

SHORT COMMUNICATION

Training modules for promoting buffalo husbandry among different categories of respondents

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Abstract To undertake this study nine trainings of week's duration on buffalo husbandry were organized for different types of respondents in which 254 farmers, entrepreneurs, women and youth participated. Training needs of different categories of respondents were worked out. The farmers considered the topics on heat symptoms in buffaloes and artificial insemination, feeding and management of lactating animals and mastitis in buffaloes and its care and management as most important for their training module. As far as training contents for youth are concerned they specially desired to include nutrients in concentrate mixture and importance of reproduction in buffaloes. They also wanted that half of the time each should be devoted to theory and practicals respectively. Women evinced keen interest in feeding requirements of dry, milch and pregnant buffaloes, management and reproduction of buffaloes during heat and importance of AI in buffaloes. The entrepreneurs desired that they should be given information on some new technologies like preparation of mineral mixture, preparation of complete feed blocks, care and management of calves for meat production and importance of reproduction, heat detection and therapeutic control of estrous. The appropriateness of contents was confirmed when response was elicited from different categories of respondents in subsequent training programmes.

Keywords: Training modules, buffalo husbandry, dairy

The management skills of the farmers and their knowledge about the modern buffalo husbandry practices are the major

determinants of future buffalo production in our country. It is an overt process, a sequence of experiences a series of opportunities to learn, in which the trainee is exposed in a systematic way to certain materials or events (Lynton and Pareek, 1967). A systematically arranged training programme helps in the production of desirable changes in the behavior of people. Therefore, it was considered imperative to have training modules for different categories of respondents, so that they are able to adopt the dairy enterprise for increasing the production of their animals. Thus, in the present study an effort has been made to identify the training needs of different categories of respondents with respect to buffalo husbandry and on this basis training modules are developed which will be commensurate with their needs. The study was conducted with the following specific objective: To prepare training modules for farmers, youth, women and entrepreneurs for promoting buffalo husbandry.

Training contents were prepared on the basis of review of literature, discussions with field scientists, functionaries and farmers. After comprehensive exercise training contents were identified for different categories of respondents. Thus the instrument composed of different aspects of dairy namely; breeding, feeding, management and health. Respondents were asked to rate these items as 'most important', 'important' and 'least important' and scores of 3, 2, 1 were assigned respectively. Thus 3 point scale was used for identifying training needs of respondents with respect to buffalo husbandry and training need score of each respondent was worked out. Training modules for different categories of respondents viz. farmers, youth, women and entrepreneurs were developed by taking into account following criteria.

1. All those item falling in the category of "Most Important" must find a place in the training module.
2. The degree of suitability of some of these contents may vary from time to time. This means that over a period of time with the changing training needs of respondents the training content becoming obsolete may be changed and new contents found more suitable in the changed situations be added.
3. Contents found more suitable should be covered more adequately and should be given more emphasis.

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4. More emphasis should be given on practical, demonstrations and queries of farmers.

The training modules were developed on the basis of 9 trainings of week's duration which were organized for different categories of respondents. In these training programmes 254 farmers/women/youth/entrepreneurs were trained. Pre and post evaluation of each training programme was done. On the basis of training need scores of the respondents training module for different types of respondents i.e. farmers, women, youth and entrepreneurs were developed. The appropriateness of contents was confirmed when response was elicited from different categories of respondents in subsequent training programmes.

The training contents for farmers constituted all the important aspects of buffalo husbandry viz. breeding, feeding, management and health. The contents were administered to farmers on 3 point continuum and the training need scores of farmers were worked out. It was found that heat symptoms in Importance of AI in buffaloes (2.61) was considered as most important training item followed by Preparation of hay, silage and concentrate mixture (2.56), Mastitis in buffaloes and its care and Management (2.48), Colostrums feeding in calves (2.41), Care and management of dry, milch and pregnant buffaloes (2.36), Concentrate ration for different categories of buffaloes (2.30) and Important diseases and their vaccination schedule (2.25). With regard to the training contents for farmers, it was considered that there should be 60% practicals and 40% theory. It was reported by 76% farmers when asked about the practical and theory contents of training programme. It was also planned to cover almost all the aspects of buffalo husbandry so that they are given comprehensive training on buffalo husbandry in one week. Thus, on the basis of training need scores of farmers and on the basis of their suggestions regarding theory and practicals, the module for farmers was developed and is presented in Table 1.

