

Winter Watering?

One gardening practice here that many people who come from other parts of the country find odd is watering the landscape in the winter. When you understand how plants interact with patterns of precipitation and temperature, you'll see why this is necessary. Roots are active any time the soil temperature is over 34 degrees, and the soil doesn't tend to freeze here until late December or early January. Even then, it may only freeze down a few inches, so keeping some moisture in the root system is important. Before climate change made winter moisture more scarce, we used to have snow cover in Santa Fe through most of the winter, amounting to an average of about an inch of precipitation per month. The snow cover kept moisture in the ground by reflecting sunlight and keeping the soil frozen on top, and it added moisture as it melted. This moisture kept plants hydrated as they came out of dormancy into our typically windy, dry spring and early summer weather. Given that it takes about 10-12" of snow to create one inch of water, it's easy to see why we can't count on snowfall to supply enough moisture any more. Winter watering is critical when we don't get the heavy snows that keep the soil moist.

Though water use by deciduous plants and perennials goes down a lot after the tops go dormant, evergreens continue to transpire moisture through the winter, making them especially vulnerable to drought stress during warm dry winters. This applies to both needleleaf evergreens (like pines and spruces) and broadleaf evergreens (like Euonymus and Pyracantha). If you are growing evergreens in warm sunny areas and/or sandy soils, you might need to water them every two to three weeks through the winter, especially if they were only planted this year. Evergreens that are desert succulents (agaves, beargrass, cactus, yuccas) are an exception and shouldn't be watered in the winter. Deciduous plants and perennials, and plants growing in cold areas/heavy soils, may only need to be watered once a month in January and February, and possibly March. In very shady areas where the soil freezes solid, water deeply in December then wait for the soil to thaw out and start to dry down before watering again. Increase your watering frequency gradually as plants come out of dormancy and soils warm up in the spring. When soil temperatures and air temperatures warm up enough for plants to start putting out new growth, root activity will ramp up and an adequate supply of moisture in the soil will be critical to support the new growth.

It's important to supply enough water to thoroughly moisten the top foot of soil in the root zone every time you water. This can take a lot more time than expected; I always try to find sunny periods expected to last for two or more days to water my garden. Water when the temperature is above freezing, preferably above 40 degrees. If you have an open bed full of new plants, setting up a small sprinkler to water the whole area and letting it run for a long time is a good way to do this. This also works to water around established trees on relatively flat ground, moving the sprinkler around as needed. When watering established trees, be sure to cover the area under the whole canopy and at least a few feet beyond that, if possible.

If you have a thick cover of organic mulch, keep in mind that the mulch will soak up a lot of the water you apply; you may want to water two days in a row. If you are watering individual plants, it can be helpful to create "wells" around them to hold water. It's generally useful to fill the well, go water something else, then come back after the water has sunk in and fill the well again. You may need to repeat this pattern two or three times to completely saturate the root zone. Don't forget to disconnect the hose after watering and drain it. Though winter watering is not a chore that many gardeners enjoy, the benefits to your plants more than repay the effort.