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Constraints Perceived in Adoption of Improved Practices of Small Scale Dairying: A Gender Analysis

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ABSTRACT

The present study was carried out in mid western plain zone of Uttar Pradesh to identify the various constraints perceived separately by female and male headed households in adopting improved practices in small scale dairying. Data were collected through interview schedule from 50 female and 50 male headed households. The study revealed that the major constraints among breeding practices perceived by females and male respondents were same i.e. non functioning of A.I. centre/ill equipped A.I. centre followed by scarcity of resources to maintain crossbred cattle/superior breed of milch animals. Inadequate knowledge about scientific feeding, high cost of ingredients of concentrates mixture and preference to grow cash crops instead of fodder crops were found to be the first, second and third major constraints in both sets of respondents in adoption of improved feeding practices. Lack of knowledge about common contagious diseases, their causes & control measures (Ist), ill equipped veterinary hospitals and lack of facility for treatment, vaccine (IInd) were the constraints perceived by women respondents.

Key words: Female and male headed households, constraints, improved practices, adoption and small scale dairying.

INTRODUCTION

Dairy development in India has played a major role in increasing milk production, improving the nutritional standards of people, generating employment opportunities and improving income level. In most of the communities, rural women are responsible for the day to day care and management of animals. The poorer the community, the greater is their roles. Despite this reality, the work performed by these women are seldom recognized although the responsibilities ultimately impinge on them. These responsibilities naturally increase in communities where women head the households due to widowhood, migration of male for employment, divorce *etc*. The activities related to dairy animals performed by rural women and men and the methods/practices adopted by them. Having very low skill and knowledge about the improved dairy farming practices and follow of outdated tools and techniques leads to low milk productivity and generate low income. Although efforts have been made to transfer the scientific dairy farming practices to the farmers yet none of the study revealed the constraints perceived by female and male headed households in small scale dairying separately in breeding, feeding, management and health care practices. To understand the constraints perceived in rearing livestock in rural India, it is essential to assess the constraints in adopting small scale dairy production technologies perceived by them separately in breeding, feeding, management and health care of their animals. Keeping these facts in mind the strategy was designed to study the constraints perceived by female and male headed households in adoption of improved practices of small scale dairying.

METHODOLOGY

The present study was conducted purposively in Bareilly district of Uttar Pradesh. It comprises of 15 community development blocks, out of 15, five blocks namely; Alampur Jaffrabad, Bhojipura, Bithri Chainpur, Faridpur and Nawabganj were selected randomly. From each of the selected blocks, 5 clusters were made consisting of 10 villages in each and from each of the clusters, ten female and ten male headed households owning milch animals were selected randomly after preparing a comprehensive list of such households. Thus from each cluster, twenty households (10 female headed + 10 male headed) were interviewed personally using semi structured interview schedule.

In this study, constraints had been operationalized as the various problems and hurdles faced by women and men heading their households in the adoption of improved practices *viz*: breeding, feeding, management & health care and some other miscellaneous constraints in small scale dairy production system. Respondents were asked to mention the constraints perceived by them in three point continuum scale as major constraints, minor constraints and not a constraint, with scores of 3, 2 and 1,

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respectively, which were ranked according to their total obtained scores separately for the respondents came from female and male headed households. In order to determine the strength of milch animals per family as a unit, average scores were computed based on comparative assigned values of cattle equivalents. About 82 per cent females, heading the households had small (0.4-3.25) herd size, 18 per cent owned medium (3.25-6.10) whereas 52 per cent male respondents had medium size herd followed by 26 per cent with large herd size (6.10-8.94) and the rest 22 per cent owned small herd.

RESULTS AND DISCUSSION

Constraints perceived in adoption of improved breeding practices

Major constraints revealed by female heading their households in adoption of improved breeding practices were non functioning of A.I. centre/ill equipped A.I. centre followed by scarcity of resources to maintain crossbred cattle/superior breed of milch animals (ranked II). Distance of veterinary hospital for pregnancy diagnosis was third major constraint by 90 per cent female respondents against 40 per cent male respondents heading the households.

Male respondents also revealed the same constraints in the similar order as mentioned by women respondents indicating the fact the constraints perceived by female and male heading households in adoption of breeding practices were same due to similar situations and infrastructure available in the study areas. Umar *et al.* (2011) revealed that 82.66 per cent respondents revealed ill equipped and negligible services at A.I. centres as the first major constraint in adoption of improved breeding practices. Poor results of A.I. had been perceived by 82 per cent of the farmers and distant location of A.I. centers by 73 per cent of respondents. Misra and Pal (2003), Dabas *et al*. (2004) also reported the similar constraints in breeding practices of dairy animals.

