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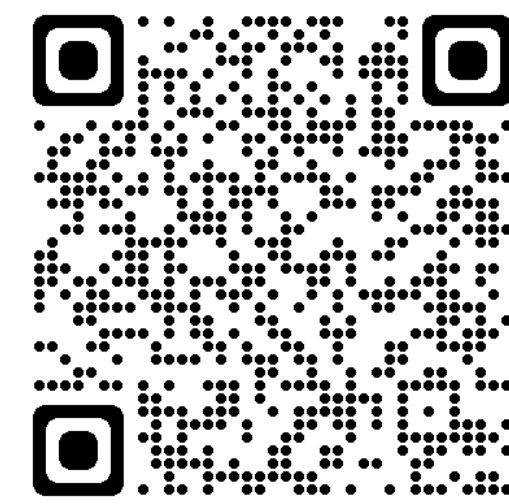
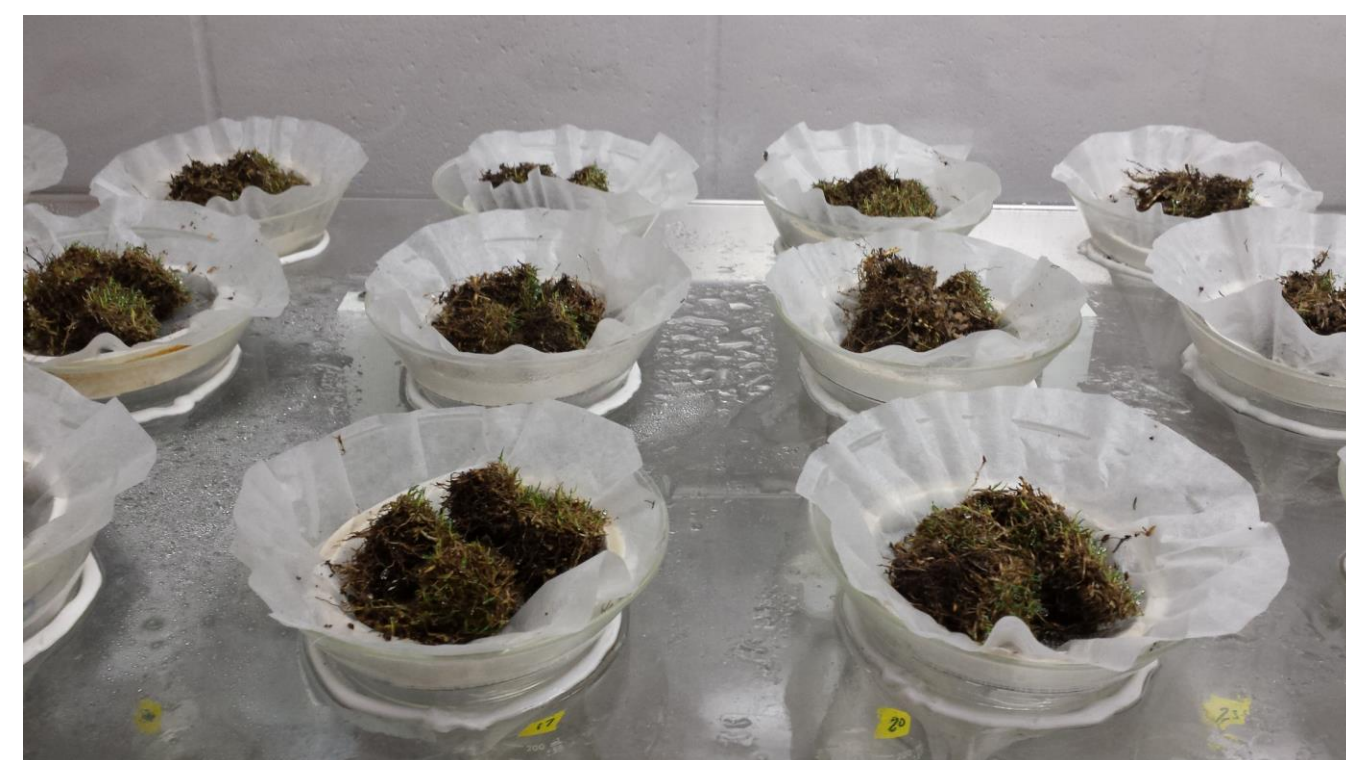
Abstract

