

## An Analysis of Constraints Perceived by Dairy Farmers in Murrah Tract of Haryana State

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### ABSTRACT

The present study was carried out to analyse the constraints perceived by the dairy farmers in Murrah tract of Haryana state. In the area of breeding belief that conception rate of artificial insemination in buffaloes is poor (79%), lack of knowledge about right time of insemination (78.67%) and belief that PD is harmful for pregnant animals (75%) were the most serious constraints perceived by dairy farmers. High cost of feed (82%) was the most serious feeding constraint followed by lack of availability of green fodder round the year (78.67%) and lack of knowledge about preparation of low cost balanced concentrate mixture at home (76%). In the area of management lack of knowledge and resources for cheap and scientific housing (72%) and cost of buffalo is very high (69%) were found the most serious constraints. High cost of treatment (79.67%) was considered as the most serious health constraint followed by lack of knowledge about common diseases and their preventive measures (72%).

**Key words:** Constraint, feeding, breeding, management, health

### INTRODUCTION

The Murrah breed of buffalo from Haryana is world famous for its milk production. The composition of bovine population in Haryana has undergone a substantial change over the years. The total buffalo population in the state is 6.08 million numbers as per census 2012. There is an increase in number of Buffaloes with 2.22 per cent during the inter censuses period (2007-2012). However, the female buffalo population has increased by 2.19 per

cent during the inter censuses period (2007-2012). The total annual milk production in the year 2014-15 has reached 79.01 lakh tonne. The per capita per day availability of milk in the state has increased to 805 gram, which is second highest in the country<sup>1</sup>. The improvement of dairy production will be particularly important in coming years in view of the future demand for livestock products, which is expected to double by 2020<sup>5</sup>.

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The ability of the dairy farmers to generate more income from dairying largely depends on the effective adoption of improved dairy husbandry practices that lead to increase in productivity but the farmers face various constraints in adoption of these practices. Constraints imply the problems or difficulties faced by dairy farmers while adopting day-to-day animal husbandry practices in their dairy enterprise. Constraints identification will help the planners and administrators in identifying the problems so that the loopholes, if any can be plugged. Thus, alleviating the constraints in scientific dairy management can definitely augment the profits. Keeping the above facts in view, the present investigation was undertaken to identify the constraints perceived by the farmers in adoption of animal husbandry practices.

#### MATERIAL AND METHODS

The present study was conducted in Haryana state during 2015-16. The Haryana state comprises of 21 districts. Out of which 5 districts namely Bhiwani, Hisar, Jind, Rohtak and Jhajjar were selected purposively for the study as these are the major tract of Murrah buffalo. From each district one block was selected randomly. A comprehensive list of villages of each selected block was prepared. Two villages were then randomly chosen from each selected block using simple lottery method. Thus, a total of ten villages were selected in all. Twenty five farmers were randomly selected from each of the ten selected villages thus constituting a sample size of 250 dairy farmers. To measure constraints a schedule was developed. A list of various constraints in the areas of breeding, feeding, management and health-care practices was prepared. The responses of the individual respondent on each item of these four areas were taken on three point continuum basis i.e. very serious, serious and somewhat serious with 3, 2 and 1 score, respectively. The score for each constraint was summed up. Higher the score, the more severe was the constraint, as perceived by the respondents. The data were collected personally by the researcher using

the well-structured and pretested interview schedule. Data were subjected to appropriate statistical analysis.

#### RESULTS AND DISCUSSION

##### Item-wise degree of seriousness of constraints perceived by dairy farmers in adoption of breeding practices

The data given in Table 1 revealed that 'belief that conception rate of A.I. in buffaloes is poor' was found the most serious constraint. The severity of this constraint was 79 per cent as a result it ranked 1st. The other constraints related to breeding of as perceived by the dairy animals were lack of knowledge about right time of insemination (78.67%) followed by 'belief that P.D. is harmful for pregnant animals (75%), repeat breeding problem in buffaloes' (73.33%), 'preference of natural service in buffalo (66.67%) and lack of improved bulls for breeding in the village' (65%). The last 7th rank was occupied by the constraint namely inadequate knowledge about pedigree enquiry' and only 61.33 per cent of the respondents perceived this as constraint. The present finding that repeat breeding is the major constraint is also reported by Kumar *et al.*<sup>4</sup> in different districts of Bihar, who also reported that repeat breeding was utmost constraints under breeding practices. Further Yadav *et al.*<sup>15</sup> found that repeat breeding problem was considered as major constraint as reported by tribals having RBQ value 96.67. Manjusha *et al.*<sup>6</sup> also observed that the inadequate knowledge about the pedigree enquiry was a constraint faced by dairy farmers. Modi *et al.*<sup>7</sup> depicted in their study that poor result of A.I. and repeat breeding were the major constraints faced by respondents. Right time of insemination is a major constraint which might be due to the fact that farmers know that without conception of buffalo, the buffalo husbandry is totally futile and causes great loss to the farmers.

