

# HOMES

## New disease of St. Augustinegrass identified

*This was developed from the University of Florida publication: "Mosaic Disease of St. Augustinegrass Caused by Sugarcane Mosaic Virus" (<http://edis.ifas.ufl.edu/pp313>, Dec. 11) and distributed by Rebecca L. Jordi, Nassau County Extension Director/Horticulture Agent III*

We may be looking at another disease in St. Augustinegrass called Mosaic disease of St. Augustinegrass. This disease was first reported in the 1960s in sugarcane producing areas of Florida (rural Palm Beach County).

The name "mosaic" comes from the mottled look of the grass blades, which are characteristic of viral diseases. Several cultivars of St. Augustinegrass were able to develop a resistance to the disease and consequently we have seen little of the disease in Florida over the last 50 years. Because the mildest cases of the disease produce symptoms that are easily overlooked, it therefore did not cause much concern. Surveys were conducted and a statewide survey in the 1970s did not find the virus in St. Augustinegrass in central or north central Florida. In the 10 years prior to 2013, fewer than five samples with mild symptoms were brought to the attention of the Extension turfgrass pathologist at UF.

Mosaic viral disease symptoms occur on many plants and generally the symptoms will show as blotchy or streaky patterns of yellow and green color. Grasses showing mosaic symptoms tend to have broken yellow streaks running between veins on an otherwise green blade.

In 2013, an outbreak of the disease occurred in Pinellas County. Leaf symptoms included mosaic, but turned necrotic and developed into severe dieback, resulting in a completely killed lawn. The dieback and necrosis started

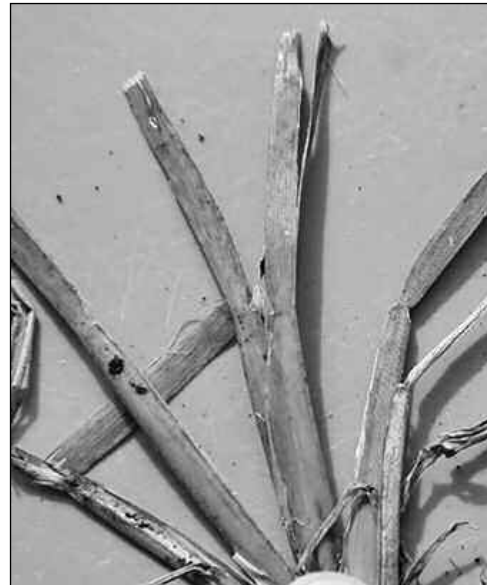
in the fall of the year (September to October) and progressed through spring, when some lawns started to recover.

In 2014, the same pattern occurred in two counties. Lawns infected in 2013 and additional lawns started dying in September in both Pinellas and Palm Beach counties. Symptoms were similar to another viral disease of St. Augustinegrass called St. Augustinegrass decline (SAD, caused by Panicum mosaic virus), but as of November, samples sent to the UF/IFAS Extension Plant Diagnostic Center have tested negative for SAD and positive for presence of Sugarcane Mosaic Virus (SCMV). SAD is not known to occur in Florida.

SCMV can be efficiently transmitted by mechanical methods, which means lawn mowers, line trimmers and other equipment can transfer virus from lawn to lawn. It is possible aphids could transmit the virus but we currently have no concrete evidence they are vectors of the disease. It is also possible the virus is spread on infected sod when the symptoms are mild and the disease not obvious. Sod with SCMV should not be used but it is easy to see how it could be planted in a yard without knowing the disease is present.

At this point, our best management tool is to plant sod that is resistant to the virus. Within the last two years, Floratam St. Augustinegrass appears to me the most susceptible and this cultivar ultimately dies. Palmetto and Bitterblue have shown some resistance although they do get the disease.

There are additional considerations and challenges with these cultivars (see <http://edis.ifas.ufl.edu/lh010>). The susceptibility of most other varieties is currently unknown. The virus has been



reported to infect grasses in Cynodon (bermudagrass), Paspalum (seashore paspalum and bahaiagrass), Pennisetum (ornamental fountain grasses), and Stenotaphrum (St. Augustinegrass) genera; however, mosaic is currently only a concern on St. Augustinegrass in Florida. Zoysiagrass is not known to be a host of this virus.

When resodding lawns with mosaic disease, follow UF/IFAS guidelines for post-installation care

(<http://edis.ifas.ufl.edu/lh013>) and choose a variety other than Floratam. Lawns also could be plugged with a less susceptible variety, but it would need to outcompete the Floratam during the spring and summer season.

To minimize disease spread in areas where the virus occurs, mowers and other equipment should be sanitized between properties. Remove clippings and any other plant material and then spray down parts that have the

potential to transfer plant sap using dilute bleach, quaternary ammonia (Greenshield), alcohol or another sanitizing agent according to the directions.

Fungicides and other pesticides are ineffective and cannot stop development or spread of this viral disease. Also, there are no known agronomic inputs that homeowners or lawn care companies can use to cure a lawn once it has become infected. The disease severity, which ranges

Since there is no effective treatment of the Mosaic Virus in St.

Augustinegrass, the best management tool is to plant sod that is resistant to the virus, such as Palmetto and Bitterblue St. Augustine cultivars. Floratam St. Augustine grass appears to me the most susceptible to MCSV and this cultivar ultimately dies, top left. Severe damage caused by the Mosaic Virus is indicated by necrotic blades and severe dieback, far left. Grasses showing mosaic symptoms tend to have broken yellow streaks running between veins on an otherwise green blade, left.

PHOTOS COURTESY OF THE UNIVERSITY OF FLORIDA

from yellowing to death, will vary from lawn to lawn by variety of grass and by other environmental factors not well understood at this time. One potential complicating factor is that lawns with mosaic may also suffer from fungal diseases, but it is not known what impact one disease has on the severity of the others. Managing fungal diseases on lawns with mosaic has not been observed to impact development of the viral disease.

Mosaic is just one of many diseases that may be causing problems on a lawn. To confirm the virus and other diseases, submit a sample to a UF/IFAS Plant Diagnostic Center (<http://plantpath.ifas.ufl.edu/Clinic/index.shtml>). Manage other diseases through proper agronomic inputs and practices according to IFAS recommendations for your area. Check the Rapid Turfgrass Diagnostic Service Facebook page (<https://www.facebook.com/RapidTurfgrassDiagnosticService>) for up-to-date information on the spread of the epidemic.