ASSET Series B (2003) 2 (2): 153-159

ASSET
An International Journal

STUDIES ON THE POTENTIALS OF SOME PLANT-BASED COMMUNITY PEST MANAGEMENT STRATEGIES IN SOUTH WEST NIGERIA. AN INVESTIGATION OF THE ANTI-TERMITE POTENCY OF *DATURA STRAMONIUM L.*

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ABSTRACT

A relationship between the preponderance of *Datura stramonium L*. plant populations and the presence or absence of termitaria (termite mounds) was investigated and established in three vegetation zones namely: rainforest, savanna and derived savanna in Osun, Ekiti, Ondo Oyo and Ogun States in southwestern Nigeria. Termite castes (soldiers and workers) were exposed to aqueous extracts from different plant parts of *D. stramonium* in the Laboratory. Deaths of insects were recorded for all treatments only after 24hrs of exposure. In most replicates, the maximum mortality was attained after 72hrs. Dead termites in treated dishes were observed to turn black while those untreated maintained the usual brown insect colour. The percentage survival and maximum mortality values for the different plant extracts were significantly different at P = 0.05%. Extracts from the plants stem gave the highest toxic effect on the test termite (34% least survival rate after 72hrs). The investigation of the active ingredient in the plant is suggested.

Keywords: Termite, Termitaria, Datura, pest management.