

Lethal Viral Necrosis (LVN)

of 'Floratam' St. Augustinegrass
UF/IFAS Palm Beach County



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Impact: Lethal viral necrosis poses a major threat to Palm Beach County landscapes, the third-largest county in Florida, with 1.5 million residents and 720,741 housing units. 'Floratam' St. Augustinegrass, is the most widely used turfgrass in the area, and is highly susceptible to this disease.

Overview

The condition of Lethal viral necrosis (LVN) is caused by the sugarcane mosaic virus (SCMV) and was initially detected in 2014 in western Boynton Beach and Wellington, Florida. Since then, it has spread widely across Palm Beach County and a few other counties in Florida. While the first confirmation of the disease in Florida occurred in the southern tip of St. Petersburg, in the Tampa Bay Area, its spread has been relatively limited there compared to the more aggressive pattern of expansion observed in Palm Beach County.

The 'Floratam' cultivar of St. Augustinegrass was introduced in the 1970s because of its favorable characteristics, including its resistance to another turf virus known as St. Augustinegrass decline virus.

Virus Symptoms

- Yellow, elongated spots on leaves
- Dead, elongated spots on leaves

Susceptibility and Transmission

Named for its lethal effects, LVN impacts the 'Floratam' cultivar of St. Augustinegrass and other cultivars with 'Floratam' genetics., often resulting in death within three years of symptom onset. The virus can spread through infected grass sap via mechanical transmission (i.e., mower wheels) or biologically by aphids that can be moved by wind. It is not transmitted through the soil.

Symptoms are most pronounced during the fall and winter months, typically beginning as early as September when cooler temperatures (below 65°F) hinder vigorous lawn growth. However, symptoms may remain concealed during the summer months when turf growth is more active, particularly in the first year or two after infection.

There is no cure for SCMV or LVN.

- Unhealthy yellowish or bronzish tinge and/or dead lawn
- Often excessive weeds



Early-stage symptoms



Later-stage symptoms



SCMV-induced yellowing on 'Floritam' St. Augustinegrass.
Photo Credit: UF Schall

What Can You Do?

If you suspect your turf is infected with LVN, send a turf sample to the UF Plant Pathology Lab for a diagnosis.

- Directions on how to take a sample: [SCMV/LVN Collection and Submission Guidelines](#)
- Sample Submission Form: [SCMV in Turfgrass Sample Submission Form](#)

Management

There is no pesticide cure for LVN in 'Floritam'. The virus cannot be transmitted through the soil; living tissue or moist plant sap must be involved.

Management includes

- Sanitize mowing equipment after LVN-infected turf is cut.
- If possible, avoid mowing when the grass is wet. Water keeps the plant sap moist longer.
- Promote the healthiest growth possible with the best management practices for fertilization, watering, mowing height (3.5 – 4 inches), and fungal management. See <http://edis.ufl.edu/lh010>
- Re-sod with recommended varieties to replace dying 'Floritam'.
- If desired, overseed in the winter with annual or perennial ryegrass or colorized with turf dye when the "Floritam" may look its worst.
- Reduce the lawn size by incorporating more landscape beds with Florida-friendly plants. See the Florida-Friendly Landscaping™ Plant Guide: [Plant Guide – Florida-Friendly Landscaping™ Program – University of Florida, Institute of Food and Agricultural Sciences – UF/IFAS ufl.edu](#)

Recommended Varieties of St. Augustinegrass for South Florida

Currently, 'Palmetto' and CitraBlue' are the top recommended replacement cultivars for St. Augustinegrass in Palm Beach County based on resistance to LVN and availability. 'Bitterblue' is no longer suggested due to uncertainty regarding its genetic background similarities with 'Floritam'. While other St. Augustinegrass varieties show resistance to the virus, they may be more suitable for different regions of the state. Lethal viral necrosis can be spread to Bermuda grass, paspalum, bahiagrass, and various commercially available St. Augustinegrass varieties, albeit, without causing death. Zoysiagrass remains unaffected by the virus but presents its own fungal and insect management challenges. Lethal viral necrosis weakened 'Floritam'. Leading to additional issues such as Take-all root rot and weed infestation. Primary management options include avoidance and planting resistant turf species or St. Augustinegrass cultivars.

For additional information, contact the Palm Beach County Master Gardener Volunteer Help Desk at 561.233.1750 or email MasterGardener@pbc.gov.