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Constraints faced by Deoni cattle rearers and non-descriptive cattle rearers in the adoption of management practices

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Abstract: The present study was conducted purposively in Latur district of the Marathwada region of Maharashtra state. From this district six tahsils were selected. Four villages from each taluka were selected purposively. The total villages for the study were 24. Ten respondents from each village were selected purposively for the study. Comprising 120 respondents of Deoni cattle and 120 respondents of Non-descriptive cattle from Latur district were selected. Thus, there were a total of 240 respondents selected for the research study. Ex-post facto research design was adopted in this study. The data were collected with the help of pretested interview schedule. The statistical methods and tests such as frequency, and percentage were used for the analysis of data. From the study it was found that, Deoni cattle rearers reported that lack of knowledge about management of pregnant cow and newly born calf was the most important constraint (91.67 %) in the management of pregnant cow and newly born calf followed by lack of knowledge about improved dairy production practices (90.00 %) and lack of contact between dairy farmers and veterinarians (76.00 %) was reported as secondary constraints reported by Deoni cattle rearers. Inadequate knowledge about breeding practices (94.17 %). In the context with non-descriptive cattle rearers lack of knowledge about improved dairy production practices (93.33 %) was reported as major problem followed by lack of knowledge about management of pregnant cow and newly born calf (92.50 %) and lack of contact between dairy farmers and veterinarians (76.67 %). However, they were reported that inadequate knowledge about breeding practices (97.50 %) was the major constraint in adoption of breeding management practices.

Key words: Constraints, Deoni cattle rearers, Non-descriptive cattle rearers, Adoption, Management practices

Introduction

Livestock is an important source of income for a nation. The significance of animal husbandry in the Indian economy arises also because its assistance to tackle the serious problem of unemployment, under employment and for reducing the poverty for weaker section in the country and for providing subsidiary occupation. It also plays a dominant role in the dryland agriculture particularly in the semi-arid and arid areas of the country. The number of milch animals (in milk and dry) in cows and buffaloes has increased from 111.09 million to 118.59 million, an increase of 06.75 per cent. The female cattle (Cows) population has increased by 06.52 per cent over the previous census (2007) and the total number of female cattle in 2012 is 122.90 million numbers. The total livestock population of Maharashtra state according to 19th Livestock Census (2012) is 3,24,88,652. Total exotic/crossbred cattle female in Maharashtra is 3105627 (in milk – 1396402, dry – 576882, not calved once – 73426). Total indigenous cattle in Maharashtra are 11559938 (total female – 4897507, in milk – 1648173, dry – 1308876, not calved once – 181239). (Anonymous, 2012).

A cattle rearing is very important subsidiary business for the farmers. Cattle rearing provide farmers regular cash income throughout the year. To make the cattle rearing more profitable and well managed, it is necessary for the cattle rearers to adopt different recommended and improved cattle management practices than old cattle management practices. The socio-economic attributes of the cattle rearers may have influence on their knowledge and adoption of different cattle management practices. Therefore these different factors needs to be studied for better policy making and for motivating the cattle rearers to adopt different recommended management practices. Considering all these factors this study was conducted with a specific objective of to identify the constraints faced by Deoni cattle rearers and Non-descriptive cattle rearers in the adoption of management practices and obtain their suggestions.

Materials and Methods

The present study was conducted in Latur district of the Marathwada region of Maharashtra state which was purposively selected for the research study. From this district six tahsils were selected for the study. Four villages from each taluka were selected purposively for the study. The total villages for the study were 24. Ten respondents from each village (Five respondents of Deoni cattle and five respondents of Non-descriptive cattle) were selected purposively for the study. Comprising 120 respondents of Deoni cattle and 120 respondents of Non-descriptive cattle from Latur district were selected for the study. Thus, there were a total of 240 respondents selected for the research study. Ex-post facto research design was adopted in this study. The data were collected with the help of pretested interview schedule from the respondents as per their convenience at their home or farms. The schedule covered possible constraints which may hinder the adoption of cattle rearing management practices by the respondents. For this, constraints relating to the management of cow and newly born calf, breeding management, feeding management, health care management and other miscellaneous management practices were included in the

schedule and the responses were given form the respondents. For ascertaining the suggestions, respondents were asked to give some important suggestions for overcoming the constraints in adoption of management practices and for making cattle rearing much better to them. The frequency and percentage of each suggestion was worked out. The statistical methods and tests such as frequency and percentage were used for analysis of data.

