

## Constraints in adoption of scientific recommendation in feeding of dairy cattle

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### ABSTRACT

In the present investigation, the efforts were made to inquire the constraints in adoption of scientific recommendation in feeding dairy cattle in Sindewahi Tahsil in Chandrapur District of Maharashtra. From the investigation, it was found that the adoption of scientific recommendation in feeding of animals was meagre. The main constraints involved in feeding of dairy animals were financial, situational, infrastructural, personal, organizational and in technical aspects. Intensity of constraint was very high in small followed by landless, marginal, medium and large farmers.

**KEY WORDS** : Dairy cattle, Scientific management, Feeding, Constraints, Suggestions

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### INTRODUCTION

India owns one of the highest livestock population in the world. It accounts of worlds 16 per cent cattle population and 57 per cent buffalo population. India has livestock population of 185.2 millions cattle, 98 million buffaloes, 61 million sheep, 124.35 million goat and poultry 489.9 million (2003-04).

In many parts, the state nutritional management practices are not undertake which influence livestock population, shortage green and dry fodder and concentrate in all region which leads to under feeding of animal and thereby resulting poor performance in growth and milk production. Farmers are following the old traditional feeding practices and there is decline in production potential of milk animal (Lal *et al.*, 1996). Marwale *et al.* (1995) revealed that personal locality and personal cosmopolite had positive and significant correlation with extent of adoption of cattle feeding practices. Kulkarni *et al.* (1990) reported that the constraints in adoption of recommended dairy technology viz., Non-availability of loan facilities, economical constraints and artificial insemination facilities in village and lack of knowledge. The main reason of low productivity is low feed

availability, as 4.4 per cent of the cultivated land is under forage crops, therefore farming of forage crop need the great attention (Singh *et al.* 1997).

#### Objectives :

– To analyze the different constraints of scientific recommendation in feeding of dairy animals in Sindewahi Taluka and to suggest ways and means to overcome in constraints scientific recommendation in feeding.

### MATERIALS AND METHODS

The data was collected from dairy cattle owners from randomly selected 09 villages and each village consist 15 farmers with personal interview with individual farmers. The interview specimen was prepared.

The information regarding utilization of land, feed and fodder, scientific recommended practices adopted and constraints in adoption of scientific feeding practices was collected by interview.

#### Size of sampling:

- Landless - 1 to 3 animals
- Marginal - 4 to 6 animals
- Small - 7 to 8 animals
- Medium - 8 to 10 animals
- Large - Above 10 animals

### RESULTS AND DISCUSSION

The distribution of 135 dairy farmers according to

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Table 1 : Mean number of animals kept per farmer according to size of land holding								
Size of land holding	No. of farmers	Local cows			Cross bred cows			Total
		Milch	Dry	Total	Milch	Dry	Total	
Landless	27 (20.00)	27 (7.2)	15 (4.02)	42 (11.26)	19 (5.09)	12 (3.21)	31(8.31)	73 (19.57)
Marginal	27 (20.00)	15 (4.02)	10 (2.68)	25 (6.70)	15 (4.02)	6 (1.60)	21 (5.63)	46 (12.33)
Small	27 (20.00)	21 (5.63)	17 (4.53)	38 (10.18)	15 (4.02)	7 (1.87)	22 (5.89)	60 (16.08)
Medium	27 (20.00)	25 (6.70)	26 (6.97)	51 (13.67)	26 (6.97)	14 (3.75)	40 (10.72)	91 (24.39)
Large	27 (20.00)	32 (8.57)	10 (2.68)	42 (11.26)	41 (10.99)	20 (5.36)	61 (16.35)	103 (27.61)
Total	135	120	78	198	116	59	175	373
Percentage level	100.00	32.17	20.91	53.08	31.09	15.81	46.91	100.00
	X <sup>2</sup> =7.83 S at 5% level			X <sup>2</sup> =0.683 NS at 5%				

various land holding categories was 27 each in the landless, marginal, small, medium and large farmers. Ranjan (1999) found that 25 per cent of the dairy owner were landless and 33 per cent were marginal farmers owing less than one hectare land.

#### Feeding of balance ration at regular interval:

It has been observed from Table 2, that major constraint was high cost of concentrate followed by high cost of green fodder in respect of feeding of balance ration at regular interval .

Table 2 : Constraints of feeding of balance ration at regular interval (n=135)			
Sr. No.	Details of constraints	No. of farmers	Per cent
1.	High cost of concentrates	120	88.88
2.	High cost of green fodder	100	74.07
3.	Lack of scientific knowledge	85	62.96
4.	Lack of irrigation facility	74	54.81
5.	Lack of communication	70	51.85
6.	Lack of interest	68	50.37
7.	High cost of mineral mixture	65	48.14

#### Processing of roughages and concentrate before feeding :

It has been observed from Table 3, that major constraint was high cost of concentrate followed by lack of scientific knowledge in context to processing of roughages and concentrate before feeding.

Table 3 : Constraints in processing of roughages and concentrate before feeding (n=135)			
Sr. No.	Details of constraints	No. of farmers	Per cent
1.	High cost of concentrates	120	88.88
2.	Lack of scientific knowledge	85	62.96
3.	Lack of interest	68	50.37
4.	Lack of technical guidance	50	37.03

#### Enrichment of poor quality straw by urea treatment:

It has been observed from Table 4, that major constraint was non-availability of agro-industrial by product followed by lack of scientific knowledge in concern to adoption of practices or enrichment of poor quality straw by urea treatment. These results are in agreement with Ladse (2000), who reported that non-availability of agro – industrial by product is one of a major constraints in enrichment of poor quality straw.

