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Constraints in Feeding and Management of Crossbred Cattle in Seloo Tahsil of Wardha District, M.S., India

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ABSTRACT

The present investigation on constraints in feeding and management of crossbred cattle in seloo tahsil of Wardha district were carried out by randomly selecting 120 crossbred cattle owners from five villages *viz.,* Juwadi, Kanhapur, Gaimukh, Dhapki and Khapri. The major constraints expressed by the respondent were high cost of concentrates, high cost of green fodder, high cost of mineral mixture, lack of scientific knowledge, lack of technical guidance, shortage of green fodder, non-availability of labour, lack of chaff cutter, lack of communication, lack of storage facility, lack of loan facility and lack of interest.

Key words: *Crossbred cattle, Constraints.*

Introduction

The rapid growth of milk production in India has been mainly because of the increase in the number of animals rather than that of improved productivity. The low productivity of dairy animals is of great concern and average productivity of Indian cow is only 987 Kg/ lactation as against the world average of 2038 Kg/ lactation. The gradual breed deterioration generally occurs from negligence over centuries and consequent rise in the population of non-descript cows (80%) and buffaloes (50%) along with the chronic shortage of feed and fodder coupled with their nutritive values and low fertility of our dairy animals has resulted in the low productivity. In India, low animal productivity results due to climatic, socio-economic factors. India possesses enormous bovine wealth, but their per capita production is one of the lowest in the world due to reasons that the farmers do not adopt improved dairy management practices at the desired level. For better adoption of recommended feeding and management practices there is a need to know constraints and way to overcome from them.

Materials and Methods

The data used for present investigation was collected from Seloo tahsil of Wardha district (M. S.). The five villages namely Juwadi, Kanhapur, Gaimukh, Dhapki and Khapri were randomly selected. The information on constraints faced in feeding and management of crossbred cattle *i.e.* Financial constraints (High cost of concentrates, High cost of green fodder, High cost of mineral mixture, Non availability of agro-industrial by product etc.), Technical constraints (Lack of scientific knowledge, Lack of technical guidance etc.), Situational constrains (Inadequate land holding, Lack of irrigation facility, Shortage of green fodder, Non availability of labour, Non availability of veterinary hospitals etc.), Infrastructural constraints (. Lack of chaff cutter,

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Lack of communication, Lack of storage facility, Lack of loan facility etc.), Personal interest (Lack of personal interst)., was obtained from the crossbred cattle owners through personal interaction with the help of questionnaire. These collected parameters were tabulated carefully. While tabulating the information, Total sample of 120 crossbred cattle owners was drawn by adopting the proportionate random sampling method. The data was categorized on the basis of land holding and herd size of crossbred cattle owners as follows.

Classification of cattle owners according to land holding:

1. Landless (no land) 2. Marginal (up to 1 ha)
3. Small (1 to 2 ha) 4. Medium (2 to 10 ha)
5. Large (above 10 ha)

Classification of animal population on the basis of herd size:

1. up to 2 2. 2 to 5 3. 5 to 10
4. More than 10

The data was tabulated and analysed statistically by using appropriate method to ascertain the objectives under study.

Results and Discussion

Financial constraints

it was observed from Table 1 that, the constraints related of high cost of concentrates faced by marginal, landless, small, medium and large group of cattle owners was 95.91%, 94.44%, 93.54%, 93.75% and 83.33% respectively. Overall 94.16 per cent cattle owners observed constraint of high cost of concentrates.

These results are comparable with Raskar (2017). He reported that, overall 93.33 per cent cattle owners faced high cost of concentrates in feeding animals

This results also comparable with Sabapara *et al.* (2012) reported that, high cost of feed were faced by 91.00 per cent cattle owners, Lokhande *et al.* (2012) also reported that, 86.36 per cent of respondents were faced by high cost of concentrates and Kavathalkar *et al.* (2007) reported that, high costs of concentrates were faced by 88.88 per cent cattle owners.

