

Antagonistic Effect of Indigenous Plant Extracts toward Dusky Cotton Bug, *Oxycarenus laetus*

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Abstract : Insecticidal property of plant extracts was assessed toward dusky bug of cotton. Plant extracts consisted of bari pata (*Ziziphus jujuba*), Ak (*Calotropis gigantea*), Tobacco (*Nicotiana tabacum*), Bakine (*Melia azedarach*), Kanar (*Nerium oleander*), Kurtuma (*Mitragyna speciosa*) and one Control was also included with distilled water treatment. Forced feeding experiment was used to determine the antibiotic effect of bug plant extracts on dusky bug whereas Multi-choice experiment to determine the antixenosis/ repellent property of botanicals. It is evident from the results that mortality and antibiosis percentage of dusky bug due to the use of botanicals ranged from 15-95% and 20-87.3% respectively that was maximum in tobacco extract followed by bakain and kurtama, minimum was on Ak, kanair and bakain extract. Non preference ranged from 14.28 to 85.7 where maximum non preference of dusky bug was found on bakain and kurtama followed by ak and kanair however minimum was on Bari pata extract. It was further found that local plant extract possessed insecticidal property toward dusky bug as well as also possesses repellency effect toward dusky bug, thus should be included in integrated pest management program of cotton in order to minimize the ill effects of pesticides it is compulsory to adopt eco-friendly methods of insect pest management.

Keywords : botanical extract, insecticidal and repellency activity, *Gossypium hirsutum*, *oxycarenus laetus*

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