

NC Corn Growers Non-Irrigated Corn Soil Moisture Status Update 7/27/24

Station Map



Soil Moisture Status by Location

NC Non-Irrigated Corn Moisture Network
 Status: 6/27/2024

Location	Region	Top Soil Status	Subsoil Status	Depth to Water Table
Elizabeth City	Coastal Plain	Extremely Dry	Extremely Dry	>40
Lewiston-Woodville	Coastal Plain	Extremely Dry	Extremely Dry	>40
Kinston	Coastal Plain	Extremely Dry	Extremely Dry	>40
Plymouth	Coastal Plain	Extremely Dry	Extremely Dry	>40
Roberson	Coastal Plain	Good	Good	>40
Wallace	Coastal Plain	Extremely Dry	Dry	>40
Raleigh	Piedmont	Extremely Dry	Dry	>40
Reidsville	Piedmont	Extremely Dry	Good	>40
Sandhills	Piedmont	Extremely Dry	Dry	>40
Mills River	Western Piedmont/Mountains	Extremely Dry	Dry	>40
Salisbury	Western Piedmont/Mountains	Extremely Dry	Extremely Dry	>40
Yadkin	Western Piedmont/Mountains	Extremely Dry	Extremely Dry	>40
Good	(0 to -100) kPa			
Dry	(-100 to -300) kPa			
Extremely Dry	(<-300) kPa			

Comments: All locations have continued to deplete the plant available soil water in the primary rooting zone. Recent rainfall has improved the situation at the Roberson County location. There is some subsoil water available in the North-Central Piedmont locations but

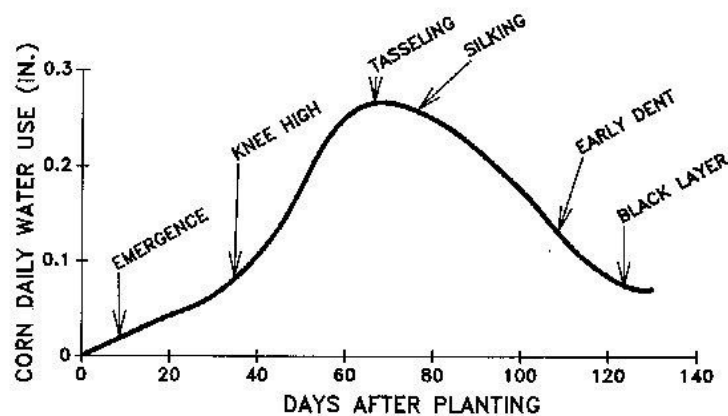
not enough to sustain the plant without rainfall. Eleven of the 12 locations are experiencing extreme dry conditions in the primary rooting zone with significant drought stress. There is not a measurable water table close to the root zone at any location in the network. We are in desperate need of widescale soaking rains across the state.

Coastal Plain: Lewiston-Woodville has continued to remain exceptionally dry. The only location with adequate water supplies in the network is the Roberson County site due to recent rainfall.

Piedmont: All sites are extremely dry in the primary root zone with limited plant available water in the subsoil.

Mountains and Western Piedmont: All locations are extremely dry. Mills River does have some plant available water in the subsoil at deeper rooting depths.

Estimated Daily Corn Water Needs by Growth Stage



Corn stages are varied across the state. The impact of this drought and high heat on crop yields will be a function of the growth stage, the available soil moisture, and the amount of time without significant precipitation. Hopefully, we will receive some widespread rainfall across the state soon.

General Irrigation Comments:

If you have limited water supplies, consider rationing water in preparation for VT and R1. Water during this period is critical for achieving a respectable yield. Timing of irrigation during this period is critical for pollination to occur. However, for those in extremely dry conditions, you need to apply enough water to protect the ear leaf and keep it green. Hopefully, we will receive significant precipitation to replenish the soil reserves and our water supplies soon. Those with adequate water supplies, refer to the image above for the typical daily water use for corn. Given the hot temperatures we have been observing, the daily water use can be higher than shown in the figure.

