

Nutritive value of pods of indigenous browsable tree species in a semiarid area of Zimbabwe

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Livestock in smallholder farming systems of Zimbabwe are depended on indigenous browse tree pods as sources of nitrogen and energy during the dry season. The chemical composition and nutritive value of these pods is largely unknown.

The aim of this experiment was to determine the chemical composition, content of antinutritive factors and *in vitro* organic matter digestibility (IVOMD) of pods of *Dichrostachys cinerea*, *Acacia ingrescens*, *Acacia tortilis* and

Bauhinia thonningii. The content of antinutritive factors was determined by assaying for proanthocyanidins using the acid butanol method and by the radial diffusion method.

The IVOMD of the pods was low but this did not seem to be related to proanthocyanidin concentration or tannin binding effect on protein. The digestibility varied inversely with NDF content. The pods have a potential use as protein and energy supplements during the dry season, especially *A. tortilis* pods.

Pod Species	Dry matter (g/kg)	NDF (g/kg)	Crude Protein (g/kg)	IVOMD	Vanillin Radial Absorbance A 550/g	Tannins diffusion Activity
<i>Dichrostarchys Cinerea</i>	949	613	115	310	0.15	318
<i>Acacia ingrescens</i>	950	465	149	360	0.30	150
<i>Bauhinia thonningii</i>	957	557	52	343	0.45	139
<i>Acacia tortilis</i>	938	360	147	520	0.24	271