

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

End of July 2018

Cool Start to August, Overall Warmer Than Average

Early August shows a high probability of cooler than average temperatures, especially southwestern Kentucky. After the first week, this cooler/unstable weather will likely yield to higher than average temperatures for the rest of the month, as well as the rest of the growing season.

The first two weeks of August are predicted to have higher than average rates of precipitation, likely with the unstable weather events we have been experiencing at the end of July, though this pattern is expected to give way to average rates of precipitation for the rest of the month and the rest of the growing season across the state.

Please see the [UKAg Weather Center's Long Range Outlooks](#) for more information.

Nursery Crops Extension & Research Team

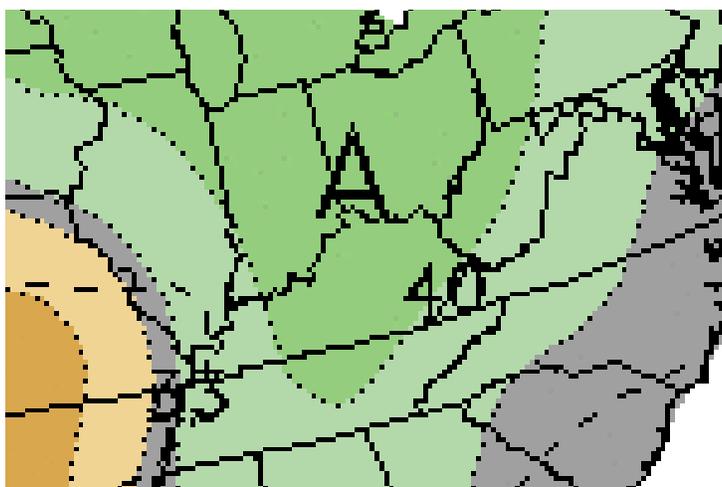
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Joshua Knight, Editor



6-10 Day Outlook, Precipitation Probability
July 30, 2018. Valid Aug 5—Aug 9, 2018
Source: NOAA Climate Prediction Center

- **Boxwood Blight Threatens Kentucky Shrubs**
- **Dogwood Powdery Mildew**

Boxwood Blight Threatens Kentucky Shrubs

Kim Leonberger, Extension Associate, Plant Pathology
Nicole Ward-Gauthier, Extension Specialist, Plant Pathology

Boxwood blight has been detected in Kentucky again this year. The disease can be devastating to American boxwood cultivars, which are common in the Kentucky landscape. Complete defoliation can occur within a week and plants can die within a single growing season. Use of tolerant cultivars, cultural practices, and fungicides can reduce incidence and spread of boxwood blight.

Boxwood Blight Facts

- Symptoms on leaves can appear as light or dark brown circular leaf spots with darker borders (Figure 1). These symptoms often go unobserved due to rapid defoliation. Defoliation of the lower plant canopy is often the first obvious symptom of boxwood blight (Figure 2).
- Dark brown or black streak-like lesions appear on infected stems (Figure 3).
- Favored by warm, humid weather.
- Caused by the fungus *Cylindrocladium buxicola*.
- The pathogen can survive on plant debris in the soil for at least 6 years.
- The disease may be spread by splashing water, wind, tools, clothing, and wet hands. Long distance movement is reliant upon the transport of infected plants, infested soil, or contaminated equipment.

Management Options

If boxwood blight is suspected, contact the local Extension agent, who may submit a sample to the UK Plant Disease Diagnostic Lab for confirmation.

The following management options are recommended:

- Inspect plants prior to purchase, and do not install any plants with an unhealthy appearance.
- Plant boxwoods with disease tolerance, such as:
 - Buxus microphylla* var. *japonica* 'Green Beauty'
 - Buxus sinica* var. *insularis* 'Nana'.
- Increase plant spacing to allow for air movement.
- Minimize overhead watering.



Figure 1. Early symptom of boxwood blight include the development of circular leaf spots with dark borders.

Image: Nicole Ward-Gauthier, UK



Figure 2. Defoliation of the lower portions of the plant is often the first noticeable symptom of boxwood blight.

Image: Nicole Ward-Gauthier, UK

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- Utilize fungicides containing chlorothalonil or tebuconazole to protect plants from infection or suppress disease development. Always follow label directions when utilizing fungicides.
- If plants become infected, remove them from the landscape immediately. If boxwoods grown for commercial sale are infected, they should be destroyed and not sold.



Figure 3. Symptoms of boxwood blight on stems may appear as dark brown or black streak-like lesions

Image: Nicole Ward-Gauthier, UK

Additional Information

- Boxwood Blight ([PPFS-OR-W-20](#))
- Homeowner's Guide to Fungicides ([PPFS-GEN-07](#))
- Landscape Sanitation ([PPFS-GEN-04](#))

Dogwood Powdery Mildew

Kim Leonberger, Extension Associate, Plant Pathology

Nicole Ward-Gauthier, Extension Specialist, Plant Pathology

Dogwood is a popular landscape tree throughout Kentucky. However, once infected with powdery mildew, trees can develop an unattractive appearance. The disease is most prevalent during periods of high humidity and in landscapes with reduced air circulation. Some cultivars are more susceptible than others.

Dogwood Powdery Mildew Facts

- White powdery fungal growth is the distinguishing feature of this disease (Figure 1).
- Symptoms on leaves include reddish-brown or purplish irregular blotches, yellowing, development of brown patches, scorching of tips and edges, cupping, curling, drooping (Figure 2) and premature leaf fall.
- Infection typically begins in early June and continues through September.
- Humidity favors disease development.
- Young, succulent plant growth is most susceptible.
- Caused by the fungi *Erysiphe pulchra* and/or *Phyllactinia guttata*.
- Unlikely to kill the tree but may result in decreased flower production the following year and an increase in susceptibility to insects and other diseases.



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

Image: 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.

Image: John Hartman, University of Kentucky

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Management Options

- Select trees with resistance to the disease such as cultivars 'Jean's Appalachian Snow', 'Karen's Appalachian Blush', and 'Katy's Appalachian Mist', Oriental dogwood, or Cornelian cherry dogwood, which is immune to the disease.
- Maintain plant health by mulching to the drip line, removing dead branches, and selectively pruning to increase air movement within the tree canopy.
- Avoid excessive nitrogen fertilizer, heavy pruning, and excessive irrigation during the growing season
- Apply fungicides containing myclobutanil or propiconazole. Ideal spray programs begin in May or when the disease is first detected. Always follow label directions when utilizing fungicides.

Additional Information

- Flowering Dogwood Diseases ([PPFS-OR-W-06](#))
- Homeowner's Guide to Fungicides ([PPFS-GEN-07](#))
- Fungicides for Management of Landscape Woody Ornamental Diseases ([PPFS-OR-W-14](#))

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.

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