



College of Agriculture,
Food and Environment
Cooperative Extension Service

Kentucky Nursery LISTSERV Bulletin

University of Kentucky Nursery Crops Team

End of September 2020

Cool Start to October, Dry Overall

The first week of October is likely to be cooler and drier than average, according to the NOAA's Climate Prediction Center.

Reduced precipitation is forecast for the entire month, while the second week shows a shift towards warmer than average temperatures for the entire U.S. This trend of warmer than average weather is forecast as likely for the rest of the month.

For comparison, October is already one of the drier months for the commonwealth.

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

Nursery Crops Extension & Research Team

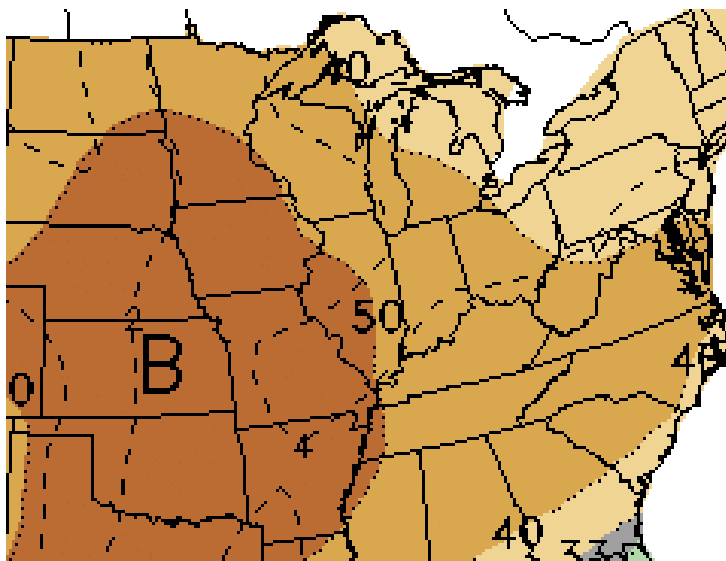
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OCT 7—13, Precipitation Probability
Image: NOAA Climate.gov, 29 SEP 2020

• Pesticide Formulations: What Do These Letters Mean?

Pesticide Formulations: What Do These Letters Mean?

Joshua Kight, Extension Associate, Nursery Crops

Pesticides are made up of active ingredients (a.i.). Some pesticides may have one or more a.i., and include inert ingredients. Some a.i.s are not soluble in water, can be toxic, or unstable while in storage. Inert ingredients present in the formulated products solve these problems. The formulation of the a.i. and inert ingredients determine the label.

Pesticides are generally characterized into **liquid formulations** or **dry formulations**. **Liquid formulations** have three main types: **solutions**, **suspensions**, and **emulsions**, and are diluted with water to make a finished spray. Some labels may require the use of a surfactant, likely a non-ionic-surfactant, to be effective. Surfactants reduce surface tension and can increase penetration, coverage and overall effectiveness of a chemical application. **Dry formulations** have the a.i. on the surface of a solid carrier such as clay, talc, or ground corn cobs.

Common liquid formulations

Liquid Formulation	Abbreviation
Emulsifiable Concentrate	E or Ec
Solutions	S or CS
Flowables	F, L, or SC
Micro-encapsulated	M or ME
Aerosol	A
Ready to Use	RTU

Common Dry formulations

Dry Formulation	Abbreviation
Granules	G
Wettable Powders	WP or W
Soluble Powder	SP or S
Water-Dispersible Granules	WDG
Dry Flowables	DF
Water-Soluble Bags or Packages	WSB
Baits	B

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W-A-L-E-S is a useful acronym for tank mixing chemicals and stands for

W-wetable powders and water dispersible granules

A- Agitate tank mix thoroughly

L- Liquid flowables and suspensions

E- Emulsifiable concentrate formulations

S- Surfactants/Solutions

As with all pesticides the LABEL IS THE LAW.

For more information:

UK Pesticide and Safety Education Program

<http://entomology.ca.uky.edu/uk-pesticide-safety-education-program-psep>

Pesticide formulations and mixing instructions

<https://www.uky.edu/Ag/Entomology/PSEP/3formulations.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!](#)

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