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Research Article

Knowledge level and constraints of improved dairy practices by the farmers of Dharwad district

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SUMMARY : Dairy farming is one of the important activities of the rural population of our country. The importance of the dairy, as a subsidiary industry to agriculture, has stressed by the National Commission on Agriculture. Most of the rural farmers, who keep dairy animals, do not follow modern dairy management practices. There is an urgent need to sensitize the dairy farmers about the improved technologies and scientific interventions in dairy production, in order to enhance milk yield and milk quality from dairy animals. The present study was taken up in Dharwad district of Karnataka state with the specific objectives to study the knowledge and constraints of the farmers in adoption of improved dairy practices. Majority of the farmers (40.00%) belonged to middle age group, obtained Middle Education (40.00%), joint family system (70.00%), majority of the farmers belonged to small and medium land holdings, 78.33 per cent of the farmers possessed bullock cart with respect to material possession, nearly half (45.83%) of the farmers belonged to medium income level groups and most of the farmers had medium level of knowledge (53.33%) regarding improved dairy practices.

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BACKGROUND AND OBJECTIVES

India is predominantly an agrarian society where animal husbandry forms the backbone of national economy. The prime concern before the nation is still to improve the economic condition of the rural poor to fulfil the national commitment. Dairy enterprise, next to agriculture, not only provides continuous income and improves the dietary standards of family, but also supplements the income and reduces unemployment to a large number of the rural poor. India owns the largest livestock population in the world. It is only in the recent past that the relative importance of dairying has been realized as an instrument in changing socio-economic conditions of poorer sections of the predominantly rural India. Dairying has been identified as one of the most potential and viable occupations for small, marginal farmers and agricultural labourers. In the emerging agriculture scenario, livestock production in general and dairying in particular has a special place as an instrument for enhancing the income of small farmers and reducing unemployment among the landless. Any attempt to tap this vast potential must depend on efficient management which, in turn, needs updated economic and technical information. Various recent studies and data suggest that dairying has enormous potential to improve the socio-economic status of the large percentage of rural population. Dairying in India has been considered to be playing a crucial role in Indian economy. The level and speed of adoption of dairy innovation by farming community has been far from satisfaction though it has direct bearing on dairy farm production. A firsthand knowledge of these factors to the extension personnel would create the speedy adoption of dairy innovations in the villages. Therefore, a study was conducted to assess the knowledge level of

farmers and their constraints and suggestions regarding improved dairy practices.

RESOURCES AND METHODS

The study was conducted in Dharwad district of Karnataka. The district was purposively selected for the study as it is the one of the milk procuring union of state. Further, Dharwad and Kalaghatagi taluks, which have maximum dairy societies, have been selected purposively as locale of the study. Since, these societies have made a successful story of dairy development and are day-by-day becoming popular. From each taluka top five villages with maximum dairy farmers were selected, from each selected village, a list of dairy farmers was prepared. From each village, 12 farmers were selected randomly. Thus, 120 dairy farmers spread over in 10 villages of Dharwad and Kalaghatagi taluks (five each) constituted the 120 sample for the study.

In the present investigation, ex-post facto research design was used. This design was considered as appropriate because the phenomenon had already occurred. Ex post- facto research is the most systematic empirical enquiry in which the researcher does not have control over independent variable as their manifestation has already occurred or as they are inherent and cannot be manipulate.

OBSERVATIONS AND ANALYSIS

It is clearly indicated in the Table 1 that, majority (40%) of the farmers belonged to middle age group, followed by old age (31.67%) and young age group (28.33%). The reason for this may be due to the fact that dairying is a recurrent income generating programme. It adds significantly to the family income. The income from dairy is an assured source unlike agriculture which is uncertain one. Therefore, more of middle aged farmers are taking up dairying as subsidiary occupation. The above results are in line with the findings of Chauhan *et al*. (2004).

