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Multidimensional Study of Dairy Farmers in Vidarbha Region

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ABSTRACT

The study entitled; "Multidimensional study of dairy farmers in Vidarbha region" 80 farmers were selected by using random sampling method. The main objectives to study the extent of knowledge and adoption of recommended dairy management practices adopted by the respondents. The findings of the present investigation indicate that near about half of the respondents were in middle age group and educated upto primary school level. Nearly one third of the respondents belonged to category of semi medium land holding and had annual income upto Rs. 3, 00,000. Maximum percent of the respondents felt under low risk preference category having medium sources of information with medium category of extension contact. Majority of the respondents belonged to low category of size of dairy animals i.e. upto 6 animals. Over half of the dairy farmers possessed high level of knowledge about recommended dairy management practices. Majority of the respondents had knowledge about descript breeds for dairy occupation and age of she buffalo/cow for breeding and quantity of green fodder to be fed. Therefore, essential to change the outlook of Indian dairy farmers towards dairying as a source of income and to motivate them to adopt animal husbandry and dairy management practices.

Keywords : Multidimensional, Adoption, dairy management practices, dairy farming

Introduction

Dairying is promising enterprise as far as its potential in India is concerned. Dairy development in India is the basic strategy for eradicating the rural poverty and bringing the rural poor above poverty line. The main thrust of dairy development is to provide opportunity and generate more income for the betterment of weaker section in the society in the particular and to improve the nutritional standards of human beings by providing milk to consumers in general. Dairy is an instrument of changing the lifestyle of rural households. It provides rural people employment throughout the year. According to Indian agriculture India has very large population of livestock comprising mainly 209.08 millions of cows and 92.19 millions of buffalos. Dairy is an instrument of changing the lifestyle of rural households. It provides rural people employment throughout the year. Dairy is presumed complementary rather than supplementary enterprise to farming. Thakur, C.L. and Singh, V.C. (2004) observed in his study of dairy in relation to the socioeconomic status of tribal conducted in Amravati district was observed that the annual income of the 35 per cent of tribal was Rs.75000 and above

Dairy farmers do not pay due attention towards milch animals. It has become, therefore, essential to change the outlook of Indian dairy farmers towards dairying as a source of income and to motivate them to adopt animal husbandry and dairy management practices.

Methodology

The present study was carried out in Chikhaldara and Nandgaon Khandeshwar panchayat Samiti of Amravati district of Maharashtra State because the area under dairy farming was relatively higher as compared to other Panchayat samities of Amravati district. The total milch animals in Amravati district was 1, 49,447 during the year 2010-2011.Exploratory research design of social research was found to be appropriate. Four villages having more respondents adopting dairy occupation during the year 2010-2011 were identified. The list of farmers adopting dairy farming continuously since last five years in the selected villages were prepared, from the list a sample of 80 dairy farmers were drawn by disproportionate method of random sampling as the respondents for the study. The data were gathered through personal interview schedules. The independent variables were selected age, education, family size, family type, land holding, annual income, and economics of dairy occupation, risk preference, source of information, extension contact, innovativeness, and herd size. The statistical tools namely mean, standard deviation, co-efficient, of correlation and co-efficient of regression were adapted to test the significantly of the results. .

Results And Discussion

Adoption refers to the degree of an extent of actual use of improved management practices by the respondents.

The various practices of dairy management were listed from the Krishi Sanwadini Dr.PDKV, Krishi diary and in consultation of the experts in the field and the same are mentioned in Table 1.

Table 1. Distribution of the respondents according to their practicewise knowledge about improved practices of dairy occupation

