knowledge on management practices, which is followed by 3.13 percent of respondents having high level knowledge.

The probable reason might be that housing facility are less because of poor economic condition of the farmers and they depends only on agriculture and livestock for their livelihood, they lack knowledge on timely deworming of the animals, they do not maintain hygiene in their animal shed, dehorning/debeaking/cutting of needle teeth is done by very few farmers. Only 3.13 per cent farmers had high level of knowledge about improved management practices.

Table 3: Distribution of Respondents on the basis of their Knowledge related to Management

SL. No.	Level of knowledge	Frequency	Percentage	Remarks
1.	Low Level Knowledge <(Mean – S.D) (<3.94)	36	22.5	Maximum Score=11 Mean = 6.37 S.D =2.43
2.	Medium Level Knowledge (Mean-S.D) to (Mean + S.D) (3.94 to 8.80)	119	74.37	
3.	High Level Knowledge >(Mean+ S.D) (>8.80)	5	3.13	
Total		160	100	

(n=160)

3.4 Knowledge level of the farmers on Health Care and Disease Control

To prevent the animals from infectious disease timely vaccination and to prevent spread of diseases from one animal to other proper measures (segregation of sick animals from healthy animals), periodical treatment of animals against various zoonotic diseases, care of animals during disease outbreak etc. are most important practices in animal

husbandry. The data presented in the table no.4 shows knowledge level of farmers about improved practices on disease control and health care. The data presented in Table 3.4 visualizes that in the area of health care and disease control maximum number of farmers come under medium level of knowledge with 74.37 per cent, followed by 15.00 per cent and 10.63 per cent with high and low level of knowledge, respectively.

Table 4: Distribution of Respondents on the basis of their Knowledge related to Disease Control and Health Care

SL. No.	Level of Knowledge	Frequency	Percentage	Remarks
1.	Low Level Knowledge $<(\text{Mean}-\text{S.D}) (<4.70)$	17	10.63	Maximum Score=12 Mean = 6.11 S.D =1.41
2.	Medium Level Knowledge (Mean-S.D) to (Mean+ S.D) (4.70 to 8.80)	119	74.37	
3.	High Level Knowledge $>(\text{Mean}+ \text{S.D}) (>8.80)$	24	15.00	
Total		160	100	

(n=160)

3.5 Overall knowledge of farmers on improved animal husbandry practices

Data related to overall knowledge of farmers about animal breeding, feeding, management, health care and disease control practices are illustrated in Table. The data presented in

same table lighted that overall knowledge about improved animal husbandry practices. It was found that 73.75 per cent farmers had medium level of knowledge about improved animal husbandry practices which is followed by 15 per cent low and 13.33 per cent high level of knowledge.

Table 5: Distribution of Respondents on the basis of their overall Knowledge on improved Animal Husbandry practices

SL. No.	Level of knowledge	Frequency	Percentage	Remarks
1.	Low Level Knowledge $<(\text{Mean} - \text{S.D}) (<21.23)$	24	15.00	Maximum Score=50 Mean = 25.60 S.D =4.37
2.	Medium Level Knowledge (Mean-S.D) to (Mean+ S.D) (21.23 to 29.97)	118	73.75	
3.	High Level Knowledge $>(\text{Mean}+ \text{S.D}) (>29.97)$	18	11.25	
Total		160	100	

(n=160)

4. Conclusion

The findings of present study indicates that majority of the livestock farmers had medium level of overall knowledge on improved animal husbandry practices followed by low and high. To increase the existing knowledge level about improved animal husbandry practices, effective strategies can be developed by extension agencies to improve knowledge level of the farmers leading to higher productivity in India. It is suggested that more participatory cum need based training field days, exhibitions, camps, radio/TV talks and farmer's fair programmes, demonstrations, should be organized through outreach centers like Krishi Vigyan Kendra's, Farmers Training Centers, Veterinary University Training Research Centers, State Department of Animal Husbandry and other NGOs to increase the know-how of the farmers. Training modules for different improved animal husbandry practices need to be developed in consultation with Subject Matter Specialists (SMS) for improving the production and productivity among the farmers.

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