##### Item-wise degree of seriousness of constraints perceived by dairy farmers in adoption of feeding practices

It was noticed from Table 2 that 'high cost of feed' was the most serious feeding constraint

perceived by the dairy farmers. The severity of this constraint was 82 per cent as a result it ranked 1st. Next in order 'lack of availability of green fodder round the year (78.67%)' and 'lack of knowledge about preparation of low cost balanced concentrate mixture at home' (76%) occupied 2nd and 3rd rank, respectively. 'Lack of knowledge about importance of mineral mixture' and 'lack of awareness about treatment of poor quality roughages to improve its nutritive value' are the constraints which occupied the last 7th and 8th ranks and severity of these constraints were 64 and 62 per cent, respectively. Patel *et al.*<sup>11</sup> had observed that major constraints related to feeding of dairy animals were high cost of feed (90%) followed by non-availability of green fodder round the year (73.75%), lack of knowledge of balanced ration (72.50%), lack of awareness about treatment of poor quality straw to improve its nutritive value (25.00%). Mohapatra *et al.*<sup>8</sup> too observed the same findings. Nagrale *et al.*<sup>10</sup> revealed that lack of availability of green fodder was found as major feeding constraint. Sagar *et al.*<sup>14</sup> stated that major problems of farmers include lack of grazing land, availability of green fodder, lack of credit availability needs to be removed to boost the livestock rearing. The veterinary and animal husbandry officers, scientists of SAUs, Krishi Vigyan Kendra and NGOs working on dairy development programmes must target the dairy farmers regarding scientific feeding practices to dairy animals through extension education and training.

#### **Item-wise degree of seriousness of constraints perceived by dairy farmers in adoption of management practices**

The data related to constraints study given in Table 3 showed that 'lack of knowledge and resources for cheap and scientific housing' was most serious constraint in adoption of recommended dairy management practices. The severity of this constraint was 72 per cent as a result it ranked 1st. The 2nd most serious constraint was 'cost of buffalo is very high' and had 69 per cent severity. 'Lack of educational programmes of dairying' as 3rd

serious constraint and its severity was 65 per cent. 'Complicated procedure to get the loan from banks' was the 4th serious constraint and respondents explained the severity of this constraint as 64.33 per cent. Because process for getting loan is time taking and complex and it should be made farmer friendly. 'Lack of knowledge about sanitation and hygiene practices in the buffalo shed' was the 5th serious constraint and its severity was 63.67 per cent. 'Lack of time to manage scientific shed' was the 6th serious constraint having the severity 59 per cent. Constraints namely 'less interest shown by youth in dairy farming' (58.67%) and 'disinterest in maintaining simple records' (57.67%) were assigned 7th and 8th rank order of constraints. These findings were justified because no proper and easy format for record keeping available for farmers. Gour and Patel<sup>3</sup> also reported that lack of institutional credit was the major constraint in the adoption of improved dairy practices. Pisure *et al.*<sup>12</sup> observed that inadequate bank finance to purchase milch animals and lack of technical knowledge to manage the dairy enterprise were faced by 51.67 and 40 per cent of the respondent dairy farmers, respectively. Modi *et al.*<sup>7</sup> depicted in their study that lack of knowledge of cheap and scientific housing and lack of knowledge about scientific method of milking were constraints perceived by the farmers. Patel *et al.*<sup>11</sup> reported that the major impediments were lack of capital for animal shelter which was perceived by 77.5 per cent respondents. Manjusha *et al.*<sup>6</sup> found that lack of farmer's interest in record keeping of animals was a constraint faced by respondents.

#### **Item-wise degree of seriousness of constraints perceived by dairy farmers in adoption of health care practices**

The present study (Table 4) indicated that 'high cost of treatment' was the most serious constraint (79.67%) followed by 'lack of knowledge about common diseases and their preventive measures' (72%), 'lack of knowledge about deworming schedule and practices' (69.67%), 'ignorance about government facilities' (67%), 'unavailability

of emergency veterinary services' (63.33%) and 'infrequent visit of veterinary staff' (62%). These results get support from the findings of Rathod *et al.*<sup>13</sup> who reported that the high cost of medicine and treatment services (61%) was pointed out by the farmers as a major constraint. Murai and Singh<sup>9</sup> found that the respondents faced health constraint like lack of knowledge of common contagious diseases, their causes and control measures. Chaudhary and Intodia<sup>2</sup> observed that more than one third of the chunk of respondents (98) reported lack

of knowledge about cattle diseases and their control as one of the serious constraints and ranked first, followed by lack of veterinary hospitals and health centres in the village and surrounding areas whereas high cost of medicines was considered to be the least problem and the constraint reported by only 67 respondents and ranked third. High cost of veterinary medicine is a worldwide phenomenon. Thus, there is a need of training in this sphere of management to bring down the incidences of diseases.

