

# **The Ozark Ambassador**

NORA

National Weather Service Springfield, Missouri

# **Summer 2025**

#### **Topics**

#### Summer 2025 and **NWS Heart Products Understanding NWS** 2 Heat Tools **NWS Heat Tools** 3 Criteria **Heat Impacts** 4 5 **Heat Safety** Understanding **Droughts Outdoor Weather** 7 Safety Remaining Weather Aware Sending Storm 9 Reports **Building a Weather-**10 Ready Nation

#### Ozark Ambassador Team

#### Jason Schaumann

Acting Meteorologist in Charge and Science and Operations Officer

#### **Steve Runnels**

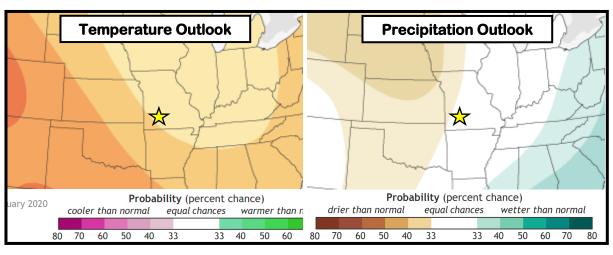
Warning Coordination Meteorologist

#### **Kyle Perez**

Weather-Ready Nation Ambassador Leader

weather.gov/springfield

# **Summer Outlook - June through August**



The Summer 2025 outlook slightly favors above normal temperatures and slightly favors below normal precipitation across the west. Elsewhere, there are equal chances for below or above precipitation. For more information visit: Climate Prediction Center.

### **NWS Heat Products**

Extreme Heat Watch	Issued for a heat index ≥ 110 degrees or a heat index ≥ 105 de- grees for 4 days within 24 to 48 hours.
Extreme Heat Warning	Heat index around 110° or higher. Heat index ≥ 105° for 4 or more consecutive days.
Heat Advisory	Heat index around 105° or higher. Heat index 100-104° for 4 or more consecutive days.

# EXTREME HEAT WATCH

An Extreme Heat Watch is issued when dangerous heat is possible.

Reschedule outdoor activities in the coming days. Make sure that children, the elderly, and pets have a place to cool off during the heat.

## Be Prepared.

# EXTREME HEAT WARNING

An Extreme Heat Warning is issued when dangerous heat is happening or about to happen.

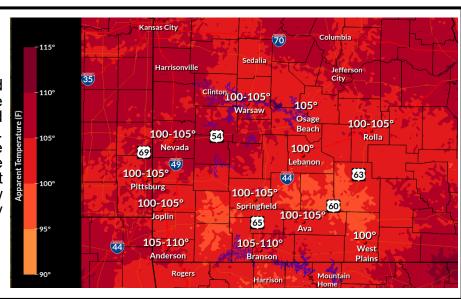
Avoid heavy activity & direct sunlight. Stay hydrated, find a cool indoor place, and check on children, elderly & pets.

### Take Action!

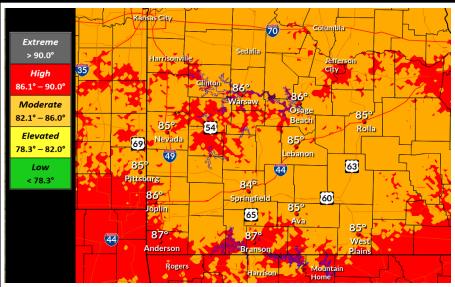
# **NWS Heat Tools**

#### **Heat Index**

**Heat Index** is the most commonly used and understood heat tool by the general public. The higher the values the hotter it's going to feel and the higher the threat for heat related illnesses. It's calculated from the temperature and relative humidity. Heat Index assumes you are in the shade. The Heat Index or the "Apparent Temperature" is an accurate measure of how hot it really feels when the Relative Humidity (RH) is added to the actual air temperature.



#### **Heat Index Forecast**



## **Wet Bulb Globe Temperature**

Wet Bulb Globe Temperature (WGBT) is a measure of the heat stress in direct sunlight, which takes into account: temperature, humidity, wind speed, sun angle and cloud cover (solar radiation). This differs from the heat index, which takes into consideration temperature and humidity and is calculated for shady areas. This is a particularly effective indicator of heat stress for active populations such as outdoor workers and athletes.

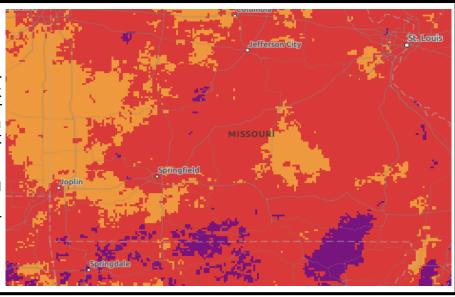
Wet Bulb Globe Temperature Forecast

### **NWS HeatRisk**

**NWS HeatRisk** is an experimental colornumeric-based index that provides a forecast risk of heat-related impacts to occur over a 24-hour period for a specific location, along with identifying groups potentially most at risk at that level. HeatRisk takes into consideration:

- How unusual the heat is for the time of the year.
- The duration of the heat including both daytime and nighttime temperatures.
- If those temperatures pose an elevated risk of heatrelated impacts based on data from the CDC.

