



I love this time of year. It is time for reflection, a time to review the care practices of the season, the pests and diseases that have been active and annoying - and usually to put in those last trees, shrubs and perennials that have been calling to me all season. The longing is strong but - again - we have no measurable rain in sight. What does this drought mean for various plants? How does it affect them? Should new plants get put in? What does this mean for our current plant investments as we dryly careen toward fall and winter? What can we do at this late stage in this growing season to help the survival rate?

Water stress affects various plants in various ways. Young plants - seedlings and new container transplants - are often more at risk than those that have some age to them or have been grown in-ground, relatively locally. Younger plants and seedlings do not have enough internal capacity to store water in quantities that can supply the plant systems during times of water shortage. Considering the weather that we have had - no rain to write home about, lots of consistent heat, very warm dry winds, and not much dew - the plants are given little to help replenish water shortages. These nonexistent (this year) forms of moisture usually help the plants stave off severe damage. Without that assistance seedlings and young plants will fall into a state of water stress that is very difficult to recover from. Container, and other transplants, can be quite susceptible to water stress even when adequate water is provided. Seems unlikely, but often the container material is a porous mix of sterilized organic components which dry out very quickly. In the nursery setting, this is good as it encourages adequate airflow, minimizes standing water issues and, it makes it easier for us retail consumers to cart our purchases home. Once we have carted those containerized plants home and have happily planted them - dry, breezy air conditions, intense sunny heat and lack of evening dew encourage a bit too much dryness around the roots, which are still surrounded by that well drained planting material. This dryness can result in root loss, inhibiting the plant's ability to not only thrive but even survive.

Putting in new plants any time during a year (in our case year number five) of drought can be successful with intense care practices and careful monitoring. The first decision point in determining whether it is feasible for you to invest in any new plant material is to look at your current care practices, the time (and water budget) available, and of course, your level of desire. Keep in mind that the soil is powder dry to at least two feet deep in our area. So - any plant specific watering that you do will quickly be wicked

away by the surrounding soil, turf, and anything else that is as hungry for water as those little dears you are trying to give a drink to. Should this deter you? Maybe, maybe not. A continuously consistent and quality level of care may be helping you in your endeavor to keep your existing plantings alive and in fair shape for the upcoming winter months. If you do not have a care plan or watering regime in place, you may want to think about holding off on new plantings and plan for replacing those plants that may not make it through our long and potentially dry (we never know...) winter. Planning and thinking about taking care of your plant investments is a great thing - but follow through is essential. If you do not have the time, and money, to keep up now - what will your life be like if you add three, five or seventeen new plants to the care roster?

Existing plants, if they were cared for in a remotely responsible manner throughout those first four to six years, will probably survive. If they were watered sufficiently and deeply - the roots have shot deep, increasing the chances for survival during these droughty periods. Native plants have acclimated, over generations, to the extremes generally found in the regions they are happiest in. Those that are recent transplants (from the north or south) to this region may not be hardy enough to withstand the highs, lows and speed with which they must adapt to both. In any plant material, native or introduced, you should realistically, expect some branch dieback, root rot issues, and certainly not be surprised by some complete plant losses. Symptoms of drought stress vary - life should be so simple that they can be summed up in two words. Some of the more commonly visible symptoms are wilting leaves, dry fruit, leaf curl, brown leaf edges, complete leaf loss, chlorosis (discoloration - generally yellow - due to nutrient deficiencies), evergreen needle droop, yellowing or browning. Symptoms that are not visible include systemic weakening, leading to secondary pest (disease and insect) invasion, inability of roots and leaves to quickly re-hydrate, and permanent drying of absorptive root tissue.

Nothing is as good as what nature provides, so while we wait - water, water, water, mulch, mulch, mulch, and plan, plan, plan. For trees and shrubs with deep root systems, two inches of water should be provided once weekly, to encourage those deep roots to stay deep. Perennials will need to be watered more frequently - two or three times per week - as the root zones are not as deep but do need to be kept nicely hydrated. With all plants, remember to water so that the entire root zone is included. When mulching, use three to four inches of a good quality organic material, cover the entire root zone making sure to keep

a few inches away from the trunk or stem. This will help to moderate temperature and retain as much moisture as possible in the root zone. At this time of the year, you may want to wait until the ground has frozen solid in order to discourage those rodents from moving in and using your plant material as a winter spa and restaurant. Plan for and research plants that will respond to our most extreme weather conditions. Take a new look at native plants – they have been doing well here for eons, maybe they know something we don't.

One of the most frustrating things we do to ourselves is over estimate how much time we have for the fun endeavors in life. And a sure way to take the fun out of gardening is to try to do way too much. Plan accordingly – gardening should be fun, not a curse inducing activity. But of course, if like most diehard dirt diggers, you must have and must plant and must care for new plants late this season – go for it, with eyes wide open to the necessary work load.