



EXTENT OF KNOWLEDGE OF IMPROVED DAIRY PRACTICES OF FARMERS OF KAUROLI, RAJASTHAN

Bacchu Singh^{1*} & K. C. Meena²

Krisbi Vigyan Kendra, Hindaun (Karauli)

Krisbi Vigyan Kendra, Swaimadhopur

Received: 07/05/2018

Edited: 19/05/2018

Accepted: 28/05/2018

Abstract: This study was carried out in the randomly selected 20 villages of Hindaun and Todabhim blocks of Karauli District of eastern Rajasthan. It was found that majority of the respondents had partial knowledge about feeding elements, feeding of concentrates and roughage mixture, time of feeding concentrate, feed requirements for maintenance of animals, feed requirements for production purpose, green fodder requirements, extra essential minerals requirement to animals with concentrate and roughage and quantity of minerals required per day per animal, Animal breeding programme, improved breeds of bull, artificial insemination, time of next insemination after parturition of animals, pregnancy diagnosis and sources of artificial insemination carried out by artificial insemination centre, vaccination programme to control the diseases vaccination schedule, control of foot and mouth diseases control of hemorrhagic septicemia diseases, control of black quarter diseases and control of anthrax diseases. It was also found that majority of the respondents had partial knowledge about keeping the records of animals, method of determining the age of animals and proper method of milking. It can be concluded that majority of the respondent had partial knowledge about feed practices, breeding practices, disease control practices and general management practices.

Key Words: Knowledge level; animal, feed practices, breeding, disease control.

Introduction

The role of livestock is increasing in Indian economy. It contributed to nearly 16 per cent of total income from agriculture in 1970-71, which increased to over 25 per cent in 2002-03 (Meena and Singh 2013). This will continue to be so in the coming period due to various economic factors like increase in the population, urbanization and per capita income growth. The Animal Husbandry and livestock sectors are critical for the rural economy, especially the small and marginal farmers. They not only contribute to their income but also their best insurance against any natural calamity. The role of livestock is much pronounced in the arid and semi arid regions like Rajasthan, which is prone to drought and resultant crop failure. At the time of crop failure, livestock sector acts as a cushion on which the farmers can fall upon. As per Livestock Census 2012, Rajasthan had 13.3 million cattle, 12.9 million buffalo, 9.08 million sheep and 21.67 million goats. The indigenous breeds of cows reared in the district include Gir, Nagori and some local non-descript animals. Among buffaloes, Murrah, Murrah type,

Bhadhawary and non- descript types are commonly found in the district.

India is the world's single largest milk producing country with a share of about 14 per cent in world milk production. Milk has achieved a unique status in terms of its output value and contribution to the national economy, with output value exceeding Rs. 100000 crores and has made rapid strides both in terms of number of milk producers and quantity of milk produced. The White Revolution has demonstrated that the power of scale can be effectively acquired by milk producers if they work in cooperative manner with the use of improved dairy practices. As a result, the milk production reached the level of about 100 millions tonnes at the end of recent data be depicted compared to 17 million tonnes in 1950-51.

The livestock sector alone contributes nearly 25.6% of value of output at current prices of total value of output in Agriculture, Fishing & Forestry sector. The overall contribution of Livestock Sector in total GDP is nearly 4.11% at current prices during 2012-13 (19th LIVESTOCK CENSUS-2012) [3].

According to 19th Live Stock census, livestock population has increased substantially in Gujarat (15.36%), Uttar Pradesh (14.01%), Assam (10.77%), Punjab (9.57%) Bihar (8.56%); Sikkim (7.96%), Meghalaya (7.41%), and Chhattisgarh (4.34%). The unique characteristic of Indian dairy industry is that the bulk of milk production in our country is handled by small milk producers who are illiterate and unaware of economic aspects of milk production. Therefore, there is a need for poverty alleviation to be strengthened through dairying as enterprise.

