

Nutrient and Anti-Nutrient Components of Some Tropical Tree Seeds

Akinfemi, A Ososanya, T.O Ahoatu, E.O

pp 115-122

Abstract

Experiments were conducted to evaluate the potential feeding value of seven different tropical seeds: *Delonix regia*, *Vitellaria paradoxa*, *Tectonia grandis*, *Cyperus alternifolius*, *Parkia biglobosa*, *Khya ivorensis* and *Vetex dunianna*. The proximate composition, crude fiber fractions, mineral composition and the in vitro gas production of the selected tropical seeds were determined. The results obtained showed that crude protein (%) ranged from 5.36 (*Cyperus alternifolius*) to 15.05 (*Parkia buglobosa*), CF (%) ranged from 11.75 (*Vitellaria paradoxa*) to 43.58 (*Tectonia grandis*). *Delonix regia* recorded the highest value in NDF and Hemicellulose contents. All the investigated tropical seeds were generally low in mineral composition. However, *Khya Ivorensis* was rich in Ca, Mg, Na and Zn. There were wide variations observed in the in vitro gas production characteristics. The fastest rate of gas production was obtained in *D. regia* while *Cyperus alternifolius* had the least. Fermentation of the insoluble but degradable fractions (b, ml) ranged from 25.50 (*T. grandis*) to 40.35 (*D. regia*). The estimated ME observed in *D. regia*, *K. ivorensis* and *Vetex dunianna* were not significant ($P < 0.05$) but differed significantly from *D. regia*. *Vitellaria paradoxa* recorded the highest levels of oxalate and Tannin. From the results obtained in this study, *D. regia* is a promising source of protein and also contains appreciable contents of mineral. However, mineral fortification could be applied in ruminant nutrition to cater for deficiency.

- Yaba College of Technology, Department of Agricultural Technology, Epe Campus, Lagos
- Department of Animal Science, University of Ibadan, Ibadan, Nigeria
-

Department of Animal Production Technology. Imo State Polytechnic, Umuagwo

Corresponding Author: akinfemiabayomi@gmail.com

Target audience: Livestock farmers, Animal scientists, Animal nutritionists