The University of Florida plant diagnostic system comprises seven laboratories representing pathology, nematology, and entomology with all three disciplines co-located on the main campus in Gainesville and the others at research and education centers from the Panhandle to the southern tip of the state. Ranging from temperate to subtropical, Florida's climate encourages a wide variety of crops as well as pests. Several of the labs can receive samples from out of state and the main pathology lab receives samples from international clients as well, giving our diagnosticians experience with crops and pests from abroad before they make their way to US shores. This poster provides highlights and developments from the Tropical Research and Education Center in Homestead, the Plant Diagnostic Center and Nematode Assay Lab in Gainesville, the Gulf Coast Research and Education Center in Wimauma and the North Florida Research and Education Center in Quincy. This year included new crops like hemp and vanilla, old foes like citrus greening and laurel wilt, and common adversaries such as *Tomato spotted wilt virus* and root-knot nematode. It was a busy year with thousands of samples, new people joining the team, increasing molecular capabilities, new nematode thresholds and sampling procedures, first reports, research papers, extension publications, and workshops.

Nematode Assay Lab

>6000 samples per year

New mist chamber extraction method for diagnosing root-knot nematodes from warm-season turf and new risk thresholds

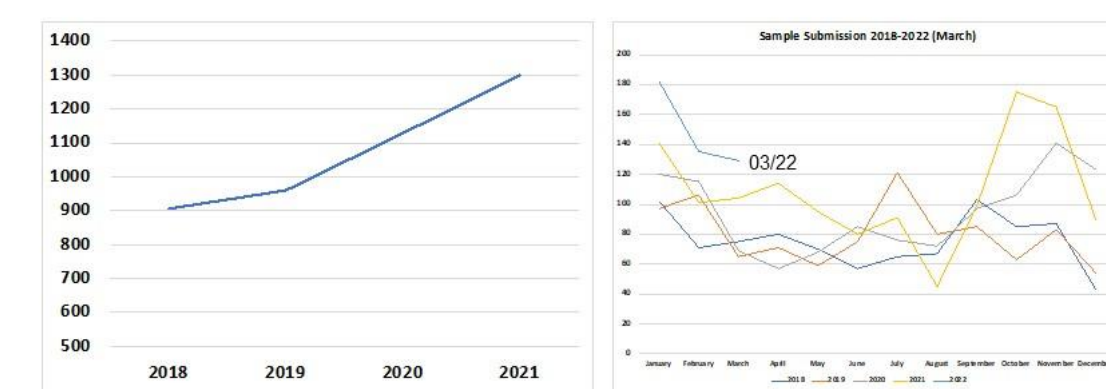


New risk thresholds for lance nematodes on warm-season turf



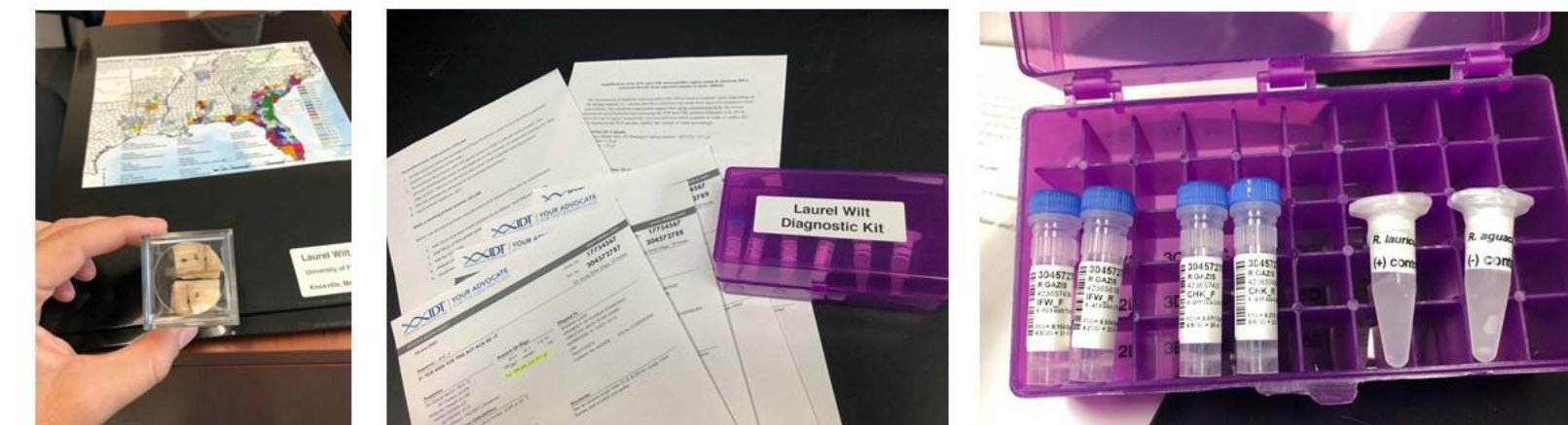
Tropical Research and Education Center

1. Sample submission increasing every year. 2021: 1300 samples!



New logo and twitter

2. Laurel Wilt Disease educational material and detection kit available!



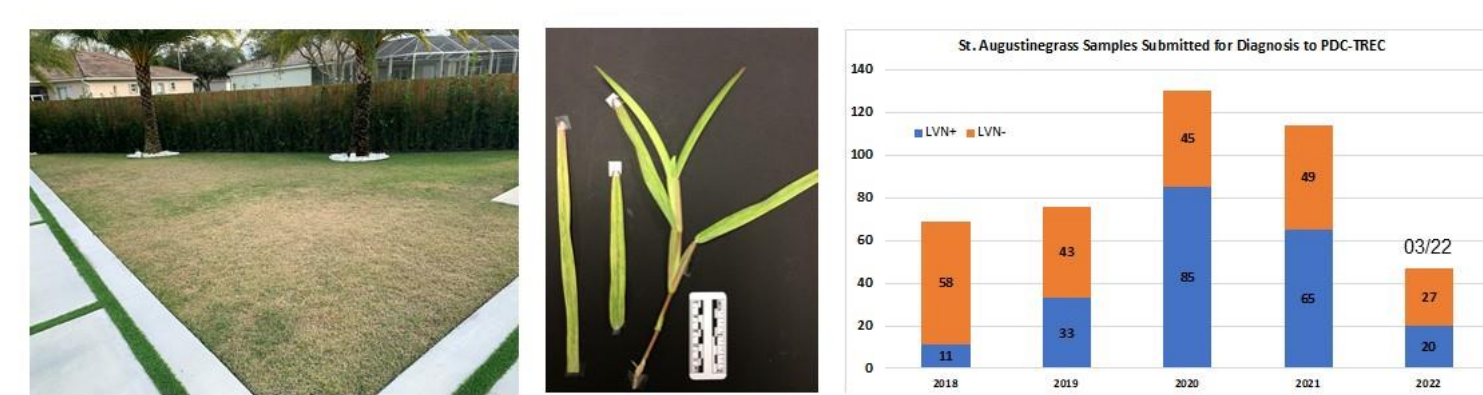
Diagnostic Guide

3. Monstera rust disease under investigation!



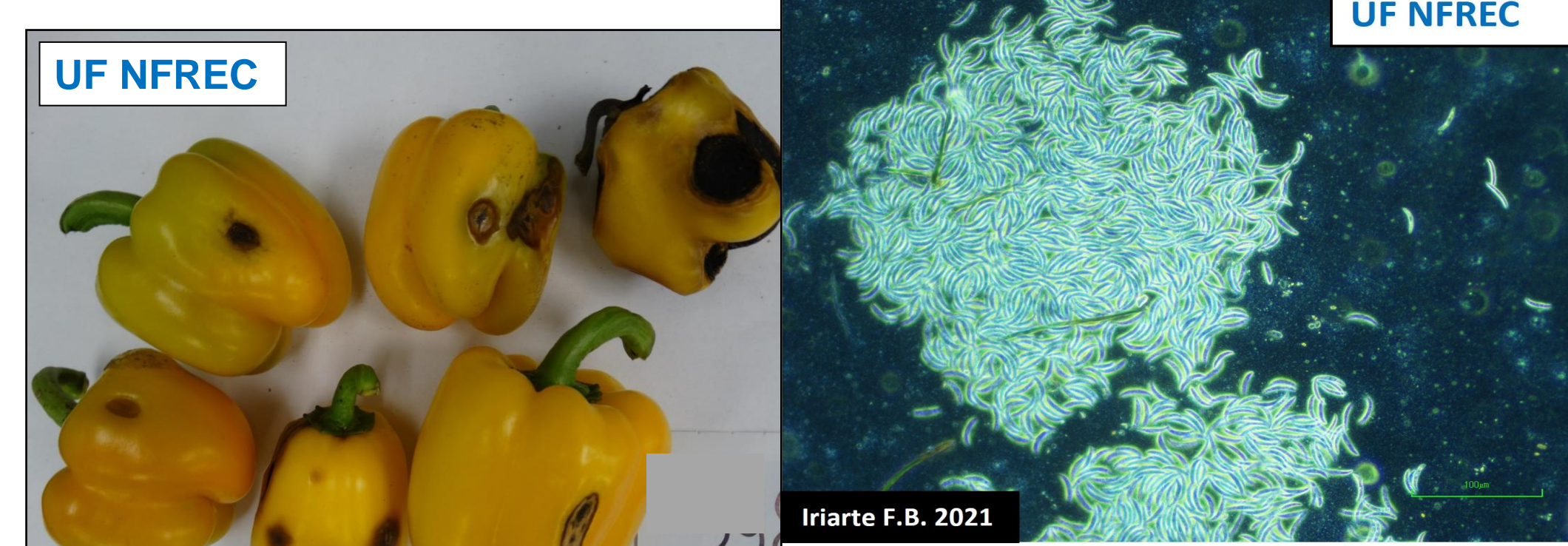
Disease Note in progress

4. Lethal Viral Necrosis on St. Augustine "Floratam" grass on the rise!

