



College of Agriculture,
Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

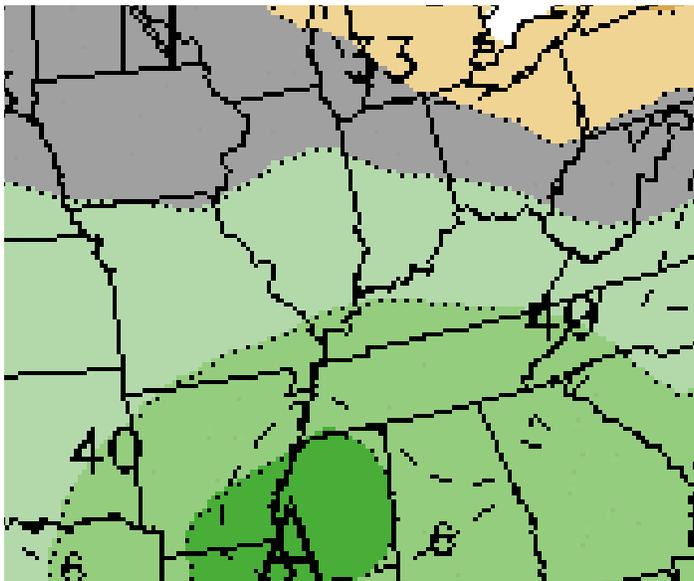
End of May 2019

Warmer and Wetter Than Average Weather for June

Despite the high pressure system bringing cooler air through the Ohio River Valley over the weekend and into the next week, the long range outlook for June and the summer in general predicts warmer and wetter than average weather, in comparison with the 30 year averages (1981-2010) for June.

This trend of warmer and wetter than average weather is forecast to continue through the summer.

See [UKAg Weather's Long Range Outlooks](#) for a variety of forecasts of temperature and precipitation probabilities.



June 07-13, Precipitation Probability
Image: NOAA Climate.gov, 30 MAY 2019

Nursery Crops Extension & Research Team

Winston Dunwell
Extension Professor
270.365.7541 x209

Dewayne Ingram
Extension Professor
859.257.8903

Joshua Kight
Extension Associate
859.257.0037

<https://NCER.ca.uky.edu/>

Joshua Knight, Managing Editor

- **New Extension Associate for Nursery Crops Hired**
- **Japanese Maple Scale in Kentucky Nurseries**
- **Anthracoze Diseases on Shade Trees**

New Extension Associate for Nursery Crops Hired

Joshua Kight, Extension Associate, Nursery Crops

Joshua Kight joined the University of Kentucky Department of Horticulture as the Extension Associate for Nursery Crops on April 29th and is based in Lexington. His duties will include consulting with nursery growers or farmers wishing to diversify into the nursery industry as well as working with more established growers. He will organize field days, educational workshops and develop educational resource materials. He will also conduct research trials as part of the Kentucky Horticulture Council grant-funded work at the UK Horticulture Research Farm.

Joshua grew up in a small town near Auburn, Alabama. After a four-year enlistment with the United States Coast Guard, he completed his B.S. degree in Horticulture - Nursery Management and Greenhouse Production at Auburn University. He met his wife, a Kentuckian attending the Auburn Veterinary school, while at Auburn. After graduation they moved to Versailles, Kentucky.

His work experience in Kentucky's green industry has given him valuable experience in areas of nursery and greenhouse management, grounds maintenance and thoroughbred farm horticulture management. He looks forward to the challenges of this extension position and building on his horticulture knowledge.



Joshua Kight, Extension Associate for Nursery Crops

Image: University of Kentucky Extension

Joshua's position is funded by the Kentucky Horticulture council through a grant from the Kentucky Agricultural Development Fund. He can be reached at jdk228@uky.edu, or 859-257-0037.

Japanese Maple Scale in Kentucky Nurseries

Joshua Kight, Extension Associate, Nursery Crops

Introduced in the early 20th century, Japanese Maple Scale (JMS) is an armored scale. JMS being an armored scale is what makes it hard to control. It can thrive in nursery field production and container production due to the closeness of ideal hosts. If JMS is not identified and left untreated there is the potential for huge crop failures due to the reproductive cycle of the scale. A single female and single male can spawn millions of new scale in just three years.

JMS is a very successful pest. The main reason is that it has a wide host range, that allows it to spread easily in nurseries. The range of hosts includes, but may not be limited to: *Acer*, *Camellia*, *Carpinus*, *Cercis*, *Cladrastis*, *Cornus*, *Cotoneaster*, *Euonymus*, *Fraxinus*, *Gledistia*, *Hamamelis*, *Ilex*, *Itea*, *Ligustrum*, *Magnolia*, *Malus*, *Oxydendrum*, *Prunus*, *Pyracantha*, *Pyrus*, *Rosa*, *Salix*, *Spirea*, *Stewartia*, *Styrax*, *Syringa*, *Tilia*, *Ulmus*, *Zelkova*. Due to its host range, other woody ornamentals may also become infested.

Scouting is extremely important for JMS. JMS is small, 1-2mm long and off white in color. JMS can be hard to find on trees or shrubs with light colored or mottled bark. This makes it very easy for JMS to get missed while scouting. In warmer climates the scale could have 2 generations a year versus 1 generation in colder climates.