Most of the rural dairy farmers, who keep dairy animals, do not follow scientific and modern animal husbandry practices which have been evolved through considerable quantum of research work carried out by the scientist resulted from decades of hard work. There is an urgent need to sensitize the dairy farmers towards the modern technologies and scientific interventions in dairy production, in order to enhance milk yield and milk quality from dairy animals. Keeping the above problems in view, the present study was taken up with the specific objectives to study the knowledge regarding recommendations pertaining to improved animal husbandry practices of the dairy farmers

Material and Methods

The investigations were carried out in the randomly selected 20 villages of Hindaun and Nadauti blocks of Karauli District of eastern Rajasthan because it is the potential district for dairy production. The dairy farmers having dairying as their major or subsidiary occupation were randomly selected from these villages. For this purpose, a comprehensive list of dairy farmers was prepared with the help of secretaries of milk co-operative societies, artificial insemination worker, sarpanch and village extension worker. From this list, 05 respondents were randomly selected from each village. Thus the sample size of randomly selected respondents was comprised of 100. The data were collected through the personal interview to get most authentic first hand information with the view of the

objectives of the study. For data analysis, average, frequencies and percentages were used.

Result and Discussion

The foremost objective of dairy enterprise, like other enterprise, is to achieve maximum productivity and profitability. In this regard a vast networking of infrastructure for the development and dissemination of relevant dairy husbandry technologies/practices were designed since the very inception of our planned economic change. It is the hard fact that effective practices management and development of dairy owner specifically their abilities, knowledge and skill are of paramount importance for the mobilization and development of dairy farming. Dairy practices generally involve the integrated application of new technology about feeding, breeding, disease control and general management in a manner suitable for particular situation.

Knowledge Level about feed practices: - Food substances are essential for the preservation of the life. The nutritive value of food is required for maintenance, growth and production purpose. Scientists have come to the help of farmers by providing certain guidelines in selecting properly balanced rations for meeting the nutrient requirement of herd. For health point of view and to get the higher milk production, one should understand the process of feeding. In present study efforts have been made to measure the level of knowledge possessed by sample respondents regarding feeding practices of herd. Table 1 revealed the level of knowledge about feed practices measured in terms of variation from improved practices in different aspect by the respondents. Regarding level of knowledge of feeding elements, the findings showed that the majority of (72 %) farmers had partial knowledge followed by (15%) who had no knowledge and (13%) who had full knowledge respectively. About feeding of concentrate and roughage mixture, the majority of (56%) farmers had partial knowledge followed by (27%) had no knowledge and (17%) who had full knowledge respectively. Regarding time of feeding concentrate

the majority of (61%) farmers had partial knowledge followed by (25%) had no knowledge and (15%) had full knowledge respectively. Regarding feed requirement for maintenance of animals the majority of (63%) farmers had partial knowledge followed by (32%) had full knowledge and (6%) had no knowledge respectively. Regarding feed requirements for production purpose the majority of (66%) farmers had partial knowledge followed by (29%) had full knowledge and (5%) had no knowledge respectively. Regarding use of green fodder (roughage) requirement the majority of (59%) farmers had partial knowledge followed by (25%) had full knowledge and (16%) had no knowledge respectively. Regarding extra essential minerals requirement for animals with concentrate and roughage the majority of (54%) farmers had partial knowledge followed by (39%) had full knowledge and (7%) had no knowledge respectively. Regarding quantity of minerals required per day per animal, the finding showed that majority of (55%) farmers had partial knowledge followed by (34%) had full knowledge and (11%) had no knowledge respectively. It was found that majority of the respondents had partial knowledge about feeding elements, feeding of concentrates and roughage mixture time of feeding concentrate, feed requirements for maintenance of animals, feed requirements for production purpose, green fodder (roughage) requirements, extra essential minerals requirement to animals with concentrate and roughage and quantity of minerals required per day per animal. These findings are in line with findings of Meena et al., (2009).

Knowledge level about breeding practices:

Efficient reproduction is an important factor affecting profit from a live-stock enterprise which is the most essential goal of entrepreneur. In another side, efficiency about breeding practices mainly depends on the understanding (Knowledge) of the

