Peppermint essential oil inhibits *Drosophila suzukii* emergence but reduces *Pachycrepoideus vindemmiae* parasitism rates

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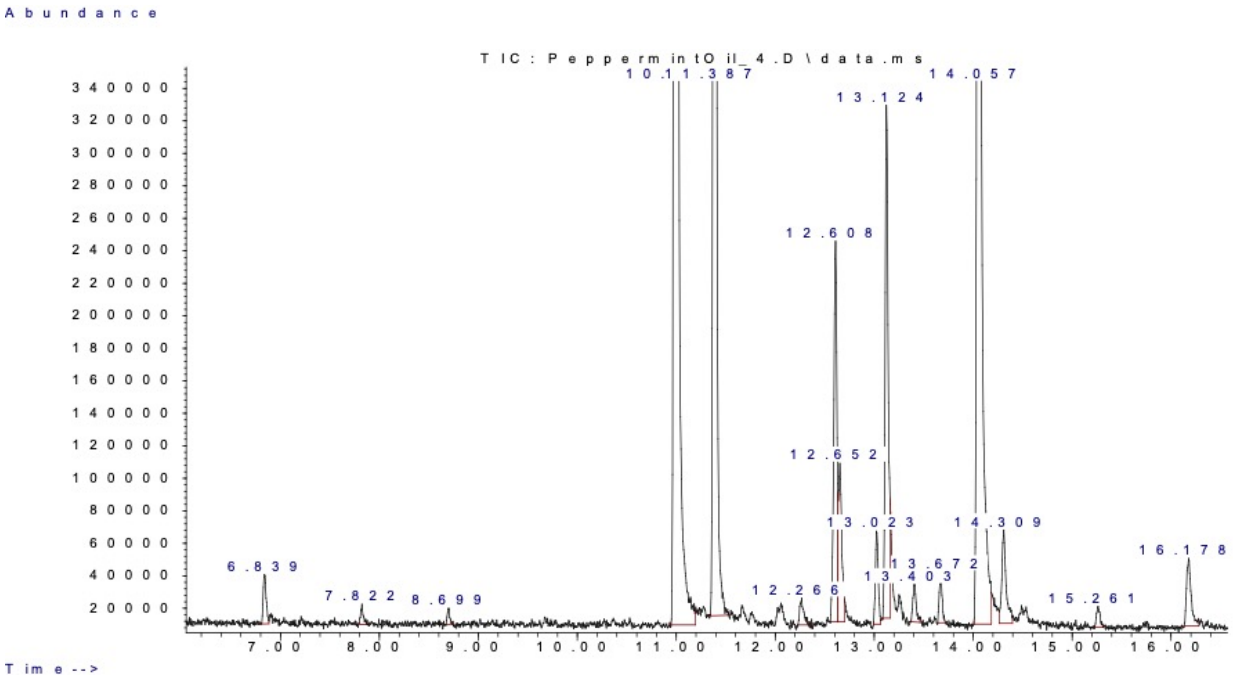
Supplementary Materials

Essential Oil GC-MS methodology

We prepared our headspace sample by placing one μL of undiluted peppermint essential oil in a 10.0 ml headspace vial and incubated the sample for 10 min at 30° C. A volume of 500 ul of headspace sample was injected into an Agilent 6890N/5973 Gas Chromatograph Mass Spectrometer system.

The GC initial oven program temperature was 40° C, held for 3 minutes, then ramped to 100C at 10° C/minute, then ramped to 130°C at 3C/min, and finally ramped to a final temperature of 250C at 30C/min and hold for 12 minutes. The total run time was 35 min. The injection was done in split mode with a ratio of 5:1. The column used was an Agilent DB-Wax column (P/N 122-7062) with a dimension of 60 m x 0.25 mm id and 0.25 μm film thickness. The carrier gas was Helium and set at a flow rate of 1.9 mL/min. The mass spectrometry analysis was run in electron ionization mode at 70eV with a mass scan range of 35-500. Mass spectra were match against Wiley 09/NIST 08 libraries.



Supplementary Figure 1: The representative chromatogram of headspace volatiles from a commercially available peppermint essential oil. Compound identification numbers correspond to retention times listed in Table 1.