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AV Bhalerao
PG Student, College of
Agriculture, Latur, VNMKV,
Parbhani, Maharashtra, India

MA Raut
Agricultural Assistant,
Vasantrao Naik Marathwada
Krishi Vidyapeeth, Parbhani,
Maharashtra, India

SM Durge
PG Student, College of
Agriculture, Latur, Vasantrao
Naik Marathwada Krishi
Vidyapeeth, Parbhani,
Maharashtra, India

SY Ingale
Researcher, Student, Dr.
Panjabrao Deshmukh Krishi
Vidyapeeth, Akola,
Maharashtra, India

Dr. NM Kale
Research Guide and Associate
Professor, Department of
Extension Education, Dr.
Panjabrao Deshmukh Krishi
Vidyapeeth, Akola,
Maharashtra, India

Corresponding Author
AV Bhalerao
PG Student, College of
Agriculture, Latur, VNMKV,
Parbhani, Maharashtra, India

To find out the association between personal and socio-economic characteristics of dairy farmers and technological gap in dairy management practices

AV Bhalerao, MA Raut, SM Durge, SY Ingale and Dr. NM Kale

Abstract

The study entitled “Technological gap in dairy management practices.” was purposively conducted in Akola district of Vidarbha region. The study was conducted in Akola, Barshitakli and Balapur tahsils. The sample constituted 120 dairy farmers drawn from 3 milk collection centres. The exploratory design of social research was used. The findings of the present investigation indicate that. majority of the farmers were of middle age with educational level of 12th standard. Maximum number of respondents had medium family size, medium (85.83%) level of annual income, 49.17 per cent had medium (04.01 to 10 ha.) land holding, maximum (80.00%) respondent sowing a seasonal crop, possess medium (70.00%) herd size and 77.50 per cent possesses local breed, maximum(77.50%) respondents fell under medium category of economic motivation,(69.17%) belonged to medium level of scientific orientation,63.33 per cent medium level of information seeking behavior, 58.33 per cent of respondents having animal health facilities less than 5 km., Nearly about same medium (47.50%) and high (46.66%) level of knowledge to the selected respondents.

The major suggestions to overcome the constraints were, seeds of HYV's fodder crops be made available, concentrates be made available at cheaper rate and veterinary facilities be made available in village.

Keywords: Association, personal, farmers, economic characteristics, management

1. Introduction

Dairy is an integral part of rural agricultural economy. It is a potential source of gainful employment generating additional income to rural poor, dairy farmers, and particularly landless farm labourers, marginal and small farmers who are resource deficit. Dairy has provided strong support to farmers. In order to encourage more and more people to take up dairy as an enterprise, it is essential that milk production becomes an economic proposition.

The rural poor do not derive much more from the implementation of land-based development projects and programmes. So, new way of dairy development was initiated in 1970 under a massive milk marketing and dairy development programme. The programme was popularly known as ‘Operation Flood’ or ‘White Revolution’. It was a gigantic project propounded by Government of India for developing country. At the beginning of operation flood certain aims were kept in view for implementation of the programme. Later, the National Commission on Agriculture (1976) suggested that farm income and employment could be increased with adoption of integrated approach that is, crop and milk production. So, the second phase of operation flood was started in 1978, and third phase in 1985.

In the economy of world, highest milk producing nation i.e. India contributes 6.7 per cent to agricultural GDP in various ways viz., milk, meat, drought power, dung and byproducts. In India several livestock species are reared under crop livestock integrated farming system. Indian dairying is characterized by small, scattered milk production. Dairying has come to be India's largest self-sustaining rural employment programme. India owns one of the largest livestock populations in the world (485 million). It accounts for 16 per cent cattle population and 57 per cent buffalo population of the world. Livestock are the source of various products like milk, meat, bones horns, skins etc. which can be used to produce a variety of byproducts. Manufactures can be used as a source of nutrient (Anonymous, 2010) [2]. Livestock plays an important role in Indian economy. Animal husbandry output constitutes about 30 per cent of countries agricultural output. Livestock sector provide regular employment to 11 million in principles status and 9 million in subsidiary status (Nitnaware, 2004).

Low productivity in livestock is due to many reasons. Several studies revealed that lack of proper information on the part of livestock production and management also a major problem of farmers in general, and small farmers in particular. It has been also observed that farmers are not fully aware of improved practices of livestock production and management.

1.1 Objectives of the study

1. To study the personal and socio-economic characteristics of dairy farmers.
2. To obtain the suggestions of dairy farmers in order to reduce technological gap.

1.2 Methodology

An exploratory design of social research will be useful for present study aims at assessing the technological gap in dairy management practices. The study was conducted in Akola, Balapur and Barshitakli Panchayat Samiti of Akola district of Vidarbha region of Maharashtra State.

