

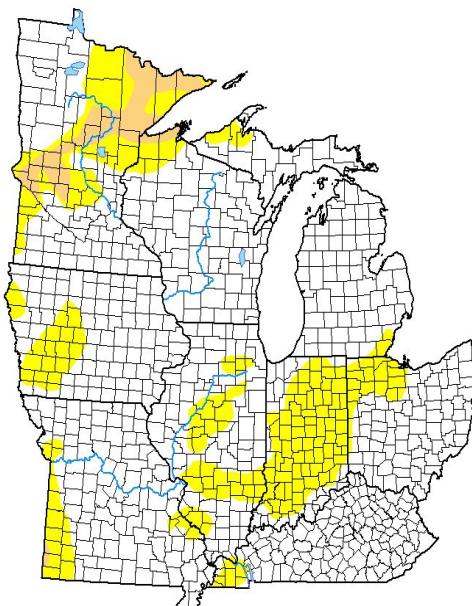
THE PURDUE LANDSCAPE REPORT

Dog Days of Summer Barking Early This Year

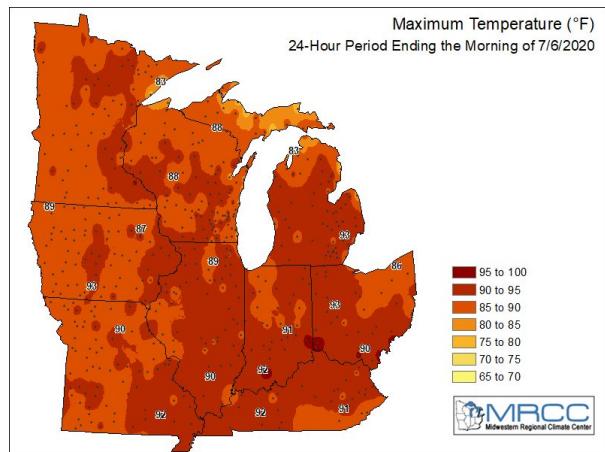
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Hot, dry summers are not that unusual in the Midwest, but 2020's hot dry spell started considerably earlier than usual, before summer even officially began! To make it a triple whammy, the hard freeze in early May caused some landscape plants to burn up more stored carbohydrate reserves to produce a second round of foliage.

I'm sure I don't have to point out that most of Indiana is currently experiencing abnormally hot, dry conditions. Although recent rains have brought relief to some areas, any respite is sure to be temporary. Seasonal thunderstorms may deluge some landscapes with water while other areas, even those close by, may stay fairly dry. Much of the area has experienced highs in the upper 80's to over 90° F over the past month.



(Figure 1) US Drought Monitor.
<https://www.drought.gov/drought/rcc/midwest>



(Figure 2) July Heat Map



Leaf Scorch on Lilac

Leaf scorch on trees and shrubs, appearing as a browning along the edges of the leaves, is very common in dry summers. While minor cases of leaf scorch are not very harmful, prolonged lack of moisture can spell disaster for landscape plants. Young and newly established plants are most susceptible to the dry conditions, but even established plants may reach a critical point during prolonged drought. If the heat and drought continue this summer, branch dieback, combined with eventual root death, will make plants more susceptible to winter injury. Plants that were already under stress from other factors may succumb to severely dry soils.



Hydrangea wilting

The intense heat makes it difficult for plants to keep up with water and cooling requirements, even in areas where moisture is adequate. One of the ways that plants cool themselves is through transpiration, which allows water to evaporate from the foliage.

Plant leaves have pores called stomata that can open and close to allow water vapor and gas exchange with the environment. During extreme heat and/or drought, stomata will nearly close, thus reducing transpiration and exchange of carbon dioxide and oxygen. The end result is seen as wilting foliage and leaf scorch. But not so obvious is that reduced water uptake and gas exchange also leads to reduced production of carbohydrates through photosynthesis and reduced uptake of soil nutrients, having longer term impact on plant health.

There is still plenty of summer yet to get through to see the further challenges ahead. Meanwhile, we can mitigate some of the stress by watering landscape plants as needed where feasible.

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