**NWS HeatRisk Forecast** 



Page 3 Summer 2025

Heat Index

Classification	Heat Index (°F)	Effect on the Body
Caution	80 to 89	Fatigue possible with prolonged exposure and/or physical activity.
Extreme Caution	90 to 102	Heat stroke, heat cramps or heat exhaustion possible with prolonged exposure and/or physical activity.
Danger	103 to 124	Heat cramps or heat exhaustion likely, and heat stroke possible with prolonged exposure and/or physical activity.
Extreme Danger	125 or higher	Heatstroke highly likely with continued exposure.

Threat Level	WBGT (°F)	Effects	Call to Actions	
Low	< 78.3	Normal activities.	Take at least 3-5 minutes of breaks each hour if working or exercising in direct sunlight.	
Elevated	78.3 – 82.0	Working or exercising in direct sunlight will stress your body after 45 minutes.	Take at least 15 minutes of breaks each hour if working or exercising in direct sunlight.	
Moderate	82.1 – 86.0	Working or exercising in direct sunlight will stress your body after 30 minutes.	Take at least 30 minutes of breaks each hour if working or exercising in direct sunlight.	
High	86.1 – 90.0	Working or exercising in direct sunlight will stress your body after 20 minutes.	Take at least 40 minutes of breaks each hour if working or exercising in direct sunlight.	
Extreme	> 90.0	Working or exercising in direct sunlight will stress your body after 15 minutes.	Take at least 45 minutes of breaks each hour if working or exercising in direct sunlight.	

Risk of Heat Effects		Risk of Heat-Related Impacts	
0	Little to None	Little to no risk from expected heat.	
1	Minor	Primarily affects individuals extremely sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration.	
2	Moderate	Affects most individuals sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration. Impacts possible in some health systems and in heat-sensitive industries.	
3	Major	Affects anyone without effective cooling and/or adequate hydration. Impacts likely in some health systems, heat-sensitive industries, and infrastructure.	
4	Extreme	Rare and/or long duration extreme heat with little to no overnight relief. Affects anyone without effective cooling and/or adequate hydration. Impacts likely in most health systems, heat-sensitive industries, and infrastructure.	

# **Heat Impacts**

## **Dangers of Excessive Heat**



## **Protecting Yourself From Heat**

# PROTECT YOURSELF FROM HEAT & SUN



Drink plenty of water and avoid alcohol. Beverages with electrolytes can also help protect against heat stress.



Apply sunscreen (SPF 30 or higher) every two hours.



Wear lightweight, loose-fitting, and light-colored clothing.



Take regular breaks in the shade.





# **Heat Safety**

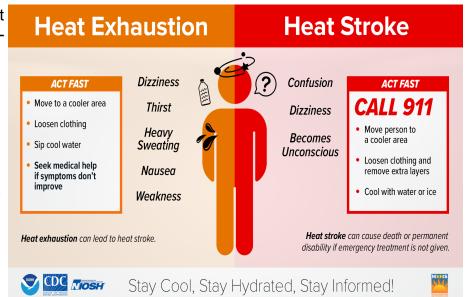
## **Heat Exhaustion vs. Heat Stroke**

Extreme heat is responsible for the highest number of annual deaths among all weatherrelated hazards.

#### Tips to keep in mind during high heat:

- Find air conditioning.
- Avoid strenuous activities.
- Wear light clothing.
- Check on family members and neighbors.
- Drink plenty of fluids.
- Watch for heat cramps, heat exhaustion and heat stroke.
- Never leave people or pets in a closed car.

Heat Illness Safety Information



**Staying Safe in the Heat** 

# **Understanding Droughts**

# **Drought Impacts**

# **Drought Impacts**



#### **Agriculture**

Farms, ranches, and grazing lands suffer, and increases the cost of their products



#### **Public Health**

A decrease of water can lead to an increase of illness, disease, mortality rates, and adverse mental health



#### **Ecosystems**

Harms fish, wildlife, and plants, as well as the benefits these ecosystems provide



#### Wildfire Management

Dry, hot, and windy weather combined with dried out vegetation can lead to more large-scale wildfires



#### Manufacturing

Interruptions in the water supply can result in a reduction of productivity or closure of facilities



#### Energy

Production of all types of energy requires water, and drought can severely impact energy systems and prices