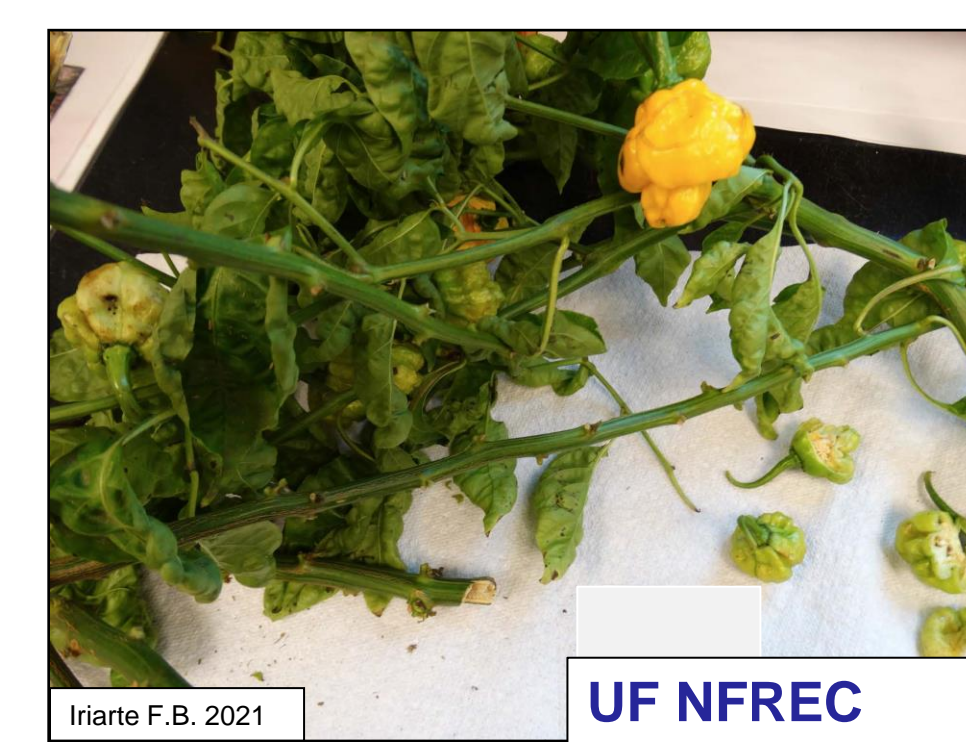


Lethal disease (caused by SCMV) spreading through SoFL

North Florida Research and Education Center



Pepper – Anthracnose
Colletotrichum capsici.



Scotch bonnet pepper TSWV



Carrot Southern Blight
Athelia rolfsii

Gulf Coast Research and Education Center

• 615 samples in 2021

• 3 first reports published:

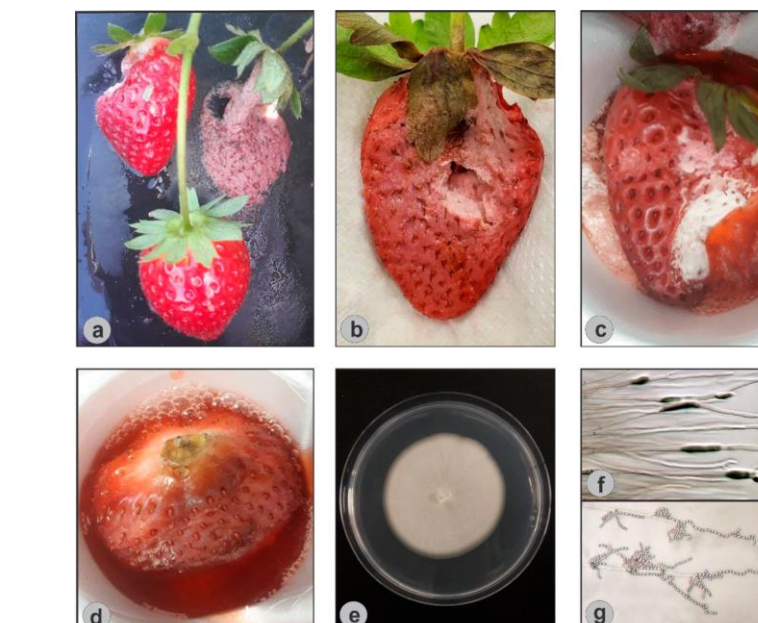
• Sour rot of strawberry caused by *Geotrichum candidum*
<https://doi.org/10.1094/PDIS-05-20-0936-PDN>

• *Diaporthe phaseolorum* causing stem canker of hemp
<https://doi.org/10.1094/PDIS-06-20-1174-PDN>

• *Botrytis cinerea* causing leaf spot on strawberry
<https://doi.org/10.1094/PDIS-05-21-1082-PDN>

