

1 Coupled Gas Chromatography-Electroantennogram Recordings (GC-EAG).

To determine which volatile compound(s) in the plant extracts were detected by the carob moth, GC-EAD experiments were conducted. Whole 2- to 3-day-old mated female carob moths were mounted in a plastic pipet tip and the antenna was immobilized with a small strip of parafilm pressing the antennal base against the head. Electrical contact was made using silver wires inserted in glass micro-electrodes (GC150TF-10; Warner Instruments, Hamden, CT, USA) with insect Ringer's solution (9 g NaCl, 0.42 g KCl, 0.33 g $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$, and 0.20 g NaHCO_3 per liter). The recording electrode was inserted at the base of the antenna, and the reference electrode made contact with the (uncut) antennal tip. The amplitude of the EAG was measured using an IDAC-4 amplifier equipped with a high impedance ($> 10^9$ Ohm) head stage and captured with GC-EAD/2014 software (Syntech, Kirchzarten, Germany). A Carlo Erba GC8000 gas chromatograph, equipped with a septum-less *instantConnect* Grob Cold-On-Column injection module (Interscience, Breda, the Netherlands), was coupled to the EAG setup to deliver odour stimuli. A 2-m-long, 0.53-mm internal diameter retention gap (Phenomenex, Utrecht, the Netherlands) was connected with a glass pressfit (Techrom, Purmerend, the Netherlands) to a 30-m EC-5 column with 0.25 mm inner diameter and a 0.25- μm film (Fisher Scientific Pittsburgh, PA, USA). The effluent from this column was split using a 0.25-mm glass Deans switch (Techrom). The switch was controlled with N_2 and the pressure on both control inputs (30 kPa) was kept equal to create a 1:1 split ratio. The helium pressure over the analytical column was increased by the same 30 kPa to maintain an optimal linear gas flow (~ 30 cm/sec) in the column. The two outlets of the Deans switch were connected to sections of an 80-cm \times 0.25-mm-diameter deactivated capillary column (Phenomenex), one going to the standard flame ionization detector (FID) set at 250 °C, the other leaving the GC oven via a 30-cm-long heated transfer-line (Syntech,) set to 200 °C and transferred to the antenna. The capillary emerging from the transfer-line protruded through a 0.5 mm hole into a 1-cm-wide, L-shaped glass tube (Syntech) carrying a charcoal filtered and humidified air flow of 2 l/min to the preparation that was placed directly in front of the outlet. From each headspace collection sample, a sub-sample of 50 μl was reduced to 1 μl under a stream of N_2 and injected in the GC. The oven temperature program started at 60 °C (with secondary cooling on). The secondary cooling was switched off after 7 seconds and after 1 min, temperature went up with 10 °C/min to 240 °C.