

## IN SITU POPULATION EVALUATION OF THAUMATOCOCCUS DANIELLI (BENTH.)

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### ABSTRACT

The sweetener plant, *Thaumatococcus daniellii* (Benth.) is a common plant found growing wild and domesticated in the rain forest zone of South-Western Nigeria. The plant is of diverse economic importance to the natives; the leaves and the stalk are used locally for various purposes and most importantly the protein based sweetener thaumatin in the seed aril is of immense economic value at the international market. The study involved the evaluation of sample populations of *T. daniellii* in four identified sites – located in Ekiti and Osun States, South West Nigeria. In each site, random population sampling using 1m<sup>2</sup> quadrat was done. Individual plant parameters: stalk height (cm), stalk girth (cm), leaf blade length (cm), leaf blade width (cm) and petiole length (cm) were scored for. Mean population density ranged from 52 ± 33 (cm) to 117 ± 4.67 (cm). Highly significant difference ( $P < 0.01$ ) was observed for stalk height, stalk girth and leaf blade width in both between and within sites (populations). While insignificant differences were recorded for blade length and petiole length in both inter-and intra-population situations.

**Keywords:** Thaumatin, *Thaumatococcus daniellii*, sweetener, population density, economic potential, plant domestication and/or cultivation.