Results and Discussion

Constraints in adoption of management practices of pregnant cow and newly born calf : The Table 1 reveals that, the Deoni cattle rearers reported that lack of knowledge about management of pregnant cow and newly born calf was the most important constraint (91.67%) in the management of pregnant cow and newly born calf followed by lack of knowledge about improved dairy production practices (90.00%) and lack of contact between dairy farmers and veterinarians (76.00%) was reported as secondary constraints by Deoni cattle rearers. In the context with non-descriptive cattle rearers lack of knowledge about improved dairy production practices (93.33%) was reported as major problem followed by lack of knowledge about management of pregnant cow and newly born calf (92.50%) and lack of contact between dairy farmers and veterinarians (76.67%).

Constraints in adoption of breeding practices: In relation to the constraints in adoption of breeding practices the data given in the Table 1 shows that, inadequate knowledge about breeding practices (94.17 %), high cost of artificial insemination centers (82.50%), poor conception of dairy animals (80.00%), perception of artificial insemination as unnatural method of breeding (75.00%), not aware about examining the pregnancy after service (70.83%) and distinct location of artificial insemination centers (56.67%) were the major problems reported by Deoni cattle rearers in adoption of breeding management practices. However, the non-descriptive cattle rearers were reported that inadequate knowledge about breeding practices (97.50%) was the major constraint in adoption of breeding management practices followed by the high cost of artificial insemination centers (87.50%), poor conception of dairy animals (83.33 %), not aware about examining the pregnancy after service (72.50 %), perception of artificial insemination as unnatural method of breeding (70.83%) and distinct location of artificial insemination centers (64.17 %) were the other important constraints faced by them in adoption of breeding management practices.

Constraints in adoption of feeding practices: The data presented in the Table 1 evident that cattle feeds and fodders are costly (95.00%) and inadequate knowledge about scientific feeding of dairy animals (94.17%) were the major problem reported by Deoni cattle rearers whereas, less knowledge about balanced feed of cow (90.00%), preference to growing cash crops over the cultivation of green fodders (89.17%), lack of grazing land facilities (87.50%) and inadequate resources for production of fodder crops (73.33%) were the other constraints faced by them in the adoption of feeding management practices. As per the constraints reported by the non-descriptive cattle rearers in adoption of feeding management practices, the data in the Table 1 shows that the major constraints faced by them were inadequate knowledge about scientific feeding of dairy animals (97.50%) and preference to growing cash crops over the cultivation of green fodders (94.17%). Further they were reported that less knowledge about balanced feed of cow (93.33%), cattle feeds and fodders are costly (92.50%), lack of grazing land facilities (87.50%) and inadequate resources for production of fodder crops (85.83%) were the considerable constraints faced by them in adoption of feeding management practices.

Constraints in adoption of health care practices: Constraints in relation with the adoption of health care management practices, from Table 1 it was reported that majority (94.17%) of the Deoni cattle rearers and most (97.50%) of non-descriptive cattle rearers were reported that the less knowledge about common diseases and schedule of vaccination was the major constraint in adoption of health care management practices. Further it is seen from Table 1 that 90.00 per cent of Deoni cattle rearers and 88.33 per cent of non-descriptive cattle rearers were reported that high cost of treatment and medicines given by the veterinarian was another important constraint in adoption of health care management practices. While 55.00 per cent, 48.33 per cent and 19.17 per cent of the Deoni cattle rearers were reported that veterinary hospitals are ill equipped, lack of proper facilities of vaccination and lack of veterinary hospitals, respectively were some other constraints. However, 63.33 per cent, 50.00 per cent and 25.83 per cent of non-descriptive cattle rearers had constraint of veterinary hospitals are ill equipped, lack of proper facilities of vaccination and lack of veterinary hospitals, respectively in adoption of different health care management practices.

Constraints in adoption of adoption of other miscellaneous practices: As evident from Table 1, in case of adoption of other miscellaneous management practices, 95.00 per cent of the Deoni cattle rearers had the constraint as lack of information about the government programmes and facilities followed by 92.50 per cent and 88.33 per cent of them had constraints as inadequate bank finance to purchase milch animals and lack of knowledge about insurance of livestocks, respectively. Further production cost of milk is high (90.00%), lack of dairy cooperative societies for milk sale (78.33%), low price for animals in the market (62.50 %) and non availability of good markets in and near the villages for selling of animals and their products (21.67%) were the other constraints reported by the Deoni cattle rearers in adoption of other miscellaneous management practices. In relation to the non-descriptive cattle rearers it is seen from Table 1 that, lack of information about the government programmes and facilities (94.17 %), inadequate bank finance to purchase milch animals (91.67%) and lack of knowledge about insurance of livestocks (90.00%) were the major constraints reported by them in adoption of other miscellaneous management practices in cattle rearing followed by lack of dairy cooperative societies for milk sale (80.00%), production cost of milk is high (78.33%), low price for animals in the market (72.50%) and non availability of good markets in and near the villages for selling of animals and their products (27.50%) were the other some constraints reported by the non-descriptive cattle rearers while adopting various miscellaneous management practices. Similar findings were reported by Mande and Thombre (2009), Pawar (2010), Murai and Singh (2011), Tailor *et al.* (2012), Ashraf *et al.* (2013) and Chaudhary *et al.* (2013).