The training contents for youth constituted all the important aspects of buffalo husbandry viz breeding, feeding, management and health. The contents were administered to youth on 3 point continuum and the training need scores of youth were computed. It is obvious from the training needs of youth that identification of heat symptoms in buffaloes (2.66) was considered as most important training item followed by Balance feeding for different categories of buffaloes (2.58), Colostrums feeding in calves (2.54), Management of buffaloes in winter and summer (2.48), Mastitis and Milk fever in buffaloes (2.46), Important diseases and their vaccination schedule (2.31), Artificial insemination in buffaloes (2.28), Demonstrations of Hay, Silage and concentrate preparation (2.20) and Clean milk production in buffaloes (2.18). Most of the youth (64%) wanted that half of the time each should be devoted to theory and practicals respectively. It was also found that majority of the youth were in favor of a duration of 15 days. Perhaps they wanted more information on different topics to pursue it as a full time enterprise. Thus, on the basis of training need scores of youth and on the basis of their suggestions

regarding theory and practicals, the module for youth was developed and the contents are given in Table 2.

The training contents for women also included breeding, feeding, management and health aspects. The contents were administered to women on 3 point continuum and the training need scores of women were worked out. It is obvious from the contents of training programme for women that Identification of heat symptoms (2.78) was considered as most important training item followed by Balanced feeding for different categories of buffaloes (2.67), Colostrum feeding in calves (2.59), Management and reproduction of buffaloes during heat (2.56), Mastitis and milk fever in buffaloes (2.48), Feeding requirements of dry, milch and pregnant buffaloes (2.45) and Care of recently calved buffaloes (2.40). Out of the women trainees a sizable proportion i.e. 80% wanted that training contents may include 60% practicals and 40% theory. Feeding requirements of dry, milch and pregnant buffaloes, management and reproduction of buffaloes during heat and importance of AI in buffaloes were the topics which were considered most important as they showed keen interest in feeding and reproduction of buffaloes. Thus, on the basis of training need scores of women and on the basis of their suggestions regarding theory and practicals, the training module for women was developed and is shown in Table 3.

The training contents for entrepreneurs also included breeding, feeding, management and health aspects. The contents were administered to entrepreneurs on 3 point continuum and their training need scores were calculated. It is obvious from the training need scores that they considered preparation of mineral mixture (2.67) as most important training item followed by preparation of complete feed blocks (2.46), Importance of reproduction, heat detection and therapeutic control of estrous (2.54), Formulation of balanced rations for buffaloes (2.72), Buffalo housing and management (2.81), Production records and their evaluation in buffaloes (2.41) and Clean buffalo husbandry vis-à-vis environment (2.31). They were also given additional information on feeding, care and management of different categories of buffaloes. Majority of entrepreneurs wanted that their training programme should include 50% theory and 50% practicals. Thus, on the basis of training need scores of entrepreneurs and on the basis of their suggestions regarding theory and practicals, the module for entrepreneurs was developed and is reflected in Table 4.

The training modules for different categories of respondents were developed on the basis of their training need scores for these training contents. (Mayani and Sethi, 1978; Kokate and Tyagi, 1982; Abdul *et al.* 2003; Gosain and Sanjay Kumar, 2003) identified training needs in different aspect of buffalo husbandry i.e. breeding, feeding, management and health. They supported the contentions of this study.

The contents were used in subsequent training programmes and different categories of respondents reported their appropriateness. In the subsequent training programmes the response of respondents with regard to suitability of training contents was

Table 1 Training contents for dairy farmers

Sr. No	Theory Subject
1.	Importance of AI in buffaloes
2.	Clean buffalo husbandry vis-à-vis environment
3.	Care and management of dry, milch and pregnant buffaloes
4.	Colostrum feeding in calves
5.	Care of recently calved buffaloes
6.	Mastitis in buffaloes and its care and Management
7.	Housing management of buffaloes
8.	Important diseases and their vaccination schedule
Practical	
9.	Identification of heat symptoms
10.	Concentrate ration for different categories of buffaloes
11.	Management of buffaloes during winter and summer
12.	Mastitis and milk fever in buffaloes
13.	Preparation of hay, silage and concentrate mixture
14.	Symptoms of diseased animals
15.	Production records and their evaluation in buffaloes

