

KENTUCKY NURSERY BULLETIN

UK NURSERY CROPS TEAM

MARCH 2022

Cooler than Average Start to April, Wetter Overall

The NOAA's Climate Prediction Center is predicting above average probability for cooler than normal conditions across the Commonwealth for the first two weeks of April. For reference, normal conditions are based on 1991-2020 averages (called "30-year normals"). Moving further into April, the pattern of cooler weather in the southeastern US interior becomes less clear and gives way to a general pattern of warmer than average temperatures across the entire southern US.

The forecast for precipitation is simpler. Overall for the month of April, the CPC is projecting above average rates of precipitation for the eastern US and the Great Lakes area down into the Ohio River Valley. The growing season is just about here, but getting into the field for tillage may be tricky to schedule with all this extra water.

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



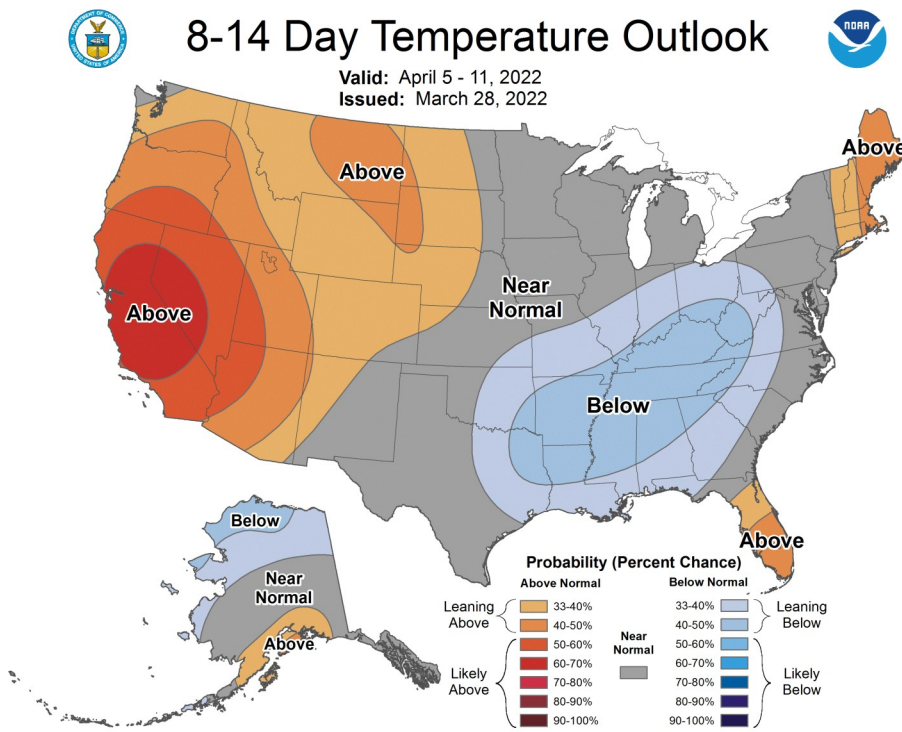
College of Agriculture,
Food and Environment
Cooperative Extension Service

NURSERY CROPS EXTENSION & RESEARCH

Tara Watkins
Extension Associate,
Nursery Crops
859.257.0037

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

*Joshua Knight, Senior Extension
Associate & Managing Editor*



Temperature Probability, April 2022

Image: NOAA Climate.gov, 31 MAR 2022

- Spring has sprung and soon so will pests
- Planning for weed management in an unpredictable 2022 chemical market
- Save The Date: KNLA Presents the 2022 KY Green Industry Conference Summer Summit on June 22-23
- KHC and UK request Kentucky nursery grower input in needs assessment survey
- UK Controlled Environment Horticulture has a new website

Spring has sprung and soon so will pests

Jonathan Larson, Extension Professor, Entomology

Tara Watkins, Extension Associate, Nursery Crops

As the growing season kicks off, we start to accumulate what we call growing degree days. We have covered the math of degree days in the [newsletter before](#), but ultimately this is a way for growers to determine how far along the development of certain pests has progressed. Insect and mite development is heavily dictated by climate, in particular temperature. Insects need a certain temperature to be reached during the day to progress in their development. If it is warm enough, they can accumulate multiple degree days in a 24-hour time space. If it is not warm enough during a given day, they don't go backwards, but their development is simply stopped for that period.