Table-1: Constraints faced by the Deoni cattle rearers and Non-descriptive cattle rearers in adoption of management practices

Constraints	Deoni Cattle rearers (n=120)	Non-descriptive Cattle rearers (n=120)
	Frequency (%)	Frequency (%)
Constraints in adoption of management practices of pregnant cow and newly born calf		
Lack of knowledge about improved dairy production practices.	108 (90.00)	112 (93.33)
Lack of knowledge about management of pregnant cow and newly born calf.	110 (91.67)	111 (92.50)
Lack of contact between dairy farmers and veterinarians.	76 (63.00)	92 (76.67)
Constraints in adoption of breeding practices		
Inadequate knowledge about breeding practices.	113 (94.17)	117 (97.50)
Poor conception of dairy animals.	96 (80.00)	100 (83.33)
Not aware about examining the pregnancy after service.	85 (70.83)	87 (72.50)
Perception of artificial insemination centers as unnatural method of breeding.	90 (75.00)	85 (70.83)
Distinct location of artificial insemination centers.	68 (56.67)	77 (64.17)
High cost of artificial insemination centers.	99 (82.50)	105 (87.50)
Constraints in adoption of feeding practices		
Inadequate knowledge about scientific feeding of dairy animals.	113 (94.17)	117 (97.50)
Lack of grazing land facilities.	105 (87.50)	105 (87.50)
Less knowledge about balanced feed of cow.	108 (90.00)	112 (93.33)
Cattle feeds and fodders are costly.	114 (95.00)	111 (92.50)
Inadequate resources for production of fodder crops.	88 (73.33)	103 (85.83)
Preference to growing cash crops over the cultivation of green fodders.	107 (89.17)	113 (94.17)
Constraints in adoption of health care practices		
Less knowledge about common diseases and schedule of vaccination.	113 (94.17)	117 (97.50)
High cost of treatment and medicines given by the veterinarian.	108 (90.00)	106 (88.33)
Lack of proper facilities of vaccination.	58 (48.33)	60 (50.00)
Lack of veterinary hospitals.	23 (19.17)	31 (25.83)
Veterinary hospitals are ill equipped.	66 (55.00)	76 (63.33)
Constraints in adoption of adoption of other miscellaneous practices		
Lack of information about the government programmes and facilities.	114 (95.00)	113 (94.17)
Inadequate bank finance to purchase milch animals.	111 (92.50)	110 (91.67)
Lack of dairy cooperative societies for milk sale.	94 (78.33)	96 (80.00)
Production cost of milk is high.	108 (90.00)	94 (78.33)
Non availability of good markets in and near the villages for selling of animals and their products	26 (21.67)	33 (27.50)
Low price for animals in the market.	75 (62.50)	87 (72.50)
Lack of knowledge about insurance of livestocks.	106 (88.33)	108 (90.00)

Suggestions given by the cattle rearers for overcoming the constraints in adoption of cattle management practices: In relation to the Deoni cattle rearers, from the data given in the Table 2 it is revealed that, more than half (53.33%) of them were suggested to provide the detailed information regarding all the cattle management practices followed by 46.67 per cent of them were suggested that prices of fodder and concentrates should be minimized. Among them 32.50 per cent were suggested that timely information regarding government schemes and programmes relating to cattle rearing must be provided to them whereas, the other suggestions given by them were fodder should be made available in the shortage period (29.17%), communication between government employees and cattle rearers needs to increased (20.00%), timely loan facilities should be made available for cattle rearing at lowest interest (12.50%), motivate the farmers for cattle rearing (12.50 %), information about cattle diseases and their control measures should be provided (11.67%), veterinary hospitals must be modified with all the necessary facilities (10.00%), Information regarding livestock insurance should be provided (10.00%), Timely availability of government fund to the farmers or cattle rearers (10.00%), organize cattle shows, exhibitions and training for cattle rearers which helps in getting more knowledge about different breeds of cattle and their management practices (08.33%), veterinary facilities should be made in the village (06.67%), veterinary medicines and vaccines should be available in cheaper rate (05.83%), information regarding artificial insemination must be provided (05.00 %) and information about balanced diet of cattle and their management should be provided (02.50%).

