College of Agriculture, Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

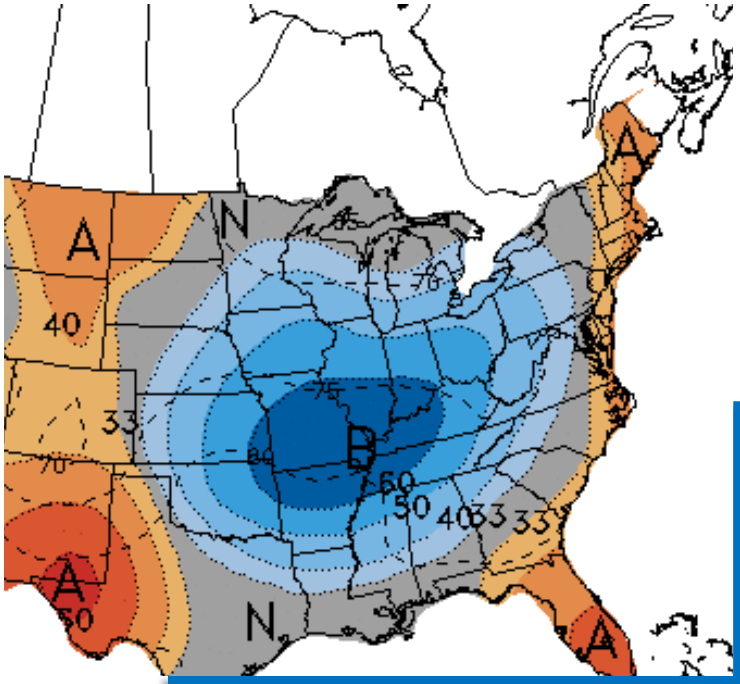
University of Kentucky Nursery Crops Team | End of July 2020

Cooler Start to August, Warmer and Wetter Overall

On average, July is the warmest month of the year across Kentucky, though August is only slightly cooler due to evening temperatures in the latter half of the month. The trend may be different this year due to weather patterns in the southern Midwest.

The first few weeks of August are forecast to be cooler than average, with an overall trend of being warmer than average for the entire month. Precipitation rates are expected to be lower than average for the first week, but wetter as we move further into August.

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



AUG 05-09 2020, Temperature Probability
Image: NOAA Climate.gov, 30 JUL 2020

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The New Tick in Town

Jonathan L. Larson, Extension Entomologist

It is important to be on the lookout for ticks when you work outdoors. We usually have to contend with Lonestar ticks, black legged deer ticks, or American dog ticks in Kentucky. Each of these come with their own possible issues, including Lyme disease for the deer ticks and Rocky mountain spotted fever for the others. Unfortunately, there is a new tick we will need to be concerned with in the bluegrass state. This new species is called the Asian longhorned tick and it has been found in three counties so far (Floyd, Martin, and Metcalfe). Asian longhorned ticks are small, around 1/10th of an inch long, and reddish brown. They have no markings on their body like Lonestar and dog ticks have.

This tick is very odd as so far only females have been found in the United States. This means that they are reproducing through asexual means, much like aphids do on trees in nurseries. There have been incidences of human bites with this tick, though no disease transmission has occurred. They have a set of pathogens they vector in their native range but luckily none of those pathogens have been found in the US. There have been lab tests that demonstrate this species cannot vector Lyme but could be a vector for Rocky Mountain spotted fever in the future. The bigger issue with this species will be effects on wildlife and domestic animals. Again, similar to aphids, they can generate large populations quickly through asexual means. Animals are not able to remove the ticks easily and you can find thousands on individual animals. There have even been cases of death due to blood loss because of these ticks. Deer, bear, raccoon, rabbits, horses, sheep, cattle, and others can all be hosts.

Figure 1. Asian longhorn ticks superimposed over a quarter for scale.

