

Yard and Garden – 11-28-09 – Ted Griess/ Extension Horticulture Assistant

Winter officially arrives in twenty-three days. Br-r-r-r. Just thinking about it makes me shiver. Although all gardeners enjoy spending time outdoors, most prefer basking in the warmth and comfort of their homes when winter unleashes its wind-swept, bone-chilling cold.

Such is not an option for trees and shrubs. Silently they stand in the freezing temperatures, like sentries at their post. There they remain on duty, twenty-four hours a day, seven days a week. No fireplace or warm blankets for them. Whatever Mother Nature dishes out, they must endure.

Have you ever wondered how they survive such extremes? The fact is some don't, and the most vulnerable are evergreens. Recently planted evergreens and broadleaf evergreens such as rhododendron, azalea, holly, boxwood, and daphne can easily suffer from the ravages of winter.

Throughout the year, evergreens, whether they have needles or leaves, lose moisture to the air through a process called transpiration. Even during the winter, when exposed to drying winds and/or mild sunny days, evergreens continue to lose water to the atmosphere. Furthermore, as the soil freezes, evergreens are unable to draw up essential water to replace that which is lost; thus, the foliage begins to forfeit stored moisture. This eventually leads to severe damage or death to the plant, a condition we commonly call *winter kill*.

Interestingly, *winter kill* is not usually noticed until the following spring. Long after winter is over, damaged foliage then begins to turn brown, contrasting with the living green foliage. When noticed, people often ask what disease or insect is causing the damage. They are always surprised when I respond, “*Winter kill.*”

Evergreen trees and shrubs should enter the winter season well-watered. Keep in mind, this watering provides the best protection if done at the right time. In early autumn, one should actually cut back on watering evergreens and deciduous trees to slow growth and allow them to make the transition to dormancy, a hardening-off process. It is best to wait to water until late November or early December when most deciduous trees and evergreens have reached full dormancy. By then, a deep watering, before the ground freezes, provides quality protection against *winter kill*. Furthermore, one should consider

watering evergreen trees during a January thaw and during other warm periods which may occur unexpectedly throughout the winter.



Another great way to protect evergreens from *winter kill* is through the use of anti-desiccants. These products are sold under assorted names such as *Wilt-Pruf*, *Nu-Film*, *Vapor Guard*, and *Stress-guard*. One should apply these products during late November or early December. Anti-desiccants help retain the moisture in the foliage for months. When applied according to directions, the product dries to form a clear, colorless, flexible glossy film which will not interfere with plant growth or affect

respiration, osmosis, or photosynthesis. Over several months, the coating breaks down into a fine powder that is blown away by wind or washed off by rain. It is best to apply these products when temperatures are above freezing.

Although most anti-desiccants last about three months, during a January thaw it is usually appropriate to make a second application. This application insures additional protection should the tree or shrub experience a harsh and prolonged winter.

A little side note, if one enjoys having a live Christmas tree or other evergreen foliage in and around the home during the Christmas season, consider using an anti-desiccant. Applying an anti-desiccant protects the greenery from losing moisture, thus keeping it supple, green and fresh throughout the holidays.

Winter will soon arrive. Before you get too comfy sitting around the fireplace, or wrapped in a warm blanket to protect you from the cold winter's wind, don't forget your evergreens. Take a few measures now to protect them from *winter kill*. By so doing, chances are they will be there to greet you next spring, green and alive!