

# What is Causing that Greasy Green Color on My Grapefruit?

**Researchers:** Megan M. Dewdney, Mark A. Ritenour, Liliana M. Cano

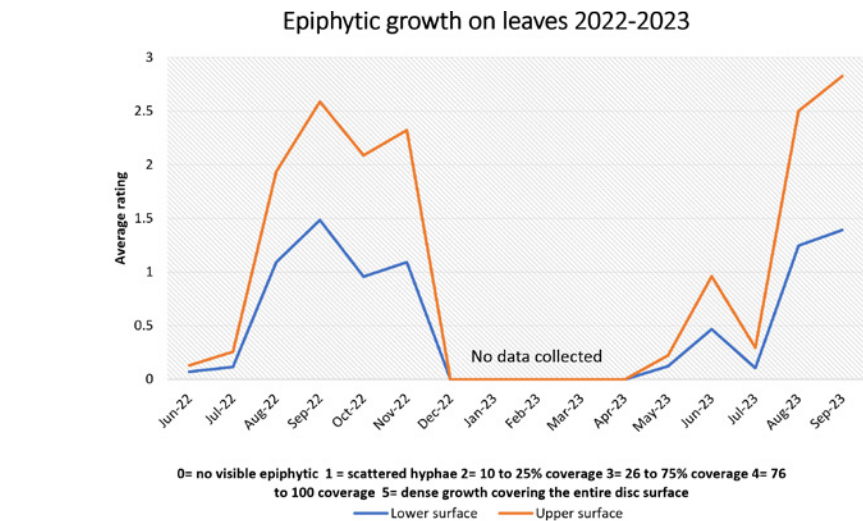
**Contact:** Megan M. Dewdney, [mmdewdney@ufl.edu](mailto:mmdewdney@ufl.edu)

UF/IFAS CREC

**Effort Statement:** A second year of leaf and fruit samples were collected and are being evaluated for fungal growth on the surface. A second season of degreening experiments were undertaken.

**Summary:** In the last few years, 89% of grapefruit growers have struggled with a disorder that they refer to as greasy-green, leading to losses between \$20,000 to \$1.7 million per year. The disorder causes the fruit to have large, diffuse green patches on the rind after degreening, making it no longer suitable for the fresh market. The disorder visually resembles rind blotch, caused by the fungus *Zasmidium citri-griseum* (formerly known as *Mycosphaerella citri*), but when the trees are observed, there are few symptoms on the leaves.

## Funding:



The cause of greasy-green remains unclear, but UF/IFAS started a project in Spring 2022 to determine if the *Z. citri-griseum* sporulation cycle was responding to changes in the host caused by huanglongbing (HLB), a warmer environment, or cultural practices. We will also be investigating possible physiological changes or burns of the fruit in response to newer pesticide and nutritional programs that are commonly used to combat the effects of HLB. Last season, flush and fruit growth stages were monitored. Fruit and leaf samples were taken at each observation date to observe whether spores were present and germinating or if there was significant fungal growth and will be matched with the flush data. No disease was observed on the leaves but there was disease on the fruit.

Post-harvest degreening trials were conducted. While degreening, with or without 24 hours at 38 °F, significantly improved peel color compared to just 38 °F or no treatment, a green color remained. Further experiments on the length of degreening time are being analyzed.

## Take Home Message:

- Despite leaf symptoms of greasy spot not being visible, we are able to detect *Z. citri-griseum* growth on the leaf surfaces.
- The infectious spores are produced in the leaf litter so it is suspected that the asymptomatic colonization/infection are enough to allow spore production.
- On fruit with severe greasy green, we observe more *Z. citri-griseum* spores and surface growth.