High cost of green fodder

From the above Table 1 it was observed that, the constraints of Crossbred cattle owners were high cost of green fodder faced by landless, marginal, small, medium and large group of cattle owners was 88.88%, 91.83%, 87.09%, 75.00% and 66.66% respectively. The overall 86.66 per cent crossbred cattle owners faced problem of high cost of green fodder.

Raskar (2017) revealed that, overall 88.33 per cent crossbred cattle owners faced problem of high cost of green fodder. This result was conformity of present study.

Sabapara *et al.* (2012) reported that, 84.00 per cent cattle owners were faced by non- availability of green fodder.

Kavathalkar *et al.* (2007) reported that, 79.25 per cent cattle owners were faced by high cost of green fodder.

High cost of mineral mixture or mineral bricks

From the above Table 1 it was observed that, the constraints of crossbred cattle owners were high cost of feeding mineral mixture or mineral bricks to their animals faced by landless, marginal, small, medium, and large group cattle owners was 88.88%, 83.67%, 93.54%, 87.50% and 83.33% respectively. The overall 87.50 per cent crossbred cattle owners faced problem of high cost of mineral mixture or mineral bricks.

Kavathalkar*et al.* (2007) reported that, 54.81 per cent cattle owners were faced by high cost of mineral mixture.

Non availability of agro-industrial by product

From the above Table 1 it was observed that, the constraints faced by Crossbred cattle owners were non availability of agro-industrial byproduct by majority of large (100.00%), medium (100%), marginal (100%), landless (100%) and small (100%) cattle owners. The overall 100% per cent of cattle owners were faced problem of non-availability of agro-industrial by product.

Technical constraints

Lack of scientific knowledge

From the above Table 1 it was revealed that, the constraints faced by Crossbred cattle owners were lack of scientific knowledge faced by majority of cattle owners in medium (93.75%), marginal (95.91%), landless (94.44%), small (93.54%) and large (83.33%) group. The overall 94.16 per cent of Crossbred cattle owners were observed lack of scientific knowledge.

Raskar (2017) observed that, overall 57.1 per cent of Crossbred cattle owners involved lack of scientific

knowledge. This results similarly matched with present study.

Kavathalkar *et al.* (2007) reported that, lacks of scientific knowledge were faced by 81.48 per cent cattle owners. The result of present study is more or less in agreement with Lokhande *et al.* (2012) who reported the inadequate knowledge of breeding practices.

Lack of technical guidance

From the above Table 1 it was revealed that, the constraints faced by majority of cattle owners in large group (66.66%) followed by marginal (93.87%), landless (88.88%), medium (100%) and small (83.87%). The overall 90.00 per cent of Crossbred cattle owners were observed lack of technical guidance.

This results were similarly matched with Raskar (2017) revealed that, overall constraints faced by 88.33% Crossbred cattle owners had lack of technical guidance.

Kavathalkar *et al.* (2007) reported that, 48.14 per cent cattle owners were faced by lack of technical guidance.

Situational constrains

Next to technical constraints, situational constraint group was also responsible for non-adoption of scientific recommendations in feeding of dairy animals in Seloo tahsil.

Inadequate land holding

From the Table 1 it was concluded that, the constraints of Crossbred cattle owners is inadequate land holdings faced by majority of cattle owners in medium group (56.25 %), large (0.00%), small (80.64%), marginal (87.75%) and landless (100%) group. The overall constraints faced by 79.16 per cent of Crossbred cattle owners was inadequate land holding.

Sinha (1982) reported that, land availability was limiting factor for cultivation of green fodder for most of the cattle owners around NDRI, Karnal.

Kavathalkar *et al.* (2007) reported that, 68.88 per cent cattle owners were faced by inadequate land holding.

Lack of irrigation facility

From the above Table 1 it was resulted that, the constraints faced by majority of cattle owners in large (83.33), and medium (56.25), marginal (67.34%), landless (61.11) and small (58.06%) group. The overall constraints observed by 63.33 per cent Crossbred cattle owners were lack of irrigation facility.