**Table 1: Item-wise degree of seriousness of constraints as perceived by dairy farmers about breeding practices**

Sr. no.	Constraint Areas	Respondents (n=250)			
		Total Score	Mean Score	Mean Percent Score	Rank Order
1	Belief that conception rate of A.I.in buffaloes is poor	592	2.37	79	I
2	Lack of knowledge about right time of insemination	590	2.36	78.67	II
3	Inadequate knowledge about pedigree enquiry	461	1.84	61.33	VII
4	Lack of improved bulls for breeding in the village	488	1.95	65	VI
5	Repeat breeding problem in buffaloes	551	2.20	73.33	IV
6	Belief that PD is harmful for pregnant animals	562	2.25	75	III
7	Preference of natural service in buffalo	501	2.00	66.67	V

**Table 2: Item-wise degree of seriousness of constraints as perceived by dairy farmers about feeding practices**

Sr. no.	Constraint Areas	Respondents (n=250)			
		Total Score	Mean Score	Mean Percent Score	Rank Order
1	Lack of knowledge about preparation of low cost balanced concentrate mixture at home	569	2.28	76	III
2	Non cleaning of pond regularly	509	2.04	68	IV
3	Inadequate irrigation facilities	503	2.01	67	V
4	Lack of awareness about treatment of poor quality roughages to improve its nutritive value	465	1.86	62	VIII
5	Feeding of buffalo according to different stages (milking, pregnancy, dry)	491	1.96	65.33	VI
6	Small land holding for green fodder production	503	2.01	67	V
7	Unavailability of cattle feed and fodder seed on credit	511	2.04	68	IV
8	Lack of knowledge about importance of mineral mixture	481	1.92	64	VII
9	High cost of feed	616	2.46	82	I
10	Lack of availability of green fodder round the year	590	2.36	78.67	II

**Table 3: Item-wise degree of seriousness of constraints as perceived by dairy farmers about management practices**

Sr. no.	Constraint Areas	Respondents (n=250)			
		Total Score	Mean Score	Mean Percent Score	Rank Order
1	Disinterest in maintaining simple records	433	1.73	57.67	VIII
2	Lack of knowledge and resources for cheap and scientific housing	541	2.16	72.00	I
3	Lack of knowledge about sanitation and hygiene practices in the buffalo shed	477	1.91	63.67	V
4	Lack of time to manage scientific shed	443	1.77	59.00	VI
5	Less interest shown by youth in dairy farming	440	1.76	58.67	VII
6	Complicated procedure to get the loan from banks	482	1.93	64.33	IV
7	Lack of educational programmes of dairying	488	1.95	65.00	III
8	Cost of buffalo is very high	518	2.07	69.00	II

**Table 4: Item-wise degree of seriousness of constraints as perceived by dairy farmers about health care practices**

Sr. no.	Constraint Areas	Respondents (n=250)			
		Total Score	Mean Score	Mean Percent Score	Rank Order
1	High cost of treatment	599	2.39	79.67	I
2	Ignorance about Govt. facilities	503	2.01	67	IV
3	Lack of knowledge about deworming schedule and practices	522	2.09	69.67	III
4	Lack of knowledge about common diseases and their preventive measures	539	2.16	72	II
5	Unavailability of emergency veterinary services	475	1.9	63.33	V
6	Infrequent visit of veterinary staff	465	1.86	62	VI

### CONCLUSION

It is concluded from the study that belief that conception rate of artificial insemination in buffaloes is poor (79%), high cost of feed (82%), lack of knowledge and resources for cheap and scientific housing (72%), high cost of treatment (79.67%) were the most serious breeding, feeding, management and health constraint, respectively perceived by dairy farmers. So, there is a need to strengthen the competency of veterinary and para veterinary staff to perform A.I. effectively at village level to regain the faith of dairy farmers. Emphasis may be laid on preservation of fodder for round the year supply of nutritive fodder at reasonable price. A suggestion is made to

animal husbandry department to provide financial credit to dairy farmers through village co-operative societies to encourage construction of scientific base animal houses and educate the dairy farmers of its importance. Medicines should be provided at subsidized rates at the village level in animal health centre. Dairy farmers may be trained regarding first aid treatment of animals and about treatment of some common diseases.

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