Table 4 : Constraints in adoption of practices or enrichment of poor quality straw by urea treatment (n=135)			
Sr. No.	Details of constraints	No. of farmers	Per cent
1.	Non-availability of agro-industrial by product	90	66.60
2.	Lack of scientific knowledge	85	62.96
3.	Lack of technical guidance	50	37.03

#### Chaffing of green and dry fodder before feeding :

It has been observed from Table 5, that major constraint was lack of machinery followed by lack of interest in concern to chaffing of green and dry fodder before feeding.

Table 5 : Constraints of chaffing of green and dry fodder before feeding (n=135)			
Sr. No.	Details of constraints	No. of farmers	Per cent
1.	Lack of machinery	120	88.88
2.	Lack of interest	68	50.37
3.	Lack of loan facility	65	48.14
4.	Lack of technical guidance	50	37.03

#### Feeding of legumes and non-legumes green fodder or straw in mixture:

It has been observed from Table 6, that major

constraints was lack of scientific knowledge followed by shortage of green fodder in concern to feeding of legumes and non-legumes green fodder or straw in mixture.

**Table 6 : Constraints perceived in feeding of legumes and non-legumes green fodder or straw in mixture (n=135)**

Sr. No.	Details of constraints	No.of farmers	Per cent
1.	Lack of scientific knowledge	85	62.90
2.	Shortage of green fodder	75	55.50
3.	Lack of irrigation facility	74	54.81
4.	Lack of interest	68	50.37

**Feeding of green fodder to reduce the cost of milk production :**

It has been observed from Table 7, that major constraint was high cost of green fodder followed by shortage of green fodder in concern to feeding of green fodder to reduce the cost of milk production. Meena and Malik (1999) studied in Karnal district of Haryana that about 70 per cent respondents agreed upon growing green fodder for feeding. The cost of milk production can be reduced tremendously by providing green fodder.

**Table 7 : Constraints in feeding of green fodder to reduce the cost of milk production (n=135)**

Sr. No.	Details of constraints	No.of farmers	Per cent
1.	High cost of green fodder	100	74.07
2.	Shortage of green fodder	75	55.50
3.	Lack of irrigation facility	74	54.81

**Feeding of silage in absence of green to the dairy animal :**

It has been observed from Table 8 , that major constraint was lack of scientific knowledge followed by shortage of green fodder in relation to feeding of green fodder to reduce the cost of milk production.

**Table 8 : Constraints in feeding of silage in absence of green to the dairy animal (n=135)**

Sr. No.	Details of constraints	No.of farmers	Per cent
1.	Lack of scientific knowledge	85	62.96
2.	Shortage of green fodder	75	55.50
3.	Lack of irrigation facility	74	54.81
4.	Lack of interest	68	50.37
5.	Lack of storage facilities	65	48.14
6.	Lack of technical guidance	50	37.03

**Use of common salt, mineral mixture and mineral lick:**

It has been observed from Table 9 , that major

constraints was lack of scientific knowledge followed by high cost of mineral mixture in use of common salt, mineral mixture and mineral lick

**Table 9 : Constraints in use of common salt, mineral mixture and mineral lick (n=135)**

Sr. No.	Details of constraints	No.of farmers	Per cent
1.	Lack of scientific knowledge	85	62.96
2.	High cost of mineral mixture	65	48.14

**Suggestions :**

- Training to the farmers about the scientific feeding practices.
- Organization of practical demonstration regarding improved
- feeding practices to develop the interest.
- To train the farmers regarding the use of home made ingredients,
- non-conventional feed and agro-industrial by products.
- Purchasing of chaff cutter on cooperative basis at Grampanchayat level.
- Provision of loan facilities to livestock owners for purchasing of feed, fodder and machinery.
- Opening of fodder bank at village level.
- To develop the interest amongst livestock owners by organizing cattle show, film show on dairy, TV programme etc.

**Conclusions :**

The adoption of scientific recommendation in feeding of animals is meager, The main constraints involved in feeding of dairy animals are, Financial- High cost of concentrates, labour. Green fodder and mineral mixture, Situational- Shortage of green fodder, lack of irrigation facility, non availability of pasture land and grazing facility, lack of machinery and electricity, Infrastructural – Lack of loan facility, communication, transport and storage facility, Personal – Lack of interest and low level of education, Organizational- involved non availability of agro-industrial by product, Technical - Lack of Scientific knowledge and technical guidance and Intensity of constraints is very high in small followed by landless, marginal, medium and large.

**LITERATURE CITED**

Kulkarni, V.V., Bhople, A.S. and Chede, P.N. (1990). Constraints in adoption of dairy technology by dairy farmers. *Maharashtra J. Extn.Edu.*, **10**: 137-140.

Ladse, C.T.(2000). Constraints encountered by dairy farmers in adoption of scientific recommendation in feeding of dairy animals M.Sc. (Agril.) Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, AKOLA, M.S. (India).

Lal, D., Dixit, V.B., Chavan, A. and Khanna, V.S. (1996). Feeding practices viz., a mineral supply to lactating buffalo in Hissar district. *Indian J. Animal Nutrition*, **13** (2), 95-100.

Marwale, P.V., Dikle, R.K. and Bhadrge, H.H. (1995). Relationship between socio-economic and psychological characteristics and adoption of feeding practices. *Maharashtra. J. Extn.Edu.*, **14**: 243-244.

Meena, B.S. and Malik, B.S. (1999). Farmers perception toward fodder cultivation. *Indian J. Animal Res.*, **33**(2): 75-79.

Ranjan, S.K.(1999). Feeding management strategies. *Indian Dairyman*, **49** (1): 13-18.

Singh, S.P., Grover, S.I. and Sihag, Z.S. (1997). Effect of district, herd size and veterinary surgeon on the adoption level of rural woman on various animal husbandry innovations. *Indian J. Animal Res.*, **30** (1): 29-32.