Learning about degree days is vital for being able to implement a scouting program. Scouting for pests can be difficult because it isn't always strictly calendar based due to temperature fluctuations year to year. Compounding this issue in Kentucky, we are a transitional zone for northern and southern climate, meaning we can't always rely on data from other states to time our scouting efforts. Still, you can find resources, such as [this Michigan State site](#), that can tell you the broad growing degree day requirements for landscape and nursery pests and then go to <http://weather.uky.edu/dd.php> and select the dropdown menu option of **Growing Degree Days (Count From Jan. 1)** to see what your county weather station has provided as your local growing degree date accumulation. Using this, we can see that as of March 23, 2022, we know that across the state of Kentucky cankerworm caterpillars have hatched and are starting to feed, that Cooley spruce gall is becoming active on spruces, Eastern tent caterpillar eggs have hatched, and Eastern pine sawflies have begun feeding. Coming up soon we will have birch leafminers emerging and then oystershell scale eggs hatching.

We know from past surveys that scouting is something growers want to know more about so they can be better prepared to intercept pest populations when they are easier to kill and cheaper to manage. **The nursery crops team is planning to help simplify this process with a project called the Kentucky Pest Alert System.** This will be a text message-based service that will alert you when specific pests have started to emerge or begun feeding. To do this, we will be partnering with growers in the west, central, and eastern parts of the state and their county Extension agents to set up temperature monitoring stations in nurseries and to monitor for key pests. When we confirm the presence of pests, we will use an automated system to send out a text to registered users with the alert, a video on how to scout for early life stages of pests, and management tips to help you stay ahead of the pests.

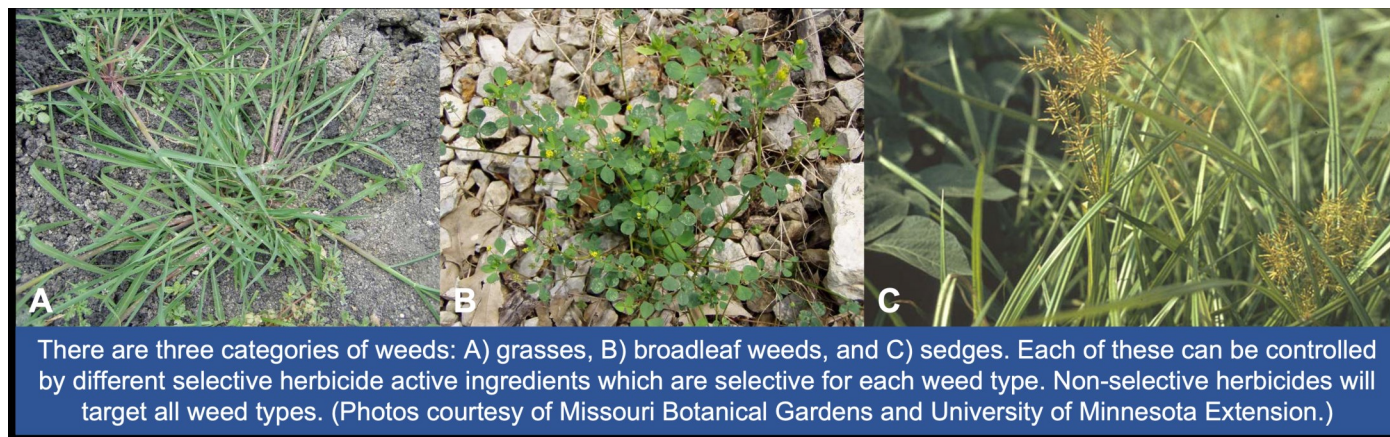
This is the first announcement of this system, and we're hoping to have it fully implemented in 2023. During the 2022 growing season, we will be monitoring pests and temperature to make a model for next year, and at educational events held for nursery growers, we will be offering the chance to register your phone number to receive future text messages.

