

FEEDING PRACTICES FOLLOWED BY CROSSBRED CATTLE OWNERS IN SELOO TAHSIL OF WARDHA DISTRICT

N. P. Kadam¹, A. B. Motghare², A. A. Bhondave³ and S. B. Bhalerao⁴

ABSTRACT

The present investigation was undertaken during the year 2017-18 on feeding and management practices followed by crossbred cattle owners in Seloo tahsil of Wardha district was carried out by randomly selecting 120 crossbred cattle owners from five villages namely Juwadi, Kanhapur, Gaimukh, Dhapki and Khapri. In feeding practices, all the farmers were followed stall feeding + grazing. The adoption of processing of concentrates before feeding was 22.50 per cent. While none of cattle owners enriched the poor quality of straw by urea. Chaffing of green fodder and dry fodder was adopted by 94.17 per cent. Feeding of green fodder was 68.33 per cent. While none of the farmers were preparing silage. Majority of farmers (79.16 per cent) fed @ 2 to 2.5 kg of dry matter 100⁻¹ kg body weight of animals. However, 38.33 per cent fed concentrate @ 40 per cent of milk production and 1kg for maintenance. Total 80.83 per cent farmers provide additional ration for pregnant animal. While only 2.50 per cent cattle owners fed mineral mixture or mineral bricks. However, 81.66 per cent cattle owners fed unconventional roughages and concentrates during scarcity. While 5.83 per cent cattle owners used homemade concentrate feed. Feeding of concentrate mixture with roughages was practiced by 74.17 per cent.

All of the respondents were not adopted enrichment of poor quality straw by urea and feeding of silage. Very few cattle owners used mineral mixture or mineral bricks. However, near about cent per cent of the cattle owners adopted grazing + stall feeding type of feeding practices.

(Key words: Crossbred cattle, Feeding practices)

INTRODUCTION

Livestock is the major asset for the resource poor landless, marginal and small land holding farmers and contribute significantly to their income. Apart from being the source of milk and meat, they are an important source of draught power and traction and are able to convert otherwise indigestible crop residues into nutritious human food. Also, livestock manure plays an important role in nutrient recycling that helps to sustain crop production. Livestock agriculture accounts for 25–30 % of the agricultural GDP of developing countries and is thus, an important component in their economies. Maintaining animal genetic resource diversity is essential to enable farmers, pastoralists and animal breeders to meet current and future production challenges including climate change.

Animal husbandry plays a very important part in agriculture in Maharashtra. Cattle rearing for milk and milk products, leather and flesh are important occupations for most of the people living in the state. Since animal husbandry is included in the state list, the responsibility of taking care

of the cattle is of the state. The Department of Animal Husbandry has taken the responsibility of advising the people about taking care and treatment of the sick cattle.

MATERIALS AND METHODS

The data used for present investigation was collected Seloo tahsil of Wardha district (M. S.). The five villages namely Juwadi, Kanhapur, Gaimukh, Dhapki and Khapri were randomly selected. The information on feeding practices, *i.e.* System of feeding, Processing concentrate before feeding (crushing, soaking, etc), enrichment of poor quality straw by urea, chaffing of green fodder and dry fodder, feeding of green fodder, feeding of silage, feeding of dry matter @ 2 to 2.5kg /100 kg body weight of animal, feeding of concentrate @ 40% of milk production and 1 kg for maintenance, Additional ration for pregnant animal, Use of mineral mixture or mineral bricks, feeding of unconventional roughages and concentrates during scarcity, type of concentrates used, feeding of concentrate mixture, was obtained from the crossbred cattle owners through personal interaction with the help of questionnaire.

1, 3 and 4 P.G. Students, AHDS Section, College of Agriculture, Nagpur (M.S.)

2. Asstt. Professor, Veterinary Science, College of Agriculture, Nagpur

These collected parameters were tabulated carefully. While tabulating the information, total samples of 120 crossbred cattle owners were 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 (Snedecor and Cochran, 1986).

RESULTS AND DISCUSSION

It was observed from table 1 that, Crossbred cattle owners were followed stall feeding plus grazing (94.17%), only grazing (3.33%) and only stall feeding (2.50%).

The present study was similarly matched with Raskar (2017), who observed that, 100 per cent cattle owners followed stall feeding plus grazing. Only grazing and stall feeding not followed by cattle owners due to inadequate grazing land as well as fodder.