Kavathalkar *et al.* (2007) reported that, 64.44 per cent cattle owners were faced by lack of irrigation facility.

Kokate and Tyagi (1994) reported that, lack of the irrigation facility for the fodder production was perceived as very serious problem.

Shortage of green fodder

From the above Table 1 it was observed that, the constraints Crossbred cattle owners were shortage of green fodder faced by majority of cattle owners in large group (83.33%), followed by small (61.29%), landless (61.11%), marginal (53.06%) and medium (50.00%) group. The overall constraints faced by 57.50 per cent Crossbred cattle owners were shortage of green fodder.

Kavathalkar *et al.* (2007) reported that, 60.00 per cent cattle owners were faced by shortage of green fodder.

Non availability of labour

From the Table 1 it was noticed that, the constraints cattle owners were non availability of labour faced by majority of cattle owners in large and landless group (83.33%) followed by medium (81.25%), small (64.51%) and marginal (48.97%) group. The overall constraints faced by 64.16 per cent of Crossbred cattle owners were non availability of labour.

Lokhande *et al.* (2012) observed that, non-availability of labour was perceived as very serious problem.

Non availability of veterinary care hospitals

Better management and health care of animals is paramount for higher productivity. It is apparent from the Table 1 that, the veterinary hospitals are ill equipped, lacking facilities for treatment, vaccines and medicines. Majority of cattle owners in medium, small, marginal, landless and large size with 75.00 per cent, 70.96 per cent, 63.26 per cent, 66.66 per cent and 66.66 per cent respectively. The overall 67.50 per cent crossbred cattle owners were faced problem of non-availability of veterinary care hospital.

Similar results reported by Raskar (2017) that, majority cattle owners of medium, small, marginal, landless and large size with 83.33 per cent, 77.18 per cent, 64.15 per cent, 66.66 per cent and 0.00 per cent

respectively. The overall 65.83 per cent crossbred cattle owners were faced problem of non-availability of veterinary care hospital.

Infrastructural constraints

The constraints under infrastructural group were presented in the Table 1. The constraints of infrastructural group were also responsible up to certain extent for non-implementation of scientific recommendations in feeding and management of dairy animals in Seloo tahsil.

Lack of chaff cutter

As evident from the Table 1, lack of chaff cutter were the major constraints perceived by the Crossbred cattle owners. Majority of cattle owners of marginal group followed by landless, small, medium and large group with 95.91 per cent, 94.44 per cent, 93.54 per cent, 87.50 per cent and 66.66 per cent respectively were faced by problem of lack of chaff cutter. The overall 92.50 per cent cattle owners faced problem of lack of chaff cutter by Crossbred cattle owners.

Kavathalkar *et al.* (2007) reported that, 77.03 per cent cattle owners were faced by Lack of chaff cutter.

Lack of communication

The result as evident from the Table 1 revealed that, the constraint faced by the cattle owners was lack of communication. Majority of cattle owners in marginal group followed by landless, small, medium and large group with 91.83 per cent, 88.88 per cent, 87.09 per cent, 68.75 per cent and 66.66 per cent respectively were faced by problem of lack of communication. The overall 85.83 per cent cattle owners observed problem of lack of communication.

Kavathalkar *et al.* (2007) reported that, 46.66 per cent cattle owners were faced by lack of communication.

Lack of storage facility

It is seen from the Table 1 that, constraints involved under infrastructural group were lack of storage facility in majority of cattle owners of landless (94.44%) followed by marginal (89.79%), small (87.09%), large (83.33%) and medium (75.00%) group were faced problem of lack of storage facility.

