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Gap between recommended and adopted feeding practices of crossbred and indigenous cattle of Latur District of Maharashtra

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Abstract

The present investigation entitled “Gap Between Recommended and Adopted Feeding Practices of Crossbred and Indigenous Cattle of Latur District of Maharashtra” was undertaken to study the gap between recommended and adopted feeding practices by dairy farmers. The 120 farmers of 9 villages were selected to study in Latur tahsil of Latur district. Gap of feeding has been observed during feeding of crossbred cows and indigenous cows. In case of crossbred cows they fed 0.57 percent overall dry fodder more than recommended feeding practices and wide gap has also observed in 46.47 percent of green fodder and 27.34 percent of concentrates, whereas in case of indigenous cows there is 55.67, 15.29 and 42.00 percent of green fodder, dry fodder and concentrates, respectively.

Keywords: Gap feeding, crossbred cow, indigenous cow, respondents, dairy animal, Latur

Introduction

In the livestock farming feeding constitutes the largest item of cost for milk production. Therefore, it is important that feed costs are to be possible at lowest level in order to make production profitable. Selection of proper feed using right combination of feeds, feeding the adequate quantity with other related practices are some of the ways which will enable the farmer to feed their cows more economically. The unawareness of the farmer about the importance of the feeding crossbred and indigenous cows has also contributed more severely [1]. The dairy farmers need to be convinced to accept and change the new package of not recommended practices being followed by them this is important thing which requires for transformation. Extension education had played an important role in improving milk production in the country which needs no further emphasis. Still there exists a wide gap between the technologies available with the research system and its adaptation at farmer's field particularly in the sphere of livestock feeding. A large number of constraints has been identified which was responsible for the low production in cattle and buffaloes as reported by the different categories of the livestock farmers [2].

Materials and Methods

The data for present investigation entitled “Gap between Recommended and Adopted Feeding Practices of Crossbred and Indigenous Cattle of Latur District of Maharashtra” was collected from different farmers especially who are rearing the cattle and buffaloes in a Latur tahsil of Latur district in Maharashtra state. A comprehensive questionnaire was prepared to collect the information by personal interviews with individual farmers.

Methods of sampling and size of sample: The data obtained for the study was collected by multistage random sampling technique from Latur tahsil of Latur district.

Selection of villages: Random selection of nine villages from Latur tahsil was made.

Selection of farmers: The farmers were selected randomly from each village and the total sample size is comprised of 120 farmers from Latur tahsil of Latur district. The collection of above information of each dairy farmer, by method of ‘Personal Interviews’ through questionnaire was followed. For these questionnaires, a standard profarma of questionnaire as adopted by National Bureau of Animal Genetic Resources (NBAGR), Karnal was prepared and taken for survey.

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Results and Discussion

Gap between recommended and adopted feeding practices of crossbred cows: In India livestock is largely feed on the course and non nutritious feed i.e. dry straw, crop waste and by products of agricultural crops [3] revealed that the gap between adopted feeding practices and recommended feeding practices in case of crossbred cows and local cows. Crossbred cattle were daily fed with 12.28 kg of green fodder, 8.48 kg of dry fodder and 2.01 kg of concentrates, respectively. The dry

roughages were fed 21.14 percent more than recommended feeding practices. A wide gap has been observed during feeding of concentrates (-42.57 percent) and green fodder (-18.13 percent). Local cattle were fed with dry fodder, green fodder and concentrates i.e. 7.26, 6.50 and 0.98 kg per day, respectively. The dry roughages were provided more to the limit of 3.71 percent over the recommend practices. During the feeding of concentrates (72.00 percent) and green fodder (56.66 percent) also wide gap had observed.

Table 1: Gap between recommended and adopted feeding practices of crossbred cows in case of landless farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	3.00 (20.09)	-12 (80.00)
2	Dry fodder	7.00 (100.00)	2.50 (35.71)	-4.50 (64.29)
3	Concentrates	3.00 (100.00)	0.90 (30.00)	-2.10 (70.00)

(For average body weight of 300kg)

From table 1, it was found that feeding practices adopted by landless farmers as 3.00 kg green fodder, 2.50 kg dry fodder and 0.90 kg concentrates to crossbred cows, whereas recommended feeding practices were 15.00 kg of green fodder, 7.00 kg of dry fodder and 3.00 kg of concentrates,

respectively. From this it was concluded that there was wide gap observed in feeding of green fodder as 80.00 percent, dry fodder as 64.29 percent and concentrates as 70.00 percent to the crossbred cows.