# **Drought Intensity**

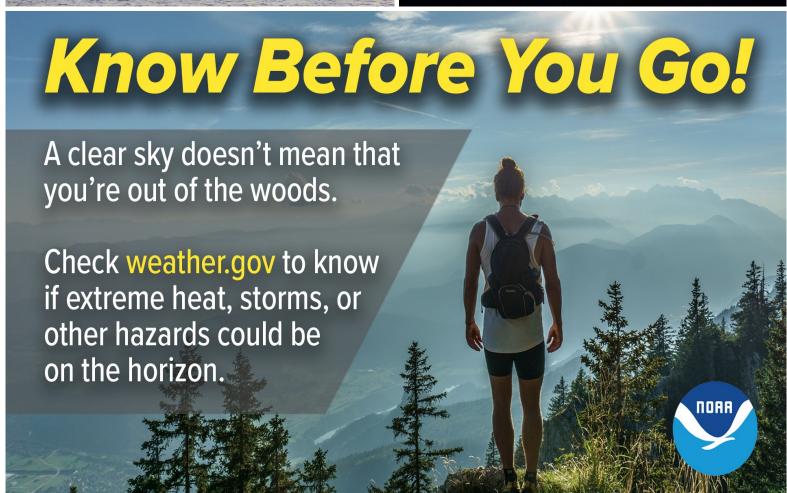
Drought Intensity Classification			
	D0	Abnormally Dry	Going into drought, short-term dryness slowing planting, growth of crops and pastures; fire risk above average. Coming out of drought, some lingering water deficits, pastures or crops not fully recovered.
	D1	Moderate Drought	Some damage to crops, pastures, fire risk high; streams, reservoirs or wells low, some water shortage developing or imminent, voluntary water use restrictions requested.
	D2	Severe Drought	Crop or pasture loss likely, fire risk very high, water shortages common, water restrictions imposed.
	D3	Extreme Drought	Major crop/pasture losses, extreme fire danger, widespread water shortages or restrictions.
	D4	Exceptional Drought	Exceptional and widespread crop and pasture losses, exceptional fire risk, shortages of water in reservoirs, streams and wells causing water emergencies.

For more information check out the National Drought Mitigation Center and National Integrated Drought Information System.

# **Outdoors Weather Safety**

# **Weather-Ready Outdoors**





# **Remaining Weather-Aware**

# STORM PLANNING TIMELINE

### A few days out

If the forecast calls for severe weather in a few days, start preparing now.



Make sure that you have emergency supplies



Know your safe places



Have a family communication plan

## The day before

The day before, forecast accuracy continues to improve.



Adjust plans



Make sure your phone can receive WEAs



Ensure your shelter is clean and accessible

### The day of

Remain vigilant and aware of any active Watches. A Warning may be issued at a moment's notice!



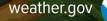
Remind your family of the communication plan



Know how to evacuate and/or get to safety from wherever you are



When a Warning is issued, you may only have seconds to take action!





# **Sending Storm Reports**

## **Reporting Severe Weather**

#### Hail



Diameter of the largest stones. Looking for reports of near or above severe limits (1.00 in).

#### Wind



Measured speed and/or damage. Include tree or limb diameter, tree health, uprooted or snapped.

#### **Tornado**



Confirming funnel clouds, rotating wall cloud, or damage. Tell us why you can confirm it is rotating or on the ground?

Flood



Washed out or flooded roads, rain measurements. Are businesses or homes being impacted?

Reports that come in as the storm is in progress are much more valuable than reports that come in hours after the storm is done.

Can trigger or keep warnings active. NWS relays storm reports through warnings.

# **Measuring Hail**



Peas %"



Penny



Quarter 1"



Golf ball



Tennis ball 2 1/3"



Baseball 2 34"



Grapefruit 4 1/2"

Compare the hail to common, everyday objects.

Remember to include measured hail size, a picture, time it occurred, and approximate location!

Make sure to compare to an object that is consistent in size, i.e. NO marbles!

# **Ways to Send Reports**

# **Building a Weather-Ready Nation**

# **Becoming a Weather-Ready Nation Ambassador**

# What do Weather-Ready Nation Ambassadors Do?

#### **Promote Preparedness and Resiliency:**

✓ Follow our social media and share our hazardous weather and safety posts.

#### Collaborate with the NWS:

Let us know how we can help you and your community become more weather ready.

#### Serve as an example:

 Educate employees on workplace preparedness and encouraging personal preparedness at home.









Click here to Learn More about Becoming an Ambassador

Scan the QR code to Apply today!

# Following the NWS and Summer Safety Resources



Office: (417) 863-8028



contact.sgf@noaa.gov



weather.gov/springfield



@NWSSpringfield



@NWSSpringfield



Youtube.com/NWSSpringfield



**Spring Weather Safety Resources** 

weather.gov/safety

#### **Additional Webpage Resources**

National Integrated Heat Health Information System (NIHHIS)

<u>Missouri SEMA Heat Safety</u>

Kansas Department of Health and Environment
CDC Tips for Preventing Heat Related Illness
NIOSH Heat Stress Safety

Missouri Cooling Centers

Weather Story

DSS Packet

Climate Prediction Center

GHWO
Point and Click Forecast
National Hurricane Center

Weather Prediction Center
Storm Prediction Center
Aviation Weather Center

Follow NWS Springfield