Table 1. Constraints in feeding and management practices

Sr. No.	Constraints	Land less	Marginal	Small	Medium	Large	Total
1	Financial constraints	18(100)	49(100)	31(100)	16(100)	6(100)	120(100)
i)	High cost of concentrates	17(94.44)	47(95.91)	29(93.54)	15(93.75)	5(83.33)	113(94.16)
ii)	High cost of green fodder	16(88.88)	45(91.83)	27(87.09)	12(75.00)	4(66.66)	104(86.66)
iii)	High cost of mineral mixture or mineral bricks	16(88.88)	41(83.67)	29(93.54)	14(87.50)	5(83.33)	105(87.50)
iv)	Non availability of agro-industrial by product	18(100)	49(100)	31(100)	16(100)	6(100)	120(100)
2	Technical constraints						
i)	Lack of scientific knowledge	17(94.44)	47(95.91)	29(93.54)	15(93.75)	5(83.33)	113(94.16)
ii)	Lack of technical guidance	16(88.88)	46(93.87)	26(83.87)	16(100)	4(66.66)	108(90.00)
3	Situational constraints						
i)	Inadequate land holding	18(100)	43(87.75)	25(80.64)	9(56.25)	0(0)	95(79.16)
ii)	Lack of irrigation facility	11(61.11)	33(67.34)	18(58.06)	9(56.25)	5(83.33)	76(63.33)
iii)	Shortage of green fodder	11(61.11)	26(53.06)	19(61.29)	8(50.00)	5(83.33)	69(57.50)
iv)	Non availability of labour	15(83.33)	24(48.97)	20(64.51)	13(81.25)	5(83.33)	77(64.16)
v)	Non availability of veterinary hospitals	12(66.66)	31(63.26)	22(70.96)	12(75.00)	4(66.66)	81(67.50)
4	Infrastructural constraints						
i)	Lack of chaff cutter	17(94.44)	47(95.91)	29(93.54)	14(87.50)	4(66.66)	111(92.50)
ii)	Lack of communication	16(88.88)	45(91.83)	27(87.09)	11(68.75)	4(66.66)	103(85.83)
iii)	Lack of storage facility	17(94.44)	44(89.79)	27(87.09)	12(75.00)	5(83.33)	105(87.50)
iv)	Lack of loan facility	18(100)	48(97.95)	29(93.54)	14(87.50)	4(66.66)	113(94.16)
5	Personal interest						
i)	Lack of interest	16(88.88)	47(95.91)	27(87.09)	11(68.75)	5(83.33)	106(88.33)

The overall 87.50 per cent cattle owners observed problem of lack of storage facility.

Kavathalkar *et al.* (2007) reported that, 44.44 per cent cattle owners were faced by lack of storage facility.

Lack of loan facility

The result as evident from the Table 1 revealed that, the major constraint faced by the cattle owners was lack of communication. Majority of cattle owners of landless (100%), followed by marginal group (97.95 %), small (93.54%), medium (87.50%) and large (66.66%) group were faced problem of lack of loan facility. The overall 94.16 per cent cattle owners observed problem of lack of loan facility.

Kavathalkar *et al.* (2007) reported that, 43.70 per cent cattle owners were faced by lack of loan facility.

Personal interest

The results under personal constraints group are furnished in Table 1. The constraints included under personal group as shown in the above table, were also responsible up to some extent for non-adoption of scientific recommendations in feeding and management of dairy animals in Seloo tahsil.

Lack of interest

From the Table 1 it is noticed that, the constraints faced by cattle owners were lack of interest. Majority of cattle owners of marginal group followed by landless, small, large and medium group with 95.91 per cent, 88.88 per cent, 87.09 per cent, 83.33 per cent and 68.75 per cent respectively were shown lack of interest in feeding and management of cattle. The overall 88.33 per cent cattle owners observed lack of interest in feeding and management of cattle.

Kavathalkar *et al.* (2007) also reported lack of interest as comparable to the result of present study.

Conclusion

With regards to management practices, all of the crossbred cattle owners adopted regular cleaning of shed. Half of the respondents reared animals in Katcha housing with Katchaflooring. Majority of crossbred cattle owners were using Kawelu as roofing material and majority of cattle owners were adopted open system of housing.

Half of respondents were using disinfectant in shades and adopted control measure for ectoparasite. With respect to breeding most of cattle owners were adopting artificial insemination method of breeding.

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