Photo: James Gathany, CDC

If you see an odd tick that you would like identified, consider collecting it and taking a photo that you email to the entomology department or your county extension agent. You can also ask your local office to ship the specimen to campus if you would like. Do a tick check at the end of every workday and if you find yourself dealing with them often consider skin based repellents or treating your clothes with permethrin.

Signal Words: Why Are They on Pesticide Labels?

Joshua Kight, Extension Associate, Nursery Crops

Signal words are put on the label of a pesticide to get our attention and communicate the toxicity. Each signal word tells the applicator or handler how toxic a product is. There are three signal words that are used on pesticide products - **Caution**, **Warning**, and **Danger.** There are some pesticides that have no signal word and are in the lowest category of toxicity by **all routes of exposure;** Keep Out of Reach of Children appears on the front label.

Caution: means the product is slightly toxic or relatively non-toxic**.** This means that there is a slight potential of causing an acute illness from oral, dermal or inhalation exposures.

Warning: means the pesticide is moderately likely to cause an acute illness if exposure occurs - orally, through the skin, or inhaled. It can also cause a moderate skin or eye irritation. Also, **AVISO,** the **Spanish** word for **WARNING,** must be on the label.

Danger: is the signal word for a toxic pesticide that is **highly likely** to cause an acute illness from mouth, skin or breathing exposure. It can cause severe eye or skin irritation. **PELIGRO,** the Spanish word for danger, will be on the label. The word **Poison and a Skull and Crossbones symbol** will be added on **All HIGHLY TOXIC PESTICIDES** in red lettering.

The EPA determines which signal words must be present on pesticide labels**.** **Remember, always read the label first, and the label is the law.**

For more information see these links:

Pesticide Labels and Labeling (PSEP)
http://www.uky.edu/Ag/Entomology/PSEP/2labels.html

UK Pesticide Safety Education Program (PSEP)
http://entomology.ca.uky.edu/uk-pesticide-safety-education-program-psep

National Pesticide Information Center
http://npic.orst.edu/factsheets/signalwords.html

Arizona College of Agriculture and Life Sciences
https://cals.arizona.edu/crops/cotton/files/SignalWords.pdf

TOXICITY CATEGORY (Signal Word)[3]				
	High Toxicity (DANGER/Danger-Poison) Category I	Moderate Toxicity (WARNING) Category II	Low Toxicity (CAUTION) Category III	Very Low Toxicity (Optional Signal Word = CAUTION) Category IV
Acute Oral LD_{50}	Up to and including 50 mg/kg (≤ 50 mg/kg)	Greater than 50 through 500 mg/kg (> 50 – 500 mg/kg)	Greater than 500 through 5000 mg/kg (> 500 – 5000 mg/kg)	Greater than 5000 mg/kg (> 5000 mg/kg)
Inhalation LC_{50}	Up to and including 0.05 mg/L (≤ 0.05 mg/L)	Greater than 0.05 through 0.5 mg/L (>0.05 – 0.5 mg/L)	Greater than 0.5 through 2.0 mg/L (> 0.5 – 2.0 mg/L)	Greater than 2.0 mg/L (> 2.0 mg/L)
Dermal LD_{50}	Up to and including 200 mg/kg (≤ 200 mg/kg)	Greater than 200 through 2000 mg/kg (> 200 - 2000 mg/kg)	Greater than 2000 through 5000 mg/kg (>2000 – 5000 mg/kg)	Greater than 5000 mg/kg (> 5000 mg/kg)
Primary Eye Irritation	Corrosive (irreversible destruction of ocular tissue) or corneal involvement or irritation persisting for more than 21 days	Corneal involvement or other eye irritation clearing in 8 – 21 days	Corneal involvement or other eye irritation clearing in 7 days or less	Minimal effects clearing in less than 24 hours
Primary Skin Irritation	Corrosive (tissue destruction into the dermis and/or scarring)	Severe irritation at 72 hours (severe erythema or edema)	Moderate irritation at 72 hours (moderate erythema)	Mild or slight irritation at 72 hours (no irritation or erythema)

Table from: http://npic.orst.edu/factsheets/signalwords.pdf

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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