basic facts and technologies and the application (adoption) of these practices by the respondent. In this line, efforts have been made to measure the level of knowledge possessed by sample respondents regarding breeding practices of the herd. The table 1 depicts that the level of knowledge of animal breeding programme the majority of (62%) farmers had partial knowledge followed by (28%) had full knowledge and (10%) who had no knowledge respectively. About the level of knowledge of improved breeds of bull the majority (62%) farmers had partial knowledge followed by (25%) had no knowledge and (13%) who had full knowledge respectively. Regarding artificial insemination the majority of (59%) farmers had partial knowledge followed by (24%) had no knowledge and (17%) had full knowledge respectively. Regarding the level of knowledge of time of next insemination after parturition of animals the study showed that the majority of (54%) farmers were found to have partial knowledge followed by (26%) had no knowledge and (20%) who had full knowledge respectively. Regarding pregnancy diagnosis the study showed that the majority of (50%) farmers had partial knowledge followed by (39%) full knowledge and (11%) who had no knowledge respectively. Regarding the knowledge of source of artificial insemination carried out by artificial insemination center the majority of (55%) farmers were found to have partial knowledge followed by (29%) had no knowledge and (16%) who had full knowledge respectively. It was found that majority of the respondents had partial knowledge about animal breeding programme, improved breeds of bull, artificial insemination, time of next insemination after parturition of animals, pregnancy diagnosis and sources of artificial insemination carried out by artificial insemination centre. These findings are in line with findings of Meena and Chauhan (1999) and Aulakh et al. (2011).

Table 1 Respondent's Level of knowledge about improved Dairy Practices:

S. N.	Dairy practices	No. of respondents (N=100) (Level of knowledge) In %		
		FK	PK	NK
(a).	Knowledge level of feed practices:			
1.	Feeding elements	15	72	13
2.	Feeding of concentrates and roughage mixture	17	56	27
3.	Time of feeding concentrate	15	61	25
4.	Feed requirements for maintenance of animals	32	63	06
5.	Feed requirements for production purpose	29	66	05
6.	Green fodder (roughage) requirements	25	59	16
7.	Extra essential minerals requirement to animals with concentrate and roughage	39	54	07
8.	Quantity of minerals required per day per animal	34	55	11
(b).	Knowledge level of breeding practices:			
1.	Animal breeding programme	28	62	10
2.	Improved breeds of bull	13	62	25
3.	Artificial insemination	17	59	24
4.	Time of next insemination after parturition of animals	20	54	26
5.	Pregnancy diagnosis	39	50	11
6.	Sources of artificial insemination carried out by artificial insemination centre.	16	55	29
(c).	Knowledge level of disease control practices:			
1.	Vaccination programme to control the diseases.	18	55	27
2.	Vaccination schedule	20	57	23
3.	Control of Foot and Mouth diseases.	41	52	07
4.	Control of Hemorrhagic Septicemia diseases.	27	59	14
5.	Control of Black quarter diseases.	28	56	16
6.	Control of Anthrax diseases.	16	61	23
(d).	Knowledge level of general management :			
1.	Keeping the records of animals.	14	66	20
2.	Method of determining the age of animals.	22	54	26
3.	Proper method of milking.	28	56	16

Note- FK= Full knowledge, PK- Partial Knowledge, NK= No knowledge

Knowledge Level about disease control practices:-Diseases mostly cause loss of production and frequently a loss in general health of animal which simultaneously affects the loss of money and value of the enterprise. Knowledge about diseases and their control measure is definitely helpful to farmers in respect of profitability of enterprise. The data depicted in table 1 shows the level of knowledge possessed by respondents regarding main diseases of animal and their control measures. It has been observed from the study that the majority of the farmers (55%) had partial knowledge about vaccination programme to control the disease followed by (27%) respondents had no knowledge and (18%) had full knowledge about this aspect.

Regarding the level of knowledge of vaccination schedule the majority of respondents (57%) were found to have partial knowledge followed by (23%) had no knowledge and (20%) who had full knowledge, respectively. Regarding the control of foot and mouth disease, the majority of respondents (52%) was found to have partial knowledge followed by (41%) and (07%) who had full and no knowledge of this practice respectively. Regarding control of hemorrhagic septicemia disease the study showed that the majority of (59%) respondents were found to have partial knowledge followed by (27%) and (14%) who had full and no knowledge of this practice respectively. Regarding the control of black quarter disease the majority of (56%) respondents

was found to have partial knowledge followed by (28%) and (16%) who had full and no knowledge of this practice respectively. Regarding the level of knowledge of control of anthrax disease, the study showed that the majority of (61%) respondents was found to have partial knowledge followed by (23%) and (16%) who had no and full knowledge of this practice respectively. It was found that majority of the respondents had partial knowledge, about vaccination programme to control the diseases vaccination schedule, control of foot and mouth diseases control of hemorrhagic septicemia diseases , control of black quarter diseases and control of anthrax diseases. These finding were accordance with findings of Kumar et al. (2011).

