Insecticidal Activity of the Essential Oil of *Ligusticum mutellina* Roots

Claus M. Passreiter\(^a\)*, Yasmin Akhtar\(^b\), and Murray B. Isman\(^b\)

\(^a\) Institut für Pharmazeutische Biologie, Heinrich-Heine-Universität Düsseldorf, Universitätsstrasse 1, D-40225 Düsseldorf, Germany. Fax: +49 211 811 1923. E-mail: passreit@uni-duesseldorf.de

\(^b\) Faculty of Agricultural Sciences, University of British Columbia, Vancouver BC, Canada V6T 1Z4

* Author for correspondence and reprint requests

Z. Naturforsch. 60c, 411–414 (2005); received December 27, 2004

The essential oil obtained from roots of different collections of *Ligusticum mutellina* was tested against 3rd instar armyworms, *Pseudaletia unipuncta* (Lepidoptera: Noctuidae), for insecticidal activity. The main compounds were isolated and their structures were elucidated using 2D-NMR techniques. Our collections contained dillapiole, ligustilide and myristicin as major compounds. The previously reported sarisan was not present, moreover its occurrence in *L. mutellina* should be revised based on our findings.

Key words: *Ligusticum mutellina*, Essential Oil, Insecticidal Activity