

Studied the Variation in Feed Consumption in Buffaloes in Different Seasons

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Abstract: An experiment contribution of cows and buffaloes milk in unorganized sectors in eastern Uttar Pradesh, general, and selected block of rural areas, in particular is not clear. About 50 percent of total bovine are underfed or overfed in rural areas mostly due to lack of scientific knowledge for feeding, breeding, management and veterinary problems. The present study was conducted during March 2002 to April 2004 in villages of selected blocks of Azamgarh District to assess the economic performance of buffaloes during different seasons in different categories of farmers. The choice of block was based on the state Department of District Azamgarh and BIAF Center are working for popularization and up lift of dairy animals in the locality, beside, extension training center is also located near the all blocks, which acts as a catalytic agent in promoting the development in entire block area.

Key words: Buffaloes, feed consumption, variation and seasons.

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I. Introduction

Milk production is most efficient system as for as conversion efficiency of protein and energy is concerned. In order to achieve economical milk production, emphasis has been on improvement of milk production traits, growth rate for early maturity and to augment reproduction efficiency. Adequate and scientific feeding is also equally important. There is a wide gap of feed availability for animal their requirement due to continuous increases in live stock population and shrinking land resources for forage production due to increasing demands for production of food grain for ever growing human population.

Increased availability of feed and fodder are of crucial significance to provide support for targeted increase milk production. Due to increasing pressure of human population on our land, there is a hardly any scope for increasing area under pasture and cultivated fodders. Out of total requirements of 25.4 mt of concentrates, 350 million ton of dry fodder and 308 million ton of green fodder, only 16 mt of concentrate, 300.5 mt of dry fodder and 261 mt of green fodder are available. To fulfill the gap, there is a need to make greater use of agro industrial byproducts as a animal feed and create newer feed resources.

II. Materials and Methods

Selection of villages during the survey a list of villages in different block in which adequate number of buffaloes are maintained was prepared in consultation with Veterinary Hospital, BIAF and BDO/ADO center located in the area. From such list, 250 (10x5) farmers from 25 villages from 5 blocks were selected randomly for the present study name of blocks viz. Atroulia, Jahanaganj, Palhni, Lalganj and Phool pur.

Selection of former after selection of villages, the list of families' buffaloes was prepared. Then 250 live-stock owners were selected randomly. In the selected villages, in different five types of farmers viz. large, medium, small, marginal and land less family to family enumeration was first carried out in order to secure proper information for selection of representative samples of producing unit.

The information collected from 250 families. The selected milk produce family was interviewed and necessary information collected through carefully pre designed questionnaires by survey methods throughout the year. Every milk producer family having buffaloes were interviewed every month during the lactation period under study area to ensure the availability of following information viz. number buffaloes maintained by the families, lactation length and yield, calving interval, initial investment, nutritional status of animals maintained by different of farmers, production of milk, quality of milk in respect to fat, protein and SNF, price of milk sold and cost of milk production.

Selection of farmers in each village included as per their size or land holding as under: large more than 4 ha, medium 2-4 ha, small 1-2ha, marginal less than 1 ha, landless 0 ha. Collection of data quantity of feed and fodders offered to buffaloes during 24 h were recorded by actual weighing. The body weight of animals was calculated (per animals) categories wise from the body measurement by using Minnesota formula (Verma, 1992).

Body weight (kg) = $L \times (G)^2 / 660$

Where,

L = Length of animal from shoulder point to pin bone in inches

G = Heart girth in inches.

The observation of milk production in each animal was recorded weekly by oral enquiry or from observation at the timing of milking. The sample of feed and fodder supplied

III. Result and Discussion

Feed and fodders are the major component who affect directly to the health and production of the livestock. The samples of different feed and fodder offered to the buffaloes were collected from area under survey during course of study and dried in the hot air oven on 60 ± 5 °C and put in the samples bottles for their chemical analysis in different season. The sample of feed and fodders were pooled and chemically analyzed. The data of the proximate analysis of different feed and fodder are presented in the table-1.