We're excited about this project, and we hope that it we will benefit many of you as you work to manage the many legged pests of your nurseries!

Planning for Weed Management in an Unpredictable 2022 Chemical Market

Tara Watkins, Extension Associate, Nursery Crops

Spring is here, and if you haven't already, it is time to plan out your weed management program for this season. It's no secret that many growers are gearing up for another season with amended weed management programs due to herbicide shortages and cost increases. Due to these chemical shortages and significant price jumps, many are being forced to make substitutions for the chemicals they normally use for their needs or are withholding from chemical use altogether this season. Though glyphosate and glufosinate are currently the two main active ingredients that are very difficult to source, there are limited supplies of many other active ingredients as well. During these times, it is especially important to consider all of your preemergent (PRE) and postemergent (POST) chemical options available for use in nursery settings, as well as the many non-chemical control methods such as mulching, landscape fabric, living mulches, or cover cropping.



When making chemical choices to fit your weed management needs, herbicide selection should, in part, be made based on the target weed, crop(s) to be sprayed, and the growth stages of both the weed and the crop. There are many herbicides available for use in various nursery stock that have different weed targets such as **grasses, broadleaf weeds, and sedges**. Most herbicides available in the current market do not control all weeds, meaning they are selective. With this and restrictions such as chemical availability and cost in mind, an option to be carefully considered is tank mixing of herbicides to broaden your spectrum for weed control and to increase the likelihood that active ingredients needed for your situation are able to be sourced at a manageable cost. For example, a tank-mix of "grass" and "broadleaf" herbicides will increase the spectrum of the weeds controlled, and there may be several active ingredient combinations that can be tailored to fit your weed management goals and restrictions.

As we continue to face these challenges and you continue to search for herbicide alternatives, it is important to utilize weed control guides and resources made available through university extension programs. We have provided a few helpful links for you below. If you are looking to implement or modify an herbicide program, we encourage you to take a look through these resources. Key charts have been listed below so that you can make quick searches to tables and charts of interest in these guides. As always and above all else, remember that THE LABEL IS THE LAW!

Continued on next page...

2017 Southeastern US Pest Control Guide for Nursery Crops and Landscape Plantings

<https://content.ces.ncsu.edu/southeastern-us-pest-control-guide-for-nursery-crops-and-landscape-plantings/weed-control>

This guide put together by North Carolina State University features a Weed Management section in Chapter 6. Non-chemical and chemical methods and suggestions are discussed. Some key topics include:

Table 6-1: a generic weed control calendar

Table 6-3: a chart of chemical weed control in ornamentals (preemergence and postemergence)

Table 6-4 and **Table 6-5:** charts for weed susceptibility to preemergence herbicides and postemergence herbicides, respectively

Table 6-6 and **Table 6-7:** charts for preemergence and post emergence herbicides (respectively) registered for woody ornamentals

2022 Virginia Tech Pest Management Guide: Horticulture and Forest Crops

https://www.pubs.ext.vt.edu/content/dam/pubs_ext_vt_edu/456/456-017/ENTO-463.pdf

This guide put together by Virginia Tech University also features many of the same suggestions for non-chemical and chemical control options. Key charts in this guide include:

Table 5.5– general herbicide options and information

Table 5.6– a guide to herbicide selection for annual and perennial flowers, vines, and groundcovers

Table 5.7--- a guide to herbicide selection for narrowleaf and broadleaf evergreens

Table 5.8– a guide to herbicide selection for deciduous trees and shrubs

Table 5.9– a guide to weeds controlled by preemergence herbicides in ornamentals

Table 5.10– a guide to weeds controlled by postemergence herbicides in ornamentals

2022 KY Green Industry Conference Summer Summit on June 22-23!

Tara Watkins, Extension Associate, Nursery Crops

We want YOU to save the date! The Kentucky Nursery and Landscape Association (KNLA) is hosting the KY Green Industry Conference Summer Summit at the Holiday Inn East in Louisville on June 22-23, 2022.