In case of non-descriptive cattle rearers it could be seen from the data presented in Table 2 that, majority (45.83%) of them were suggested that there is necessary to provide information regarding all the cattle management practices followed by 37.50 per cent of them suggested that prices of fodder and concentrates should be minimized followed by equal percentage i.e. 25.00 per cent among them were given the suggestion that prices of fodder and concentrates should be minimized and timely information regarding government schemes and programmes relating to cattle rearing must be provided, respectively followed by 20.00 per cent of them suggested that there is a need to organize cattle shows, exhibitions and training for cattle rearers which helps in getting more knowledge about different breeds of cattle and their management practices.

However, some other suggestions given by non-descriptive cattle rearers were information about cattle diseases and their control

Table-2: Suggestions given by cattle rearers for overcoming the constraints faced by them in adoption of cattle management practices

Suggestions	Deoni Cattle rearers (n=120)	Non-descriptive Cattle rearers (n=120)
	Frequency (%)	Frequency (%)
Information regarding all the cattle management practices should be provided.	64 (53.33)	55 (45.83)
Information about balanced diet of cattle and their management should be provided.	03 (02.50)	15 (12.50)
Prices of fodder and concentrates should be minimized.	56 (46.67)	45 (37.50)
Fodder should be made available in the shortage period.	35 (29.17)	30 (25.00)
Information about cattle diseases and their control measures should be provided.	14 (11.67)	18 (15.00)
Veterinary facilities should be made available in the village.	08 (06.67)	05 (04.17)
Veterinary medicines and vaccines should be available in cheaper rate.	07 (05.83)	07 (05.83)
Veterinary hospitals must be modified with all the necessary facilities.	12 (10.00)	09 (07.50)
Information regarding artificial insemination must be provided.	06 (05.00)	06 (05.00)
Information regarding livestock insurance should be provided.	12 (10.00)	11 (09.17)
Timely information regarding government schemes and programmes relating to cattle rearing must be provided	39 (32.50)	30 (25.00)
Timely availability of government fund to the farmers or cattle rearers.	12 (10.00)	11 (09.17)
The communication between government employees and cattle rearers needs to increased.	24 (20.00)	13 (10.83)
Timely loan facilities should be made available for cattle rearing at lowest interest.	15 (12.50)	12 (10.00)
Organize cattle shows, exhibitions and training for cattle rearers which helps in getting more knowledge about different breeds of cattle and their management practices	37 (30.83)	24 (20.00)
Motivate the farmers for cattle rearing.	15 (12.50)	08 (06.67)

measures should be provided (15.00%), information about balanced diet of cattle and their management should be provided (12.50%), the communication between government employees and cattle rearers needs to increased (10.83%), timely loan facilities should be made available for cattle rearing at lowest interest (10.00%), information regarding livestock insurance should be provided (09.17%), timely availability of government fund to the farmers or cattle rearers (09.17%), veterinary hospitals must be modified with all the necessary facilities (07.50%), motivate the farmers for cattle rearing (06.67%), veterinary medicines and vaccines should be available in cheaper rate (05.83%), information regarding artificial insemination must be provided (05.00%) and 04.17 per cent of them were suggested that veterinary facilities should be made available in the village.

From the study it was found that, Deoni cattle rearers reported that lack of knowledge about management of pregnant cow and newly born calf was the most important constraint (91.67 %) in the management of pregnant cow and newly born calf followed by lack of knowledge about improved dairy production practices (90.00%) and lack of contact between dairy farmers and veterinarians (76.00%) was reported as secondary constraints reported by Deoni cattle rearers. Inadequate knowledge about breeding practices (94.17%). In the context with non-descriptive cattle rearers lack of knowledge about improved dairy production practices (93.33%) was reported as major problem followed by lack of knowledge about management of pregnant cow and newly born calf (92.50%) and lack of contact between dairy farmers and veterinarians (76.67%). However, they were reported that inadequate knowledge about breeding practices (97.50%) was the major constraint in adoption of breeding management practices.

In context to the important suggestions given by the respondents, it was observed that, in relation to the Deoni cattle rearers, from the data given in the results, it is revealed that, more than half (53.33%) of them were suggested to provide the detailed information regarding all the cattle management practices followed by 46.67 per cent of them were suggested that prices of fodder and concentrates should be minimized. In case of non-descriptive cattle rearers it could be seen from the data presented in results that, majority of them (45.83%) were suggested that there is necessary to provide information regarding all the cattle management practices followed by 37.50 per cent of them suggested that prices of fodder and concentrates should be minimized.

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