The practice of processing of concentrate before feeding was adopted by large, small, marginal, landless and medium category of cattle owners with 33.33 per cent, 22.58 per cent, 22.44 per cent, 16.66 per cent and 25.00 per cent, respectively. The overall practice followed by Crossbred cattle owners were 22.50 per cent among 120 selected cattle owners.

Similar results were reported by Raskar (2017), who observed that, overall 20.83 per cent crossbred cattle owners were processing concentrate before feeding.

It was observed from table 1 that, none of the cattle owners adopted the process of enriching the poor quality straws by urea before feeding to the milch animals. Feeding of silage was the imaginary thought for the cattle owners due to lack of sufficient green fodder required for silage preparation.

These findings are in agreement with observations of Kavathalkar *et al.* (2007), who observed that, none of cattle owners adopted enrichment of poor qualities straw by urea and preparation of silage.

Manual and machinery chaffing of green and dry fodder was overall adopted by 77.50 per cent and 16.67 per cent of crossbred cattle owners, respectively.

Hodshil *et al.* (2007) and Garg *et al.* (2005) reported that chaffing of green and dry fodder were adopted by 36.00 per cent and 16.25 per cent cattle owners which are less than the present result.

Out of 120 crossbred cattle owners of each land holding category of cattle owners *viz.*, landless, marginal, small, medium and large with 61.11 per cent, 69.38 per cent, 70.96 per cent, 62.50 per cent and 83.33 per cent, respectively adopted the feeding of green fodder. The overall adoption of practice of feeding green fodder was 68.33 per cent.

This results similarly observed by Raskar (2017), who studied that, out of the 120 Crossbred cattle owners 52.38 per cent landless, 70.37 per cent small, 58.33 per cent medium, 58.49 per cent marginal and 71.43 per cent large land holding adopted the feeding of green fodder. The overall adoption of practice of feeding green fodder was 53.50 per cent.

It is revealed from table 1 that, overall 79.16 per cent of cattle owners were feeding dry matter @ 2 to 2.5 kg 100⁻¹ kg body weight of animal.

Overall more than half of the cattle owners under the survey offered dry matter to their animals @ 2.5 kg 100⁻¹ kg body weight were observed by Chatterjee *et al.* (2012).

Feeding of concentrates @ 40% of milk production and 1kg for maintenance were adopted by overall 38.33 per cent crossbred cattle owners.

Similar results were reported by Babu and Rao (2013), who observed that 40.00 to 52.00 per cent cattle owners feeding premixed cattle feed and 43.00 per cent feeding feed ingredients.

Overall about 80.83 per cent crossbred cattle owners gives additional ration for pregnant animals.

The present trend of the result is in agreement with result reported by Garg *et al.* (2005). However, Kochewad *et al.* (2013) reported that 49.00 per cent of cattle owners provide concentrate mixture to the advanced pregnant animal.

It is observed from table 1 that, overall very few *i.e.* 2.50 per cent cattle owners used mineral mixture or mineral bricks. The mineral mixture or mineral bricks used by large cattle owners (16.66 per cent) and medium cattle owners (6.45 per cent).

The present results are in conformity with the observation reported by Singh *et al.* (2013) and Kochewad *et al.* (2013), they reported that, only 6.00 and 15.51 per cent respectively, respondents provide mineral mixture to animals.

Overall 81.66 per cent cattle owners were feeding roughages and concentrates in the ration of ruminants during scarcity. These findings are in agreement with observations of Kavathalkar *et al.* (2007), who observed that 88.88 per cent farmers feeding unconventional roughages and concentrates to reduce cost.

It was observed from table 1 that, overall 5.83 per cent and 85.00 per cent cattle owners used homemade and purchased concentrates respectively. Overall adoption of using both homemade and purchased concentrates were 9.17 per cent.

