



LET IT RAIN!...Please.

Summer & Fall Drought Adds to Winter Injury

The rule of thumb for roots is that if the soil temperature stays in the range of 45-55°F, some root growth still occurs. As long as roots are active, they need water to draw on. Stress on the plants during the fall season can greatly increase the chances that winter damage will occur. Winter weather makes a stressful situation for all plants, but some more than others. Plants especially at risk for winter stress are species from southern climates, exposed, isolated trees in landscape, and plants stressed from drought, or improper management.

Winter Drying/Desiccation

Winter drying damage occurs when trees lose more water than they can take up from frozen ground. It happens most often in late winter/early spring, when the ground is frozen, and the sun is warming the plants above the ground. Greater damage occurs on the side of the tree facing the prevailing wind, or a radiated heat source.

Other factors that contribute to winter damage are:

- Wind (which contributes to water loss)
- Improper planting
- Poorly developed root system
- Insect or disease damage, and genetics
- Fertilizing during drought conditions in fall not only causes problems with hardening, but it can burn roots

Plants that are most at risk for winter drying are those that enter the season already drought stressed. Evergreens are especially at risk; most commonly Arborvitae, Spruce, Yews, and Juniper.

Signs of winter drying in evergreens are yellow/brown needle tips on narrow leaf Evergreens, and browning or death of leaf margins on broadleaf evergreens.

The result of winter drying damage can be seen in Evergreens usually only on needles, as long as buds and branches are ok, there will be new needles in spring. In other trees, dry spells in winter and spring can kill the fine rootlets, reducing ability of tree to take up available water throughout the season.

Damage to plants can be avoided by watering during dry periods of mid summer through fall, once every two weeks for new plantings, mulching, wind screening, or applying anti-desiccants in late fall, and mid-winter.



In order for a tree to survive and thrive, adequate water is essential in all seasons. Water in spring is necessary for proper size and number of leaves, and water in fall is necessary for winter survival.

Since survival of the fittest is a costly gamble in our fields as well as the landscape, supplying our plants with the water Mother Nature hasn't provided this fall will ensure a healthy crop next spring.