

البحث الخامس

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فردى مشترك مع آخر خارج التخصص – منشور Q1	5

Title	Influence of sugarcane bagasse on in vitro degradability, rumen characteristics, nutrients digestibility, blood parameters and milk production of lactating buffaloes.
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Abstract

This study aimed to evaluate the use of sugarcane bagasse (SCB) as exclusive roughage in lactating buffaloes on digestibility, milk production and composition, and microbial protein. In vitro dry matter digestion (IVDMD) and organic matter digestion (IVOMD) for SCB as a replacement for barley straw (BS) of the control ration have been determined. In vivo experiment, 55 lactating buffaloes were randomly assigned into five groups. First group was fed the control ration (60% concentrate feed mixture (CFM) and 40% BS), second group was fed 60% CFM and 30% BS +10% SCB, third group was fed 60% CFM and 20% BS þ 20% SCB, fourth group was fed 60% CFM and 10% BS + 30% SCB and fifth group was fed 60% CFM and 40% SCB. Results indicated that IVDMD% and IVOMD% degradability were increased with the inclusion SCB in rations compared with the control. Full replacement of BS by SCB 40% significantly ($p < 0.05$) increased nutrients digestibility coefficient with improving ruminal basic parameters. Buffaloes fed SCB40 had higher milk component yields, 4% fat corrected milk and plasma proteins, and lower plasma creatinine and cholesterol than control buffaloes ($p < 0.05$). Finally, the inclusion of SCB up to 40% in lactating buffaloes rations favorably affected rumen fermentation characteristics (in vitro) and improved nutrients digestibility and milk production (in vivo).