

## ADOPTION OF SCIENTIFIC DAIRY HUSBANDRY PRACTICES BY TRIBAL FARMERS

G. L. Meena\*, Ravi Tailor\*\* and F. L. Sharma\*\*\*

### ABSTRACT

The present study was conducted in Udaipur district of Rajasthan to know the adoption level of tribal farmers regarding scientific dairy husbandry practices. In all 80 tribal farmers were selected randomly from identified district. The results of the study indicated that adoption level of tribal farmer's regarding feeding of green fodder (50%), dry fodder (100%) and feeding of colostrums to newly born calves (86.25%) was quite high. Whereas, the practices namely Artificial Insemination, rearing of crossbred/superior breed, pregnancy diagnosis, feeding of recommended quantity of concentrate, mineral mixtures/common salt, regular cleaning/grooming, vaccination, hygienic step before milking, cleaning of cattle shed, scientific animal housing (pucca cattle shed), full hand method of milking, cleaning of newly born calf after birth, regular selling of milk and selling of value added dairy products were adopted by tribal farmers at low level. Further, it was noted that none of the farmer was adopted practices of hospital for animal breeding, chaffed fodder, extra doses of feed to pregnant animal, deworming & dehorning, isolation of sick animals, cattle insurance and maintenance of dairy management records.

### INTRODUCTION

Dairy development in India has played a major role in increasing milk production, improving the nutritional standards of the people, generating employment opportunities, improving income level in rural areas, especially for small and marginal farmers.

The level and speed of adoption of dairy innovation by farming community has been far from satisfactory though it has direct bearing on dairy farm production. The slow pace of adoption of improved dairy practices is attributed to various factors. Although serious efforts to transfer the scientific dairy husbandry practices to the farmers have been made yet but various studies indicates that farmers have adopted only 30 per cent of the scientific dairy practices that too by resourceful farmers. Hence, it is important to transfer the scientific dairy practices to the resource poor farmers that include landless labourers who rear animals for milk production. Hence, it is emphasized that imparting suitable training in improved dairy farming practices can enhance the rate of adoption of scientific dairy practices in these resource poor

families. A first hand knowledge of these factors to the extension personnel would create the speedy adoption of dairy innovations in the villages.

Thus, adoption of scientific dairy husbandry practices is one of the important aspects, which influence livestock production. Hence, tremendous research work has been done at different part of the country on the various aspects of scientific dairy husbandry practices. Therefore, it is very important to survey the livestock population in rural areas in respect of scientific dairy practices, which differ from region to region and district to district. Therefore, keeping this in view, present study was carried out with the specific objective to assess the adoption level of tribal farmers regarding scientific dairy husbandry practices.

### RESEARCH METHODOLOGY

The present study was conducted in tribal region of Udaipur district of Rajasthan as it has the largest tribal population. The two tehsils were selected randomly from the Udaipur district. Two villages from each tehsil were selected randomly. 20 tribal farmers were selected from each village. In all

---

\* Assistant Professor, Department of Agril. Economics and Management, RCA, Udaipur.

\*\*\* P.G. Scholar, Department of Agril. Economics and Management, RCA, Udaipur.

\*\*\* Professor, Department of Extension Education, RCA, Udaipur.

80 tribal farmers were selected randomly as respondents to study the adoption of scientific dairy husbandry practices. The selected respondents were interviewed personally with the help of a well structured and pre-tested interview schedule in order to get relevant information. The schedule was developed on binary response format (yes / no) of a single statement and scored as 1 and 0 (as the case may be). Then, the data collected were

tabulated and analyzed using simple statistical tool to interpret the results.

## RESULTS AND DISCUSSION

The extent of adoption of different scientific dairy husbandry practices in the area of breeding, feeding, disease control & healthcare, management and marketing are presented in Table 1.

**Table 1. Extent of adoption of scientific dairy husbandry practices in Udaipur district**

Scientific dairy husbandry practices	Adoption level	
	No. of adopters	Percentage
(n=80)		
<b>A. Breeding Practices</b>		
i. Maintain crossbred/superior animals	10	12.50
ii. Follow Artificial Insemination in dairy animals	15	18.75
iii. Pregnancy diagnosis	5	6.25
iv. Follow veterinary hospital for animal breeding	-	-
<b>B. Feeding Practices</b>		
i. Feed recommended quantity of concentrate	15	18.75
ii. Feed Green fodder/roughage	40	50.00
iii. Feed Dry fodder	80	100.00
iv. Feed Chaffed fodder	-	-
v. Use of mineral mixtures/common salt	5	6.25
vi. Extra dose of feed to pregnant animal	-	-
<b>C. Disease control and health care Practices</b>		
i. Regular cleaning/grooming	10	12.50
ii. Vaccination against contagious disease	15	18.75
iii. Hygienic step before milking	12	15.00
iv. Cleaning of cattle shed	10	12.50
v. Deworming and dehorning of calves	-	-
vi. Isolation of sick animals	-	-!
<b>D. Management Practices</b>		
i. Maintenance of dairy management records	-	-
ii. Follow cattle insurance practices	-	-
iii. Pucca cattle shed	8	10.00
iv. Feed colostrums to newly born calves	69	86.25
v. Follow full hand method of milking	8	10.00
vi. Cleaning of newly born calf after birth	12	15.00
<b>E. Marketing Practices</b>		
i. Regular selling of milk	19	23.75
ii. Selling of milk to dairy cooperative society	-	-
iii. Selling of value added dairy products	5	6.25

### A. Breeding Practices:

Table 1 indicates that 12.50 per cent of farmers had adopted crossbred and superior milch animals. It was further observed that non-descript breeds of milch animals are pre-dominant in the study area.

