

Economic Productive Characters of Buffaloes in Relation to Management Index

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Abstract

On the basis of individual indices, the productive characters of buffaloes was formulated and it was noticed that the dairy farmers had fair management index (between 71 to 80 %). As regards quantity and quality of milk it was noticed that the milk yield was 5.27, 6.21 and 7.2 kg in group I, II and III respectively. The corresponding fat and SNF contents of milk were 6.17 and 8.75, 6.8 and 8.8 and 7.2 and 9.0 % respectively. It was also noticed that the level of management influenced the production in buffaloes. The production under satisfactory management status was 3 to 4, 4 to 5 and 5 to 7 kg under satisfactory, fair and good management index while it was 10 to 14 kg under very good management index. The milk produced by the buffaloes under all the three herd size groups was meeting out the fat content standard according to PFA rules prescribed for Maharashtra but the milk produced under herd size group I and II did not meet out the standards prescribed for SNF content.

Keywords: Economic, Buffalo, Management Index, Production, Character.

Introduction

Buffaloes have unique position in Indian Dairying as buffaloes are considered the bearer cheque of the rural flock. It contributes 57 % in total milk production. (Misra et.al,1998). The relative higher growth rate in buffalo population confirms that buffalo are preferred over cows for milk production in the country. However the present status of buffalo rearing does not appear encouraging in case of Vidarbha region. Out of 5.44 million population of Maharashtra region of the state. The buffaloes produced 3.3 to 6 kg milk with an average production of 5.16 kg.

Materials and Methods

The study entitled "Decomposition analysis of Buffalo Production in Buldana District (Maharashtra)" was undertaken to study technological changes in term of breeding, feeding, housing, milking and calf management practices followed by buffalo owners from 4 tahsils of the district. Ten villages in each tahsil were selected randomly and 75 farmers were studied from each tahsil. Thus a data on total of 300 dairy farmers (75 x 4) was prepared. The information collected classified according to herd size in three categories i.e. herd size group I (1 buffalo), II (2 to 3 buffalo) and (4 & above) respectively.

The data was obtained on various aspects of management by interviewing the farmers. After tabulation the data was subjected to statistical analysis.

Results and Discussion

Among the various management practices, feeding management and milking management appear to have a direct impact on the productivity of buffaloes on the farm which was satisfactory in all herd size groups. On this background, the influence of management index on milk yield and its quality was studied.

Distribution of Dairy Farmers According to Production Level: A reference to Table 1 reveals that maximum number of dairy farmers from herd size group I and II were receiving 4 to 5 kg of milk per day per buffalo while, 29.41, 26.47 and 29.41 % dairy farmers from group III were harvesting 4 to 5 kg, 6 to 8 kg and 8 kg of milk per day per buffalo respectively. Obviously, this situation may result into higher level of production in this group as compared to other groups. The Chi-square test confirms this trend, the value being significant.

Productive Characters of Buffaloes: It was noticed that the buffaloes under good management status (80.50 %) i.e group III were having more body weights. Similarly the daily milk yield and fat content of the milk was more in this group. The average daily milk yield and fat was higher in Group III. Thus the milk produced by the buffaloes under all the three herd size groups with fair to good management status was meeting out the fat content standards according to PFA rules prescribed for Maharashtra. On the contrary, the fat content in the milk was having higher values than that

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Table-1. Distribution of Dairy Farmers according to Daily Milk Yield.

Sr No	Milk Yield (kg)	Group-I	Group-II (1 buffalo)	Group-III (2 to3 buffalo)	Overall (4 & above)
1	Up to 3	11(12.22)	13(7.39)	05(14.71)	29(9.67)
2	4 to 5	46(51.11)	69(39.20)	10(29.41)	125(41.67)
3	6 to 8	26(28.89)	64(36.36)	09(26.47)	99(33.00)
4	Above 8	07(7.78)	30(17.04)	10(29.41)	47(15.67)
5	Overall	90(100)	176(100)	34(100)	300(100)

÷ 2= 7.06 NS Significant at 5 % (Figures in parenthesis show percentage to total)

of the standards.

However the buffalo milk produced under herd size group I and II did not meet out the standards prescribed by PFA rules for SNF content while milk produced under herd size group III was fulfilling the standards.

This trend indicates that the more deficiency of nutrients in the diet of buffaloes in herd size group I and II could be the reasons for these lower values. Secondly, It is also clear from the trend that the quantity and quality of milk was better under good management status i.e herd size group III against fair management index. The good management status enhanced the production levels in buffaloes by 36 and 16% as compared to production level obtained in herd size group I and II respectively.

However appreciable variation in respect of days in milk and dry days was not noticed between the herd size groups though the buffaloes from herd size group III had more days in milk and lower dry days. Thus the results indicated that the buffaloes in the stud tares irrespective of herd size groups produced 5.95±2.37 kg of milk per day with 6.7 % fat and 8.7 % SNF.

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Table-2. Economic Productive Characters of Buffaloes in Relation to Management Index.

Sr No	Characters	Group-I (1 buffalo)	Group-II (2 to3 buffalo)	Group-III (4 & above)	Overall
1	Overall Management Index	75.3 ± 5.68	78.68±6.681	80.50±5.80	77.89±6.52
2	Average Body Wt (kg)	410.67±42.80	444.04±9.47	464.00±20.72	436.36±48.24
3	Average Daily Milk Yield (kg)	5.27±2.02	6.21±2.37	7.20±2.83	5.95±2.37
4	Fat %	6.17±0.527	6.30±0.788	7.20±0.784	6.70±0.793
5	SNF %	8.75±0.285	8.80±0.461	9.00±0.291	8.74±0.350
6	Days in Milk	235.45±20.12	230.72±30.31	238.00±17.88	232.6±26.98
7	Days Dry	125.45±15.24	127.18±26.11	122.00±17.18	126.33±23.58
