

# Shade Tree News

A publication from Shade Tree Meteorology, LLC

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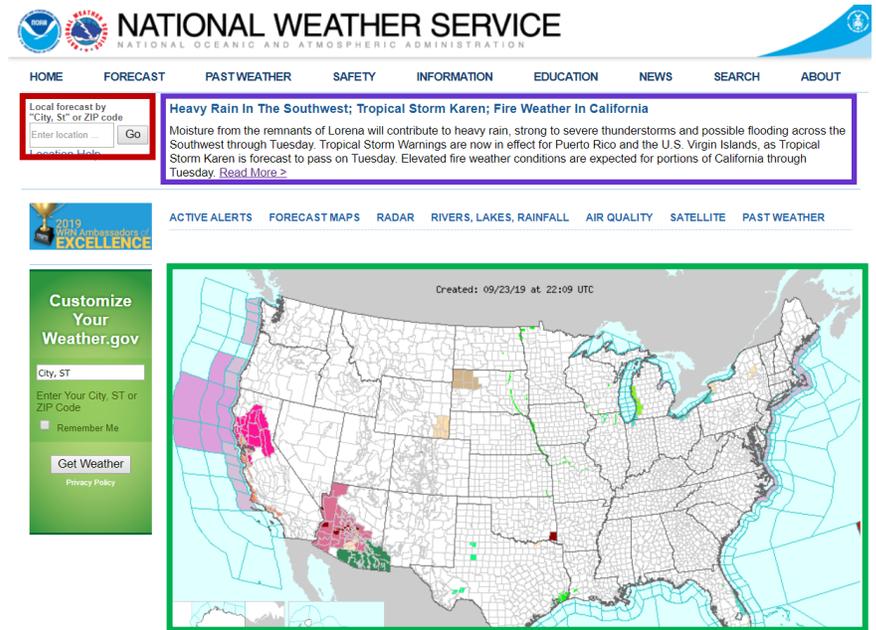
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## What's the Forecast?

In the past, we have generally dedicated the first page of our newsletter to data sources that we use frequently as forensic meteorologists. We decided to go in a different direction for this issue up and share a website that we think you should bookmark!

Although there are several resources available, if we could only recommend one, it would be: <http://www.weather.gov/>. This (screenshot in the image to your right) is your one stop shop for all your weather data!

If you type in the city and state or zip code of interest into the box in the upper left-hand corner (outlined in **red** in our screenshot), you will get the official 7-day weather forecast by the National Weather Service. You can also access this information by clicking on your location in the map, which will take you to a more zoomed in shot of your area and allow you to select your location that way. This forecast will give you the pro-



A snapshot of weather.gov.

jected highs and lows, as well as the chance of and type of precipitation. These forecasts are produced by regional NWS Weather Forecast Offices. From there, one can find even more information, such as past weather information, the current radar, and details about local programs (such as SKYWARN, which is a network of volunteer severe weather spotters).

The map area in the center that we mentioned earlier (outlined in **green**) also holds relevant information! The map is divided into counties, and whenever any county has an active weather warning, watch, or advisory, it will be color-coded to that specific product. For example, the deep maroon you see in southeast Oklahoma and in some areas of Arizona indicate that a Flash Flood Warning is in effect, while the bright (continued on page 2)

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## Exploring Weather.gov (continued from page 1)

pinks in northern California represent a Red Flag Warning (a Red Flag Warning is indicative of critical fire weather). Don't worry, there is no need to memorize all of the colors! Directly below the map is a legend that includes the color and title of any NWS product currently in effect.

Meteorologists at the NWS Weather Prediction Center issue a short-range (3-day) forecast discussion twice daily, usually around 4 AM and 4 PM EDT, although the time can fluctuate depending on active weather. This discussion highlights the most active weather situations impacting the country and can be found by clicking "Read More" in the section highlighted in purple in the screenshot on page 1, located just above the National Watch and Warning Map. This is a great way to familiarize yourself with the "highlights reel" of the weather for the short-term future. There are a plethora of resources provided by the National Weather Service available on their webpage, but the three mentioned will help familiarize you with the website so that you are aware of the weather in the country and can access forecasts for your specific location. If you have questions or need help navigating the website, don't hesitate to reach out! As Weather Ready Nation Ambassadors, we are partners with the National Weather Service and are happy to answer any questions you have.

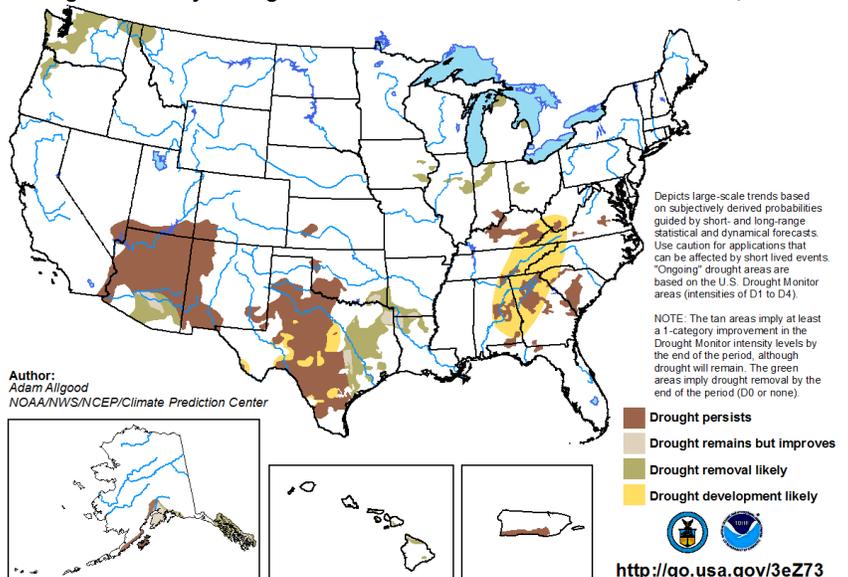
## Fall Weather Hazard Highlight: Drought

