

# Wet Bulb Globe Temperature: An Overview

Wet Bulb Globe Temperature, or WBGT, is a way to measure heat stress on the body. For calculating WBGT outdoors, you need 3 elements:

## Natural Wet Bulb Temperature

is the temperature of the air cooled by evaporation. Think of it as your body cooling when sweat is on your skin.



Globe Temperature is the temperature affected by radiation of the sun on your body. Measured in a black sphere.



Air Temperature is the temperature of the air in its current state. Measured in a radiation shield.

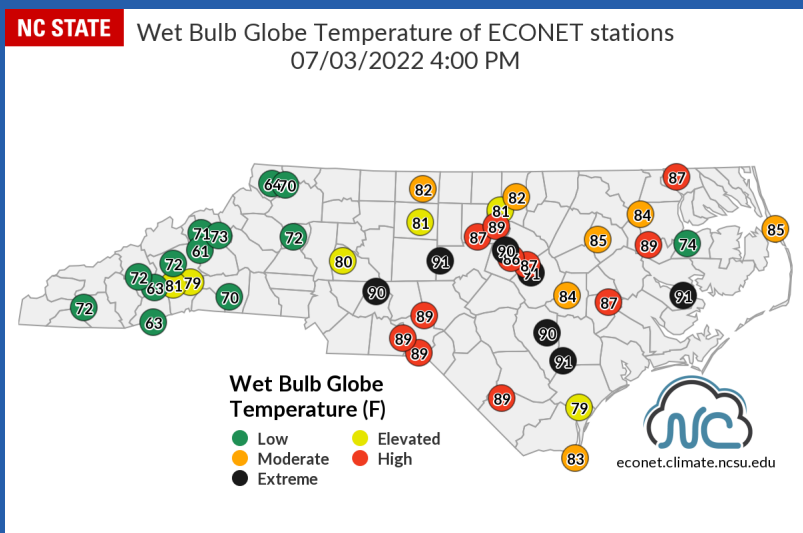


## Categories of WBGT

Much like air quality alerts, WBGT values are color coded to signify their severity. WBGT values are categorized for low (green) to extreme (black). Extreme WBGT conditions typically happen with high air temperatures, high relative humidities, low wind speeds, and little to no cloud cover. The Korey Stringer Institute provides details on precautions needed for high WBGT categories. Visit [ksi.uconn.edu/prevention/wet-bulb-globe-temperature-monitoring/#](http://ksi.uconn.edu/prevention/wet-bulb-globe-temperature-monitoring/#) for more information.

Category	Time Until Heat Stress Occurs	Break Time Per Hour
Low	None	None
Elevated	45 Minutes	15 Minutes
Moderate	30 Minutes	30 Minutes
High	20 Minutes	40 Minutes
Extreme	15 Minutes	45 Minutes OR Cancel Activity

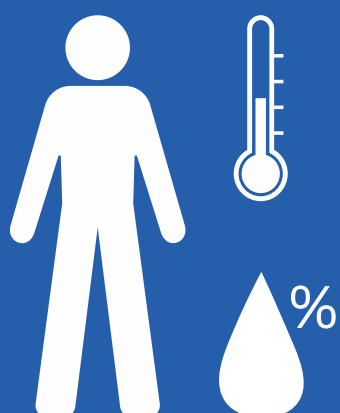
## Where can I find WBGT data?



Real time and historical WBGT values, such as the map on the left, as well as information on WBGT categories, can be found on our website at [econet.climate.ncsu.edu/wbgt](http://econet.climate.ncsu.edu/wbgt).

## Why not just use Heat Index?

Variables Needed to Calculate **Heat Index**



Since the majority of outdoor activities take place in areas of little to no shade, WBGT provides a more accurate representation of heat stress on the individual.

Variables Needed to Calculate **WBGT**

