



Anastrepha fraterculus (Wiedemann) female preference for lemon and grapefruit peel volatiles

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Introduction

- The ability to locate and lay eggs in hosts that maximize survival and development of the offspring is determined, in part, by physical and chemical cues from the plant.
- Previous studies showed that *Anastrepha fraterculus* females are able to discriminate non-hosts like lemon (*C. limon* (L.) Burm.) from suitable hosts like grapefruit (*C. paradisi* Macfadyen).
- This ability is reflected in a difference in the number of eggs laid in each species in choice tests.

Objective

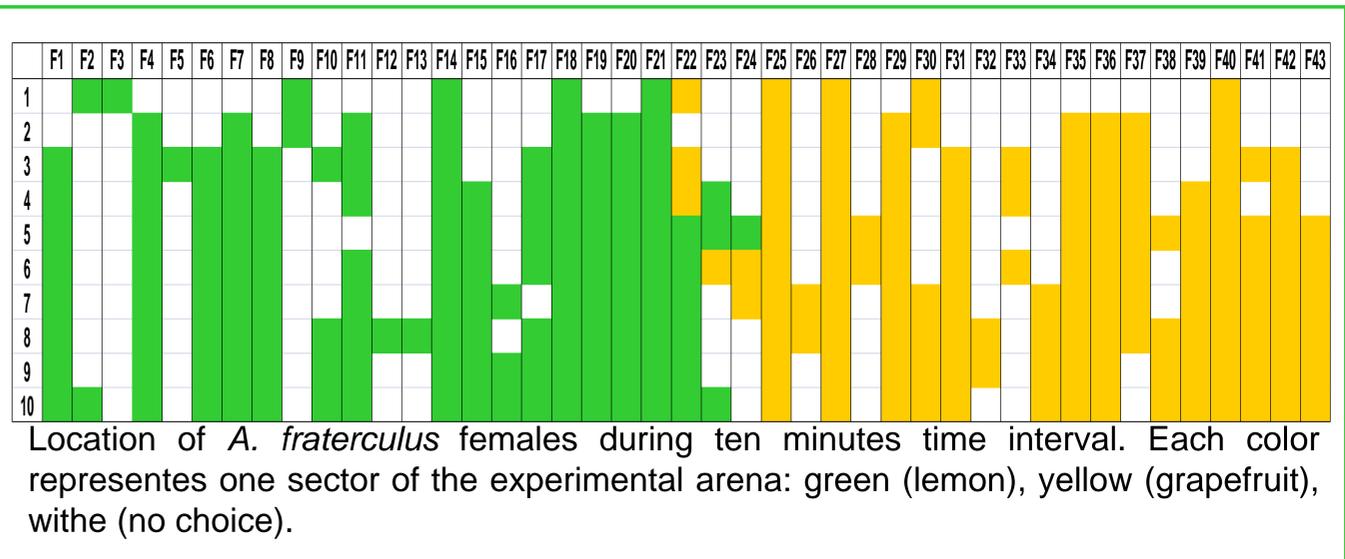
- To evaluate if mated *A. fraterculus* females use peel essential oils to discriminate between lemon and grapefruit.

Materials and Methods

- Laboratory females were evaluated in dual choice tests in a glass tube (50 cm length).
- At each end of the tube a filter paper with 5 µl of each essential oil (lemon or grapefruit) was placed and a female was released in the center of the tube.
- The location of the female was observed for 10 min after release.
- Areas of "choice" and "no choice" were defined inside the tube and the time spent in each area was recorded.

Results

- The time spent in each stimuli showed no statistically significant differences between lemon and grapefruit (paired samples Wilcoxon test) ($z = 0.23$, $p = 0.8182$).



Conclusions

- Based on these results we have yet not evidence to conclude that *A. fraterculus* females use cues from peel volatiles to discriminate lemon from grapefruit in their oviposition preference.