Dr. Karla Adesso of Tennessee State Otis L. Floyd Nursery Research Center has conducted research that has shown JMS to have two generations per year in middle Tennessee. Kentucky has very similar climate to central TN. It is quite possible that Kentucky could see two generations a year. This makes it important to stay update on scouting nursery crops as early detection is crucial to control of JMS.



Figure 1. Japanese Maple scale left untreated.

Image: Tennessee State University

Here are articles on the identification and control of JMS for more details:

Tennessee state: [ANR-ENT-01-2015](#)

University of Tennessee: [UT Extension W277](#)

University of Maryland Extension: [FS-967-2013](#)

Anthracnose Disease on Shade Trees

Nicole Ward Gauthier, Extension Professor, Plant Pathology
Kim Leonberger, Extension Associate, Plant Pathology

The term anthracnose refers to the dark blotching (necrotic) symptom common to these diseases. When expanding leaves are affected, leaf distortion frequently results (Figure 1). Defoliation (leaf drop) often occurs during severe infections. The disease is generally not fatal, and a new flush of foliar growth immediately follows defoliation on some tree species. Causal fungi may also infect twigs and branches resulting in cankers that girdle stems (Figure 2).

Symptoms

The fungal pathogens that cause anthracnose diseases are quite host-specific, meaning that the anthracnose pathogen on oak will not infect ash, etc. Symptom appearance and severity differ with each host and with climatic conditions.

Ash anthracnose: Common symptoms include brown blotches along leaf edges. Leaf drop often results, and then new leaves soon emerge. Causal fungus: *Discula umbrinella*.

Maple anthracnose: Symptoms begin as leaf spots and may progress into shoot blight and shoot cankers. Leaf spots with brown, somewhat angular symptoms may be confused with tar spot (spots are round and black). Symptom development and susceptibility vary with tree species, but lesions often follow veins. Causal fungi: *Discula* sp. and *Kabatiella apocrypta*

Oak anthracnose: Not commonly observed in Kentucky. Irregular brown spots develop on leaf tips and along veins. Causal fungus: *Apiognomonia quercina*.

Sycamore anthracnose: Young, expanding leaves develop irregular dark, necrotic blotching centered along leaf veins or edges. These dark blotches may turn tan-colored as the diseased areas of leaves dry out. Blighting of twigs or shoots may follow. Trees produce new foliage rather quickly, but affected branches may remain crooked (lateral shoots become dominant when terminals are killed). Also affects London plane tree. Causal fungus: *Apiognomonia veneta*.



Figure 1. Symptoms of anthracnose on shade trees include dark blotches and leaf distortion

Photo: Nicole Ward Gauthier, University of Kentucky



Figure 2. The fungal pathogens that cause anthracnose may also infect twigs and branches. Resulting cankers girdle affected branches

Photo: John Hartman, University of Kentucky

Continued on next page...

Management

For most trees, anthracnose disease is not lethal. However, repeated defoliation can be stressful to trees. Additionally, persistent rains and disease spread can lead to infection of twigs and branches. Good cultural practices are important to reduce disease:

- Select a planting site with a sunny eastern exposure to promote rapid foliage drying early in the day.
- Rake and destroy fallen leaves, as they can be a source of inoculum (fungal spores). Do not compost.
- Remove dead twigs and branches, as fungi can overwinter in dead wood.
- Reduce plant stress when possible.
- Avoid wounding, such as bumping with mowing equipment and making jagged pruning cuts.
- Maintain mulch 2 to 3 inches thick over the root zone and beyond the drip line (not against the trunk) to help maintain soil moisture and to protect trees from lawnmower injury.
- Protect trees from drought. Water at least once a week during hot, dry months using soakers or drip irrigation. Avoid overhead sprinklers; wet foliage favors sporulation and infection.
- Diagnose and treat insect and disease problems as soon as possible.
- Fungicides are often not recommended. They can be costly and it is difficult to effectively cover large trees. Commercial nurseries, on the other hand, should protect trees with fungicides.

Resources

Shade Tree Anthracnose (PPFS-OR-W-23)

<http://plantpathology.ca.uky.edu/files/ppfs-or-w-23.pdf>

Landscape Sanitation (PPFS-GEN-04)

<http://plantpathology.ca.uky.edu/files/ppfs-gen-04.pdf>

Considerations for Diagnosis of Ornamentals in the Landscape (PPFS-GEN-15)

<http://plantpathology.ca.uky.edu/files/ppfs-gen-15.pdf>

Woody Plant Disease Management Guide for Nurseries and Landscapes (ID-88)

<http://www2.ca.uky.edu/agcomm/pubs/id/id88/id88.pdf>

The University of Kentucky's **Nursery Crop Extension Research Team** is based out of two locations across the bluegrass to better serve our producers.

The **University of Kentucky Research and Education Center (UKREC)** in **Princeton** serves western Kentucky producers while our facilities and personnel on main campus in **Lexington** serve central and eastern Kentucky producers.

Check out our [YouTube Channel!](#)

Contact Us

Western Kentucky

UK Research & Education Center
1205 Hopkinsville Street
P.O. Box 496
Princeton, KY 42445
270-365-7541

Central / Eastern Kentucky

UK Main Campus
Horticulture Department
N-318 Ag. Science Center North
859-257-1273

Visit us on the web at

<https://NCER.ca.uky.edu/>

An Equal Opportunity University | University of Kentucky, College of Agriculture