A list of dairy farmers was obtained from the respective milk collecting centres. A dairy farmer means a farmer maintaining dairy animals for milch purpose and sell milk to milk collecting centres. Out of each village ten respondents were

selected. Thus, a sample of 120 dairy farmers was drawn for study.

Table 1: List of village wise respondents for the study.

Sr. No.	Tahsils	Villages	Respondents
1	Barshitakli	Ghota	10
		Kanheri (Sarap)	10
		Alanda	10
		Wijora	10
2	Akola	Loni	10
		Kumbhari	10
		Dongargaon	10
		Anwi (Mirzapur)	10
3	Balapur	Nimkarda (Takli)	10
		Batwadi	10
		Paras	10
		Kalamba (Kasura)	10
Total			120

2. Results and Discussion

2.1 Personal, socio-economic and psychological characteristics of dairy farmers

Table 2: Distribution of respondents

Sr. No.	Variables	Categories	Respondents (n=120)	
			Frequency	Percentage
1.	Age level	1. Young	32	26.67
		2. Middle	72	60.00
		3. Old	16	13.33
2.	Education	1. Illiterate	00	00.00
		2. Primary	09	07.50
		3. Middle school	17	14.16
		4. High school	38	31.67
		5. Higher secondary	48	40.00
		6. College	08	06.67
3.	Family Size	1. Small	04	03.33
		2. Medium	81	67.50
		3. Large	17	14.17
		4. Very large	18	15.00
4.	Annual Income	1. Up to 60,000	16	13.33
		2. 60,001 to 1,20,000	57	47.50
		3. 1,20,001 to 1,80,000	29	24.17
		4. Above 1,80,000	18	15.00
5.	Land Holding	1. Marginal	04	03.33
		2. Small	14	11.67
		3. Semi-medium	37	30.83
		4. Medium	59	49.17
		5. Large	06	05.00
6.	Cropping Pattern	1. Seasonal cropping	96	80.00
		2. Biseasonal cropping	19	15.84
		3. Annual cropping	1	00.84
		4. Biannual cropping	2	01.66
		5. Perennial cropping	2	01.66
7.	Herd Size	1. Small (up to)	30	25.00
		2. Medium	84	70.00
		3. Big	06	05.00
8.	Type of Breed	1. Local breed	93	77.50
		2. Cross breed	27	22.50
9.	Economic Motivation	1. Low	16	13.33
		2. Medium	93	77.50
		3. High	11	09.17
10.	Scientific Orientation	1. Low	18	15.00
		2. Medium	83	69.17
		3. High	19	15.83
11.	Information seeking behavior	1. Low	28	23.34

		2.Medium	76	63.33
		3.High	16	13.33
12.	Access to animal health facilities (in km.)	1.Less than 5	70	58.33
		2.5 to 10	30	25.00
		3.Above 10	20	16.67
13.	Knowledge Level	1.Low	07	05.83
		2.Medium	57	47.50
		3.High	56	46.67

2.1.1 The summation of findings after study

- 60.00 per cent of the respondents belonged to middle age group.
- More than one half (40.00%) were educated upto higher secondary level.
- More than two third (67.50%) were medium family size (4 to 6 members).
- Nearly about half (47.50%) of the respondents had annual income between Rs. 60,001 to 1,20,000.
- Nearly about half of the dairy farmers (49.17%) possessed medium category of land holding (4.01 to 10.00 ha).
- Majority of respondents (80.00%) had sowing seasonal cropping.
- More than two third of dairy farmers (70.00%) possessed medium herd size.
- More than three fourth of respondents (77.50%) possessed local breed of animal.

- More than three fourth of respondents (77.50%) fell under medium category of economic motivation.
- More than two third respondents (69.17%) belonged to medium level of scientific orientation.
- 63.33 per cent of respondents having medium level of information seeking behavior.
- 58.33 per cent of respondents having access to animal health facilities less than five kilometer
- Nearly about same medium (47.50%) and high (46.66%) level of knowledge to the selected respondents.

2.2 Suggestions of dairy farmers in order to reduce technological gap

Though the suggestions were invited for each major practice and sub practice, the respondents were not able to give the concrete suggestions on all the practices. Various suggestions made by the respondents for minimizing the technological gap in dairy management practices are presented in Table 3.

