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Campbell Vaughn: How to help plants stressed by extreme heat

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It is fine if you complain to me about the heat, but you are preaching to the choir.

There was a time earlier in the week I thought if I stood outside two more minutes that I might spontaneously combust. Remember on the playground when you were a kid and had a magnifying glass and you would burn leaves or ants? I felt like I was one of those ants. And the bad news is it is only getting hotter this weekend.

Last year was a tough year in my yard with the summer heat, because I had planted a bunch on new shrubs and perennials in the spring and they were trying to take hold. I spent a bunch of time hand watering, but don't think I ended up losing but one or two plants total.

When it comes to new plantings in the landscapes in Augusta, if the plant is installed correctly, not drowned from overwatering and can make it through the first hot Garden City summer, it is usually going to be ok. This summer my plants have seemed to be weathering the heat a whole lot better than last, but they are not completely happy. Plants do have HVAC systems and it is a mostly invisible process called transpiration.

It is way hot right now and when it gets this hot during the day, plants literally don't get enough time to recover during the nights before the sun comes pounding again the following day.

To try to stay cool, moisture is carried from the plant's roots all the way to small pores on the underside of leaves. The water then changes to vapor and is released to the atmosphere which is essentially evaporation from plant leaves.

Gardening in a limited space: Container gardening offers an array of options for those with limited space

About 10% of the moisture found in the atmosphere is released by plants through transpiration so it is a huge part of the natural water cycle. Examples of how much water is produced from transpiration would be that an acre of corn gives off about 3,000-4,000 gallons of water each day while a large oak tree can transpire 40,000 gallons per year. For reference, the remaining 90% of the water in our atmosphere is supplied by evaporation from oceans, seas, and other bodies of water (lakes, rivers, streams).

When temperatures hit mid 90s and up into 100 degrees and only cool off into the upper 70s or low 80s at night, a plant's root will sometimes not be able to absorb enough water to replenish itself before sunbathing the following day. The plant essentially stays dehydrated and often will show some signs of stress.

To know when your plants are struggling, I like to look for what I call indicator plants. These are the shrubs or perennials that will begin drooping when drought stress conditions are prevalent. A nice fellow gave me some giant elephant ears a couple of years ago that I planted in a nice spot in my yard and they have multiplied expediently. When they start to sag, I know it is time to hit them with some water. It is also probably time to turn on my irrigation for the lawn as well. Mop head hydrangeas are also good indicator plants because they need a little more moisture compared to other plants and are usually one of the first to start sagging.

Campbell Vaughn: With high heat comes the need to extra precautions with your lawns

These extreme temperatures are one more big reason I preach about building healthy root systems. With wider, deeper and more plentiful root systems, the better access your plant has to desperately needed moisture in these extreme heat conditions. Watering deep once a week is way better than adding a little surface moisture often. With this excessive heat, you may even have to water plants two to three times a week until we start back getting some showers and temperatures not in the inferno range. And don't be afraid to pull a hose around and give a little boost to some thirsty plants looking for a drink.