Artificial Insemination (A.I.) is best technique for the purpose of animal breeding. But practice of Artificial Insemination in dairy animals had adopted by 18.75 per cent dairy farmers. Only 6.25 per cent dairy farmers made pregnancy diagnosis of their animals. The veterinary hospital for animal breeding

was not followed by any farmer. Thus, it can be concluded that adoption of A. I. practice, rearing of crossbred and superior milch animals, veterinary hospitals for animal breeding and pregnancy diagnosis of their animals was quite poor. This might be due to unawareness of farmers about importance of improved milch animals, Artificial Insemination, animal breeding and pregnancy diagnosis of their animals in hospital, further distant location of hospitals and A.I. centers in the study area.

### **B. Feeding Practices:**

Scientific feeding schedule that provides a higher plane of nutrition ensures better growth and an attainment of puberty resulting in quicker economic returns. From Table 1 it is clear that majority of farmers do not used the recommended feeding practices. Although, feeding of green fodder, dry fodder and concentrate are important inputs in milk production. Less than one-fifth of dairy farmers fed their animals with concentrates. Around 50 per cent of farmers fed green fodder to animals. But quality of green fodder was very poor because most of farmers were collected green grasses from common property resources like forests, wastelands, common grazing land, roadside and banks of ponds. All the farmers fed required quantity of dry fodder to animals due to easily availability of dry fodder. Use of mineral mixtures/ common salt improves palatability and feed intake by animals. But practice of feeding of mineral mixtures/common salt was adopted by only 6.25 per cent farmers. Chaffed fodder became palatable for animal feeding. Extra doses of feed are required for pregnant animals. But practices of chaffed fodder and of extra doses of feed to animals were not adopted by any farmer in the study area. This might be due to lack of knowledge of importance of feeding about extra doses of feed and chaffed fodder.

### **C. Disease control and Health care Practices**

Table 1 shows that less number of farmers were found to regular clean and groom (12.50 per cent), vaccinate their animals against contagious diseases (18.75 per cent), hygienic step before milking (15 per cent) and timely cleaning of cattle shed (12.50 per cent). Thus, it can be concluded that many of farmers were not aware of practices such as

deworming & dehorning of calves and isolation of sick animals. Further, few percentage of farmers adopted "no cost" practices such as regular cleaning/grooming, vaccination against contagious disease, hygienic step before milking and timely cleaning of cattle shed. This might be due to lack of knowledge of farmers towards these practices.

### **D. Management Practices**

It is seen that not a single farmer maintained dairy management records and adopted animal insurance practice. Low literacy rate might have attributed to non-adoption of animal insurance practice and maintenance of dairy management records. Feeding of colostrums to newly born calves was followed by 86.25 per cent of farmers, but majority of farmers do not know significance of immediately feeding within half an hour of its birth and continuing up to the first five days. Making pucca cattle shed is cost intensive and hence generally not done. This may be reason why only 10 per cent of farmers owned semi- pucca cattle shed which made up of earth and covered with Kolu, grasses and wood. Full hand method of milking is scientific and cost- effective. But, this method was followed by 10 per cent of farmers. The practice of cleaning newly born calf just after birth was followed by 15 per cent of farmers.

### **E. Marketing Practices**

The practice of regular selling of milk and selling of value added dairy products was followed by 23.75 per cent and 6.25 per cent of farmers, respectively. Selling of milk to dairy cooperative society was not reported by a single farmer because of absence of dairy cooperative society in the study area. The irregular selling of milk and non-existence of dairy cooperative society in the study area might be due to low production of milk at individual farmer's level.

## **CONCLUSION**

It may be concluded from the study that adoption level of scientific dairy husbandry practices such as breeding, feeding, disease control & healthcare, management and marketing in study area was quite low and unsatisfactory for development in dairy sector. This could consider as the great opportunity and wide scope for scientist

to know reasons behind adoption as well as for extension workers to disseminate scientific dairy practices to tribal farmers. Therefore, scientists, KVK, Veterinary officers, Dairy Development officers must periodically conduct training and awareness programmes with respect to Vaccination/ Deworming/Health aspect camps, feeding, breeding, health care and management etc. to boost up level of adoption of tribal farmers in the scientific dairy husbandry practices.

## REFERENCES

- Madke, P.K., Murkute J. S., Upadhye, S.V. and Vedpathak, C.P. 2006. Adoption of Scientific Feeding Practices by Dairy Farmers. *Indian J. Anim. Res.*, 40 (2): 155 – 157.
- Murai, A. S and Singh, B. K. 2011. Differential Adoption of Scientific Dairy Farming Practices and Related Constraints. *Indian Res. J. Ext. Edu.* 11 (2): 46-49.
- Raut, D. R., Nayak, H. S. and Kulkarni, M. B. 1989. A Study of Knowledge and Adoption of Improved Dairy Practices by the Dairy Farmers of Ahmednager District. *Livestock Advisor*, 14 (12): 34-39.
- Sah, U., Kumar, S. and Fulzele, R. M. 2002. An Overview of Knowledge Level of Dairy Farmers and Farm Women related to Improved Dairy Farming Practices in India. *Agric. Rev.*, 23 (2): 140 – 144.
- Singh. S., Kumar, R. and Meena, B.S. 2010. Adoption Level of Scientific Dairy Farming Practices by Dairy Farmers of Haryana. *Indian Res. J. Ext. Edu.*, 10 (3): 45-48.
- 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.

