

## Assessing Impact of Training on Socio-Psychological Variables of Buffalo Owners

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### ABSTRACT

The present study was conducted to determine the impact of training on social psychological variables of buffalo owners. The study sample constituted 395 respondents who had undergone training at ICAR- Central institute for research on buffaloes during the year 2014-15. The respondents were contacted telephonically to collect data for this study in 2017. It was found that only 88 (22%) trainees established their dairy units of different sizes and they belonged to 73 villages of 10 districts of four states of India. The impact was studied and positive changes were observed in participants' attitude, knowledge, skills and adoption of improved buffalo husbandry practices.

**Keywords:** Buffalo, impact, socio-psychological, training.

### INTRODUCTION

Dairying in India is very intimately interwoven with the country's rural economy. It's prevalence as a source of food and additional income transcends all socio-economic boundaries of rural life. Skills in buffalo rearing, milk production and processing have been handed over from generation to generation. This is a blessed heritage of people of India which however needs to be resurrected. The management skills of farmers and their knowledge about the improved buffalo husbandry practices are major determinants of future buffalo production which can be honed by training. A systematically arranged training program helps in bringing desirable changes in the behavior of people. The institute organizes at least one training per month - on and off-campus. In this regard, Central Institute for Research on Buffaloes (CIRB) conducted a study on training needs assessment of 254 rural youths, farm women and other farmers and accordingly designed training modules to bring changes towards knowledge, skills and competence in stakeholders. Accordingly, contents were developed and training schedule was strictly adhered to. It was, therefore, considered imperative to find out impact of these trainings on socio psychological variables of respondents.

### METHODOLOGY

The present study was conducted in Haryana. ICAR-Central Institute of Research on Buffaloes is located at Hisar district and is engaged in carrying out research on various aspects of buffalo improvement. Besides, the Institute is also engaged in several extension activities for propagation of knowledge on buffalo breeding, feeding, production, health and management to the farmers. Organizing training programs for the farmers is one of its regular activities to transfer its technologies to end users. A total of 17 trainings were organized at CIRB on different aspects of buffalo husbandry during 2014-15, for farmers, youth and women *etc.* Out of five trainings randomly selected for the study one was on artificial insemination and rest were on improved buffalo husbandry. Duration of these trainings ranged from 6-9 days. Out of these 395 respondents, 5.8 per cent were women (n=23), 74.7 per cent (n=295) were youth and 19.5 per cent (n= 77) were farmers, respectively. All the 395 trainees were contacted over telephone and asked whether they started a dairy enterprise after obtaining the training from the institute. However, only those trainees were included as respondents for impact study who had started dairy enterprise of more than 4 animals. Thus, 88 ex-trainees

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were selected for impact analysis out of the five training programs conducted at this institute. Relevant data were collected from these 88 respondents who belonged to 73 villages of 10 districts of 4 states- Haryana, Rajasthan, Punjab and Maharashtra of India.

## RESULTS AND DISCUSSION

The results are presented below under different sub-headings:

### Profile of respondents

More than 80 per cent respondents were in the age group of 18-25 years. About 72 per cent respondents who initiated the dairy enterprise were matriculates and belonged to nuclear families. Majority of the respondents (78%) were having marginal land holding (<2.5 acres). Out of 88 respondents, there was only one woman farmer who initiated dairy enterprise after attending training at this Institute. Their average herd size before training was 3.40. Information about schedule of training was put up on the Institute's website and applications were invited to participate in the training programs. It was seen that 761 respondents applied for these trainings and only 425 could be contacted. Out of these 395 farmers attended these trainings. Except the training on AI, the rest four training programs helped 88 participants out of 381 to establish dairy farms of different sizes. This means about 22 percent of those who participated could take advantage of the training programs till the date of collecting the information (December, 2016). The rest of the trainees may be in different stages of decision making. The participants of AI trainings also initiated their dairy enterprise with less than 4 animals. However their training was for a different angle as the main purpose of training on AI was to have skill in AI for self-employment.

### Reactions

The reactions of the respondents were studied considering the degree of interest in dairy enterprise and their perceptions about the relevance of contents of training program.

