College of Agriculture, Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team | End of July 2021

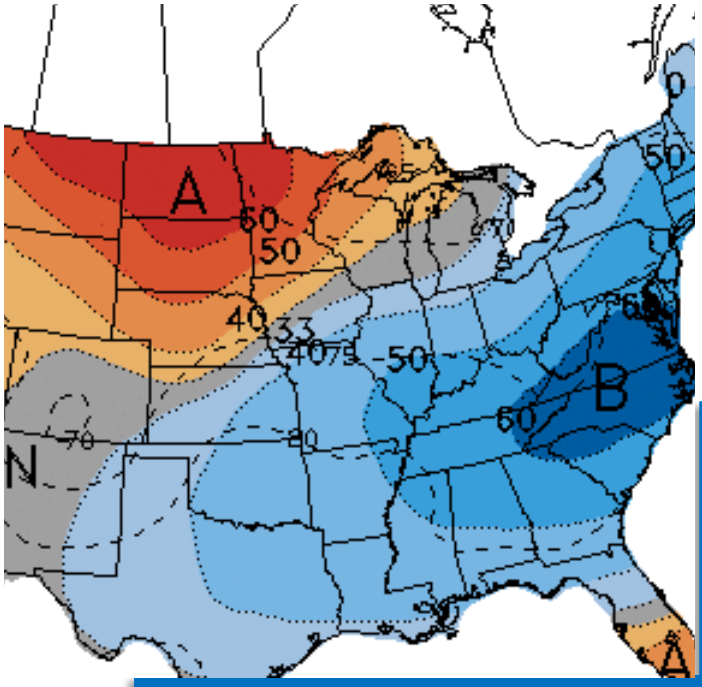
Cooler and Drier than Average Start to August

Long range forecasting is showing an elevated chance for cooler than average temperatures across the Commonwealth and for most of the eastern states in the first week of August. Lower than average rates of precipitation are predicted for that same period.

Moving into the second week, the picture becomes less clear as temperatures and precipitation are expected to return to typical averages.

Further ahead and for the month overall, August is expected to have above average rates of precipitation.

See **UKAg Weather's Long Range Outlooks** for a variety of forecasts of temperature and precipitation probabilities.



August 03-07, 2021 Temperature Probability
Image: NOAA Climate.gov, 28 JUL 2021

Nursery Crops

Extension & Research Team

Winston Dunwell
Extension Professor
270.365.7541 x209

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

Joshua Knight, Senior Extension Associate & Managing Editor

- **The Dark Side of Black Root Rot in Ornamentals**
- **Spotted Lanternfly on our Border**

The Dark Side of Black Root Rot in Ornamentals

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

Black root rot can affect a wide range of ornamentals in home and commercial landscapes, nurseries, and greenhouses. Black root rot is commonly observed on Japanese and blue hollies, inkberry, pansy, petunia, and vinca.

Figure 1. Plants affected by black root rot often wilt and die. (Photo: Elizabeth Bush, Virginia Polytechnic Institute and State University, Bugwood.org)

Black Root Rot Facts

- Symptoms are first noticed on above grown plant parts. Plants may exhibit poor vigor or stunting. Leaves may develop a yellow color, wilt, and die (Figure 1). Infected plants may collapse or die back, with severe infections leading to plant death. Above-ground symptoms result from root system decay.
- Root symptoms begin as dark brown to black lesions often in the middle of roots (Figure 2).
- Disease is favored by wet soils with mild temperatures or a high pH. Stressed plants are also more prone to disease.
- The pathogen can persist indefinitely in soils or survive on plant debris.
- Contaminated soil, infested plant material, and water can spread black root rot.
- Caused by the fungus Thielaviopsis basicola.

Management

Landscapes

- Avoid planting susceptible plants. Refer to Table 1 (next page) for a partial listing of some hosts susceptible to black root rot.
- Remove and destroy infected plants, including rootball and surrounding soil.
- Avoid stressing plants by proper site selection, nutrition, and irrigation.
- There are no effective fungicide drenches available for homeowner use. Landscape professionals may treat established plants with low levels of infection to suppress black root rot. Fungicides do not cure black root rot.

Greenhouses and Nurseries

- Inspect roots of plants prior to bringing them into production areas. Use only disease-free stock plants
- Maintain a strict sanitation program. Keep production floors and benches clean. Do not reuse soil. All tools, equipment, and containers should be disinfested between uses. Disinfest production area surfaces between cropping cycles.
- Monitor plants regularly for disease development. Dispose of diseased plants immediately when black root rot is detected.
- Soil drench fungicides may be applied preventatively. Fungicides do not cure black root rot. Always follow label directions when utilizing fungicides.

Figure 2. Black root rot results in roots with dark brown to black lesions that contrast sharply with healthy white roots. (Photo: Elizabeth Bush, Virginia Polytechnic Institute and State University, Bugwood.org)

Continued on next page...

Susceptible plants		
Woody ornamentals	*Herbaceous ornamentals*	*Agronomic crops*
Barberry	Astilbe	Alfalfa
English boxwood	Begonia	Cotton
Euonymus	Dianthus	Cowpea
Holly, blue (including these cultivars)	Fuchsia	Soybean
• Blue Angel	Gloxinia	Tobacco
• Blue Maid	Impatiens	
• Blue Prince	Pansy/Viola	
• Blue Princess	Petunia	*Vegetable crops*
• Blue Stallion	Phlox	Cucurbits
• China Boy	Poinsettia	Eggplant
• China Girl	Rosemary	Okra
• Dragon Lady	Sweet pea	Peanut
Holly, Japanese	Vinca/Catharanus	Snap bean
Inkberry	Zinnia	Tomato

Resistant hollies	Moderately resistant hollies
English holly	American holly
Chinese holly	Yaupon holly

Table 1. Plants resistant and susceptible to black root rot.