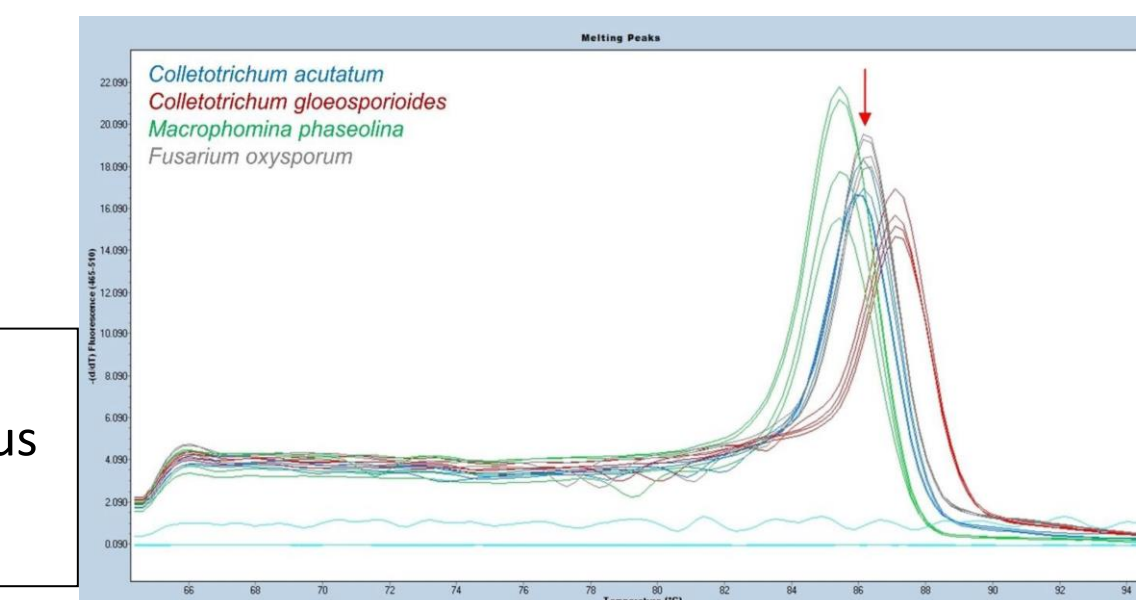


Hemp stem canker, caused by *Diaporthe phaseolorum*



Sour rot symptoms on strawberry fruit, and morphological characteristics of the fungus

• High-resolution melting analysis implemented as regular service for rapid diagnosis of strawberry samples:



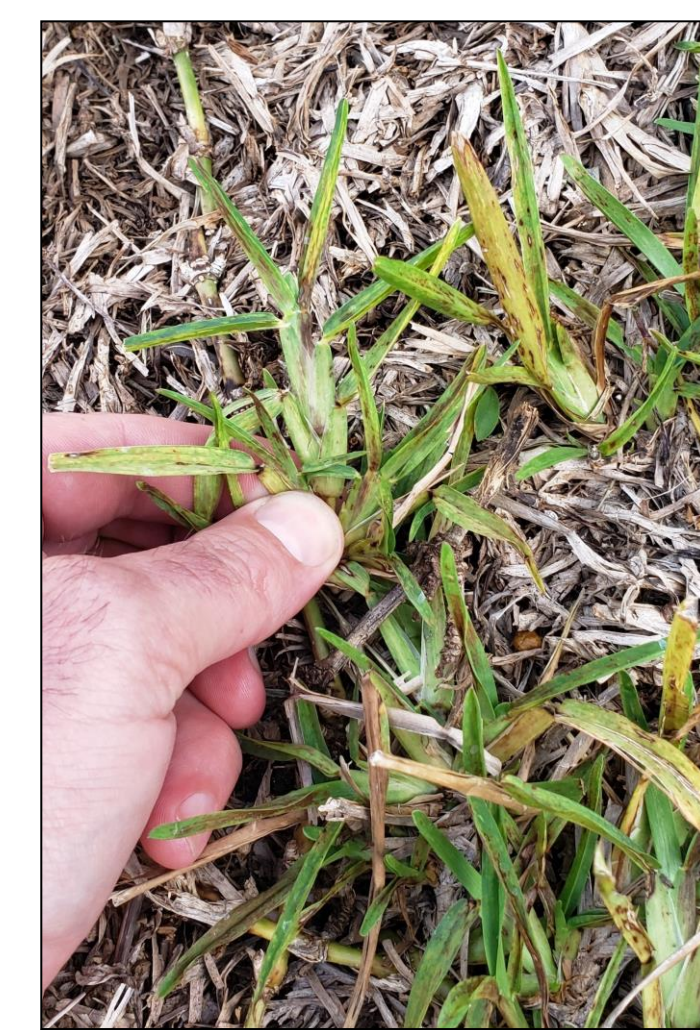
Melting peaks of strawberry crown rot pathogens and a common soilborne fungus (*Fusarium oxysporum*, red arrow)
<https://doi.org/10.1094/PHYTO-12-20-0556-R>

