

## **Repellent activity of common spices against the rice weevil, *Sitophilus zeamais* Motsch (Coleoptera, Curculionidae)**

### **Abstract**

Five essential oils and eight extracts of common spices were screened and evaluated for repellent activity against adults of the rice weevil, *Sitophilus zeamais* (Motsch.), using the modified filter paper impregnation method. Both extracts of cinnamon (*Cinnamomum zeylanicum*) and essential oils of gingers, *Etlingera elatior*, *E. pyramidosphaera* and *Zingiber officinale*, showed strong repellent activity against *S. zeamis* at 20 mg/ml. Cinnamon methanol extract exhibited potent repellent activity at the concentration of 10 mg/ml. Extracts of turmeric (*Curcuma longa*) and black pepper (*Piper nigrum*) showed moderate repellent activity at 20 or 50 mg/ml. However, extracts of lemongrass (*Cymbopogon citratus*) and dry chili (*Capsicum annum*) exhibited weak attractant activity. The findings from this research demonstrate the possible use of these spices as repellent of rice weevil in stored products.