Fumigant Activity of Plant Essential Oils Against *Lycoriella mali* (Diptera: Sciaridae)

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Plant essential oils from 40 plant species were tested for their insecticidal activities against *Lycoriella mali* by using fumigation methods. Responses varied with plant material, exposure time and concentration. Good insecticidal activity against *Lycoriella mali* larvae was achieved with essential oils of *Chenopodium ambrosioides*, *Armoracia rusticana*, *Eucalyptus globulus*, *Eucalyptus smithii*, *Allium sativum*, *Allium cepa*, Basil, Caraway seed, Lemon grass, Spearmint and Anis at 2 $\mu\ell/\ell$ concentration. *Chenopodium ambrosioides*, *Armoracia rusticana*, *Eucalyptus globulus*, *Eucalyptus smithii*, *Allium sativum*, *Allium cepa*, Basil, Caraway seed, Spearmint and Anis essential oils, at 1 $\mu\ell/\ell$ concentration, were highly toxic 1 day after treatment. At 0.5 $\mu\ell/\ell$ concentration, essential oils of *Armoracia rusticana*, Anis and Basil oils gave >90% mortality. The plant essential oils described could be useful for managing field population of *Lycoriella mali*.

Key words: *Lycoriella mali*, plant essentila oils, fumigation