

تأثير بروتين الغذاء على الاستفادة من النيتروجين في الأغنام

بركات محمد أحمد ، جمال أحمد براغيت ، عبد الله فتحي نيير ، أسامة أبو العز نايل

قسم الإنتاج الحيواني - كلية الزراعة - جامعة المنوفية

EFFECT OF DIETARY PROTEIN ON NITROGEN UTILIZATION IN SHEEP

B. M. Ahmed, G. A. Baraghit, A. F. Nebar and U. A. Nayel

Department of Animal Production, Faculty of Agriculture, Minoufiya University,
Shebin El-Kom

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ABSTRACT: *An experiment was conducted to study the effect of protein source and level on nitrogen metabolism using eight Rahmani rams (average live body weight of 30 kg) in two 4×4 Latin square design and fed four rations i.e., ration (1) soybean meal (SBM) 10% CP, ration (2) SBM 14% CP, ration (3) cotton seed meal (CSM) 10% CP and ration (4) CSM 14% CP. The results revealed that increasing protein level from 10% to 14% improved all nutrients digestibility. Protein source has significant effect on DM, OM, CP and EE digestibility. Nutritive value (TDN and DCP) was improved for ration 2 (SBM 14% CP). Nitrogen balance was significantly higher with ration 2 (11.46 g/d) than the other three rations. VFA production and ammonia-N in the rumen of sheep fed ration 2 was significantly higher than the other rations as affected by protein level. Sheep fed ration 2 had significantly higher level of plasma total protein, albumin and globulin than other rations as affected by protein level. The concentration of AST and ALT were insignificantly affected by protein source and level. The concentration of urea in blood serum of sheep on ration 2 at 2- hrs post feeding (32.15 mg/dl) was significantly ($P<0.01$) higher than other rations being, 28.35, 26.55 and 29.75 mg/dl, respectively.*

Key words: *dietary protein, digestibility, nitrogen metabolism, microbial activity, sheep.*