Image: Plant Pathology Fact Sheet, Black Root Rot of Ornamentals, **PPFS-OR-W-03**

Resources

- Black Root Rot of Ornamentals (PPFS-OR-W-03)
- Greenhouse Sanitation (PPFS-GH-04)
- Landscape Sanitation (PPFS-GEN-04)
- Woody Plant Disease Management Guide for Nurseries and Landscapes (ID-88)

Spotted Lanternfly on our Border

Jonathan L. Larson, Extension Professor, Entomology
Joe Collins, State Entomologist's Office

Last week, some distressing news was delivered regarding spotted lanternfly, a worrisome invasive species. Unfortunately, an infestation of this pest was found in Southeastern Indiana, specifically near the city of Vevay in Switzerland County. The location is about 2.4 miles away from Gallatin County, KY. The Office of the State Entomologist has implemented and checked spotted lanternfly traps on our side of the Ohio River and thus far have found no evidence of this pest in Kentucky. This is something that will be closely monitored for the foreseeable future though.

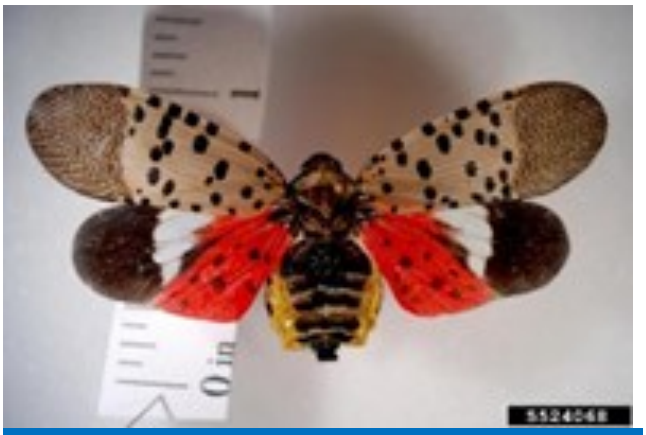


Figure 1. An adult spotted lanternfly has a very distinctive and colorful appearance. The fore wings are half spotted and half reticulated, while the back wings are a mixture of black, white, and red. Photo by Pennsylvania Department of Agriculture , Bugwood.org

What is Spotted Lanternfly?

Spotted lanternfly (aka SLF) is a serious invasive insect pest capable of building large populations. SLF is native to East Asia and was first found in SE Pennsylvania in 2014. Since that initial discover, it is has spread to many counties in Pennsylvania, as well as into Virginia, New Jersey, Ohio, Delaware, New York, Connecticut, Maryland, and West Virginia.

SLF is very distinctive in appearance, the adult is about an inch long, with strikingly patterned forewings. The upper portion of these wings have black spots and the tips have a latticework of black rectangles. The back wings are contrasting red, black, and white. The immature stages are black with white spots and develop red patches as they age.

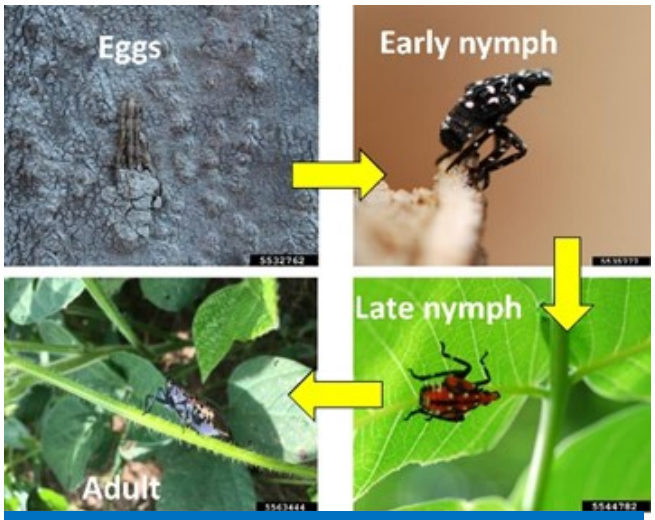


Figure 2. Spotted lanternflies start as eggs which look like they are covered with brown-grey spack-le, then develop through spotted nymphal stages before maturing into the adult form. Photos by Lawrence Barringer, Pennsylvania Department of Agriculture, Bugwood.org

What does it do?

Tree of Heaven (another non-native/invasive species) is the primary host for SLF. However, this pest is also known to feed on >70 other plant species including important hosts such as grapes, hops, maple, and black walnut amongst other hardwoods and fruit crops. SLF is a true bug, part of the order Hemiptera, and they feed using piercing sucking mouthparts. As they feed, they excrete honeydew a sugary fecal material that accumulates on nearby plants and surfaces and can attract black sooty mold issues.

SLF also invades structures in the fall, similarly to brown marmorated stink bugs and Asian multicolored lady beetle. Finally, females will lay their eggs on natural and unnatural surfaces alike. While they use trees the cryptic egg cases have also been found on cars, lawn furniture, firewood, stones, and many other substrates. This causes issues for quarantine and a headache for those that live in infested areas trying to move goods out of the quarantine.

Continued on next page...

What can people do to help?

While there is no known evidence of SLF in Kentucky, people should be looking out for this pest and report suspicious insects either to their county extension office or directly to the UK Entomology Dept. The report in Indiana was in association with Tree of Heaven, as this is the preferred host for egg laying in the fall.

Figure 3. Be on the lookout for the weird looking adults and for the egg masses spackled onto surfaces as seen here. Don't bring home any unwanted hitchhikers and help us by reporting odd sightings! Photo by Richard Gardner, Bugwood.org

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/