Table 3: Distribution of the respondents according to the suggestions made by them for better dairy management

Sl. No.	Suggestions	Respondents (N=120)	
		Number	Percentage
A)	Housing management		
	Loan facilities for construction for shed	40	33.33
	Technical guidance for construction	56	46.67
B)	Breeding management		
	Facilities of timely insemination and service to animals be made available.	45	37.50
	Semen should be regularly supplied for A.I. centre.	40	33.33
	Information regarding breeding practices should be provided.	37	30.83
	Loan facilities for cross breeds be made available.	40	33.33
C)	Milking management		
	Technical guidance for milking practices	44	37.67
	Subsidy for purchasing milking machine	15	12.50
D)	Calves management		
	Information regarding symptoms of diseases should be provided.	41	34.17
	Concentrates be made available at cheaper rate.	49	40.83
E)	Management of pregnant animal		
	Technical guidance for management of pregnant animal	40	33.33
	Veterinary medicines and vaccines be made available at cheaper rates.	39	32.52
	Information regarding symptoms of diseases should be provided.	41	34.17
F)	Feeding management		
	Seeds of HYV's fodder crops be made available.	81	67.50
	Balanced ration be made available in villages.	40	33.33
	Concentrates be made available at cheaper rate.	49	40.83
G)	Animal bio-waste management		
	Information should be regarding construction of gobargas system provided.	35	29.17
	Technical guidance for preparation of vermicompost	50	41.67
H)	Water management		
	Govt. Construct common water tank	70	58.33

It is seen from Table 3, that in respect of housing management practice 46.63 per cent farmers suggested technical guidance and one third (33.33%) facilitating loan for construction of house for animal. In respect of breeding practices, more than one third (37.50%) of the respondents suggested, 'facilities of timely insemination and service to animals be made available'. Followed by, 'semen should be regularly supplied

to A.I. centre' and loan facilities for cross breeds be made available (33.33% respectively). Information regarding breeding practices should be provided (30.83 per cent) in order to minimize technological gap. In respect of milking management practices more than one third (37.67%) of the respondents suggested to provide technical guidance for milking practices and 12.50 per cent of the respondents

suggested to provide subsidy for purchasing milking machine by the government. In respect of calves management, 40.84% and 34.17% of the respondents suggested that concentrates be made available at cheaper rate and Information regarding symptoms of diseases should be provided, respectively. In respect of Management of pregnant animal, more than one third (34.17%) of the respondents suggested that Information regarding symptoms of diseases should be provided, one third (33.33%) respondents suggested technical guidance for management of pregnant animal, whereas. 32.52 per cent of the respondents suggested that veterinary medicines and vaccines be made available at cheaper rates. In respect of feeding practices, more than two third (67.50 per cent) of the respondents suggested that seeds of HYV's fodder crops be made available. more than one third (40.83%) of the respondents suggested that concentrates be made available at cheaper rate and 33.33 per cent balanced ration be made available in villages. In respect of animal bio-waste management 41.67% of the respondents suggested that technical guidance for preparation of vermicompost and 29.17 per cent Information should be provided regarding construction of gobargassystem provided. In respect of 'Water management' more than half (58.33) of the respondents suggested that to construct common water tank by the government.

A close look at the suggestions made by the respondents reveal that such suggestions have been made by the dairy farmers which would raise their knowledge level, and which would make available the facilities like irrigation, veterinary aid and inputs their own village. In other words, the dairy farmers need knowledge, finance and veterinary service to minimizing technological gap in dairy farming. Entertaining these suggestions would certainly go a long way expansion in dairy industry, in general, in minimizing the technological gap of the dairy farmers, in particular. However, a coordinated approach will have to be followed, wherein, the training institutions like the Agricultural Universities, the financing institutions like Commercial and Co-operative banks, and the service institutions like dairy development departments are involved.

3. Implications

1. The study has brought forward the personal and socio-economic characteristics of the dairy farmers. However, a further probe is suggested to undertake comparative study of the adopters and non-adopters of improved dairy management practices. Such study would help in making the job of extension worker easier and would also save their time.
2. The findings in respect of dairy management practices followed by the dairy farmers revealed that majority of the farmers have adopted the recommended practices partially. It is, therefore, necessary to convince the utility of recommended practices by way of various extension education methods like demonstrations, slide shows, visits to ideal dairy farms etc. In this context, agricultural extension wings need to be strengthened at all the levels.
3. It was found that farmer's could not manage the dairy farms effectively because of some constraints. Unavailability of quality green fodder, unavailability of irrigation facilities, high cost of concentrates. This implies that there is need of collaborating the efforts of all the concerned agencies in solving the problems, so as to increase the overall status of dairy industry in

Vidarbha region.

4. The study has also pointed out the personal and socio-economic characteristics that have been significantly contributing in minimizing the technological gap in respect of dairy management practices. The dairy development workers may make use of these findings and help the dairy farmers in managing their dairy enterprise most efficiently.
5. The dairy farmers have made certain suggestions for reducing the technological gap. The training institutions, the financing institutions and the service institutions will have to decide common strategy for acting upon the suggestions of dairy farmers.

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