

عنوان مقاله:

Effect of seed processing on chemical composition and anti-nutritional contents of Acacia saligna seed

محل انتشار:

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خلاصه مقاله:

An experiment was conducted to determine the chemical composition and anti-nutritional content of Acacia saligna seeds subjected to soaking and roasting. Each seed processing method was compared with raw seed. There was a significant ($P < 0.05$) difference in dry matter (DM) content. The highest DM content was observed in roasted seeds (93.73%) followed by soaked (91.3 %) and raw seeds (90.8 %). However, there was no significant ($P > 0.05$) difference among CP, EE, CF, NFE and ash content. Raw seeds were composed of 28.2 % CP, 15.5 % EE, 14.4 % CF, 36.8 % NFE and 5.10% ash; 28.4 % CP, 14.5 % EE, 13.3 % CF, 38.5 % NFE and 5.24% ash, and 28.3 % CP, 15.1 % EE, 15.3 % CF, 35.8 % NFE and 5.58% ash for soaked and roasted seeds, respectively. The average tannin and phytate contents were 0.525, 0.498 and 0.322 mg/g and 0.828, 0.816 and 0.132 mg/g for raw, soaked and roasted seeds, respectively. Highest reduction of tannin (38.7%) and phytate (84.1%) was observed in roasted seeds as compared to raw and soaked seeds. A.saligna seeds have a potential chemical composition (crude protein and energy) but have some anti-nutritional factors like tannin and phytate. Hence, seeds can be incorporated in animal feeding with proper processing methods.

کلمات کلیدی:

Phytate, Proximate composition, Roasting, Soaking, Tannin

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