### Degree of interest expressed by respondents in dairy enterprise

The degree of interest among the respondents in dairy enterprise was elicited in three categories *viz.* not interested, interested and very much interested (Table 1). Barring only 2 per cent respondents the rest 98 per cent respondents expressed their interest in dairy enterprise as a sequel to participating in the training program. Similar findings were reported by Athilakshmy and Rao (2013) in a study of impact of improved poultry.

**Table 1: Degree of interest expressed by respondents**

Degree of interest	Frequency	Percentage
Not interested	2	2
Interested	79	90
Very much interested	7	8

The data were elicited on the perceptions of respondents regarding relevance of training contents for initiating a dairy enterprise and the results are presented in Table 2. Majority of respondents perceived contents of training pertaining to different aspects of buffalo husbandry as 'extremely relevant' or 'relevant'. Only 6, 9, 12, 7, 29, 17, 25 and 27 per cent respondents considered these practices as 'not relevant'. Different reasons like less land for fodder production and less number of buffaloes may be attributed to their perception regarding some of the topics. Some of the respondents' perception perhaps needed further clarifications on these contents which could be resolved by answering their queries through post-training hand-holding.

**Table 2: Perception of respondents on the relevance of training contents**

Contents	Extremely relevant	Relevant	Not relevant
Reproductive problems in buffaloes	64 (73%)	19 (21%)	5(6%)
Balanced feeding for buffaloes	57(65%)	23 (26%)	8 (9%)
Benefits of artificial insemination	65 (74%)	12 (14%)	11 (12%)
Advantages of area specific mineral mixture	54 (61%)	28 (32%)	6 (7%)
Fodder production and consumption	44 (50%)	18 (21%)	26 (29%)
Important diseases and vaccination schedule in buffaloes	60 (68%)	13 (15%)	15 (17%)
Importance of record keeping	43 (49%)	23 (26%)	22 (25%)
Preparation of concentrate feed	39 (45%)	25 (28%)	24 (27%)

### Attitude, Knowledge, Skills and Aspirations (KASA) change

Among the behavioral changes attitude towards improved buffalo husbandry is extremely vital. Information pertaining to attitude of respondents towards some important improved practices was collected before and after training by asking a simple question that how do you feel about the usefulness of these practices in initiating a dairy farm and results are presented in Table 3. It is apparent from the table that more number of respondents had positive attitude towards improved buffalo husbandry practices as the number of respondents who expressed about usefulness of these practices for starting a dairy farm increased after the training. The table further reflects that positive change in attitude towards AI, balanced feeding, mineral mixture, colostrums feeding, vaccination and importance of breed characters was observed in 70.45, 80.68, 85, 63, 13, and 50 percent respondents respectively after training at the institute. Attitude change towards vaccination was observed in only 13 percent respondents. Perhaps there was already awareness about the practice among the respondents.

**Table 3: Numbers of respondents having favorable attitude before and after training program towards improved buffalo husbandry practices**

Practices	Pre-training	Post-training	% change
Artificial insemination(AI)	14	76	70.45
Balanced feeding	9	80	80.68
Mineral mixture	9	84	85.0
Colostrum feeding	28	83	63.0
Vaccination	61	72	13.0
Importance of breed characters	27	71	50.0

Knowledge test which included 12 questions was developed to assess improvement in the knowledge of participants on breeding, feeding, management and health aspects of improved buffalo husbandry. Responses of participants were elicited by administering the knowledge test to the respondents. The results are presented in Table 4. Positive change was observed in the knowledge of 40, 63, 16 and 8 per cent respondents about breeding, feeding, management and health practices respectively after undergoing training on improved buffalo husbandry at this institute. Singh *et al.* (1977) and Dixit *et al.* (2010) also found gain in knowledge about health, feeding and management practices after obtaining the training on improved buffalo husbandry. Sangutha *et.al.* (2019) observed that dairy farmers had high knowledge on green fodder innovations.

**Table 4: Improvement of knowledge about improved buffalo husbandry**

Practices	Pre-intervention	Post-intervention	% change
Breeding	34	69	40
Feeding	18	73	63
Management	51	65	16
Health	48	55	8

### Skills

The participation of farmers in the training program helped them in acquiring certain skills necessary for establishing and managing a dairy enterprise. The Table 5 indicated that the respondents became more skilled in following some practices.

