



By Danielle
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Update on the cold-hardy citrus region

In North Florida and South Georgia, there has been a significant growth in citrus production due to the relatively mild winters, advances in freeze protection and cold-hardy citrus varieties. In addition to this, there is a relatively low incidence of the citrus greening pathogen and its vector, the Asian citrus psyllid.

Due to these factors, many growers have chosen to produce citrus to diversify their agricultural operations. Currently, there is an estimated 1,200 acres of citrus in North Florida and 4,000 acres

in South Georgia. The satsuma mandarin is the primary variety grown. Other varieties produced include navel and Hamlin oranges as well as Tango, Bingo and Shiranui mandarins. All citrus in the region is grown primarily for fresh market consumption.

A ROUGH WINTER

Although the region has experienced “relatively mild winters” in years past, this winter was not one of them and was truly a test for the area’s emerging citrus industry. Most notably, Winter Storm Elliott brought freezing

temperatures to the region Dec. 23–28. While the region has experienced freeze events before, none remained below freezing for as long as Winter Storm Elliott did. Temperatures remained between 17 and 20 degrees for over 11 hours and did not rise above 32 degrees for four to five days. Fortunately, though, most satsumas appear to have survived the freeze. Other varieties remain up for discussion and are still being evaluated.

Many growers finished harvesting satsumas right before Winter Storm Elliott arrived. Any fruit not harvested prior to the freeze was, of course, damaged and not marketable. Those trees with fruit



still on them at the time of the freeze appeared to suffer worse than those that were harvested. Most growers ran irrigation for freeze protection for four days and four nights, or longer, over the Christmas weekend and into the following week.

Several days after the freeze, trees shed their leaves (Figure 1). Growers saw anywhere from 60% to 100% leaf defoliation. As a stress response to the freeze, trees experienced an early first flush in the beginning of February, along with an early bloom in the beginning of March (about three weeks earlier than normal). To make matters worse, the region experienced two nights at or just below freezing in mid-March while some trees were in bloom and had newly expanded flush. There currently appears to be minimal fruit set, which was as expected after the winter growers experienced.

WORKING TOWARD RECOVERY

Despite all these challenges, growers are hopeful. At this point in time, their focus is on grove recovery and regenerating new, healthy foliage and reducing stress to trees. Many growers have pruned back dead wood and have begun their fertilization and pest management programs. Trees that clearly did not survive the freeze and/or suffered major damage have been removed. All in all, satsumas have proved their cold tolerance, but production in the region will be down for 2023. We’re hopeful the region will rebound and that 2024 will be a good year for growers. 🍊

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Figure 1. Post-freeze damage included leaf defoliation.