

Figure 1. Plants growing in the greenhouse and later used in the plant transmission experiment: red clover (A), white clover (B), and birds foot trefoil (C). Tent enclosures where bees were allowed to forage on plants (D).



A



Figure 2. Inside the flight enclosures. (A) Honey bee tent where infected honey bees foraged on plants. (B) One of two bumble bee tents where bumble bees were allowed to forage on plants either infected by honey bees or clean control plants.

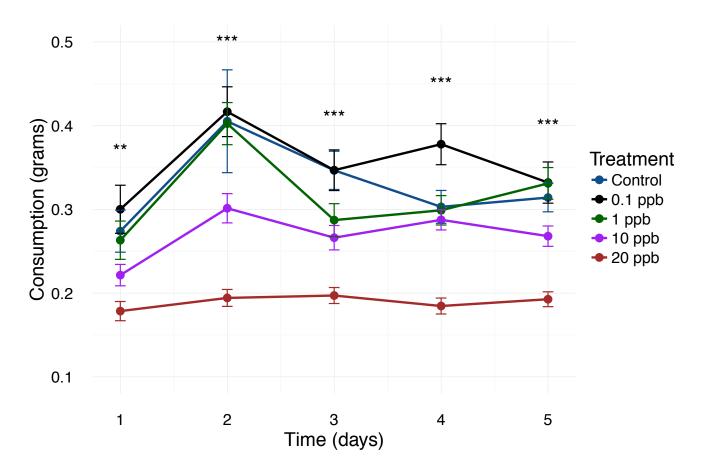


Figure 3. Sucrose consumption over 5 days of the imidacloprid pilot experiment. Bees received 30% sucrose inoculated with different concentrations of imidacloprid: 0.1, 1, 10, and 20 parts per billion (ppb). The control group received sucrose only. Bees in the 20 ppb group consumed less than the control each day. Bees in the 10 ppb group consumed less than the control on days 1-3. Results from this experiment indicate that bees in future experiments should receive less than 10 ppb to ensure they are receiving the pesticide exposure treatment. Asterisks represent statistical significance between groups at that time point.

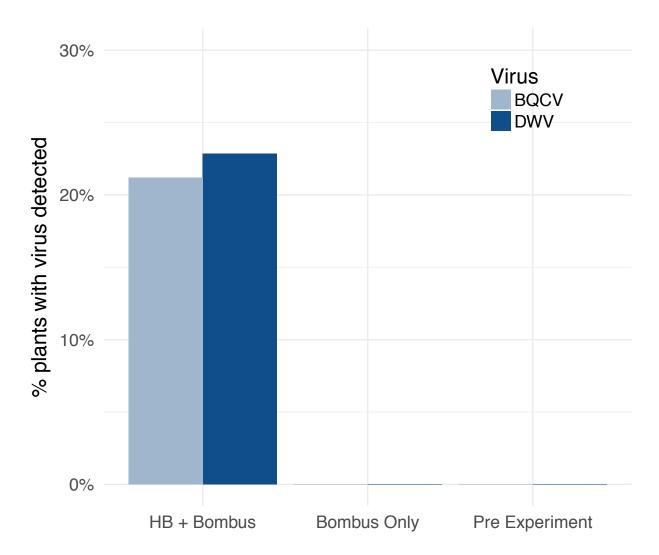


Figure 4. Percentage of plant samples with viruses detected: black queen cell virus (BQCV) and deformed wing virus (DWV) Plants collected prior the start of the experiment (Pre Experiment) were negative for viruses. Viruses were only detected on plants exposed to both honey bees and bumble bees (HB + Bombus). No viruses were detected on plants exposed to bumble bees only (Bombus Only).

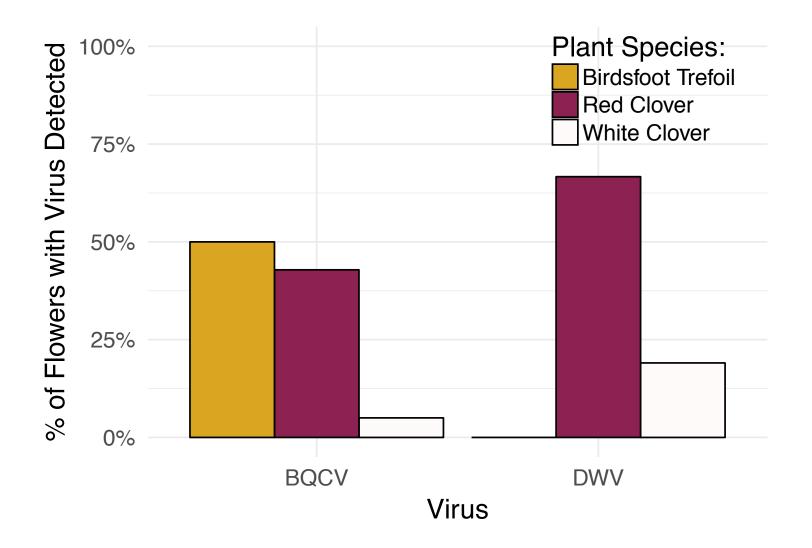


Figure 5. Percentage of all flower samples with viruses detected: black queen cell virus (BQCV) and deformed wing virus (DWV)