A drought is generally defined as a period of unusually persistent dry weather that persists long enough to cause serious problems such as crop damage and/or water supply shortages. However, there are actually four different ways that a drought can be defined:

- **Meteorological** - a measure of the departure of precipitation from normal. Due to differences in climate across the world, what is considered a drought in your hometown might not be considered a drought in another location
- **Agricultural** - a situation where the amount of moisture in soil is no longer meeting the needs of a particular crop
- **Hydrological** - occurs when surface and sub-surface water supplies are below normal

### U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period

Valid for September 19 - December 31, 2019  
Released September 19



- **Socioeconomic** - when physical water shortages begin to affect people

A lack of rainfall for an extended period of time can wreak havoc for farmers and metropolitan areas alike. In some parts of the country, just a few weeks without rain

## Drought (continued)

can be a cause for concern. However, as we mentioned earlier, droughts are defined by location. For example, in the Southwest, weeks without rain are fairly common. However, when weeks turn to months, serious complications arise.

NOAA's Climate Prediction Center (CPC) issues Seasonal Drought Outlooks to identify regions where drought persists, drought remains but improves, drought removal likely, and drought development likely. The seasonal outlook valid through December 31, 2019 is shown on page 2 and is a great resource for farmers, meteorologists, concerned citizens, and local, state, and government officials. So what should you do if your region is experiencing a drought or is forecast to experience a drought? Great tips include:

- 1) Water your lawn less frequently. If you must water your lawn, do so in the early morning or late evening.
- 2) Add mulch around trees and plants to reduce evaporation.
- 3) Repair leaky sprinklers and adjust them so they only water your lawn (not your home or sidewalk).
- 4) Don't wash your car.
- 5) Turn the water off while brushing your teeth and shaving.
- 6) Install low flow showerheads and take shorter showers
- 7) Repair leaky faucets and toilets
- 8) Only wash full loads of laundry
- 9) Use excess clean water for plants

**FLASH DROUGHT**  
An unusually rapid onset drought event characterized by relatively short periods of warm surface temperature, and anomalously low/decreasing soil moisture.

These droughts can have significant agricultural, hydrological, economic, societal, and environmental impacts.

Soil moisture conditions can change quickly due to intense heat waves or lack of rainfall.

**2017 EVENT**  
The 2017 drought was a rapid-onset event for northeast Montana, the Dakotas, and the Canadian Prairies during the spring and summer of 2017.

It was the worst drought to impact the U.S. Northern Plains in decades and it decimated crops.

\$2.6 billion in agricultural losses in the U.S. alone.\*

**TAKE ACTION**  
conserve water  
practice fire prevention  
follow directions from local officials

\* Data from NIDIS (drought.gov)



Shade Tree Meteorology, LLC

## From the President's Desk

Dear valued clients,

We hope you enjoyed the summer in whatever part of the United States you are located. Here in the Northeast, we are beginning to see the changes of colors and cooler nights that come with the onset of autumn. It has been a busy summer season here at STM; we have continued to take on cases at a well above average pace through September 2019. Although we do still receive requests for many analyses related to slip and fall events, we have also conducted analyses related to many other types of weather hazards, including flooding and severe weather, this year. If you have any type of case in which the weather plays a role, we would be happy to speak with you to discuss how a meteorological report may be helpful. For the vast majority of meteorological hazards, including snow and ice, severe weather, tornadoes, lightning, and excessive cold or heat, our meteorological expertise and easy-to-understand communication style will assist you in understanding the key meteorological events and factors which are significant in your case. If your case happens to involve an area which is outside our specialization, such as tropical meteorology or aviation meteorology, we will always refer you to one of our trusted colleagues around the country who can assist you.

Here at STM, we are passionate about our role as NOAA Weather-Ready Nation Ambassadors and using our meteorological knowledge to help create prepared, resilient, weather-ready communities. As such, we are booking free seminars around the Northeast and Southeast United States in which we discuss hazardous weather preparedness and safety best practices. We are available to visit your place of business, school, or place of worship and present a lively and engaging discussion on how best to prepare for and respond to specific weather threats in your area. If you would like to schedule a seminar, please contact either Kelly or me to schedule a date. We are also able to visit your facility and conduct a more involved training seminar; please contact us for pricing.

As always, stay in touch with us on [Facebook](#) for information about current weather hazards around the country, and subscribe to our [weekly blog](#) for a more detailed look at relevant weather topics.

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- **Experience providing comprehensive, data-driven research to prepare customized reports based on stakeholder needs**