In case of education level, majority, 40 per cent of the farmers had education up to the Middle School (5 – 7), followed by Primary (30.00%) and High School (15.00%), the results may be due to the fact that the respondents may feel that it is not important to undergo formal education and even if they are interested also their customs and traditions won't allow them to go to schools. Another reason may be their parents are also illiterates. Regarding family type, 70 per cent of the farmers had joint family type and remaining 30 per cent of the farmers belonged to nuclear family type. And further, with respect to land holding of the respondents, majority (31.67%) of the farmers had land up to 2.51 to 5 acres and they were under small farmers groups followed by medium farmers (21.67%) and marginal farmers (18.33%). The reason for possession of small size land might be due to subdivision of land because of separation of the families.

In case of material possession, majority of respondents possessed bullock carts (78.33 %), cycles (76.67 %) and Television (60.00 %). Since the main occupation of these respondents is agriculture, it is necessary for them to possess the bullock carts and hence majority of them were possessing the same. Further, 45.83 per cent of the respondents were getting medium, income followed by low level income earners (30.00 %) and high income earners (24.17%). It appears that the additional income from dairying has probably contributed much to the total income. The experience gained and information collected by the investigators at the time of data

Table 1: Personal information **(n=120)**

Sr. No.	Characteristics	Respondents F	Respondents %
1.	**Age**		
	Young (up to 30 yrs)	34	28.33
	Middle (31 to 50 yrs)	48	40.00
	Old age (>51 yrs)	38	31.67
2.	**Education**		
	Illiterates	10	8.33
	Primary (1-4)	36	30.00
	Middle (5-7)	48	40.00
	High School (8-10)	18	15.00
	College (11-12)	8	6.67
	Graduate (12 & above)	0	0.00
3.	**Family type**		
	Joint	84	70.00
	Nuclear	36	30.00
4.	**Land holding**		
	Marginal farmers (up to 2.5 acres)	22	18.33
	Small farmers (2.51 to 5.00 acres)	38	31.67
	Semi medium farmers (5.01 to 10.00 acres)	18	15.00
	Medium farmers (10.01 to 25.00 acres)	26	21.67
	Big farmers (>25.00 acres)	16	13.33
5.	**Material possession**		
	Bullock cart	94	78.33
	Cycle	92	76.67
	Motor cycle/scooter	34	28.33
	Telephone	42	35.00
	Radio	34	28.33
	Car	4	3.33
	Television	72	60.00
6.	**Income level**		
	Low (Upto Rs. 30,000)	36.00	30.00
	Medium (Rs. 30,000 to Rs. 50,000)	55.00	45.83
	High (Above Rs. 50,000)	29.00	24.17

collection indicated that most of the respondents had only dry land cultivated one crop in a year. So, the income from single crop yield certainly can not be higher.

The above results are in line with the findings of Mankar (2003).

Knowledge level of the farmers about improved dairy practices:

From Table 2, it is revealed that, cent per cent of the farmers have knowledge about fixed time of milking, time of milking and clean milk production *i.e.*, the farmers carried out milking at morning 7-7.30 am and evening 7.30-8.00 pm. Further, 96.67 per cent of the farmers had the knowledge about artificial insemination followed by improved breeds (90.00%), when calf allow to suck colostrums (83.33%), extra care for pregnant (80%) animals and stage of jawar cutting and good ration of dairy animals was 66.67 per cent. Regarding type and quantity of feed to be given 53.33, per cent of the farmers had the knowledge in this regard.

The above findings are in inconformity with the findings of Sheela (1991), Beerannavar (1995) and Shinde *et al.* (1998).

Table 2: Knowledge level of the farmers about improved dairy practices (n=120)