The results revealed that all the 14 participants learnt AI and PD in the first training which was specifically organized to impart these skills whereas in rest of four trainings there was considerable improvement in their skills as about 93, 90 and 78 per cent respondents learnt about recognition of symptoms of diseases, identification of sick animals and heat detection in buffaloes, respectively. Dixit *et al* (2016) also reported that after training skill of respondents improved significantly about artificial insemination.

**Table 5: Skills acquired by the respondents**

Skills	Pre-training (percentage)	Post-training (percentage)
Artificial Insemination	35.71	100.00
Pregnancy Diagnosis(PD)	35.71	100.00
Preparation of Balanced feed	7.95	78.40
Heat detection in buffaloes	17.04	78.40
Symptoms of disease like Mastitis, FMD	36.36	93.18
Identification of sick animals	50.00	89.77

### Aspirations

The data pertaining to aspirations on herd size and choice of breed for dairy were also collected and details are given in Table 6.

The data in Table 6 showed that majority (86%) of the respondents aspired to increase their herd size, 9 per cent wanted to maintain the same herd size and a meagre 5 per cent wanted to decrease their herd size. This showed that majority of the farmers who had undergone training on improved buffalo husbandry wanted to increase their herd size for enhancing their income.

**Table 6: Respondents' aspirations on herd size**

Herd Size	f	%
Same number	8	9.00
Decrease	4	5.00
Increase	76	86.00

### Other Preferences

Aspirations of respondents (regarding breed characteristics) who initiated their dairy enterprise were studied and details are given in Table 7.

**Table 7: Respondents preferences on breed characteristics**

Breed characteristics	f	%
Only true to Murrah breed	54	61.4
Only true to Murrah and high yielding	37	42.0
Only high yielding irrespective of breed	49	56.0
Only mixed breed having less cost	37	42.0

The figures in table indicate that a sizeable chunk of respondents (61%) wanted to have true to breed Murrah buffaloes while 42 per cent opined that they preferred true to Murrah with high yielding potential. The preference of 56 per cent of the respondents was for high yielding buffaloes irrespective of the breed and similarly there were 42 per cent respondents who preferred even mixed breed but with low cost.

### Practice Change

Information on change in adoption pattern of some practices as a result of training was collected and findings are presented in Table 8. With regard to some of the

practices like AI, PD, balanced feeding, adoption of ASMM, colostrum feeding and deworming practices, it was noticed that 90.90, 80.68, 81.81, 96.59, 87.50, 78.40 and 46.59 per cent respondents adopted these practices respectively after the training. While there were fewer respondents who adopted these practices before the training. With regard to natural service it was found that number of respondents who were using natural service in buffaloes was decreased by 33 per cent. This might be due to the reason that they became more knowledgeable about the benefits of AI after the training. The findings of the study were in line with the contentions of Dixit and Narwal (1991)

**Table 8: Adoption percentage of improved buffalo husbandry practices**

Practices	Pre-training	Post-training
Artificial insemination	11.36	90.90
Pregnancy diagnosis	28.40	80.68
Balanced feeding	25.00	81.81
Adoption of ASMM	15.90	96.59
Colostrum feeding in buffaloes	12.50	87.50
Deworming	35.22	78.40
Natural service	79.54	46.59

### Social impact

The social parameters included in the study were changes in relationship among family members and in the neighborhood.

Majority of the respondents expressed that their relationships within the family (80%) and neighbors (60%) were not affected after initiating dairy enterprise. However, 20 per cent family members and 40 per cent neighbors reported that relationship improved with family members and neighbors respectively as they made frequent visits to their dairy farm for seeking information. None of them reported strained relationships because of establishing dairy farms in their neighborhood.

**Table 9: Change in the relationships among family members and neighbors**

Relationships	Improved		Strained		Not affected	
	f	%	f	%	f	%
Family members	18	20.0	0	0	70	80.0
Neighbors	35	40.0	0	0	53	60.0

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