



College of Agriculture,
Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

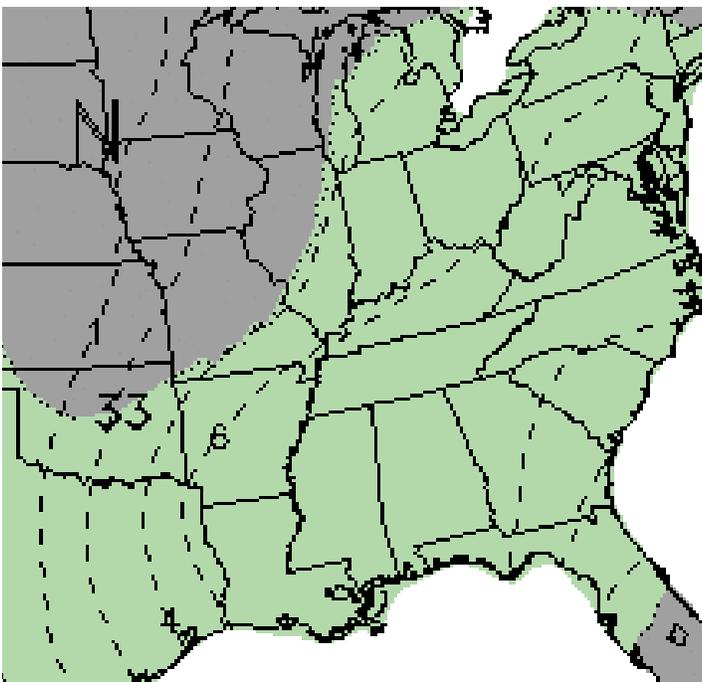
End of November 2019

Wetter than average start to December

The Climate Prediction Center is forecasting wetter than average conditions across all of Kentucky and the Southeastern US for the first 10 days of December. Temperatures are forecasted to be within 30 year averages during this period.

In the latter half of December, conditions indicate warmer than average temperatures overall, though this does not mean we will not have sudden, short-term cold weather events.

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



December 04-10, Precipitation Probability
Image: NOAA Climate.gov, 26 NOV 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

- **Stress and Decline in Woody Plants**
- **Working Outside in the Winter Safely**

Stress and Decline in Woody Plants

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

Woody trees and shrubs may exhibit decline resulting from the stresses that may occur during their lives. Stress may be the result of improper plant or site selection, incorrect planting or maintenance practices, or poor soil conditions. Injury from physical practices, weather, or chemicals can also lead to stress and decline. In addition, biological stresses such as diseases, insects, and wildlife could result in stress and decline of woody ornamentals. Symptoms of stress and decline include dieback (Figure 1), leaf scorch, stunting, premature fall color or leaf drop, production of water sprouts or suckers (Figure 2), and signs of disease or insects.



Figure 1. Dieback is a common symptom of stress.

Photo: John Hartman, University of Kentucky

Typically, one or more primary stresses cause deterioration of plant health, followed by secondary pathogens and/or insects that further decline or destroy plants. Determining causes of decline requires careful examination of plants and growing sites, as well as knowledge of site history. Nevertheless, diagnoses may be difficult, as the original cause(s) of plant stress may be obscure or no longer present.

For more information on stress and decline in woody plants and related disease problems, including symptoms, causes, and prevention, review the publication *Stress and Decline in Woody Plants* ([ID-50](#)).

Additional Information

- Stress and Decline in Woody Plants ([ID-50](#))
- Plant Pathology Publications ([Website](#))



Figure 2: Water sprouts or suckers may result from severe stress.