Table 1. Feeding practices adopted by Crossbred cattle owners

| Sr. No. | Feeding practices | Land less | Marginal | Small | Medium | Large | Total |
|---------|--|---------------|---------------|---------------|---------------|--------------|----------------|
| 1 | System of feeding | 18 (100) | 49 (100) | 31 (100) | 16 (100) | 6 (100) | 120 (100) |
| i) | Grazing | 1 (5.55) | 2 (4.08) | 1 (3.22) | 0 (00) | 0 (00) | 4 (3.33) |
| ii) | Stall feeding | 0 (00) | 0 (00) | 1 (3.22) | 1 (6.25) | 1 (16.66) | 3 (2.50) |
| iii) | Grazing + Stall feeding | 17 (94.44) | 47 (95.91) | 29 (93.54) | 15 (93.75) | 5 (83.33) | 113 (94.17) |
| 2 | Processing of concentrate before feeding (crushing, soaking etc.) | 3 (16.66) | 11 (22.44) | 7 (22.58) | 4 (25.00) | 2 (33.33) | 27 (22.50) |
| 3 | Enrichment of poor quality straw by urea | 0 (00) | 0 (00) | 0 (00) | 0 (00) | 0 (00) | 0 (00) |
| 4 | Chaffing of green fodder and dry fodder | | | | | | |
| i) | Manually | 15 (83.33) | 39 (79.59) | 24 (77.41) | 11 (68.75) | 4 (66.66) | 93 (77.50) |
| ii) | Machinery | 2 (11.11) | 7 (14.28) | 6 (19.35) | 3 (18.75) | 2 (33.33) | 20 (16.67) |
| 5 | Feeding of green fodder | 11 (61.11) | 34 (69.38) | 22 (70.96) | 10 (62.5) | 5 (83.33) | 82 (68.33) |
| 6 | Feeding of silage | 0 (00) | 0 (00) | 0 (00) | 0 (00) | 0 (00) | 0 (00) |
| 7 | Feeding of dry matter @ 2 to 2.5 kg per 100 kg body weight of animal | 15 (83.33) | 41 (83.67) | 26 (83.87) | 10 (62.5) | 3 (50.00) | 95 (79.16) |
| 8 | Feeding of concentrates @ 40% of milk | 4 (22.22) | 21 (42.85) | 14 (45.16) | 5 (31.25) | 2 (33.33) | 46 (38.33) |

| | | | | | | | |
|------|--|---------------|---------------|---------------|---------------|--------------|----------------|
| | production and 1kg for maintenance | | | | | | |
| 9 | Additional ration for pregnant animal | 14 (77.77) | 42 (85.71) | 24 (77.41) | 12 (75.00) | 5 (83.33) | 97 (80.83) |
| 10 | Use of mineral mixture or mineral bricks | 0 (0.00) | 0 (0.00) | 0 (0.00) | 2 (6.45) | 1 (16.66) | 3 (2.50) |
| 11 | Feeding of unconventional roughages and concentrates during scarcity | 16 (88.88) | 44 (89.79) | 27 (87.09) | 9 (56.25) | 2 (33.33) | 98 (81.66) |
| 12 | Type of concentrates used | | | | | | |
| i) | Home made | 2 (11.11) | 3 (6.12) | 2 (6.45) | 0 (0) | 0 (0) | 7 (5.83) |
| ii) | Purchased | 15 (83.33) | 44 (89.79) | 26 (83.87) | 12 (75.00) | 5 (83.33) | 102 (85.00) |
| iii) | Both | 1 (5.55) | 2 (4.08) | 3 (9.67) | 4 (25.00) | 1 (16.66) | 11 (9.17) |
| | | 18 (100) | 49 (100) | 31 (100) | 16 (100) | 6 (100) | 120 (100) |
| 14 | Feeding of concentrates mixture | | | | | | |
| i) | Separate | 7 (38.88) | 9 (18.36) | 6 (19.35) | 7 (43.75) | 2 (33.33) | 31 (25.83) |
| ii) | With roughages | 11 (61.11) | 40 (81.63) | 25 (80.64) | 9 (56.25) | 4 (66.66) | 89 (74.17) |
| | Total | 18 (100) | 49 (100) | 31 (100) | 16 (100) | 6 (100) | 120 (100) |

(Figures in parentheses indicates percentage to total)

These findings are in agreement with observations of Gupta *et al.* (2008), who observed that type of concentrates fed are homemade (45.60%), compounded feed (31.4%) and both (16.50%). Kochewad *et al.* (2013) reported that homemade (65.00%), purchased feed (20.00%) and both used (15.00%) feed to the cattle by cattle owners.

The overall adoption of feeding concentrate mixture separately was 25.83 per cent and overall about 74.17 per cent cattle owners were feeding concentrate mixture with roughages.

The present results are in conformity with the observation reported by Jadav *et al.* (2014), who reported that feeding of concentrates separately 14.78 per cent and with roughages 85.22 per cent.

All of the respondents were not adopted enrichment of poor quality straw by urea and feeding of silage. Very few cattle owners used mineral mixture or mineral bricks. However, near about cent per cent of the cattle owners adopted grazing + stall feeding type of feeding practices.

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