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Effects of *Myristica fragrans* and *Alpinia conchigera* oils against *Callosobruchus maculatus*

Duangsamorn Suthisut*; Kengkanpanich Rungsima; Noochanapai Pavinee; Pobsuk Pananya; Sitthichaiyakul Saruta

Post-harvest and Processing Research and Development Office, Department of Agriculture, 50 Phaholyothin Road, Ladyao, Chatuchak, Bangkok, Thailand 10900

* Corresponding author: dsuthisut@yahoo.com

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Efficacy of *Myristica fragrans* and *Alpinia conchigera* oils were evaluated against *Callosobruchus maculatus* at Post-harvest Technology on Field Crops Research and Development Group, Post-harvest and Processing Research and Development Office during October 2014 to September 2015. Seed of *M. fragrans* and rhizomes of *A. conchigera* were extracted the essential oils. It was identified the chemical composition by GC-MS which 10 and 12 constituents were found on *M. fragrans* and *A. conchigera* oils. The major component of *M. fragrans* and *A. conchigera* oils were sabinene and 1,8-cineole, respectively. Contact toxicity assay on filter paper of both essential oils, the LC50 value of *C. maculatus* adults when treated with *M. fragrans* oil at 72 h were 4.6 $\mu\text{L}/\text{cm}^2$ while 1.7 $\mu\text{L}/\text{cm}^2$ for *A. conchigera* oil. Furthermore, the number of laid egg and adult progeny production of *C. maculatus* were inhibited by treated with *M. fragrans* and *A. conchigera* oils at 8 and 10% under laboratory condition. In additions, the efficacies of both essential oils were conducted for 6 months at warehouse of Lopburi Agricultural Research and Development Center. The results showed that insect pests and natural enemies were more found in the mung bean treated with *M. fragrans* oil than *A. conchigera* oil and *C. maculatus* was the major pest. Furthermore, *C. maculatus* was found on mung bean that coating with *M. fragrans* oil than *A. conchigera* oil. Both essential oils were control insect pests for 1 month.