

Reducing Winter Dessication Injury on Evergreens

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Release: Week of October 14, 2024

The dry and very warm fall we've had sets plants up for two types of injury. Winter dessication and cold temperature injury if temperatures make a sudden drop before plants go dormant.

We can't do much about temperatures but with correct fall watering we can reduce the risk of winter drying. To possibly reduce the risk of cold temperature injury, avoid fertilizing trees, shrubs and ornamentals after early August. Nitrogen can stimulate tender growth more susceptible to injury.

Dessication injury occurs when green foliage loses moisture faster than roots can replace it. During summer, it appears as scorched leaves where browning uniformly occurs on leaf edges and between leaf veins. In summer, it is common on young plants with unestablished root systems and large leaved plants growing in open, exposed locations.

During winter, evergreens continue to lose moisture from green foliage. Due to cold or frozen soil, the moisture cannot be readily replaced by roots. Injury is most common on young evergreens and those growing in windswept areas, on the south or southwest sides of light-colored buildings, and near pavement.

Evergreens most prone to winter dessication include needled conifers like dwarf spruce, Japanese Yew, some junipers, and Arborvitae; and broadleaf evergreens like boxwood, euonymus, English ivy and holly.

If plants go into winter drought stressed, or we have warm, windy winter days with little snow cover, the risk of dessication increases. When soils are dry, small root hairs responsible for water and nutrient uptake die, decreasing a plants ability to replace moisture lost through transpiration from green foliage.

Keeping the soil of evergreens moist to a depth of 12 to 18 inches from spring through fall is most important for injury prevention. Fall watering, especially in the absence of rain, is very important for sending trees and shrubs into winter well hydrated.

When watering, keep in mind tree roots extend well beyond branch tips. They can grow outward as much as two to three times a tree's height. Fine roots and root hairs responsible for taking up moisture are also in the upper 18 inches of soil.

Moistening the entire soil profile from ground level to a 12-inch depth from near the trunk to beyond the drip line is most beneficial. To achieve this, using a sprinkler to water trees is often most effective. Watering with root feeders does not cover a large enough area and may place water below absorbing roots. Soaker hoses are fine if enough of them are used over a wide radius.

When watering in fall and during warm winter periods, water only when air temperatures are above 40 degrees Fahrenheit and soil is not frozen. Apply water at mid-day so it has time to soak in before freezing night temperatures.

Always check soil before watering to be sure moisture is needed. As I've mentioned in previous articles, use a long screw driver to check soil moisture. If there is enough moisture, the screwdriver can be inserted easily into soil. If soil is dry, it will be more difficult to insert the screwdriver 8 to 12 inches deep.

When selecting plants for landscapes, avoid planting the above-mentioned plants in windswept, full sun locations near pavement or light-colored homes. As these are more prone to winter dessication, and with weather extremes being common, selecting these plants is risky.