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البحث السابع

Abdelalim M. Abd El-Mola and Mohamed I. Nassar **(2023).** Effect of partially or completely substitution of clover hay by guinea grass (*spanish panicum mombasa*) forage on nutrients digestibility, blood parameters and performance of lactating buffaloes. ***Egyptian Journal of Animal Production, 60 (3):123-129***	**البحث السابع**
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Title	Effect of partially or completely substitution of clover hay by guinea grass (*spanish panicum mombasa*) forage on nutrients digestibility, blood parameters and performance of lactating buffaloes.
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ABSTRACT

This research aimed to evaluate the use of *Spanish panicum mombasa* (SP) as an alternative forage on the performance of lactating buffaloes exemplify digestibility, milk production and feed intake. Thirty lactating buffaloes (after 2 weeks of calving) were distributed into five groups as folows, 1stgroup was fed control ration (60% concentrate feed mixture (CFM) and 40% clover hay (CH)), 2nd group was fed 60% CFM and 30% CH +10% SP (SP10), 3rd group was fed 60% CFM and 20% CH+20% SP(SP20), 4th group was fed 60% CFM and 10% CH+30% SP (SP30) and 5th group was fed 60% CFM and 40% SP (SP40). Complete replacement of CH by SP40% increased ($P<0.05$) nutrients digestibility coefficients. The buffaloes fed the SP40 showed higher ($P<0.05$) levels of plasma protein, globulin, alanine transferase (ALT), and glucose than the group fed the SP30 ration. Buffaloes fed the SP40 had higher ($P<0.05$) yields of all milk components and 7% fat corrected milk (FCM) than those fed other rations. When comparing diets containing SP to the control, feed efficiency showed significant changes ($P\leq0.05$) with regard to DM, TDN, and DCP. Replacing SP in the rations decreased the cost of feed required to produce 1 kg of milk (7% FCM), especially for feed that included 40% of SP (90.36%). It could be, concluded from the results of the current study that complete replacement of CH by SP in the diets of lactating buffaloes had a positive impact on milk production, increased nutritional digestibility, and a reduction in the cost of ration.