Constraints in Adoption of Improved Dairy Farming in Rural Areas of Jharkhand

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Abstract—*The productivity of livestock in Jharkhand state is significantly low due to slow development of adoption of improved animal husbandry practices. The present study critically analyzes the constraints in adoption of improved dairy farming in rural areas of Ranchi, East Singhbhum and Seraikella-Kharsawan districts of Jharkhand. Data were collected from 120 dairy farmers at random in rural areas of these districts during 2012-2013 through a structured interview schedule. Each respondent was asked to indicate his degree of agreement to each constraint in a 3 point scale. Then the constraints were ranked on the basis of the mean score calculated for each constraint. Non availability of A.I. facility with a mean score of 2.75, unavailability of concentrate mixture (2.50), non-availability of veterinary dispensary in the village (2.70), lengthy and cumbersome procedure of getting credit (2.60), absence of demonstration (2.95), lack of knowledge about improved dairy farming (2.50) and lack of special market (3.00) were perceived as the most serious constraints among breeding, feeding, disease control, extension and infrastructural, economic, management and marketing constraints respectively. Therefore, the greatest need of the day is to effectively educate and communicate the information to large number of dairy farmers who have to adopt this know how in order to improve dairy farming practice.*

1. INTRODUCTION

In Jharkhand, the rural economy is dominated by small holder rain-fed farming mainly rice cropping with livestock and extensive common property resources mainly forests. Rain-fed agriculture has traditionally been the core of livelihoods for poor families in rural Jharkhand, supplements in varying degrees by livestock rearing, handicrafts, wages and hunting and gathering. Livestock practices are mostly on non-scientific lines. The productivity of livestock in Jharkhand state is significantly low and traditional. About 83% of the milk producing animals in the state is non-descript. The native cattle are of small frame, low height and weigh about 100 to 150 kg. The animals are grazed extensively. It usually produces 200 to 250 gm milk for about two months and then gets dried up. The per capita availability is just 159 gm/day against national average of 281. In comparison to the northern and western states of India, Jharkhand lags behind in dairy sector. This is due to slow development of adoption of improved dairy farming practices. There are so many constraints for this. The common constraints for adoption of improved dairy farming can be broadly classified into: breeding, feeding, disease control, extension and infra structural, economic, management and marketing. Many a time, the farmers are not in a position to continue the adoption of all recommended practices, there may be some gap. Knowledge about the constraints responsible for such gap is very important to maintain feedback among research, extension and client system so that appropriate changes could be made for effective management. Keeping in view all, the present study was undertaken to delineate the constraints in adoption of improved dairy farming in rural areas of Jharkhand.

2. METHODOLOGY

The study was conducted in the Ranchi, East Singhbhum and Seraikella-Kharsawan district of Jharkhand. A direct survey of 120 dairy farmers at random was conducted by visiting dairy farmers and personal interview in rural areas of these districts during 2012-2013. The data were collected personally with the help of well structured interview schedule. An exhaustive list of various constrains related to adoption of improved dairy farming were prepared in consultation with experts, farmers and referring literatures. Each respondent was asked to indicate his degree of agreement to each constraint in a 3 point scale. Then the constraints were ranked on the basic of the mean score calculated for each constraint.

3. RESULTS AND DISCUSSION

The constraints were classified into seven broad groups like breeding constraints, feeding constraints, disease control constraints, economic constraints, extension and infrastructure constraints, management constraints and marketing

constraints. The constraints and their ranks are presented as follows:

3.1 Breeding constraints

As evident from the table 1, major breeding constraint was non availability of A.I. facility with a mean score of 2.75 followed by non-availability of trained personnel for doing P.D.in time, lack of knowledge about improved dairy breeding practices and distant location of A.I. centre.

Table 1: Breeding constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Lack of knowledge about improved dairy practices	2.00	III
b. Non-availability of A.I facility	2.75	I
c. Non-availability of trained personnel for doing P.D. in time	2.50	II
d. Distant location of A.I. centre	1.95	IV

3.2 Feeding constraints

Proper feeding of animal is one of the most important cardinal pillars of dairy development. A critical look of Table 2 revealed that majority of the respondents expressed their views as unavailability of concentrate mixture, costly concentrate ingredients/compounded feed and unawareness about feeding of extra ration during advanced pregnancy as the major constrains. Besides, some other constraints were also perceived by the respondents such as lack of space and irrigation problem for fodder cultivation, colostrums feeding etc. High cost of concentrate was identified as the most important constraint by various Workers [2, 3, 4 and 7].

