

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

End of April 2016

Last Frost Date?

It seems likely we may have already had our last frost date for most of the Commonwealth.

Historically, the last frost date for most of Kentucky occurs before May 5th, and this is especially true in the central and western portions of the state. Eastern Kentucky's safe date is May 15th. Looking at the long range forecast, we seem to have warmer and drier than average weather coming in May.

Be sure to look at [UKAg Weather's Long Range Outlooks](#) for more information, and look at this issue's information on Clearwing borer emergence, Fruit tree disease risks, and the Ambrosia beetle.

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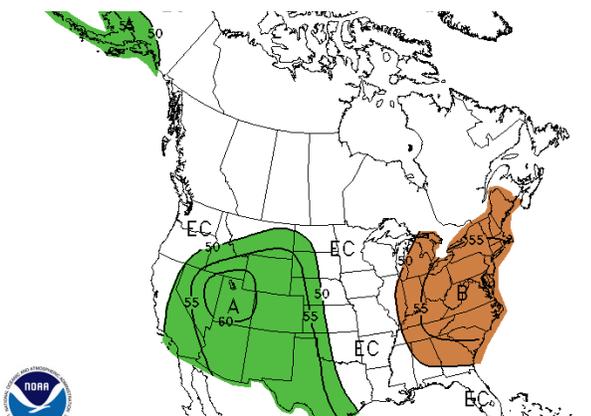
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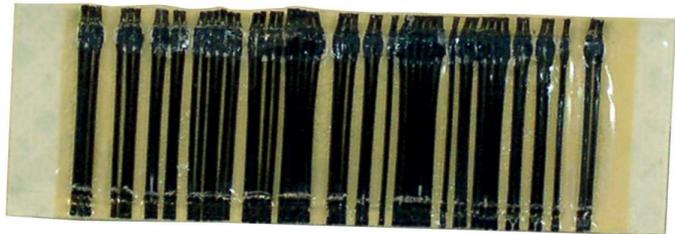
[3-4 Week Outlook, May 7—May 20],
Precipitation Probability, Image: NOAA

- Clearwing Borer
- Fruit Tree Disease Risks
- Ambrosia beetle

Clearwing borer emergence

Carey Grable, Extension Associate, Nursery Crops

With the month of May comes the emergence of the Clearwing Borer group. There are several borers in this group including the **dogwood borer**, **lilac borer**, **peachtree borer**, and **lesser peachtree borer**. **Growers of peach, plum, and flowering cherry** should be especially aware of the lesser peachtree borer.



Clearwing borer pheromone lure.
Image: Gimplers

Borers generally target stressed plants weakened by drought, soil compaction, sun scald, or transplanting. Emergence of these borers can vary greatly as temperature has an effect. This combined with the limited residual toxicity of the chemicals used in controlling these borers makes timing difficult. Monitoring for the emergence of these borers can be done with the use of pheromone lures. These lures are readily available and are used in conjunction with sticky traps (or wing traps). Using these traps will allow growers to fine tune their spray schedule. Spraying is generally recommended 10 to 14 days after the first borers are caught and again after 6 weeks if borers are still being caught in traps.

For more details on recommended sprays, see

UK ENTFACT: Insect Borers of Trees and Shrubs
<https://entomology.ca.uky.edu/ent43>



Sticky trap / Wing trap
Image Source: Arbico



Lesser Peachtree borer,
Image: bugguide.net

Last Year's Tree Fruit Diseases Equal This Year's Tree Fruit Disease Risk

Kim Leonberger, Extension Associate

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Last year's disease presence can help us evaluate this year's disease risk. Many pathogens overwinter in Kentucky on infected plant material or as pathogen survival structures. Poor sanitation practices and lack of management can lead to overwintering of many pathogens. This thereby results in an increased risk of these diseases the following season.

A **record of tree fruit samples** submitted to University of Kentucky Plant Disease Diagnostic Laboratories in 2015 are presented here. In apple, pear and other pome fruit, the most common diseases were canker diseases (bacterial canker and perennial canker) and peach leaf curl (Figure 1).