Mohi (2006) also revealed lack of knowledge about right time of mating, inexperienced staff at A.I. center, small size of herd *etc.* were the constraints faced by dairy farmers in adoption of improved breeding practices of animals. Study conducted by Vani (2013) on dairy micro enterprise management among women entrepreneurs of Andhra Pradesh observed that about 20 per cent women entrepreneur perceived poor conception rate in buffaloes as major constraints in breeding practices of dairy animals.

Table 1: Gender based constraints and ranking in adoption of improved breeding practices in small scale dairying

Constraints in adoption of improved breeding practices	Female Headed (n=50)					Male Headed (n=50)				
	(f)					(f)				
	3	2	1	Total score	Rank	3	2	1	Total score	Rank
Non functioning of A.I. centre/ill equipped of A.I. centre	47	3	_	147	I	40	10	_	140	I
Lack of good breedable bulls for natural service	42	4	4	138	VI	33	11	6	127	V
Inadequate knowledge and poor appreciation for A.I. services	43	5	2	141	IV	32	8	10	122	VI
Low genetic potential of local animals	39	11	_	139	V	35	10	5	130	IV
Poor conception rate and treatment of repeater is not rewarding	38	9	3	135	VII	38	9	3	135	II
Scarcity of resources to maintain CB/superior breed of milch animals	45	4	1	144	II	36	12	2	134	III
Distance of veterinary hospital for PD	45	2	3	142	III	22	21	7	115	VII

Major constraint 3; Minor constraint= 2; Not a constraint = 1, f=Frequency

Constraints perceived in adoption of improved feeding practices

Proper feeding of milch animals is one of the basis for successful dairy farming as it not only helpful in maintaining proper health, growth and reproduction, but also helpful in enhancing milk production and productivity. A profitable dairy unit should not only have genetically high yield, but also should have provision for feeding to milch animals with minimum cost of balance ration for gaining better return. However, in the present study due to several constraints respondents were not able to adopt the improved feeding practices which directly influenced the productivity of milch animals. Table 2 shows that total score of constraints for improved feeding practices revealed by respondents of female and male headed households did not reveal much variations. Inadequate knowledge about scientific feeding, high cost of ingredients of concentrates mixture and preference to grow cash crops instead of fodder crops were found to be the first, second and third major constraints in both the sets of respondents. Poor availability of HYV fodder seeds/perennial roots was found to be fourth constraint and inadequate resources for cultivation of fodder crops ranked fifth. Patil (2009) studied that 60 per cent respondents conveyed their constraint as high cost of concentrate and other feed. Umar *et al.* (2011) & Murai *et al.* (2011) observed that Eighty two per cent respondents revealed that inadequate knowledge about scientific feeding as the first major constraint by high cost of ingredients of concentrates mixture/compound feed ranked Third major constaints in adoption of scientific feeding practices. Vani (2013) observed that 25 per cent of the respondents expressed the constraints of high cost of pre-mixed cattle feed as fifth major constraint and lack of knowledge on growing green fodder ranked seventh constraint by about11 per cent respondents.

Table 2: **Gender based constraints and ranking in adoption of improved feeding practices in small scale dairying**

Constraints in adoption of improved feeding practices	Female Headed (n=50)					Male Headed (n=50)				
	(f)					(f)				
	3	2	1	Total score	Rank	3	2	1	Total score	Rank
Inadequate knowledge about scientific feeding	45	3	2	143	I	38	4	8	130	I
Preference to grow cash crops instead of fodder crops	38	11	1	137	III	29	15	6	123	III
Inadequate resources for cultivation of fodder crops round the year	33	16	1	132	V	26	15	9	117	IV
High cost of ingredients of concentrates mixture/compound feed	43	5	2	141	II	30	15	5	125	II
Poor availability of HYV fodder seeds/perennial roots	38	9	3	135	IV	24	15	11	113	VI
Under feeding due to limited financial resources	31	16	3	128	VI	25	16	9	116	V
Lack of grazing land facilities	33	10	7	126	VII	23	13	14	109	VII

3; Major constraint 2; Minor constraint= 1=; Not a constraint = 1, f=Frequency

Constraints perceived in adoption of improved management and health care practices