Sr. No.	Statements	Frequency	%
1.	Improved breeds	108	90.00
2.	Know about artificial insemination (AI)	116	96.67
3.	Advantages of AI	84	70.00
4.	Done AI for Animal	36	30.00
5.	When animals to be inseminate	44	36.67
6.	When animal is examine for pregnancy	28	23.33
7.	Know about cow heat cycle	28	23.33
8.	When calf allow to suck colostrums	100	83.33
9.	Stage of jawar cutting	80	66.67
10.	Type and quantity(kg) of feed given	64	53.33
11.	Good ration of dairy Animals	80	66.67
12.	How to improve quality of feed	20	16.67
13.	Type of housing	32	26.67
14.	Control of ectoparasite	4	3.33
15.	Quantity of concern fed	40	33.33
16.	Extra care for pregnant and milking animals	96	80.00
17.	Fixed time for milking	120	100.00
18	Time of milking	120	100.00
19.	Clean drinking water availability	104	86.67
20.	Cleanness in shed	36	30.00
21.	Clean milk production	120	100.00
22	Vaccinating the animals	20	16.67
23.	Breeding animal after noticing heat symptoms	44	36.67
24.	Record maintaining	84	70.00

Overall knowledge level:

It is depicted from Table 3 that, majority of the farmers (53.33%) belonged to medium overall knowledge level followed by high (26.67%) and low knowledge level (20.00%). It is due to the less awareness about the improved dairy practices, poor communication between the farmers and the extension workers, scientist and other development departments.

Table 3: Overall knowledge about dairy practices (n=120)

Category	Frequency	%
Low (Mean- 0.425SD)	24	20.00
Medium (Mean ± 0.425SD)	64	53.33
High (Mean + 0.425SD)	32	26.67
Mean	12.8	
S.D.	1.9547	
Highest	13.631	
Lowest	11.969	

Training needs of the farmers:

It is revealed from Table 4 that, regarding improved breeds and their management, 88.33 per cent of the farmers needed the training followed by disease management (80.00%) cattle shed management (70.00%) and quality of feed and fodder management (60.00%). It is due to smooth handling of improved breeds, problems of foot and mouth disease, improper space for cattle in the cattle shed and less availability of the fodder in the research area.

Table 4: Area of training needed by the farmers (n=120)

Sr. No.	Area of training needed	Farmers opinions	
		Frequency	%
1.	Disease management	96	80.00
2.	Improved breeds and their management	106	88.33
3.	Quality feed and fodder management	72	60.00
4.	Cattle shed management	84	70.00

Constraints faced by the farmers:

It has been indicated in Table 5 that, cent per cent of the farmers expressed, disease as the major problem *i.e.*, foot and mouth, followed by pregnancy (50.00%) and cattle shed (43.33%). This is because of non-availability of clean drinking water for animals, non-timely availability of the artificial

Table 5: Constraints faced by the farmers (n=120)

Sr. No.	Constraints	Dairy farmers opinions	
		Frequency	%
1.	Diseases	120	100.00
2.	Pregnancy	60	50.00
3.	Cattle shed	52	43.33
4.	Labour	32	26.67
5.	Lack of fodder	24	20.00

insemination and lack of space availability for cattle shed *i.e.*, most of the farmers had cattle shed inside their house.

Suggestions offered by dairy farmers for improvement of dairy enterprise:

In the present study, an attempt was made to invite the suggestions from the respondents to overcome their problems in the adoption of improved dairy management practices.

The loan amount for the purchase of dairy animals (70.83%) to provide water facility for their animals, more field visits are to be organized at all important operation of fodder

Table 6: Suggestions offered by dairy farmers (n=120)

Sr. No.	Suggestions	Dairy farmers opinions	
		Frequency	%
1.	The loan amount for the purchase of dairy animals to be increased	85	70.83
2.	Small scale dairy industries to be encouraged	73	60.83
3.	Training to be given for concentrates preparation using local resources	58	48.33
4.	Field visits to be organized as important operation of fodder demonstration	52	43.33
5.	Regular and timely supply of green fodder at reasonable rate	35	29.17

demonstrations, small scale dairy industries are to be encouraged at village level to produce dairy products (60.83%) and training to be given for concentrates preparation using local resources (48.33%) were the major suggestions offered by majority of the members (Table 6).

Conclusion:

On the basis of findings, it could be concluded that, cent percentage the farmers had knowledge about fixed time of milking and clean milk production, majority of the farmers belonged to medium overall knowledge category, further majority of the farmers needed training regarding improved breeds and their management and they faced problems like disease, pregnancy and availability of clean water.

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