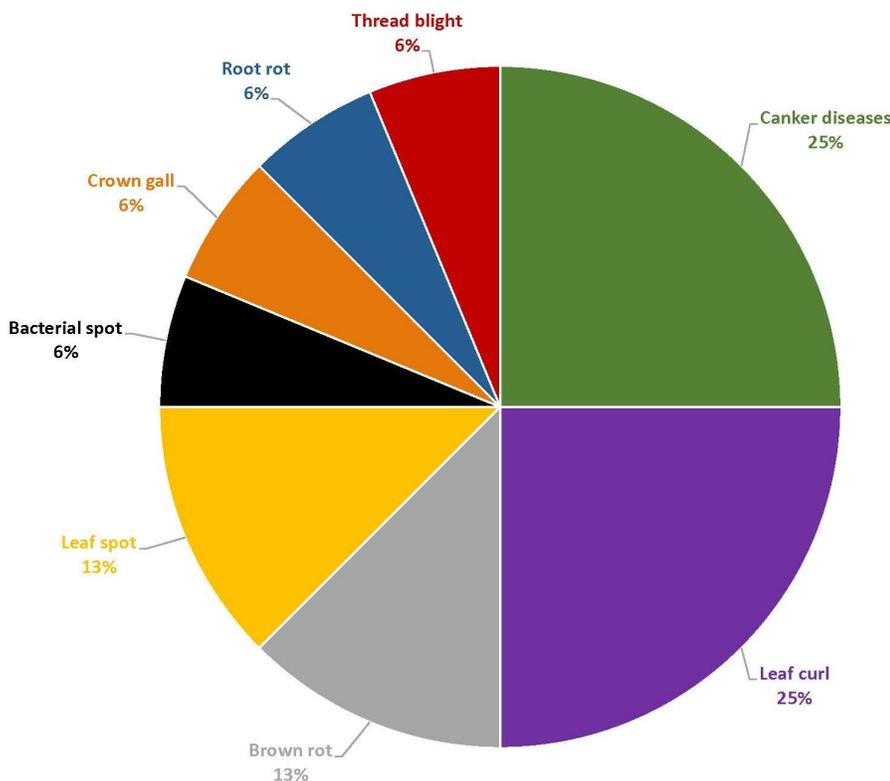


Figure 1—A summary of typical apple, pear, and other pome fruit samples submitted to the UK Plant Disease Diagnostic Laboratories in 2015.

Credit: Kimberly Leonberger, UK Plant Pathology

The most common diseases of peach and stone fruit were cedar apple rust and fire blight (Figure 2).

