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ABSTRACT BOOK

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BEHAVIOURAL AND OLFACTORY RESPONSES OF DROSOPHILID PARASITOIDS TO SWD-INFESTED FRUIT VOLATILES

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Abstract: We studied the behavioural and electrophysiological responses of drosophilid parasitoids to volatiles from SWD-infested strawberries. Fruit volatiles were analysed by GC-MS and evaluated by GC-EAD with antennae of *Trichopria anastrephae* (Hymenoptera: Diapriidae) and *Leptopilina boulardi* (Hymenoptera: Figitidae). Behavioural responses were studied for *T. anastrephae* by olfactometry bioassays. Both parasitoid species showed consistent EAD responses to common fruit esters that were more prominent in volatiles from SWD-infested fruit, in comparison with healthy fruit. In behavioural studies, *T. anastrephae* females showed clear preference for fruit odours from SWD-infested strawberries over odours from healthy fruit. These results are the first report of GC-EAD responses of potential SWD parasitoids to host-associated chemical cues.

Key words: *Drosophila suzukii*, biological control, fruit volatiles.

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