Title *Securidaca longepidunculata* (Fres.) as a control for stored product insect pests.

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Abstract

The plant *Securidaca longipedunculata* is known to have various ethnopharmacological and pesticidal properties, including its indigenous use by small-scale African farmers for stored product pest control. This paper reports the results of a study involving 4 stored-grain insect pest species, *Sitophilus zeamais*, *Rhyzopertha dominica*, *Callosobruchus maculatus*, and *Prostephanus truncatus*, which showed that the powdered root of *Securidaca longipedunculata* (collected from Tamale, Ghana) admixed with commodity at 0.5% w/w was effective at reducing the F1 emergence of all 4 species when compared with untreated commodity trials. A methanol extract of *Securidaca longipedunculata* roots sprayed on commodity at 0.1% w/w was equally effective at reducing F1 emergence compared with the control. Bioassay-guided fractionation of the methanol extract showed that the most polar compounds in the roots were responsible for the reduction of live adults in the F1 generation. The implications of these results are discussed in the context of isolating and characterizing biologically active compounds with a view to improving stored-product pest control by small-scale farmers in developing countries.