Rapid Turfgrass Diagnostic Service

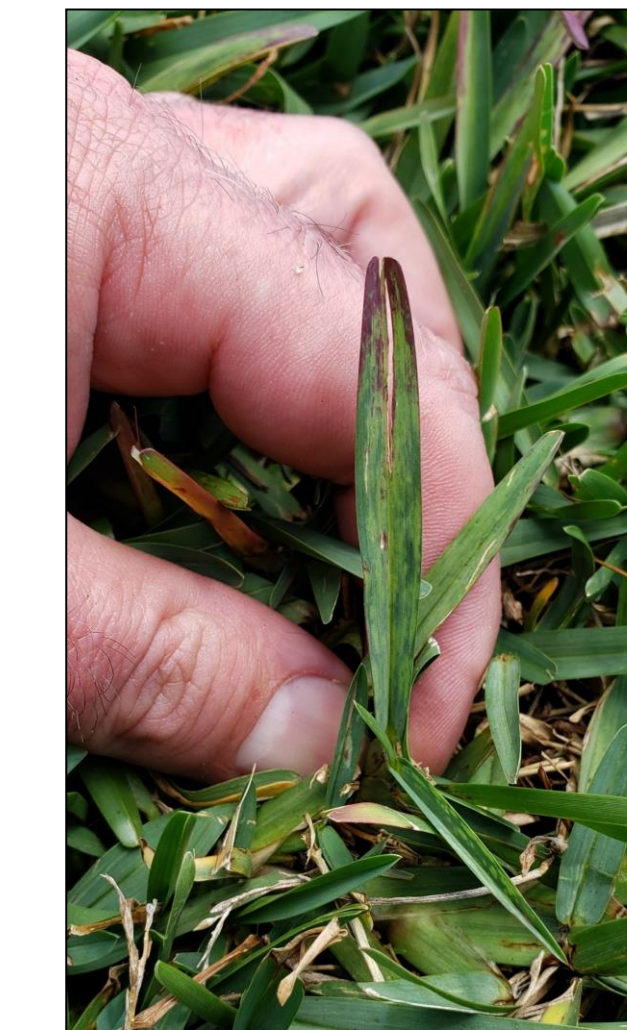
• 772 samples in 2021

• International samples

• Increase in SCMV samples



Lethal viral necrosis syndrome associated with "Floritam" St. Augustinegrass and *Sugarcane mosaic virus*



Mosaic disease on CitraBlue St. Augustinegrass caused by *Sugarcane mosaic virus*



Rhizoctonia solani



Microdochium sp.

Plant Diagnostic Center (hub lab, Gainesville)

• 2100 Samples in 2021- 41% palms



Pyricularia sp. on Canna lily



Rust on Seagrass



New fungus (in Cystostereaceae) on Privet



Herbaspirillum sp. on Boston Fern

Funding

USDA-NIFA award # 2021-37621-35791

UF-IFAS plant diagnostic clinical service fees

