The nutritive value of cassava starch extraction residue for growing ducks

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Abstract:

Abstract The cassava root meal (CRM) has been utilized as a cheap energy alternative to replace maize in poultry diets. Recently, the CRM in turn has an increasing demand for starch extraction industry, which renders large amounts of residues. This study evaluated the nutrient composition, amino acid profile, and feeding value of cassava starch extraction residue meal (CReM) for growing ducks. A total of 960, 11-day-old, ducklings were housed in 24 floor pens and allocated randomly into four dietary treatments: (i) 0CReM (control), (ii) 50 g CReM/kg, (iii) 100 g CReM/kg, and (iv) 150 g CReM/kg. The analyses (kJ/kg) of CReM showed high gross energy (3306.88 kcal), ME (2109.54 kcal), and starch (514.0 g), with poor crude protein (20.9 g) and moderate crude fiber (140.0 g) and ash (60.0 g) contents. The total amino acid (AA) content amounted to 19.9 g/kg of CReM DM, in which the methionine, lysine, cystine, and isoleucine were present in low levels. The dietary inclusion of CReM up to 150 g/kg, between 11 and 42 days of age, had no significant effects (P > 0.05) on duck growth parameters, mortality, dressed weight, internal organs, or abdominal fat. Besides, the tested CReM levels did not show any significant effect on the blood proteins or liver enzymes. The results, therefore, revealed that the CReM contains a considerable amount of energy and could be incorporated successfully up to 150 g/kg in the diets of growing ducks.

Keywords:

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