Knowledge Level about general management:-

Management of livestock involves, in doing a large number of small jobs at proper time and in a proper manner. A successful dairy farmers should strive to improve and attain perfection in due course of time with improve knowledge of these practices. The data in table 1depicted the knowledge of respondent about general management practices of herd. It was found that the majority of (66%) respondents had partial knowledge of keeping the records of animals followed by (20%) and (14%) who had no and full knowledge respectively. Regarding the method of determining the age of animals, it was found that the majority of (54%) respondents had partial knowledge followed by (26%) and (22 %) who had no and full

knowledge respectively. Regarding the level of knowledge of proper method of milking, the majority of (56%) respondents had partial knowledge followed by (28%) and (16%) who had full and no knowledge respectively. It was found that majority of the respondents had partial knowledge about keeping the records of animals, method of determining the age of animals and proper method of milking. These finding are in line with the findings of Aulakh et al (2011), Kumar et al. (2011) and Rupeshkumar et al (2011).

Overall Level of knowledge of dairy farmers about dairy practices:-

The government and dairy development agencies has given prior priority for development of dairy in rural areas with efficient use of improved dairy practices to get maximum profit from this enterprise. In this reference, it is a desired to extent the knowledge improved dairy practices possessed by dairy farmers in rural area. The data in table 2 shows that the majority of the (73 %) farmers had partial level of knowledge about overall dairy practices, while (16%) farmers had full level of knowledge about overall dairy practices, and (11%) who had no level of knowledge about overall dairy practices. The results of the study were similar to the findings reported by Satyanarayan and Jagadeswary, (2010); Kumar et al., (2011); Kumawat et al., (2012) and Lohakare et al., (2013) who reported their findings from various parts of India.

Table 2: Respondent’s Level of knowledge about Overall improved Dairy Practices:

S. N.	Dairy Practices	Frequency	Percentage
1.	No Knowledge	11	11.00
2.	Partial Knowledge	73	73.00
3.	Full Knowledge	16	16.00

Conclusion: It can be concluded that majority of the respondent were found in partial level of knowledge regarding improved dairy practices followed by full knowledge and no knowledge respectively. Regarding the overall knowledge of improved dairy practices, it

was found that majority of the respondent had partial knowledge about feed practices, breeding practices, disease control practices and general management practices.

References

- Aulakh, G. S., Yadav, J. S. and Singh, R. (2011). Knowledge level of dairy farmers regarding recommended buffalo management practices. *J. Dairying Foods & H.S.*, 30 (2): 147-149.
- Kumar, S.; Kumar, B.; Hindustani, S. and Sankhala, G. (2011). Knowledge level of dairy farmers in operational area of krishi vigyan kendra about improved dairy farming practices. *Research Journal of Agricultural Sciences* , 2 (1): 122-124.
- Kumawat, R.; Yadav, J. P. and Yadav, V. P. S. (2012). Development of a standardized knowledge test for measuring knowledge level of dairy farmers about improved dairy husbandry practices. *Journal of Community Mobilization and Sustainable Development*, 7 (2): 183-188.
- Lohakare, A.C.; Gawande, S. H.; Khandait, V. N. and Basunathe, V. K. (2013). Socio-economic, psychological characteristics of the cattle owners and their relationship with adoption of animal husbandry practices in vidarbha region of maharashtra. *Research Journal of Agricultural Sciences*, 4 (3): 359-362.
- Meena, M. S. and Chauhan, J. P. S. (1999). Awareness of improved dairy farming practices by farmers of Sawai Madhopur District. *J. Dairying, Foods & Home Sci.*, 18 (1): 58-60.
- Meena, B. S.; Singh, A. K.; Chauhan, J. and Sankhala, G. (2009). Farmers' knowledge on feeding practices of dairy animals in Jhansi District. *Indian Res. J. Ext. Edu.* 9 (1): 28-31.
- Satyanarayan, K. and Jagadeeswary, V. (2010). A study on knowledge and adoption behaviour of livestock farmers. *Indian J. Anim. Res.*, 44 (2): 100- 106.
- Rupeshkumar J Raval, M S Chandawat (2011) Extent of knowledge of improved animal husbandry practices and socio-economical characteristics of dairy farmers of district Kheda, Gujarat. Vol 1, No 2 :129-137.
- 19th LIVESTOCK CENSUS (2012) All India Report, Ministry of Agriculture Department of Animal Husbandry, Dairying and Fisheries Krishi Bhawan New Delhi 11-21