The average proximate composition of feed were wheat straw (90), paddy straw (90), sorghum (20), jawar chari (23), maize (20), green grass (30), berseem (18), peas straw (49), wheat bran (90), rice bran (90), gram chuni (90), arhar chuni (90) and compound concentrate (90) percent dry matter.

The average proximate composition of feed were wheat straw (3.00), paddy straw (3.00), sorghum (7.64), jawar chari (11.50), maize (8.55), green grass (8.36), berseem (20.45), peas straw (18.50), wheat bran (11.05), rice bran (9.65), gram chuni (12.56), arhar chuni (16.75) and compound concentrate (15.25) percent crude protein.

The average proximate composition of feed were wheat straw (33.50), paddy straw (30.65), sorghum (32.45), jawar chari (32.16), maize (26.43), green grass (26.26), berseem (16.45), peas straw (25.65), wheat bran (3.65), rice bran (3.75), gram chuni (1.06), arhar chuni (2.16) and compound concentrate (8.62) percent crude fibre.

The average proximate composition of feed were wheat straw (1.65), paddy straw (1.40), sorghum (3.25), jawar chari (2.20), maize (3.44), green grass (3.31), berseem (4.25), peas straw (2.26), wheat bran (2.56), rice bran (12.25), gram chuni (4.00), arhar chuni (5.62) and compound concentrate (4.27) percent ether extract.

The average proximate composition of feed were wheat straw (41.1), paddy straw (49.79), sorghum (54.10), jawar chari (49.81), maize (52.43), green grass (49.87), berseem (51.23), peas straw (45.17), wheat bran (75.96), rice bran (64.30), gram chuni (77.13), arhar chuni (69.55) and compound concentrate (64.04) percent nitrogen free extract.

The average proximate composition of feed were wheat straw (20.45), paddy straw (15.16), sorghum (2.56), jawar chari (4.33), maize (9.15), green grass (12.20), berseem (7.62), peas straw (8.92), wheat bran (6.33), rice bran (10.05), gram chuni (5.25), arhar chuni (5.92) and compound concentrate (7.82) percent total ash.

The digestible crude protein (DCP) and total digestible nutrient (TDN) content of these feeds and fodder were wheat straw (0.00) and (35.85), paddy straw (0.00) and (39.90), sorghum (8.62) and (63.90), jawar chari (4.35) and (57.50), maize (5.75) and (62.02), green grass (6.72) and (567.65), berseem (13.15) and (64.22), peas straw (13.9) and (53.25), wheat bran (9.95) and (69.00), rice bran (6.68) and (56.25), gram chuni (16.22) and (76.02), arhar chuni (13.90) and (63.00) and compound concentrate (11.03) and (66.08) percent, respectively.

The variation in the average body weight of buffaloes in different season the data were presented in the table 2-6. The average body weight of buffaloes was calculated as per formula of Verma, (1992).

The average body weight of buffaloes during rainy, autumn, winter, spring and summer season were 456.50 ± 20.50 , 478.50 ± 18.45 , 445.50 ± 15.50 , 460.50 ± 15.50 and 4753.50 ± 22.50 ; 460.50 ± 10.50 , 480.00 ± 12.50 , 450.00 ± 15.75 , 472.00 ± 10.75 , and 465.00 ± 18.50 ; 462.45 ± 16.42 , 470.00 ± 15.30 , 448.00 ± 17.75 , 463.20 ± 5.50 and 480.00 ± 15.50 ; 470.50 ± 12.15 , 472.20 ± 15.50 , 450.50 ± 18.50 , 465.50 ± 10.50 and 478.00 ± 20.15 and 466.50 ± 12.85 ; 475.50 ± 15.75 , 450.00 ± 6.50 , 465.00 ± 14.53 and 480.00 ± 15.50 kg in land less, marginal, small, medium and large categories of farmers, respectively.

The significant variation observed in the body weight was primarily random selection of buffaloes in the various categories of farmers, external anatomy of live stock, nutritional status and physical appearance of live stocks.

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