

Repellent and Insecticidal Activities of *Melia azedarach* L. against Cotton Leafworm, *Spodoptera littoralis* (Boisd.)

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A crude acetone extract and oil of ripe fruits from *Melia azedarach* L. were evaluated against the 2nd and 4th instar larvae of *Spodoptera littoralis* (Boisd.) (Lepidoptera: Noctuidae). Both oil and extract exhibited highly significant growth inhibition at all concentrations tested, while the oil of *M. azedarach* recorded higher insecticidal activity against both instars than the crude extract. GC-MS analysis of the oil revealed the presence of linoleic acid methyl ester, oleic acid methyl ester, and free oleic acid as the main components in addition to hexadecanol, palmitic acid, methyl esters of stearic acid and myristic acid. Fatty acids and their esters were not only the main constituents of essential oil from the ripe fruits of *M. azedarach*, but also mainly responsible for the insecticidal and growth inhibition activity against *S. littoralis*.

Key words: *Melia azedarach*, Fatty Acids, *Spodoptera littoralis*