Table 2: Feeding constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Unawareness of the benefits of colostrum feeding	1.70	VI
b. Unavailability of concentrate mixture	2.50	I
c. Concentrate ingredients/compounded feed are costly	2.25	II
d. Unawareness that extra ration should be given to pregnant cow during advanced pregnancy	2.10	III
e. Lack of irrigation for fodder cultivation	1.95	IV
f. Lack of space for fodder cultivation	1.80	V

3.3 Disease control

Regarding disease control constraints, Table 3 revealed that non-availability of veterinary dispensary in the village (2.70) is one of the most important constraints followed by high cost of veterinary medicine (2.50), non-availability of vaccine medicine in dispensary (2.25), non-availability dispensary

(2.10), lack of knowledge in which disease animal should be isolated (2.00) , charging exorbitant amount by veterinary staff for treatment of animals (1.85) and lack of interest of field veterinary staff in doing vaccination treatment.

Table 3: Disease control constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Non-availability of veterinarian regularity at the veterinary dispensary	2.10	IV
b. Lack of interest of field veterinary staff in doing vaccination/treatment	1.75	VII
c. Lack of knowledge in which disease animal should be isolated	2.00	V
d. High cost of veterinary medicine	2.50	II
e. Non-availability of veterinary dispensary in the village	2.70	I
f. Non-availability of medicine/vaccine in dispensary	2.25	III
g. Charging exorbitant amount by the veterinary staff for treatment of animals	1.90	VI

3.4 Economic constraints

As evident from the table 4 that farmers do not want to take credit from bank due to cumbersome procedures, too much documentation and unavailability of credit at the time of requirement. [1] reported that non-availability of finance was the most important factor for non- adoption of advanced technologies. As the dairy farmers of rural areas are of poor resource base, they do not get sufficient amount to invest in the dairy farming. Besides, the dairy farmers in the present study also want more of government assistance in terms of subsidy. At last low price of milk in the market was also found to be one of the constrains because milk has not been popular diet in rural areas of Jharkhand.

Table 4: Economic constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Credit is not available as per requirement and when required most	2.50	II
b. Lengthy and cumber some procedure of getting credit	2.60	I
c. High rate of interest	2.25	IV
d. Inadequate subsidy provision	1.80	VI
e. Lack of investment capacity	2.40	III
f. Low price of milk	1.35	V

3.5 Extension and infrastructure constraints

The major constrains perceived by the dairy farmers were near absence of demonstration (3.00) and lack of training facilities (2.70), success of improved dairy farming depends on the skill of dairy farmers for which first line of demonstration by the technical extension personnel is highly desirable. [6] reported

that majority of the respondents had not taken training in dairy farming. It may be due to fact that training organizations are located in urban and semi-urban.

Table 5. Extension and infrastructure constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Lack of training facility	2.70	II
b. Lack of storage facility	2.60	III
c.Inadequate information to the beneficiaries	2.50	IV
d. Near absence of demonstration	2.95	I
e. Inadequate periodical supervision	2.10	VI
f. Lack of dairy cooperatives	2.40	V

3.6 Management constraints

A glance at the table 6 revealed that majority of the dairy farmers lacked the knowledge of improved dairy management practices. [5] identified that lack of knowledge of improved practices was one of the major constraint in adoption of improved technology.

Table 6: Management constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Lack of knowledge about improved dairy farming	2.50	I
b. Reluctance of farmers	1.70	II

3.7 Marketing constraints

Market plays an important role in diffusion and adoption of a new technology. From the table 7 it is observed that lack of special market for selling dairy products mainly milk and transportation facilities to distant market were found to be main constraints for adoption of improved dairy practices in rural areas.

Table 7: Marketing constraints in adoption of improved dairy farming in rural areas of Jharkhand

Constraints	Mean score	Rank
a. Lack of special market	3.00	I
b. Lack of transportation facilities to distant market	1.60	II

4. CONCLUSION

Thus, the major constraints faced by the dairy farmers of rural areas can be overtaken by adopting:

a. Proper coordination between concerned department and dairy farmers.
b. A field mechanism to popularize the techniques and to integrate the various phases of dairy farming.
c. Provision of training facilities to the dairy farmers.
d. Strengthening dairy co-operatives with their rural base.
e. Increased availability of quality feed and fodder.
f. Genetic upgradation through cross breeding, selective breeding and upgrading Programme.
g. Strengthening pregnancy testing.
h. Increased disease control and surveillance measures.
i. Public private partnership initiatives to ensure better marketing opportunities and remunerative returns to dairy farmers.

Therefore, the greatest need of the day is to effectively educate and communicate the information to large member of dairy farmers who have to adopt this know how in order to improve dairy farming practice.

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