



Replacement of concentrate mixture by berseem forage (*Trifolium alexandrium*) in cross-bred cows

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ABSTRACT

Twelve lactating cross-bred cows were randomly divided into three groups having four animals in each on the basis of body weight and were allotted three dietary treatments. The animals under control group (Group I) were fed according to ICAR feeding standard. The cross-bred cows of II group were fed green berseem fodder ad-libitum along with 5 kg wheat-straw. The cross-bred cows of group III were fed wheat straw and the calculated amount of concentrate mixture, mineral mixture and common salt were also offered to each group of experimental animals. The cows of II group consumed significantly ($P < 0.01$) more DM, DCP, TDN, followed by I and III group of treatment. Higher significant ($P < 0.01$) milk yield was recorded in II groups as compared to T_I and T_{III} groups. However, there was no significant difference found in milk yield of T_I and T_{II} group. It can be concluded that feeding of green berseem (*Trifolium alexandrium*) to the milch animals is good as compared to control feeding. Because the feeding cost of cross-bred cows are very low in the green berseem fed group as well as has no adverse effect on the milk production in cross-bred cows.

KEY WORDS : Berseem forage, Cross bred cow, Concentrate mixture, Wheat straw

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INTRODUCTION

Today's livestock farming has been adversely affected due to increasing price of different types of feed and fodder such as hay, silage, green jowar, Bhusa etc. So, the live stock farmers use conventional feed such as tree leaves and different type of wood, grass etc. Two nutritional factors that are most commonly associated with limited milk production and proper growth are energy and protein. To ensure maximum intake of feed after calving to attain the highest milk production, the ration should contain high energy but must contain adequate fiber to assure proper rumen functioning. The total green fodder requirement for livestock is 913.69 mt. but the total availability of fodder in India is 613.37 mt. So, 296.32 mt green fodder are lack the total dry fodder requirement is 588.19 mt and total availability of dry fodder is 536.85 mt. so 21.34 mt dry fodder are deficit in India as per required,

resulting a great short fall of fodder availability for animal than the requirement (Dept. of Animal Husbandry, U.P. Govt. 2005). The profit from dairying is governed by the cost of milk production and its sale price in the market Feed cost is the major component accounting for 70-75 per cent of total cost of milk production. Berseem is one of the most important green fodders of *Rabi* season. It is grown extensively throughout the country. It is generally fed as green fodder. It could also be fed as hay and mixed with dry forage. Livestock could be maintained throughout the *Rabi* season on green fodder. There is important in milk yield when the cows are switched on this fodder from other ration. Some studies on this aspect have been carried out on cattle in our country. However, information in this regard to cow is limited.

MATERIALS AND METHODS

The study was conducted on twelve lactating cross-bred cows during January to February 2007 for 60 days to asses the replacement of concentrate mixture by berseem forage (*Trifolium alexandrium* L.) in cross bred cows. The animals were divided into three groups and 4 animals in each on the basis of their body weight and milk yield and were subjected to the following dietary

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