Day one will feature bus tours that will visit Louisville area green industry businesses, followed by an evening dinner with a guest speaker at the beautiful Yew Dell Botanical Gardens. Day two will consist of a wonderful line-up of guest speakers covering many topics on pest management and various aspects of design in our industry.

This is going to be a great event that you don't want to miss! Questions or want more information? Please contact info@knla.org or (502) 330-8300.

Registration opens April 1. To stay up-to-date, follow the KNLA Summer Summit event page on [Facebook](#), visit the [KNLA website](#), and check back for more detailed info in April's issue of the Kentucky Nursery Bulletin.

SAVE *the* DATE

June 22-23, 2022

Registration Opens April 1st

Kentucky  Green
INDUSTRY CONFERENCE


SUMMER
Summit

presented by **KNLA**

June 22

NEW Bus Tours featuring stops at Louisville area green industry businesses. The Bus Tour will be divided into 3 focused tracks for specific stops on the bus tour.

Evening Reception at Yew Dell Botanical Gardens featuring a special guest speaker.

June 23

Guest speakers at a local hotel.

Networking with Exhibitors to learn about new products and trends.

Sponsorship opportunities available to showcase your products or services.

For questions, please contact
KNLA at info@knla.org or 502.330.8300

Renew your 2022 KNLA Membership TODAY! Join at www.knla.org

Reminder! KHC and UK request Kentucky nursery grower input in needs assessment survey

Tara Watkins, Extension Associate, Nursery Crops

Reminder!

The Kentucky Horticulture Council (KHC), in conjunction with the University of Kentucky (UK), are seeking the input of all Kentucky nursery growers, including operations producing containerized and in-ground trees, woody ornamentals, and herbaceous perennials for the wholesale market. The purpose of this survey is to identify and assess the Kentucky nursery industry's current needs and preferences. The survey will cover items such as top business and production concerns, preferences for how you receive educational materials, and more. Conducting this needs assessment survey allows us to direct our efforts to serve you in the best way we can in the coming years, and we greatly appreciate your consideration in participating.

Please take a few minutes to complete this quick grower survey. There are two easy ways to access the survey. Please click the following link to be taken directly to the survey

<https://www.surveymonkey.com/r/2022KYNursery>

... or you can scan the QR code below with the camera on your smart phone.

The survey is 10-15 minutes in length. All individual responses will be kept confidential. If you have any problems, questions, or concerns, please reach out to Tara Watkins at tara.watkins@uky.edu or at (859) 257-0037.

We sincerely thank you for your participation. Your input is greatly valued!



UK Controlled Environment Horticulture has a new website

Delia Scott, Extension Associate, Floriculture

UK Controlled Environment Horticulture has a new website!

Check out <https://greenhousehort.ca.uky.edu/> for highlights of past and current controlled environment horticulture research. Led by Dr. W. Garrett Owen, Assistant Extension Professor of Greenhouse and Controlled Environment Horticulture, the website includes links to grower resources on topics such as temperature, lighting, growth control, nutrition, substrates, and more.

Extension fact sheets and publications like '[Controlled Environment Horticulture](#)' can also be found on the website.



**Controlled Environment Horticulture Website
-> Grower Resources Landing Page**

<https://greenhousehort.ca.uky.edu/grower-resources>

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!](#)

Like us on [facebook!](#)

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/>

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