

AS7.**PROVENANCE VARIATION IN CONDENSED TANNIN CONTENT OF
*CALLIANDRA CALOTHYRSUS***

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A field experiment was conducted with fifteen provenances to evaluate the provenance variation in condensed tannin content of fresh leaves of *Calliandra calothyrsus*.

Experimental design consisted of line planting on double hedge rows (3m long plot, 1/2 meter interval, 45 plants in each plot) with 5 replicates. Plants were lopped every 5 months and samples (10 different plants within a plot; 4 newly flushed leaves, 4 partially expanded leaves and 4 mature full expanded leaves from each of 10 trees in a plot) were collected and kept on ice before transferred to the laboratory. The proanthocyanidine were extracted in aqueous acetone and total extractable proanthocyanidine (TEPA) and total proanthocyanidine (TOPA) were measured by the standard method.

TEPA content ranged from 11.22 (Georgesville - Belize) to 16.01 (Patulul - Gautamala) (measured as absorbance at 550 nm, g⁻¹ DM) whereas local provenance had a lower TEPA content (11.91 as absorbance at 550 nm g⁻¹ DM).

TOPA content ranged from 24.57 (Georgesville - Bellise) to 31.72 (Santa Marie de Jesus - Gautamala) (measured as absorbance at 550 nm, g⁻¹ DM). TOPA content of the local provenance was higher compared to some of the imported provenances.

Based on the nutritive value, provenances, such as Georgesville (Belize), local, Coban (Gautamala), Patulul (Gautamala) and Bombana (Mexico) can be selected.