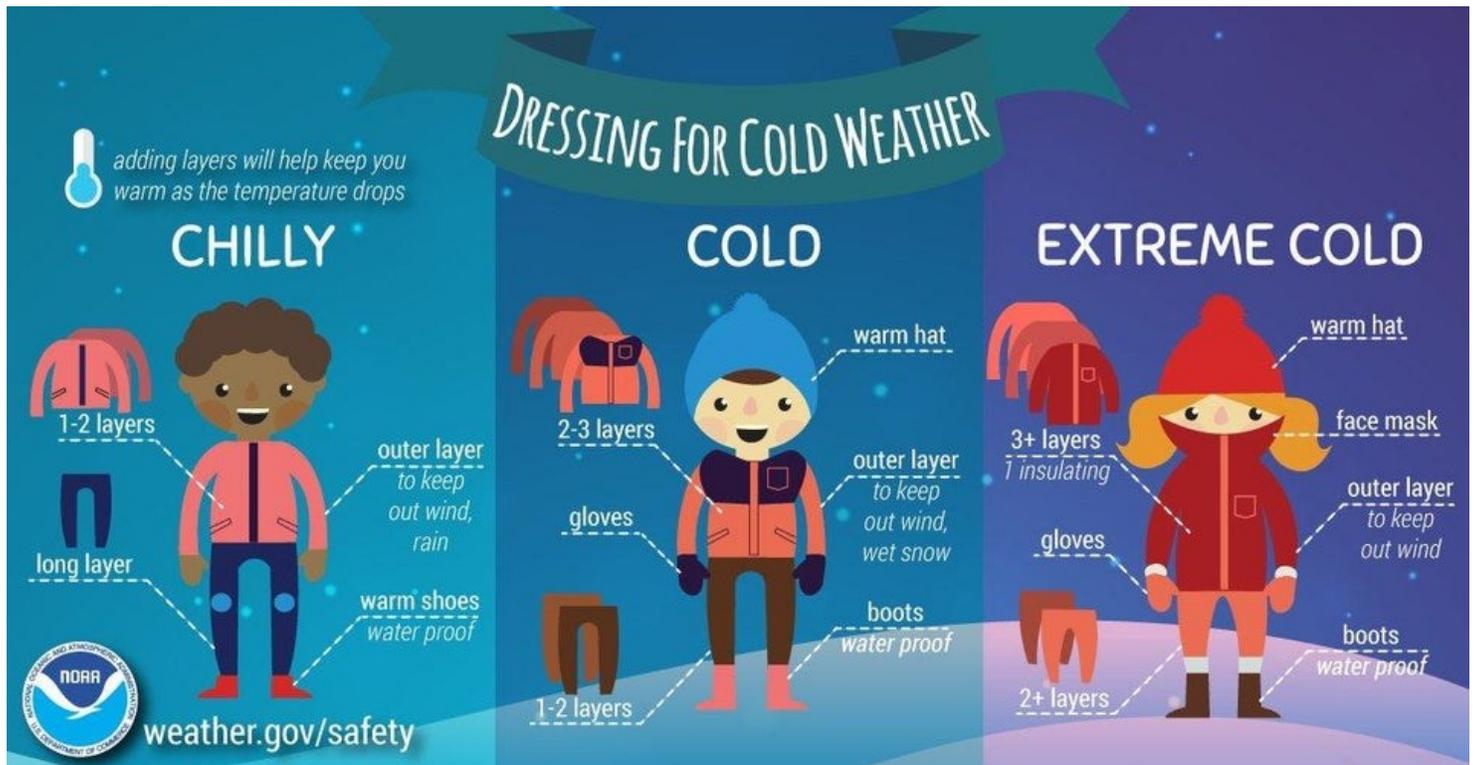
Photo: Daniel Herms, The Ohio State University

Working Outside in the Winter Safely

Joshua Kight, Extension Associate, Nursery Crops

With the record breaking cold in November, it appears that 'Mother Nature' may have decided to skip Fall and go straight into Winter. Due to the nature of the industry it is necessary to work outside in the winter. That brings up the question, Are you ready to work outside in the cold safely? It is important to know that cold stress on personnel can be prevented. Training employees to work out in the cold is an effective investment in an employee's safety and well-being. The employer should be monitoring the weather for possible hazardous winter conditions, assure workers are wearing proper clothing, and train employees on the symptoms and signs of cold stress.

When working outdoors, winter clothing is the most important step in keeping warm. **Clothes made from cotton should not be worn for winter clothing as they absorb sweat and don't wick it away, causing the body to cool rapidly.** Winter clothes should be made of fabrics that retain warmth and insulate even when wet. These fabrics include synthetics such as polyester fleece and polypropylene. Wool is a good insulator but when wet becomes quite heavy. Dressing in layers is dressing with pants, jackets, socks, hats, and gloves.



Layering:

Wicking layer: The first layer next to your skin. This is the layer that prevents cooling and should remove moisture such as sweat to the next layer. Use synthetic or polypropylene thermal underwear. **NOT COTTON.**

Insulating Layer: The second layer can be light or heavy depending on temperatures. Fleece and Wool are good insulators and are great at trapping heat.

Windproof and Waterproof Layer: The outer layer protects from the wind, rain, and wet snow. It is important to note, if you can't stop the wind it will rob all heat from your body no matter how well you are insulated.

Winter Hat: Up to 50% of body heat is lost through the head. Hats should be wind-water proof, protect ears, and other parts of the face in extreme cold.

Gloves and mittens: Mittens keep hands warmer, but are not practical for detail work. Gloves and mittens should keep hands dry and warm.

Boots and socks: If working in snow use well-made rubber type boots, leather boots even if waterproof is not recommended, as feet will still get wet with constant exposure to snow. Boots need to fit well and have wiggle room. Use synthetic or wool socks to keep feet warm and dry. Layering of socks can be achieved by using a synthetic sock first then insulating with wool socks.

- Keep energy levels up, heating the body requires lots of energy. So it is important to eat more frequently and stay hydrated. Even when cold it is important to drink plenty of water. Use the buddy system, it allows employees to keep an eye on each other.
- Employers should ensure that workers can recognize signs and symptoms of colds stress, and know how to respond. More information can be found from OSHA and U.S Department of labor links below.



US Department of Labor—**OSHA Cold Stress Guides:**

<https://www.osha.gov/SLTC/emergencypreparedness/guides/cold.html>

https://www.osha.gov/dts/weather/winter_weather/windchill.html

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