



Knowledge level of dairy farmers about improved breeding and health care practices in Punjab

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ABSTRACT

This study was conducted to assess the knowledge level of dairy farmers in Punjab. A total of 250 dairy farmers were randomly selected from the farmers visiting Veterinary clinics of GADVASU, and participating in various extension programmes, various training programmes, animal welfare camps and pashu palan mela. The relevant information was collected through a structured interview schedule. It was observed that 64.8 per cent of the farmers have medium level of knowledge regarding breeding practices whereas 15.2 per cent farmers have high level of knowledge. It was observed that majority of the large farmers, 100 per cent have knowledge regarding heat detection and 86.11 per cent have knowledge regarding time of heat detection. The medium farmers and large farmers also possessed higher knowledge regarding vaccination of animals. It was observed that control of ectoparasite was known by 89.2 per cent of the respondents.

Keywords: Knowledge level, Dairy farmers, Breeding, Health care

Introduction

Dairying is an important for India because it is a rural set-up and a land saving industry. It is a secure path and future of our rural development and is now becoming a commercial preposition. But the major drawback of dairy sector in India is its low productivity. In fact, as per a estimate, 5 dairy cows' in India produce as much milk as produced by 'a single dairy cow' in the USA and '10 dairy cows' in

India produce the quantitative of milk that is produced by a single dairy cow in New Zealand (Kumar *et al* 2011). It is well recognized that for increasing productivity and production with aim to make dairy business more remunerative, it is essential to go for adoption of scientific dairy farming practices in the field of breeding, feeding, health care and management. So it becomes pertinent to gather information from the farmers about knowledge on scientific dairy farming practices from the field level, which could help in formulating action plan as per need of farmers.

Methodology

The information with regard to knowledge level of the dairy farmers in respect of breeding and health care was collected by random sampling technique from a total of 250 dairy farmers who have visited the veterinary clinics of GADVASU and have participated in various training programs, animal welfare camps and pashu palan melas. The data were collected by personal interview techniques through an interview schedule. The farmers were categorized into low/medium/high knowledge level depending on their knowledge level about improved dairy farming practices. A score of 1 was given for each correct answer and 0 for other answers (wrong, missing or don't know). The total knowledge score of each respondent was calculated by summing up the number of items correctly answered by an individual. Then

the knowledge score of individual practices was converted into percentage.

Results and Discussion

Knowledge level in Breeding Practices

It was observed that majority of the respondents, 64.8 per cent have medium level knowledge about various breeding practices, 20 per cent have low level of knowledge and 15.2 per cent have high level of knowledge. It was also observed that 70.14 per cent of small farmers and 68.57 per cent of the medium farmers have medium level of knowledge with regards to breeding practices whereas 61.11 per cent of the large farmers have high level of knowledge for breeding practices. This is in contrast with the findings of Gill and Singh (1977) who found that

dairy farmers have low knowledge level in terms of breeding.

It was observed that small farmers, 90.97 per cent have knowledge on heat detection, while 82.67 per cent have knowledge regarding time for heat detection, 61.80 per cent on time for insemination and service and only 4.86 per cent have knowledge on the identification of reproductive problems. Majority of the medium farmers (91.43 %) have knowledge on detection of heat symptoms, followed by appropriate time for heat detection (80 %) and importance of AI (72.86 %). It was observed that cent percent of the large farmers have knowledge for heat detection and 86.11 per cent have knowledge regarding time of heat detection and importance of AI. These are similar to the observations of Nataraju and Channegowda (1986) and Singh and Godara (2002).

Table 1: Distribution of respondents based on knowledge level on breeding practices

Knowledge level	Small N=144		Medium N=70		Large N=36		Overall N=250	
	No.	%	No.	%	No.	%	No.	%
Low	36	25	13	18.57	1	2.78	50	20
Medium	101	70.14	48	68.57	13	36.11	162	64.8
High	7	4.86	9	12.86	22	61.11	38	15.2

