Growth performance, nutrient digestibility and haematological parameters of Red Sokoto bucks fed varied levels of Irish potato (Solanum tuberosum) peels

S.M. Yashim

Abstract

The study aimed at evaluating the performance, nutrient digestibility, nitrogen balance and blood parameters of Red Sokoto bucks fed varying levels of Irish potato peels diets. Irish potato peels (IPP) were collected at different restaurants and chips joints in Samaru Zaria and dried for 7 days. Twelve (12) bucks with an average weight of $8.66\pm 0.2$ kg were randomly distributed into four treatment diets containing Irish potato peels at 0, 10, 20 and 30% inclusion levels respectively with 3 bucks per treatment in a completely randomized design (CRD). The experiment lasted for 84 days. Result showed that average final weight, average weight gain, average daily feed intake and feed cost ($/kg$) were significant ($p<0.05$) affected by the inclusion level of Irish potato peels. The highest average final weight, average weight gain and average daily feed intake were observed for bucks fed 30% Irish potato peels inclusion. Crude protein and nitrogen free extract digestibility were significantly ($p<0.05$) influenced by the inclusion of Potato peels. All parameters measured for nitrogen retention was significantly ($p<0.05$) affected by the treatment diets except for nitrogen intake. The results obtained showed no significant ($p<0.05$) difference in packed cell volume and lymphocytes. Total white blood cell count and haemoglobin were significantly ($p<0.05$) influenced by the dietary treatments. It was therefore concluded that feeding buckswith varying level of Irish potato peels significantly increases weight gain, nutrient digestibility and a reduction in the cost of production.

Key words: Intake, Weight gain, Haematology, Red Sokoto Bucks, Irish Potato