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Nutritional profiling of multipurpose tree species for fodder quality

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Abstract
Leaves of twenty fodder tree species were collected from Forest College and Research Institute, Mettupalayam and estimated for nutritional and anti-nutritional factors during 2019. High and significant fodder yield (kg/0.5 acre) was recorded for *Dalbergia sissoo* (27.36) followed by *Leucaena leucocephala* (24.77)*, L. diversifolia* (23.53) and *Gliricidia sepium* (19.36) along with high carbohydrate (16.60%) and calcium contents. Crude protein content ranged from 7.43 to 35.0%, crude fat content varied from 1.05 to 4.81% and carbohydrate content varied from 10.40 to 17.20%. The maximum phenol content was exhibited by *Ficus religiosa* (0.24 mg/g) and minimum in *Sesbania grandiflora, Dalbergia sissoo* and *Moringa oleifera* (0.02 mg/g). Highest and lowest tannin contents were recorded in *Thespesia populnea* and *Neolamarkia cadamba* (0.12 mg/g) and *L. diversifolia*, *Inga dulce* and *Hibiscus tiliaceus* (0.02 mg/g). All the fodder trees exhibited less phenol, tannins and nitrate contents, which are expected to show positive effects in ruminants as feed supplement throughout the year.

Keywords: Anti-nutritional factors, Fodder tree, Fodder yield, Minerals, Nutritional factors