Garden Update
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March Watering

When it comes to watering during dry winters, three factors will determine if and when water should be applied to trees and shrubs.

1. Is the ground frozen? If soil temperature is below freezing, then water uptake by tree roots will not occur. Push the shaft of a screwdriver into the soil to help determine if the ground is frozen. If the screwdriver pushes in easily, then soil isn't frozen and the first requirement for winter watering has been met. Read on for other factors to consider.

2. Was last fall and the present winter exceptionally dry with minimal rain or snowfall? If you answer yes, then soils are likely dry too because winds pull moisture from plants and soil. It is a simple task to check the soil for moisture before watering. Push a finger below the mulch layer—if the soil feels moist, then the mulch is acting as a buffer to the drying winds and watering is not necessary. When it comes to soil moisture levels, nothing benefits trees, shrubs, and perennials like a 2–4-inch layer of wood chips spread over the root zone. If the soil is dry, then a second condition has been met for winter watering.

3. Are there plants in the landscape that were planted within the past few years? Newly planted trees and shrubs have not developed an extensive root system and will have a lower tolerance to dry conditions than established plants. Even drought-tolerant plants will need water during the establishment period. Conifers, too, benefit from winter watering when conditions are dry, and soil is not frozen. With all these conditions in place, providing water is the next step.

A tree's caliper (diameter at 6 inches above the soil) will help to determine how long the tree needs attention after planting AND the amount of water to provide. For every inch caliper of trunk, a tree requires about 1-½ years to establish (University of Minnesota). Thus, a tree that is 2 inches in caliper requires 3 years to establish. Caliper size also serves as a basis for how much water to provide. Newly planted trees require 1 to 1-½ gallons of water per inch of stem caliper at each watering (University of Minnesota). A good example: if a 2-inch caliper tree planted two years ago will need 3 years to establish, then the tree is considered newly planted and should be given 2-3 gallons of water in one application, applied slowly enough so it can percolate into the soil. To determine if a repeat application of water is needed during winter months, refer to the conditions enumerated here.

Mulched trees develop more fine feeder roots for water uptake than trees in grassed areas (Watson and Himelick) and more fine feeder roots means trees have a better chance at staying hydrated. Mulching with a 2–4-inch layer of wood chips retains soil moisture levels as well as promotes development of these fine feeder roots. If trees haven't been mulched, it is always good to do so.