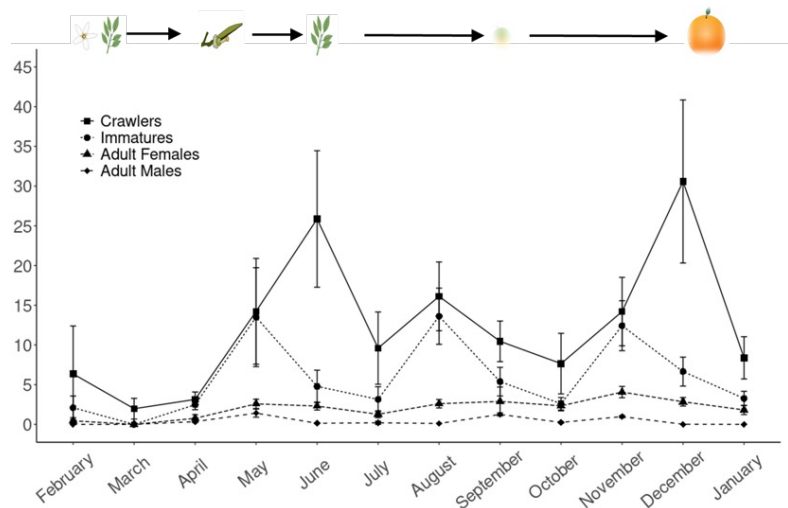


Lebeck Mealybug Seasonal Population Development

Researchers: Lauren M. Diepenbrock

Contact: Lauren M. Diepenbrock,
ldiepenbrock@ufl.edu

UF/IFAS CREC



Take Home Message:

- Lebeck mealybug populations are not tied to flush production.
- The majority of the lebeck mealybug population is in the juvenile stage, which is highly susceptible to most pesticides throughout the year.
- A systemic chemistry applied prior to fruit set can protect developing fruit.

Effort Statement: Population structure has been documented.

Summary: Lebeck mealybug populations were sampled in commercial citrus groves in Central Florida. Analysis of the seasonal trapping data provides trends now easily observable. Using these trends, we can make initial

recommendations. First, mealybug populations are not tied to flush cycles, so their management cannot be planned around peaks in flush production. Second, based on the observed trends, we believe that their population is more likely tied to climatic variables than citrus tree phenology. And of course, the availability of resources, like food and shelter, always support insect populations. Both of these are readily available in groves. However, without true winter periods in Florida, timing populations to temperature is not clearcut. We see populations growing during fruit set, which is also the time at which fruit are most vulnerable to damage from their feeding. While not quantified, growers that have known populations of lebeck mealybug and

who apply Movento® prior to fruit set have reported less fruit drop and visible damage from the mealybug.

By looking at the population structure, we see that the population is largely composed of crawlers and immatures throughout the year. These two life stages are susceptible to most chemistries and even many adjuvants, suggesting that chemistries applied for other pests including Asian citrus psyllid (ACP), citrus leafminer (CLM), Diaprepes, and rust mites throughout the remainder of the fruit production period should reduce the overall impact of lebeck mealybug by reducing the number surviving to reproductive maturity. This strategy should work for juice production, however increased management will be required for fresh fruit production.

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