Table 2 Training contents for youth

Sr. No	Theory Subject
1.	Importance of reproduction in buffaloes
2.	Clean buffalo husbandry vis-à-vis environment
3.	Colostrum feeding in calves
4.	Nutrients in concentrate mixture
5.	Feeding requirements of pregnant buffaloes
6.	Management and reproduction of buffaloes during heat
7.	Housing management of buffaloes
8.	Symptoms of diseased animals
9.	Mastitis and Milk fever in buffaloes
10.	Production records and their evaluation in buffaloes
Practical	
11.	Identification of heat symptoms in buffaloes
12.	Balance feeding for different categories of buffaloes
13.	Management of buffaloes in winter and summer
14.	Important diseases and their vaccination schedule
15.	Artificial insemination in buffaloes
16.	Demonstrations of Hay, Silage and concentrate preparation
17.	Clean milk production in buffaloes

Table 3 Training contents for women

Sr. No	Theory Subject
1.	Importance of AI in buffaloes
2.	Clean buffalo husbandry vis-à-vis environment
3.	Nutrients in concentrate mixture
4.	Feeding requirements of dry, milch and pregnant buffaloes
5.	Management and reproduction of buffaloes during heat
6.	Management of pregnant buffaloes
7.	Care of recently calved buffaloes
8.	Production records and their evaluation in buffaloes
Practical	
9.	Balance feeding for different categories of buffaloes
10.	Mastitis and Milk fever in buffaloes
11.	Important diseases and their vaccination schedule
12.	Artificial insemination in buffaloes
13.	Demonstrations of Hay, Silage and concentrate preparation
14.	Identification of heat symptoms
15.	Colostrum feeding in calves

Table 4 Training contents for entrepreneurs

Sr. No	Theory Subject
1.	Importance of reproduction in buffaloes
2.	Clean buffalo husbandry vis-à-vis environment
3.	Care and management of dry buffaloes
4.	Nutrients in concentrate mixture
5.	Feeding requirements of pregnant buffaloes
6.	Feeding requirements of calves
7.	Feeding requirements of milch animals
8.	Care and management of calves for meat production
9.	Care and management of pregnant buffaloes
10.	Care of recently calved buffaloes
11.	Mastitis in buffaloes
12.	Housing management of buffaloes
13.	Management of buffaloes during winter and summer
14.	Symptoms of diseased animals
Practical	
15.	Production records and their evaluation in buffaloes
16.	Formulation of balanced rations for buffaloes
17.	Preparation of mineral mixture
18.	Importance of reproduction, heat detection and therapeutic control of estrous
19.	Preparation of complete feed blocks
20.	Management and reproduction of buffaloes during heat
21.	Colostrum feeding in calves
22.	Preparation of hay, silage and urea treatment of straws

Table 5 Perception of respondents regarding suitability of training contents

Respondents	Number of Respondents	Most Relevant	Suitability of contents	
			Relevant	Least Relevant
		24	26	-
Youth	35	16	19	-
Women	30	14	16	-
Entrepreneurs	27	12	15	-

Table 6 Gain in knowledge of farmers regarding overall buffalo husbandry after the training

Respondents	Maximum possible Score	Mean pre-training Score	Mean post-training Score	t-value
Farmers	69	43.83	52.20	5.14
Youth	62	44.81	53.49	6.13
Women	67	46.81	56.14	7.38
Entrepreneurs	76	52.71	59.43	4.93

elicited and data regarding this is presented in Table 5.

It is apparent from the table that different categories of the respondents i.e. farmers, youth, women and entrepreneurs either considered the contents 'most relevant' or 'relevant' and none of the items were considered as 'least relevant'. Thus the contents were retained in the final training modules.

The contents were administered to different type of respondents in subsequent training programmes. These contents were found appropriate by the respondents for inclusion in training modules. Pre and post evaluation of respondents regarding different aspects of buffalo husbandry was computed. The perusal of pre and post training need scores of different types of respondents viz farmers, youth, women and entrepreneurs suggested that there was significant increase in the knowledge of respondents which was evident by t-values given in Table 6.

The degree of suitability of some of these contents may vary from time to time. This means that over a period of time with the changing training needs of respondents the training contents becoming obsolete may be replaced and new contents found more suitable in the changed situations be added.

Conclusions

The training needs of different categories of respondents were different with regard to improved buffalo husbandry as their emphasis on contents was different. With regard to theory and practicals also their needs differed. For example farmers wanted practical training on concentrate ration for different categories

of buffaloes, preparation of hay, silage and concentrate mixture etc. Youth preferred balance feeding for different categories of buffaloes, demonstrations of hay, silage and concentrate preparation etc for their practicals. Women yearn for identification of heat symptoms, balanced feeding for different categories of buffaloes, colostrum feeding in calves etc. as their practicals and entrepreneurs wanted practical training on complete feed blocks, estrus detection, preparation of mineral mixture etc. Thus different categories of respondents required different training modules as per their needs.

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