

Effect of Storage on the Efficacy of Powdered Leaves of *Annona squamosa* for the Control of *Callosobruchus maculatus* on Cowpeas (*Vigna unguiculata*)

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Annona squamosa L. is widespread in Sri Lanka and its leaves are collected by some farmers to protect their stored cowpeas from predation by bruchids. Removal of the leaves during the dry season, when the farmers harvest their cowpeas, can decrease the yield of *A. squamosa* fruit. This study investigated whether storing the leaves before they are used would reduce the insecticidal activity of the leaves. Overall, acetone and ethanol extracts made from fresh and stored leaves of *A. squamosa* decreased the number of adult *Callosobruchus maculatus* (F.) emerging from cowpeas; however, in some bioassays the extracts from fresh leaves were more active than those from leaves stored for 6 months. Acetone extracts from fresh and stored leaves were toxic to adult beetles, whereas the ethanol extracts were not active. Acetone and ethanol extracts from fresh leaves had potent ovicidal activity when applied to 2-day-old eggs.

KEY WORDS: *Callosobruchus maculatus*; *Annona squamosa*; insecticide; botanicals.

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