

## Defensive Role of Latex in Plants Involves Repellent-Like Activity on Insects

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Latex is an endogenous milky fluid synthesized and accumulated under pressure in a network of laticifer cells. The distribution of these channel systems through the plant body and biochemical studies of the latex constituents suggest it contributes effectively to the plant defense. In this study, latices from five plant species were examined for deterrent effect on oviposition of two Coleoptera (Bruchidae) pests. The latex from *Euphorbia tirucalli*, *Calotropis procera* and *Plumeria rubra* exhibited deterrent activity on oviposition of both *Callosobruchus maculatus* and *Zabrotes subfasciatus* beetles. The latex from *Cryptostegia grandiflora* and *Himathantus drasticus* were less effective to *C. maculatus* and *Z. subfasciatus* oviposition, respectively. Eggs laid on latex-treated seeds were not affected. The emergence and the mean time of development and weight of larvae were similar to the controls. The deterrent activity of *C. procera* and *P. rubra* was dose and time-dependent for *Z. subfasciatus* rather than to *C. maculatus*. The repellence was completely eliminated if only the protein fractions of latices were assayed. Exposing insects to crude latices did not alter fecundity or oviposition rate. These results suggest that latex possess deterrent activity on insect oviposition mediated by a repellent effect but volatile substances are probably not implicated. The repellent-like activity of latices could be interpreted as an additional biochemical and physiological event in plants related to the defensive strategies played by these fluids. Supported by CNPq, CAPES, RENORBIO and IFS. Keywords: deterrent activity, insect, laticifers, proteins.