Hedging Sugar Belle® to Reduce Soft Fruit Incidence

Researchers: John M. Chater, Jude W. Grosser, Fred G. Gmitter, Jr.

Contact: John M. Chater, jchater@ufl.edu

UF/IFAS CREC

Take Home Message:

- There was no evidence that hedging will mitigate the problem as needed.
- Thinning does not affect the soft and misshapen fruit disorder.
- Sugar Belle® was sold for juice and were spot picked fresh for gift boxes last season.

Effort Statement: We have included a new experiment with oxytetracycline injections per the growers' requests.

Summary: Citrus is one of the most important crops in the world, with an estimated economic impact nationwide of over $13 billion. Citrus production in Florida has been decimated by huanglongbing (HLB), which is vectored by the Asian citrus psyllid (ACP). Over the last several years, breeders have been working to select cultivars that fare better against HLB. Sugar Belle® is a scion that seems to have an observable level of HLB tolerance. While growers have planted out significant acreage of this variety, it has been reported that over the last two years they have been harvesting soft fruit that are not packable. This has caused losses for several growers of Sugar Belle®. Some of the first growers of Sugar Belle®, including the late Mickey Page, noticed effects of HLB on fruit and successfully mitigated this problem with tree hedging around bloom time. To revisit this method and evaluate its effect on soft fruit, an experiment was replicated at two sites, the UF/IFAS Citrus Research and Education Center; and a grower's Sugar Belle® grove in Avon Park, Florida. Three treatments were selected for this experiment: early hedging during bloom and petal fall; late hedging in May; and a control, no hedging. Manual hedging was performed around each data tree in entirety. Data being collected over two seasons includes yield per tree, fruit size, fruit growth curves over time, tree height, in-row and between-row canopy diameter, percent soft fruit incidence, Brix, titratable acidity, sugar acid, and trunk caliper. Hedging treatments will be repeated at the two sites next season. Future experimental chemical treatments that will be evaluated to mitigate soft fruit in Sugar Belle® will include foliar applications of 1-MCP and GA3 at different time points to determine if there is an effect on fruit softness with proper timing.

Funding:

UF IFAS UNIVERSITY of FLORIDA