Table 2: Gap between recommended and adopted feeding practices of crossbred cows in case of marginal farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	4.02 (26.80)	-10.98 (73.20)
2	Dry fodder	7.00 (100.00)	3.79 (54.14)	-3.21 (45.86)
3	Concentrates	3.00 (100.00)	1.41 (47.00)	-1.59 (53.00)

It was indicated from the table 2 that, the marginal farmers were fed their cows with 4.02 kg of green fodder, 3.79 kg of dry fodder and 1.41 kg of concentrates. There was a wide gap has been observed in adopted feeding practices and

recommended feeding practices i.e. 73.20 percent in green fodder, 45.86 percent of dry fodder and 53.00 percent in case of concentrates.

Table 3: Gap between recommended and adopted feeding practices of crossbred cows in case of medium farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	10.47 (69.80)	-4.53 (30.20)
2	Dry fodder	7.00 (100.00)	10.86 (155.14)	+3.86 (55.14)
3	Concentrates	3.00 (100.00)	2.21 (73.66)	-0.79 (26.34)

From the table 3, it was observed that, the medium farmers fed their crossbred cows with 10.47 kg of green fodder, 10.86 kg of dry fodder and 2.21 kg of concentrates, respectively. These farmers fed 55.14 percent extra dry fodder to their

cows, while there was a wide gap observed during feeding of green fodder as 30.20 percent and as 26.34 percent in concentrates, respectively.

Table 4: Gap between recommended and adopted feeding practices of crossbred cows in case of large farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	14.63 (97.53)	-0.37 (2.47)
2	Dry fodder	7.00 (100.00)	12.45 (177.85)	+5.45 (77.85)
3	Concentrates	3.00 (100.00)	4.22 (140.66)	+1.22 (40.66)

The large category of farmers exist the feeding practices was mentioned in table 4. They fed their cows with 14.63 kg of green fodder, 12.45 kg of dry fodder and 4.22 kg of concentrates, respectively. It has been observed from above

table that the dairy farmers fed dry fodder and concentrates 77.85 percent and 40.66 percent more than recommended feeding practices. While the meager gap has also observed, 2.47 percent in feeding of green fodder.

Table 5: Overall gap between recommended and adopted feeding practices of crossbred cows

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	8.03 (53.53)	-7.97 (46.47)
2	Dry fodder	7.00 (100.00)	7.04 (100.57)	+0.04 (0.57)
3	Concentrates	3.00 (100.00)	2.18 (72.66)	-0.82 (27.34)

(For average body weight of 300kg)

It was indicated that from table 5, that the dairy farmers fed their crossbred cows with overall 8.03 kg of green fodder, 7.04 kg of dry fodder and 2.18 kg of concentrates, respectively. They fed 0.57 percent overall extra dry fodder and wide gap has also observed in 46.47 percent of green fodder and 27.34 percent of concentrates. To fulfill this gap the dairy farmers should be aware about importance of balanced diet, cultivation of fodder crops round the year etc. The above finding was similar with [3, 2].

Gap between recommended and adopted feeding practices of indigenous cows: In India livestock is largely feed on the course and non nutritious feed i.e. dry straw, crop waste and by products of agricultural crops [3] reported that the gap between adopted feeding practices and recommended feeding practices in case of indigenous cows. Indigenous cattle were fed with 6.50 kg of green fodder, 7.26 kg of dry fodder and 0.98 kg of concentrates per day, respectively. The dry roughages were fed 3.71 percent more than the recommended practices. A wide gap had also observed during feeding of concentrates (72.00 percent) and green fodder (56.66 percent).

Table 6: Gap between recommended and adopted feeding practices of indigenous cows in case of landless farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	2.00 (13.33)	-13.00 (86.67)
2	Dry fodder	7.00 (100.00)	2.00 (28.57)	-5.00 (71.43)
3	Concentrates	3.00 (100.00)	0.00 (00.00)	-3.00 (100.00)

From table 6, it was found that feeding practices adopted by landless farmers i.e. 2.00 kg green fodder, 2.00 kg dry fodder and 0.00 kg concentrate to indigenous cows. Whereas recommended feeding practices were 15.00 kg of green fodder, 7.00 kg of dry fodder and 3.00 kg of concentrates,

respectively. From this it was concluded that there was wide gap has been observed in feeding as 86.67, 71.43 and 100.00 percent of green fodder, dry fodder and concentrates, respectively to the indigenous cows.