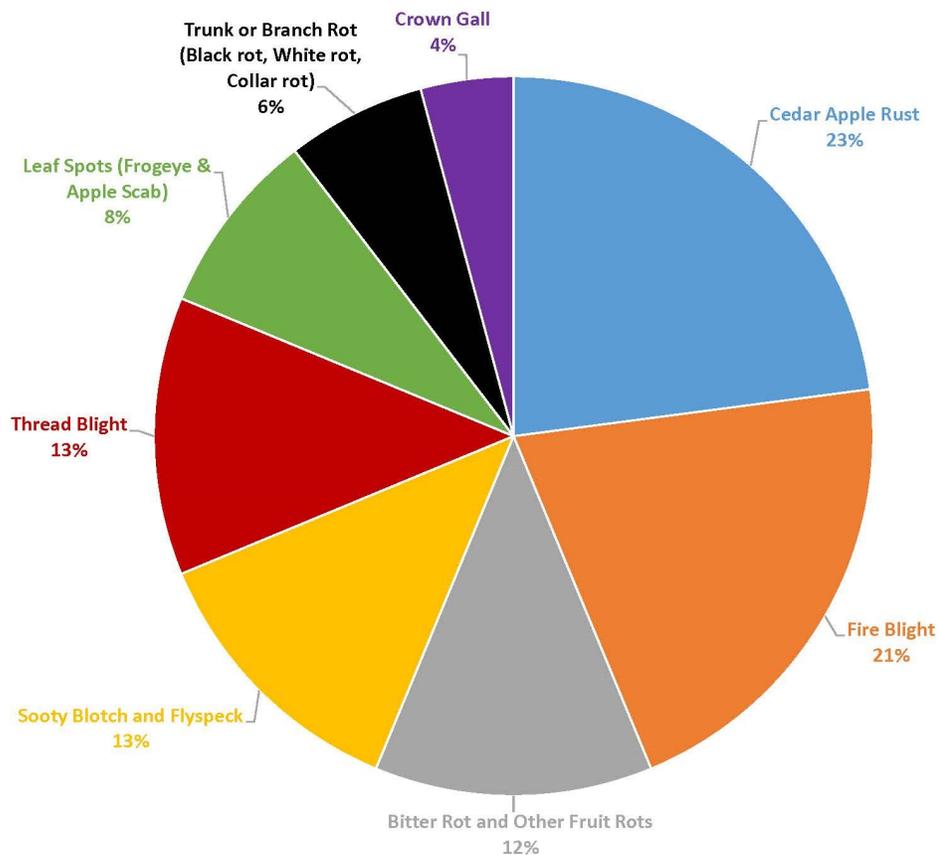


Figure 2—A summary of typical peach and stone fruit tree samples submitted to UK Plant Disease Diagnostic Laboratories in 2015.

Credit: Kimberly Leonberger, UK Plant Pathology

Assessment of diseases likely to occur during the growing season provides the opportunity to utilize preventative management measures. The **University Of Kentucky Department Of Plant Pathology** provides numerous publications with additional information and management options for these diseases.

Additional Resources:

Homeowner's guide to fungicides (PPFS-GEN-07)

http://www2.ca.uky.edu/agcollege/plantpathology/ext_files/PPFShtml/PPFS-GEN-07.pdf

UK – Disease of Fruit Crops, Ornamentals, & Hemp Facebook Page

www.KYPlantDisease.com

Granulate Ambrosia beetles are flying out of the woods in western Kentucky

Zenaida Vilorio, Extension Associate, Nursery Crops

Host range: aspen, beech, cherry, Chinese elm, crapemyrtle, dogwood, golden rain tree, hickory, magnolia, maple, mimosa, oak, peach, persimmon, prunus, red bud, sweet gum, tulip, poplar, walnut.

Info: The ambrosia beetle (*Coleoptera: Curculionidae: Scolytinae*) complex includes a large number of species that live in a symbiotic relationship with ambrosia fungi. Adult female beetles spread and inoculate spores in the sapwood while build galleries. Ambrosia fungus digests wood and provides nourishment to adult beetles and larvae. Infected trees might die or loose marketability. More than 50 exotic ambrosia beetle species have been reported in North America, with a broad range of hosts that includes more 200 tree species. The two most

economically important beetle species in the nursery industry are

granulate ambrosia beetle (*Xylosandrus crassiusculus*) and black stem borer (*Xylosandrus germanus*)

Inspection and monitoring are the best approaches to detect ambrosia beetle populations. Traps with alcohol lure are very effective to attract them in early spring after overwintering adults begin new tree colonization. Using magnifying hand glass helps to distinguish ambrosia beetles from other tree bores. Granulate ambrosia beetles have been found in a peach orchard and in the wooded areas of western Kentucky this spring.



Distinctive granules on head, dull back tip.

Photo: Zenaida Vilorio, UK Horticulture



Distinctive granules on head, dull back tip.

Photo: Zenaida Vilorio, UK Horticulture

Ambrosia beetle management: It starts by monitoring early spring, and complement this practice with tree inspection to spot the typical toothpicks wood dust that make when beetles bore the wood (Figure 1). Infected trees must be removed from nursery or burned. Multiple insecticide sprays are recommended to prevent new infestations. For more information, consult county agents close to you.

References

Frank S. D., W.E. Klingeman, III, S.A White, and A. Fulcher. 2013. Biology, Injury, and management of maple tree pests in nurseries and urban landscapes. *J. Integ. Pest Mngmt.* 4 (1): 2013; DOI: <http://dx.doi.org/10.1603/IPM12007>

Lightle D.M., K.J.K. Gandhi, A.I. Cognato, B.J. Mosley, D.G. Nielsen and D.A. Herms. 2007. New reports of exotic and native Ambrosia and bark beetle species (Coleoptera: Curculionidae: Scolytinae) from Ohio. *The Great Lakes Entomologist* Vol. 40 (3-4):194-200.

Agnello, A., D. Breth, A. Davis and E. Tee. Ambrosia beetle (*Xylosandrus germanus*) infestations and management trials in high-density apple orchards



Lateral view: Body length less than 3mm. True head is partially visible.

Photo: Zenaida Vloria, UK Hort



Figure 1—Toothpick-like projections of sawdust.

Photo: Dr. Pete Schultz, VPI&SU

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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