Mean \pm SD = 4.41 \pm 1.12

Table 2: Knowledge of respondents in respect of breeding practices

Breeding practices	Farmer's category			Total N=250
	Small n=144	Medium n=70	Large n=36	
Age at first heat	85 (59.03)	39 (55.71)	20 (55.55)	144 (57.6)
Symptoms of heat detection	131 (90.97)	64 (91.43)	36 (100)	231 (92.4)
Appropriate time for detection of heat	119 (82.64)	56 (80)	31 (86.11)	206 (82.4)
Pregnancy diagnosis	68 (47.22)	45 (64.28)	28 (77.78)	141 (56.4)
Identification of reproductive problems	7 (4.86)	2 (2.86)	16 (44.44)	25 (10)
Knowledge on sexed semen	12 (8.33)	26 (37.14)	25 (69.44)	63 (25.2)
Importance of A. I	79 (54.86)	51 (72.86)	31 (86.11)	161 (64.4)
Time for A.I / service	89 (61.80)	43 (61.43)	28 (77.78)	160 (64)

Figures in parenthesis indicates percentage

Knowledge level in health care practices

It was observed that 63.89 per cent of the small farmers have medium, level of knowledge about health care practices, while 22.22 per cent and 13.89 per cent were found to have low and high knowledge about the health care practices. With respect to medium farmers, it was found that 55.71 fell in medium level while 25.71 per cent and 18.57 per cent had low and high knowledge level respectively. In regard to large farmers it was observed that 63.93 per cent fell in medium level, 33.33 per cent in high level and 2.78 per cent in low level. Among the various sub area of health care, majority (92.36 %) of the small farmers had knowledge regarding vaccination against FMD and HS followed by deworming (81.25 %) and the least knowledge regarding symptoms of brucellosis (19.44 %). The medium farmers and large farmers also possessed higher knowledge on vaccination of animals against FMD and HS,

deworming. These findings are in line with those of Nataraju and Channegowda (1986), Ingole *et al* (1988), Arora *et al* (2006).

It was observed that mastitis prevention was known by 69.2 per cent of the respondents, in which 67.36 per cent were small, 71.43 per cent were medium and 72.22 per cent were large farmers. Vaccination against brucellosis was known by only 24.8 per cent of the respondents of which 23.61 per cent were small, 24.48 per cent were medium and 30.55 per cent were large farmers.

Control of ectoparasite was known by 89.2 per cent of the respondents among which it was found that 87.5 per cent were small, 87.14 per cent were medium and 100 per cent were large farmers respectively. These were in accordance with those reported by Shreeshailaja and Veerabhadraiah (1994).

Table 3: Distribution of respondents based on knowledge level on health care practices

Knowledge level	Small N=144		Medium N=70		Large N=36		Overall N=250	
	No.	%	No.	%	No.	%	No.	%
Low	32	22.22	18	25.71	1	2.78	51	20.4
Medium	92	63.89	39	55.71	23	63.98	154	61.6
High	20	13.89	13	18.57	12	33.33	45	18

Mean \pm SD = 4.49 \pm 1.16

Table 4: Knowledge level of respondents in respect of health care practices

Health care practices	Farmer's category			Total N=250
	Small n=144	Medium n=70	Large n=36	
Vaccination against FMD, H.S	133 (92.36)	62 (88.57)	36 (100)	231 (92.4)
Vaccination against brucellosis	34 (23.61)	17 (24.28)	11 (30.55)	62 (24.8)
Deworming	117 (81.25)	53 (75.71)	30 (83.33)	200 (80)
Symptoms of mastitis	78 (54.17)	46 (65.71)	26 (72.22)	150 (60)
Mastitis prevention	97 (67.36)	50 (71.43)	26 (72.22)	173 (69.2)
Zoonotic diseases	49 (34.03)	22 (31.43)	21 (58.33)	92 (36.8)
Control of ectoparasites	126 (87.5)	61 (87.14)	36 (100)	223 (89.2)
Isolation of sick animals	67 (46.53)	50 (71.43)	29 (80.56)	146 (58.4)

Figures in parenthesis indicates percentage

CONCLUSIONS

Large farmers have more knowledge in terms of breeding practices being followed by them compared to the small and medium farmers. Majority of the farmers have low knowledge in the identification of reproductive disorders. The reason for low knowledge in identification of reproductive disorders and infertility disorders may be due to that these practices are mainly performed by Veterinary Officers and technical persons. The large farmers and medium farmers possessed higher knowledge on vaccination of animals against FMD and HS, deworming. Most of the respondents did not possessed knowledge on zoonotic diseases, it was observed that the knowledge about zoonotic diseases was more in dairy farmers who have attended training and those who have been more exposed to various mass media sources and have contact with the extension agencies or persons.

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