Table 7: Gap between recommended and adopted feeding practices of indigenous cows in case of marginal farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	3.46 (23.06)	-11.54 (76.94)
2	Dry fodder	7.00 (100.00)	2.75 (39.28)	-4.25 (60.72)
3	Concentrates	3.00 (100.00)	1.34 (44.66)	-1.66 (55.34)

It was indicated from the table 7 that, the marginal farmers were fed their indigenous cows with 3.46 kg of green fodder, 2.75 kg of dry fodder and 1.34 kg of concentrates. There was a wide gap observed at adopted and recommended feeding

practices of indigenous cows i.e. 76.94 percent in green fodder, 60.72 percent of dry fodder and 55.34 percent in case of concentrates.

Table 8: Gap between recommended and adopted feeding practices of indigenous cows in case of medium farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	6.00 (40.00)	-9.00 (60.00)
2	Dry fodder	7.00 (100.00)	6.75 (96.42)	-0.25 (3.58)
3	Concentrates	3.00 (100.00)	2.13 (71.00)	-0.87 (29.00)

From the table 8, it was observed that, the medium farmers fed their indigenous cows with 6.00 kg of green fodder, 6.75 kg of dry fodder and 2.13 kg of concentrates, respectively.

There was a wide gap observed during feeding as 60.00, 3.58 and 29.00 percent green fodder, dry fodder and concentrates, respectively

Table 9: Gap between recommended and adopted feeding practices of indigenous cows in case of large farmers

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	17.15 (114.33)	+2.15 (14.33)
2	Dry fodder	7.00 (100.00)	14.25 (203.57)	+7.25 (103.57)
3	Concentrates	3.00 (100.00)	3.50 (116.66)	+0.50 (16.66)

The large category of farmers exist the feeding practices was mentioned in table 9. They fed their indigenous cows with 17.15 kg of green fodder, 14.25 kg of dry fodder and 3.50 kg of concentrates, respectively. It has been observed from above

table that the dairy farmers fed green fodder, dry fodder and concentrates as 14.33, 103.57 per and 16.66 percent more than recommended feeding practices.

Table 10: Overall gap between recommended and adopted feeding practices of indigenous cows

Sr. no	Type of feed	Recommended feeding practices	Adopted feeding practices by dairy farmers	Gap between feeding practices
		Quantity/animal (kg)	Quantity/ animal (kg)	Quantity/ animal (kg)
1	Green fodder	15.00 (100.00)	6.65 (44.33)	-8.35 (55.67)
2	Dry fodder	7.00 (100.00)	5.93 (84.71)	-1.07 (15.29)
3	Concentrates	3.00 (100.00)	1.74 (58.00)	-1.26 (42.00)

(For average body weight of 300kg)

It was indicated that from table 10 that, the dairy farmers fed their indigenous cows with overall 6.65 kg of green fodder, 5.93 kg of dry fodder and 1.74 kg of concentrates, respectively. The wide gap has also observed as 55.67, 15.29 and 42.00 percent of green fodder, dry fodder and concentrates, respectively. To fulfill this gap the dairy farmers should be aware about importance of balanced diet, cultivation of fodder crops round the year etc. The above finding was similar with ^[3, 2].

Conclusions

It was concluded from the results of this investigation as the dairy farmers fed their crossbred cows with overall 8.03 kg of green fodder, 7.04 kg of dry fodder and 2.18 kg of concentrates, respectively. They fed 0.57 percent overall dry fodder more than recommended feeding practices and wide gap has also observed in 46.47 percent of green fodder and 27.34 percent of concentrates. In case of indigenous cows, dairy farmers fed overall 6.65 kg of green fodder, 5.93 kg of dry fodder and 1.74 kg of concentrates, respectively. There is wide gap observed as 55.67 15.29, and 42.00 percent of green fodder, dry fodder and concentrates, respectively.

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