Better management and proper health care of dairy animals is important for maintaining higher productivity. According to the total score of constraints regarding management and health care faced by female and male headed households listed in Table 3 along with its rankings, lack of knowledge about common contagious diseases, their causes & control measures as first, ill equipped veterinary hospitals and lack of facility for treatment, vaccine *etc.* as second, lack of awareness and knowledge about importance of vaccination as third, high cost/charge levied by veterinary staff for performing medical assistance, lack of awareness and knowledge about importance of health care were the fourth and fifth major constraints perceived by women respondents under management and health care of dairy animals. Male respondents however, revealed that high cost/charge levied by veterinary staff for performing medical assistance as first and foremost constraints followed by ill equipped veterinary hospitals and lack of facility for treatment, vaccine *etc.* by 82 per cent respondents. Patil (2009) reported that 68 per cent of the respondents had inadequate knowledge of diseases, their prevention and control as their constraint, followed by 60.89 per cent respondents who perceived constraint as non-availability of A.I. facility and veterinary services. Lack of knowledge about common contagious diseases, their causes & control measures was also revealed as the 1st constraint in management and health care (Murai *et al.,* 2011). Lack of adequate knowledge about diseases and vaccination of cattle was perceived by about 45 per cent women as major constraints and lack of information about proper animal rearing practices perceived as major constraints by 39 per cent women (Kadu *et.al.*2013). Vani (2013) also revealed that no/low knowledge regarding the disease control ranked was as forth constraint by 36.66 per cent women. High charges for emergency veterinary services (Rank I) both by men and women, absenteeism among veterinary staff (Rank II), short supply of foot and mouth disease vaccine (Rank III and Rank IX), non availability of timely medical aid (Rank IV and Rank VI) were major constraints perceived by men and women in animal health care and management practices (Yadav, 2012).

Table 3: Gender based constraints and ranking in adoption of improved management and health care practices in small scal dairying

Constraints in adoption of improved management and health care practices	Female Headed (n=50)					Male Headed (n=50)				
	(f)					(f)				
	3	2	1	Total score	Rank	3	2	1	Total score	Rank
Lack of knowledge about common contagious diseases, their causes & control measures	46	3	1	145	I	35	7	8	127	III
Lack of awareness and knowledge about importance of vaccination	44	4	2	142	III	32	6	12	120	IV
Veterinary hospitals are ill equipped, lacking facility for treatment, vaccine etc.	45	3	2	143	II	34	13	3	131	II
Lack of awareness and knowledge about importance of health care	36	8	6	130	V	18	16	16	102	V
High cost/charge levied by veterinary staff for performing medical assistance	38	8	4	134	IV	34	14	2	132	I
Lack of proper knowledge about right time of drying up pregnant animal	36	7	7	129	VI	18	15	17	101	VI

3; Major constraint 2; Minor constraint= 1=; Not a constraint = 1, f=Frequency

Other miscellaneous constraints perceived by female and male headed households in small scale dairying

Table 4 revealed several that other miscellaneous but important constraints regarding technology adoption by female and male headed households in small scale dairy production. Lack of awareness about women specific technology was found to be the first major constraint revealed by both set of respondents. Lack of knowledge in making value added products, lack of contact with extension agent, lack of proper training guidance, low price of milk, high cost of inputs, non availability of dairy cooperative societies and lack of loan facilities & high rate of interest were several other major constraints (in ascending order) revealed exclusively by women respondents. Male respondents, however, placed these constraints in slightly different order. According to 74 per cent male respondents, low price of milk was one of the major constraints followed by about 63 per cent who perceived inadequate money and lack of loan facility as their constraints (Patil, 2009) in adopting animal management practices by dairy farmers. Poor marketing facilities (80.00%), competition with other micro-enterprises for limited local markets (66.66%) and low/uncertainty of prices (59.16%) are other constraints . Hurdles in getting credit due to unnecessary and irrelevant stipulations of conditions (65.00%), followed

by lack of awareness of different funding schemes and procedures of financial institutes (55.83%) and high rate of interest (54.16%) were the other major constraints perceived by women entrepreneurs in management of dairy micro enterprises (Vani, 2013).

Table 4: Gender based miscellaneous constraints and ranking in adoption of improved practices in small scale dairying

Other miscellaneous constraints	Female Headed (n=50)					Male Headed (n=50)				
	Constraints(f)					Constraints(f)				
	3	2	1	Total score	Rank	3	2	1	Total score	Rank
Non availability of dairy cooperative societies	41	3	6	135	VII	33	9	8	125	IV
Lack of loan facilities and high rate of interest	34	16	_	134	VIII	30	13	7	123	V
Low price of milk	42	6	2	140	V	37	8	5	132	II
Lack of knowledge in making value added products	46	2	2	144	II	32	14	4	128	III
Lack of awareness about women specific technology	46	4	_	146	I	38	8	4	134	I
High cost of inputs	43	3	4	139	VI	29	12	9	120	VI
Lack of proper training guidance	44	4	2	142	IV	22	20	8	114	VII
Lack of contact with extension agent	45	3	2	143	III	23	17	10	113	VIII

3; Major constraint 2; Minor constraint= 1=; Not a constraint = 1, f=Frequency

CONCLUSION

Irrespective of the gender, non functioning /ill equipped A.I. centres and inadequate knowledge about scientific feeding practices were the constraints revealed by the respondents. However, female respondents heading the households also reported lack of knowledge about common contagious diseases, causes and control measures and of women specific technologies as major constraints in small scale dairying. In view of these, a separate programme need to be formulated and implemented for improving the adoption of improved practices for better productivity and livelihood security.

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