

Knowledge Level of the Dairy Farmers in Kamrup District of Assam

J. Sarma¹, M.N. Ray² and K.K. Saharia³

Introduction

In the words of Bloom et al. (1956) knowledge is defined as “those behaviors’ and situations which emphasized the remembering, by either recognition or recall of ideas, materials and phenomenon. English and English (1961) conceived knowledge as “the body of understood information possessed by an individual or a culture”. They further described knowledge as the part of a person’s information which is in accordance with the established facts. To Rogers and Shoemaker (1983), it was a function or stage of the decision making process when the individual was exposed to an innovator’s existence and joins some understanding of how it functions.

Implicit in the word knowledge is the subject to which knowledge is related. Whenever we talk of knowledge, we talk of knowledge of something. This can either be an empirical object or an abstraction. In other words, sum total of what is known is knowledge. The process of knowledge is related with the word concept. H.J. Klausmeir defines a concept as a mental constituent of an individual consisting of organized information about one or more things – objects, events, ideas, process or relations that enables the individual to discriminate a particular thing or class of things from other things or classes of things and also to relate it to other things or classes of things. In other words we can say that a concept of a particular object is formed in relation to or opposition to another object. Therefore, knowledge covers a person’s range of information or the sum total of what is known.

Knowledge can be either theoretical or practical. In the case of theoretical knowledge, a person improves his intellectual capacity through studying, thinking and exercising his mind by abstract reasoning and constructs. Knowledge derived from actual experiences is referred to as practical knowledge. In the present context, knowledge refers to the practical knowledge of the farmers in improved dairy farming.

The milk production scenario in Assam looks

gloomy with an annual yield of 711 million litres making the per capita availability of milk as paltry as 87 gm against the national average of 204 gm. According to the recommendation of ICMR, an adult person should daily consume 280 gm of milk. Hence it is easily understood that there exists a big gap between demand and production level. It is summarized that gaining of knowledge by dairy farmers, and its adoption and diffusion among the dairy farming community has a role to play in increasing milk production. Therefore, the present study was undertaken with the objectives to assess the knowledge level of the dairy farmers in improved dairy farming and to assess whether there is any significant difference in knowledge level of the dairy farmers of different zones of Kamrup district.

Angami (1993) reported that a majority of respondents had a low level of knowledge into improved dairy practices. However, Majumdar (1985), Saharia (1985), Das (1991) and Kakati (1993) reported a medium level of knowledge of the majority of the farmers. Singh (1992) reported that most of the farmers had a medium level of knowledge about dairy technology in a less successful society as well as a more successful society.

Materials and methods

The study was undertaken in the Kamrup district of Assam. The reason behind selecting this district was the maximum exposure of the dairy farmers of this district to various dairy development programmes. For convenience of comparison, the whole district was divided arbitrarily into 4 (four) zones *viz.* East, West, North and South. From each zone 5 (five) village and from each village 10 (ten) dairy farmers were randomly selected. Thus, a total of 50 (fifty) dairy farmers were taken from each zone and the total respondents from 4 (four) zones were 200 (two hundred). In order to test the knowledge level of the farmers, a scale was developed for the purpose after extensive review of literature and discussions with dairy experts. An inventory consisting of 30 (thirty) distinctive items

¹ Subject Matter Specialist, KVK, Sonitpur ; ² Subject Matter Specialist, KVK, Gossaigaon. ³ Professor and Head, Department of Veterinary Extension, College of Veterinary Science, Khanapara, Guwahati – 22

covering different aspects of improved dairy husbandry was prepared and applied to some non-sample respondents. There were 7 (seven) items, which seemed to be irrelevant or carried a redundant concept for the farmers and hence deleted. Finally, the scale consisted of 23 (twenty three) items. Some of them were open-ended questions whereas others were multiple choice or dichotomous. For scoring of responses, a value of 1 (one) for correct answer and 0 (zero) for the wrong answer was assigned. The scores of all the items were added to work out the total score for an individual respondent. The test – retest method was followed to calculate the co-efficient of reliability for the instrument. The correlation co-efficient between the scores of the two tests was found to be 0.87, which was highly significant and this indicated that the scale was consistent. Content validation process as indicated by Nunally (1967) for representative collection of items and sensible method of test construction was used to ascertain the validity of the instrument. The data of the study were personally collected by the researcher.

Results and discussions

Table 1 revealed that the majority of dairy farmers were in the medium group of knowledge. In the east zone, a substantial segment (40%) had high knowledge level followed by 4% possessing a low level of knowledge. In other three zones medium category dominating the distribution pattern was followed by low and high categories. In the pooled sample 63%, 23%, and 14% had medium, low and high level of knowledge respectively. Looking into the mean value and frequency of distribution, it can well be said that farmers tended to have medium to high level of knowledge in general.

The distribution pattern of the respondents was similar between the east and south zones where farmers had mostly pure bred, and cross bred cows and followed a scientific method of rearing. On the other hand, west zone resembled the north zone. In these zones, farmers kept mostly the indigenous non-descript cattle, rearing in the traditional way along with their main occupation *i.e.* crop husbandry. The mean knowledge level in the pooled sample was 18.65, which was lower than that of the east zone and south zone, but higher than that of the west and north zone. The north zone had the lowest mean and lowest range of scores in knowledge level. The difference in

knowledge level could be attributed to the milk or dairy environment prevailed in the respective zones. This finding was in agreement with the findings of Majumdar (1985), Saharia (1985), Das (1991) and Kakati (1993).

Analysis of variance (Table 2) showed a significant difference among the zones, and it was indicated by the critical difference test (Table 3) that east and south zone had a significantly higher knowledge level than those of the west and north zones. The reason might be more specifically related with the presence in these two zones of non – indigenous dairy farmers who had dairying as their traditional occupation. Moreover, the presence of dairy co-operatives and other dairy institutions and organizations might have contributed in enhancing the knowledge level of the dairy farmers of these two zones.

The study revealed that the farmers tended to have medium to high level of knowledge in general. This is an encouraging trend. However, there was significant difference in the knowledge level of the dairy farmers of different zones. Therefore, the dairy farmers of the zones, where the knowledge level was comparatively low, should be provided with more exposures to the dairy development programmes launched by the Government departments, corporate sector and NGOs. In other words, steps should be taken to uniformly develop the knowledge level of the dairy farmers for quick adoption and diffusion of the dairy innovations in the Kamrup district of Assam.

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Table 1: Frequency distribution of the dairy farmers on their knowledge level on improved dairy husbandry

Categories	Zones				
	East Zone	West Zone	South Zone	North Zone	Pooled sample
Low	2 (4.00)	12 (24.00)	11 (22.00)	21 (42.00)	46 (23.00)
Medium	28 (56.00)	37 (74.00)	31 (62.00)	29 (58.00)	126 (63.00)
High	20 (40.00)	1 (2.00)	8 (16.00)	0 (0.00)	29 (14.50)
Mean	23.82	16.86	19.86	14.66	18.65
Range	12 - 32	7 - 29	7 - 26	7 - 25	7 - 32

Table 2: Analysis of variance on knowledge level of dairy farmers of four different zones

Sources of variation	D.F	S.S	MS	F Ratio
Between zones	3	2444.96	814.9867	39.0648**
Within zones	196	4089.04	20.8624	
Total	199	6534.00		

** Significant at 0.01 level of probability

Table 3: Critical difference test

Zones	N	Mean*
East Zone	50	23.82
West Zone	50	16.86 ⁿ
South Zone	50	19.86
North Zone	50	14.66 ⁿ

*Means bearing the same superscript do not differ significantly