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ABSTRACTS

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Barbara EGGER

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Review of *Thrips tabaci* Lindeman cytochrome oxidase gene subunit I (COI) sequences data

Annamária Sojnóczki¹, Éva Pájtli², Dániel Reiter¹, Péter Farkas¹, József Fail^{1*}

1. Department of Entomology, Faculty of Horticultural Science, Corvinus University of Budapest, Villányi út 29-43, Budapest 1118, Hungary

2. Department of Plant Pathology, Faculty of Horticultural Science, Corvinus University of Budapest, Villányi út 29-43, Budapest 1118, Hungary

* Corresponding author: jozsef.fail@uni-corvinus.hu

Abstract. The onion thrips (*Thrips tabaci* Lindeman) is one of the most important insect pests of onions and cabbages, but they feed on a wide variety of field crops; including but not limited to tobacco, cucumber, tomato, pepper. *T. tabaci* is a cryptic species complex, the adults are undistinguishable based on morphological characters. The examination of reproductive mode and host-plant preference as well as the use of molecular approaches, such as examining sequences of the mitochondrial DNA (like the cytochrome c oxidase subunit I, COI) make the distinguishing possible. Based on host fidelity, mode of reproduction and mitochondrial DNA-sequences, three lineages of *T. tabaci* has been established. These phylogenetic groups are: arrhenotokous tobacco (tobacco-specialised) type, arrhenotokous leek (leek-associated) type and thelytokous leek (leek-associated) type. This study aims to review all the currently available *T. tabaci* COI gene sequences in the National Center for Biotechnology Information (NCBI) database and compare it with our data. Over and above, a molecular method is proposed to distinguish the arrhenotokous tobacco type from the other types.

Keywords: *Thrips tabaci*, COI sequences, phylogeny