

Effect of a grass mixture on the production performance of mid lactation dairy cows

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Abstract

In the present study, the changes in the feed intake, milk yield and composition of mid lactation dairy cows under two nutritional regimes [roadside grasses (R) vs. roadside grasses + sugar graze (RS)] were evaluated in order to test the production performance under local conditions. The experiment was a two-period, cross over design with four cross bred lactating cows allocated to each feeding regimen. Each period consisted of 21 days of adaptation followed by 7 days data collection. During the experimental period, two dietary treatments were individually offered and *ad libitum* intake was ensured throughout. Dry matter, crude protein and crude fiber contents of the diets offered had significant differences, while these differences had an effect on dry matter intake, milk yield as well as the quality of milk. The RS diet had more protein than R diet. Thus, combination of Sugar graze could have enhanced the crude protein content in road side grass mixture. Additionally, high Organic matter digestibility and Metabolizable energy in RS diet could have ensured better synchronized energy and protein for ruminal digestion. RS diet fed cows produce 57.28% more milk ($p < 0.05$) than the R diet fed cows is a reflection of the quality of the diet. In present study, compared to cows fed R diet, higher fat (4.09%) and proteins were recorded in milk of cows fed RS diet. This may be attributed to higher non-fiber carbohydrates, less fiber associated with better digestibility of nutrients in the RS diet. Therefore, the current findings demonstrated that feeding good quality forage can easily increase the milk production of mid lactation dairy cows by more than 50%. Most economical way to do this could be replacing some portion of low quality roughages in the diet by a nutritionally superior variety, such as fodder sorghum.

Keywords: Energy, Mid lactation, Road side grasses, Sugar graze

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