



College of Agriculture,
Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

End of October 2019

November Starts Cooler and Drier than Average

After the recent precipitation preceding the cold air mass moving in on the first of the month, the NOAA’s Climate Prediction Center are forecasting the first 10 days as having a high probability of being drier than average while the first half of November is expected to be cooler than average across the commonwealth.

In the second half of November, warmer and wetter than average weather is predicted, though details about variability and timing are limited.

Generally speaking, the overall climate is expected to be warmer than average for November, December, and January.

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

Nursery Crops Extension & Research Team

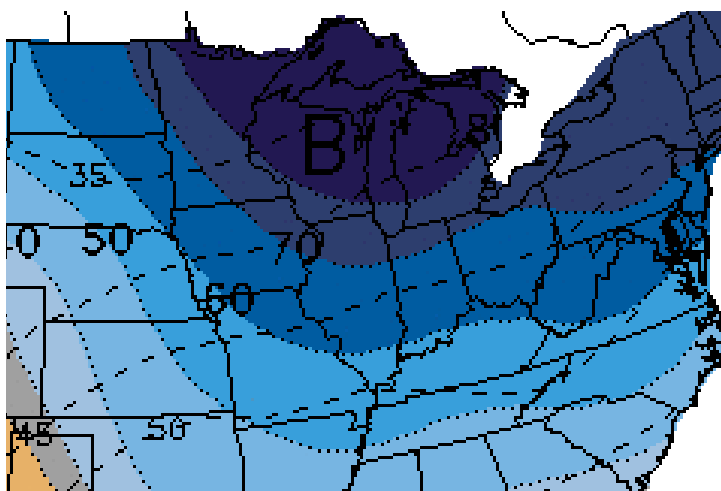
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November 07-13, Precipitation Probability
Image: NOAA Climate.gov, 29 OCT 2019

- **Tree Wounds—Invitations to Wood Decay Fungi**
- **Landscape Sanitation: Clean Up for Clean Plants**
- **Winter Storage of Pesticides**

Tree Wounds—Invitations to Wood Decay Fungi

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

Wood decay leads to loss of tree vigor and vitality, resulting in decline, dieback, and structural failure. Wounds play an important part in this process since they are the primary point of entry for wood decay pathogens. While other factors may also result in decline and dieback, the presence of wounds and/or outward signs of pathogens provides confirmation that wood decay is an underlying problem. Wounds and wood decay reduce the ability of trees to support themselves.



Figure 1. Lawn equipment damage to the base of a tree.

Photo: Cheryl Kaiser, University of Kentucky

Wounds may result from numerous sources such as lawn equipment (Figure 1), pruning, vehicles, herbicides, insects, wildlife, weather, or objects that girdle or embed in trunks or branches (Figure 2). Once stress or damage from wounds occurs, fungal decay pathogens may enter plants to cause further damage. During rainy seasons and moderate temperatures, many wood decay fungi produce visible reproductive structures, such as shelf-like fungal bodies (Figure 3) or mushrooms.



Figure 2: Wire from stakes and fences creates wounds and can lead to girdling.

Photo: Nicole Ward Gauthier, University of Kentucky

For more information on tree wounds and related disease problems, including symptoms, causes, prevention, and treatment, review the publication *Tree Wounds – Invitations to Wood Decay Fungi* ([PPFS-OR-W-01](#)).

Additional Information

- *Tree Wounds – Invitations to Wood Decay Fungi* ([PPFS-OR-W-01](#))
- Plant Pathology Publications ([Website](#))



Figure 2: When weather conditions are favorable, the shelf-like fungal fruiting structures of some wood decay pathogens may be visible.

Photo: Joseph O' Brien, US Forest Service

Landscape Sanitation: Clean Up for Clean Plants

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

Autumn has arrived in Kentucky and, as leaves will soon begin to change color and fall from trees, it is time to focus on landscape sanitation. Good sanitation practices can help reduce disease-causing pathogens. These organisms can survive for months or years on dead plant material or in soil, causing infections in subsequent years. Elimination of disease-causing organisms reduces the need for chemical controls and can improve the effectiveness of disease management practices. Following these sanitation practices both in autumn and throughout the growing season can reduce disease pressure in home and commercial landscapes.

Sanitation Practices

- Remove diseased plant tissues from infected plants
- Prune cankers (Figure 1) and galls from branches by making cuts well below visible symptoms (Figure 2). Clean tools between each cut with a sanitizer, such as rubbing alcohol or household bleach.
- Rake and remove fallen buds, flowers, twigs, leaves, and needles (Figure 3)
- Discard all above and below ground portions of heavily infected perennial and annual plants. Severely infected trees and shrubs should be cut down and stumps removed/destroyed.
- All discarded plant material should be burned, buried, or removed with yard waste. Do not compost diseased plant material. Exercise caution when storing limbs and trunks as fire wood or using for mulch.
- Soil from containers should be discarded and not reused.
- Remove weeds, including roots, which may serve as alternate hosts for pathogens.
- When treating infected plants with fungicides, remove infected tissues prior to application.



Figure 1. Cankers can provide an overwintering site for plant pathogens.

Photo: Nicole Ward Gauthier, University of Kentucky



Figure 2. When removing cankers, make cuts well below visible symptoms or at the base of branches.

Photo: Joseph O'Brien, USDA Forest Service

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Figure 3. Fallen leaves and other plant parts should be gathered and discarded.

Photo: Nicole Ward Gauthier, University of Kentucky

Additional Information

- Landscape Sanitation ([PPFS-GEN-04](#))
- [Plant Pathology Publications](#)

Winter Storage of Pesticides

Joshua Kight, Extension Associate, Nursery Crops

As the fall digging season nears and orders for plant material pile up, proper winter storage of pesticides can be easily overlooked. If pesticides are not properly stored and containers freeze, they can be compromised and lead to human and environmental risk. Additionally, freezing can cause the separation of an active ingredient from its carrier, making the product ineffective for the next season.



Photo: Todd Johnson, Oklahoma State University

A proper storage building or area should have shelves, well lit, good ventilation, a spill kit, eye wash station, current inventory, Safety Data Sheets (MSDS), fire extinguisher and be lockable. The shelving should be made of metal or plastic, because neither will absorb pesticides. Products should be organized with dry formulations stored on top. Pesticides should be separated by type: herbicides (selective and non-selective), insecticides, and fungicides. Older chemicals or partially used containers should be in the front and used first in the Spring. **All pesticides should be clearly labeled.** If a label has worn off or otherwise lost, reference the [Crop Data Management System](#) or contact your chemical dealer to obtain a new one.



Photo: U.S. Chemicals

Additional Information

- UK Pesticide Safety Education Program (PSEP)
<http://entomology.ca.uky.edu/uk-pesticide-safety-education-program-psep>
- Safe Pesticide Storage
<https://kentuckypestnews.wordpress.com/2015/10/13/safe-pesticide-storage/>
- Transporting and Storing Pesticides Safely
<http://www.uky.edu/Ag/Entomology/PSEP/7transportation.html>
- Elements of Good Pesticide Storage
<https://kentuckypestnews.wordpress.com/2019/10/22/elements-of-good-pesticide-storage/>
- Pesticide Storage Important in Winter
<http://news.ca.uky.edu/article/pesticide-storage-important-winter>

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!](#)

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