RESEARCH ARTICLE

Practical utility and economical value of urea treated paddy straw in lactating buffaloes

SUNIL KUMAR

Received : Aug., 2010; Accepted : Sep., 2010

SUNIL KUMAR

College of Forestry and Hill Agriculture, GBPUA&T, Hill Campus, RANICHAURI (UTTARAKHAND) INDIA sunilgbpuat@gmail.com

ABSTRACT

To study the treated value of straw and its economics, 24 farmers were selected in which 12 used treatment and 12 traditionals feeding. The over all income over feed cost/animal/day in rupees was higher (38.59 and 42.49) than untreated group (33.41 and 37.98), it may conclude that urea treatment improved the quality of paddy straw in respect to its nutritive utilization and economical value in lactating buffalo on farmers level. The study also gives the picture that large farmers can take more profit it they fallow this technology.

Key words : Buffalo, Urea treatment, Practical utility

India has largest buffalo population in world (FAO'1998). Crop-residue like wheat bhusa, paddy straw, bajra and maize stovers are staple livestock feed in India and it fulfills 60% of dry matter requirement. These straws are considered less nutritive due to their law nitrogen content, mineral, vitamins, really available energy along with their high lignin and silica content. Therefore, there are two ways to meet the situation. First, to improve the utilization of crop residue and, second, to supplement with concentrate to fulfill deficit requirement. It is economically essential to improve the quality of these straws because 2/3 part of dry matter is fed by straws in ruminant animals. Several chemical methods of treatments are available such as NaoH, ammonia and urea etc. The most feasible and economical method of treatment is urea treatment. Urea treatment has been reported to be superior in terms of its digestibility, intake of nutrients and animal perfumer in terms of grow th and milk production (Perdok $\it et$

al.,1982). Paddy straw is available in ample amount on farmer's level in winter season. So, treatment of paddy straw is best alternative to improve utility of this crop residue at low cost.

MATERIALS AND METHODS

The present study was conducted on farmers of Faridpur and Bahari blocks of Bareily district in Uttar Pradesh. To examine the utility and economics, 24 farmers were selected. Out of 24, 12 farmers which were using

Kumar, Sunil (2010). Practical utility and economical value of urea treated paddy straw in lactating buffaloes. *Asian J. Animal Sci.*, **5**(2): 181-183

urea treatment and 12 farmers which were not using this technique were divided randomly in two groups of each according to their land holding capacity small (< 2ha) and large (> 2ha). The farmers followingd the urea treatment had 24 buffaloes in which 10 buffaloes had small farmers and 14 buffaloes had large farmers. Those not used also had 24 buffaloes in which 12 buffaloes had small farmers and 12 buffaloes had large farmer. Details of feed intake, milk production and its cost in respect to dry roughages, green fodder and concentrate were recorded during December, 2005 to March, 2006. For the treatment, 65 litre of 6% solution of urea per 100 kg paddy straw was used (Kumar et al., 1991). The straw was treated by spreading head load/bundle of straw. The predetermined volume of urea solution of appropriate strength was sprinkled on each lot. After attaining the desired height of the stock, it was covered. The stocks were opened for removing treated straw for feeding after 3-4 weeks. The treated straw was chafed and fed with green berseem.

RESULTS AND DISCUSSION

Paddy straw was used as the main raw material for urea treatment (Table 1). It contributed 64.94% of total cost of treatment in case of small farmers and 64.44% for large farmers. The average cost of urea treatment was Rs. 77.00 and Rs. 75.26/100kg in case of small and large farmers, respectively. The treated paddy straw consumed/an animal was 8.16 and 8.92 for small and large farmers (Table 2). In respect to untreated it was 7.4 and 7.3 for the same categories of farmers. The results (Table 2) show that treated straw used more then untreated by farmers.