Sr.No.	Improved practices of dairy management	Respondents(n = 80)	
		Frequency	Percentage
A)	Selection of breed		
1.	Descript breeds for dairy - Nagpuri,Murrah,Jersey	76	95.00
2.	Descript breeds for milk production-Nagpuri,Murrah,Jersey	75	93.75
B)	Breeding management		
3.	Age of she buffalo/cow for breeding(2.5 to 3 years)	78	97.50
4.	Proper time of pregnancy diagnosis (60 to 90 days after service)	34	42.50
5.	Detection of heat period(urination frequency bellowing excitement mounting on other animals, restlessness)	32	40.00
6.	Proper time for artificial insemination (2 months after calving)	13	16.25
7.	Proper feeding to the pregnant animal	59	73.75
8.	Detection of systems of heat period of buffalo	49	61.25
C)	Feeding management		
9.	Feeding of pregnant animal(12 to 15 kg green fodder,5 to 6 kg green fodder,1.5 kg concentrates mixture)	70	87.50
10.	Quantity of colostrums should be fed(1/10th of body weight)	59	73.75
11.	Proper time to fed colostrums(After 1 to 2 hours to newly born calf)	49	61.25
12.	Feeding of buffalo/cow 1st 4 days after calving(2 kg wheat bhusa,1.5 kg jaggary,5 kg green fodder,5 kg dry fodder)	77	96.25
13.	Quantity of green fodder(15 to 20 kg)	78	97.50
D)	Housing management		
14.	Direction of cattle shed (North-South)	64	80.00
15.	Separate shed for milking	05	6.25
16.	Sprinkle water on body of cow/buffalo in summer season (twice in a day)	65	81.25
17.	Space required for adult cow-15 to 12 sq.ft.	17	21.25
18.	Number of cattle in flock-10 to 20	32	40.00
E)	Health management		
19.	Vaccination of cow/buffalo	17	21.25
20.	Grooming of cattle	34	42.50

Practice-wise Knowledge about improved practices of dairy occupation

In feeding management, it was noticed that 97.50 per cent of the respondents had knowledge about quantity of green fodder for cattle, followed by quantity to be fed to buffalo/cow first four days after calving was known to 96.24 per cent respondents, 87.50 per cent of the respondents had knowledge about feeding of pregnant animal to followed by 73.75 per cent knowledge about quantity of colostrums to be fed to newly born calf. In housing management majority of the respondents 81.25 per cent had knowledge about sprinkling water on body of cattle in summer season twice in a day, followed by (80.00%) knowledge about direction of shed i.e. North South direction few per cent of respondents(6.25%) had knowledge about separate shed for milking,

Health management area was known least to the respondents as compared to other areas of management. Grooming of cattle i.e. buffalo/cow for blood circulation was known to 42.50 per cent of respondents following vaccination of cow/buffalo (21.25%).Thus, it could be inferred that majority of dairy entrepreneur had knowledge about selection of descript breeds for dairy occupation, age of she buffalo/cow for breeding, quantity of green fodder and grooming of cattle. However, a few dairy entrepreneur had knowledge about proper time for artificial insemination, feeding of colostrums and separate shed for milking.

Knowledge level about dairy management practices

Knowledge of modern animal husbandry technology is a pre requisite for its adoption. The data with regards to the extent of knowledge possessed by the dairy entrepreneur about improved animal husbandry practices for dairy occupation is furnished in Table 2.It indicates that little more than one half of the respondents(55.00%) had moderate knowledge about dairy management practices. Equal percentage (22.50%) of the respondents had low and high level of knowledge about dairy management practices.

Table 2. Distribution of the respondents according to knowledge level about animal husbandry practices

Sr.No.	Knowledge level	Respondents (n = 80)	
		Number	Percentage
1.	Low	18	22.50
2.	Medium	44	55.00
3.	High	18	22.50
	Total	80	100

The findings of the study got supported by the results of Jagadale (1998), Gaikwad (2003).while the results Sant, S.S. (2001), Thakur, C.L. and Singh, V.C. (2004), Kulkarni et.al. (1990) did not support to these findings.

3. Practice-wise adoption of dairy management practices.

It is noticed from the Table 3 that there were 92.50 per cent respondents who adopted completely the practices under selection of breeds. Under the aspect of breeding management, proper age of breeding was followed by 97.50 per cent respondents. Whereas, two third (66.25%) respondents adopted the method of detection of heat period and feeding of pregnant animals. Proper time for pregnancy diagnosis (42.50%) and detection of system of heat period of buffalo (12.50%) were adopted completely by the respondents. Three fourth (75.00%) and cent per cent of the respondents were adopted completely the practices proper time to fed colostrums and quantity of dry fodder respectively.

