

Supplementary Material

Table S1. Proportion and load viral (mean) of worker bees that were inoculated (I-DWV) with deformed wing virus variant A vs. non-inoculated (N-DWV) bees that responded to the pheromone compound benzyl alcohol versus air in the Y-tube test

| Bee age (days) | Pheromone (benzyl Alcohol) vs Air | | | | |
|----------------|-----------------------------------|------------|--------------------|--------------|-------------|
| | Status | Load viral | Response pheromone | Response air | No response |
| 5 | I-DWV | 8.73 | 0.33 | 0.30 | 0.37 |
| | N-DWV | 5.48 | 0.20 | 0.10 | 0.70 |
| 10 | I-DWV | 11.94 | 0.10 | 0.30 | 0.60 |
| | N-DWV | 4.61 | 0.53 | 0.10 | 0.37 |
| 15 | I-DWV | 12.17 | 0.13 | 0.14 | 0.73 |
| | N-DWV | 4.29 | 0.53 | 0.14 | 0.33 |
| 20 | I-DWV | 13.11 | 0.23 | 0.24 | 0.53 |
| | N-DWV | 4.14 | 0.60 | 0.10 | 0.30 |

Table S2. Proportion and load viral (mean) of worker bees that responded to the pheromone compound benzyl alcohol or *Mentha piperita* essential oil in the Y-tube test (A) when worker bees were inoculated (I-DWV) or non-inoculated (N-DWV) with deformed wing virus variant A

| Bee age (days) | Pheromone (benzyl alcohol) vs Essential oils | | | | |
|----------------|----------------------------------------------|------------|--------------------|---------------|-------------|
| | Status | Load viral | Response pheromone | Response E.O. | No response |
| 5 | I-DWV | 8.36 | 0.23 | 0.07 | 0.70 |
| | N-DWV | 5.56 | 0.27 | 0.16 | 0.57 |
| 10 | I-DWV | 11.44 | 0.20 | 0.07 | 0.73 |
| | N-DWV | 4.79 | 0.53 | 0.17 | 0.30 |
| 15 | I-DWV | 12.30 | 0.10 | 0.27 | 0.63 |
| | N-DWV | 4.99 | 0.50 | 0.33 | 0.17 |
| 20 | I-DWV | 58.24 | 0.07 | 0.26 | 0.67 |
| | N-DWV | 5.09 | 0.17 | 0.70 | 0.13 |