Table 3.Distribution of the respondents according to their practice-wise adoption of dairy management practices

Sr.No.	Particulars	CA	PA	NA
A)	Selection of breeds			
1.	Descript breeds for dairy - Nagpuri,Murrah,Jersey	74(92.50)	06 (7.50)	00 (0.00)
2.	Descript breeds for milk production-Nagpuri,Murrah,Jersey	74(92.50)	06 (7.50)	00 (0.00)
B)	Breeding management			
3.	Proper age for breeding(3 to 3.5 years)	78(97.50)	2 (2.50)	00 (0.00
4.	Proper time of pregnancy diagnosis (60 to 90 days after service)	34(42.50)	05 (6.25)	41 (51.25)
5.	Detection of heat period (urination frequency bellowing excitement mounting on other animals, restlessness)	53 (66.25)	0 (0.00)	27 (33.75)
6.	Artificial insemination (2 months after calving)	0 (0.00)	0 (0.00)	0 (0.00)
7.	Proper feeding to the pregnant animal	34 (42.50)	41 (51.25)	05 (6.25)
8.	Detection of systems of heat period of buffalo	10 (12.50)	0 (0.00)	70 (87.50)
C)	Feeding management			
9.	Feeding of pregnant animal(12 to 15 kg green fodder,5 to 6 kg green fodder,1.5 kg concentrates mixture)	53 (66.25)	21 (26.25)	6 (7.50)
10.	Quantity of colostrums (1/10th of body weight)	38 (47.50)	12 (15.00)	30 (37.50)
11.	Proper time to fed colostrums(After 1 to 4 hours to newly born calf)	60 (75.00)	10 (12.50)	10 (12.50)
12.	Feeding of buffalo 1st 4 days after calving(2 kg wheat bhusa,1.5 kg jaggary,5 kg green fodder,5 kg dry fodder)	50 (62.50)	12 (15.00)	18 (22.50)
13.	Quantity of dry fodder(5 to 6 kg)	80 (100)	0 (0.00)	0 (0.00
D)	Housing management			
14.	Direction of cattle shed (North-South)	53 (66.25)	0 (0.00)	27 (33.75)
15.	Separate shed for milking	0 (0.00)	0 (0.00	80 (100)
16.	Sprinkle water on body of buffalo in summer season (twice in a day)	78 (97.50)	2 (2.50)	0 (0.00
17.	Space required for pregnant cow-15 to 120 sq.ft.	64 (80.00)	1 (1.25)	15 (18.75)
18.	Number of cattle in flock-10 to 20	53 (66.25)	0 (0.00)	27 (33.75)
E)	Health management			
19.	Washing of hands before milking, vaccination of cattle	74 (92.50)	0 (0.00	06 (7.50)
20.	Grooming of buffalo	48(60.00)	22(27.50)	10(12.50)

CA Complete adoption PA Partial adoption NA Non adoption

Under the aspect of housing management sprinkling water on body of cow/buffalo (97.50%), washing of hands before milking, vaccination of cattle (92.50%).Space required for pregnant cow (80.00%), number of cattle in flock (66.25%) and grooming of buffalo (60.00%) were adopted completely under housing and health management practices of dairy management.

There was non adoption of artificial insemination practices due to lack of knowledge, lack of veterinary facilities and long distance of artificial insemination centers in village.

Adoption level about dairy management practices

From the pooled data presented in Table 4. it is, observed that at overall level that more than half (63.75%) of the dairy entrepreneur had adoption at medium level of dairy management practices. While, 18.75 per cent of the respondents had low level of adoption, with more than one tenth (17.50%) of the respondents showing high level of adoption of dairy management practices. These findings are in accordance with the result reported by Kulkarni et.al. (1990) and Korde (2004) who reported that the majority of the dairy farmers had medium level of adoption of dairy management practices. While the result Sheela and Swami (2003) Gupta Lokes etal.(2005) did not support to this findings.

Table 4. Distribution of the respondents according to adoption level about animal husbandry practices

Sr.No.	Adoption level(index range)	Respondents(n = 80)	
		Number	Percentage
1.	Low	15	18.75
2.	Medium	51	63.75
3.	High	14	17.50
	Total	80	100.00

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