



Pest e-alerts



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Plant Disease Corner

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This spring, the Plant Disease and Insect Diagnostic Lab has received a high number of samples and inquiries about winter injury. Broadleaf evergreens such as magnolia, photinia, boxwood, and holly, are especially susceptible to this problem. We do occasionally find winter injury on conifers such as pine.

Winter injury is also referred to as winter desiccation injury or winter burn. Broad leaf plants and conifers continue to transpire in the winter months. Transpiration rate is increased if the plants are in windy locations or near structures that radiate heat (buildings, sidewalks). Plant roots seek to replenish the leaves by taking moisture from the soil. Under drought conditions or if the soil water is frozen, the roots cannot draw moisture from the soil. Broadleaf evergreens are more susceptible to winter injury than needle-type evergreens due to larger leaf surface area.

The symptoms of winter injury are wilting, leaf spots and discoloration (Figures 1-3). The discoloration is usually on the tips of plants and may also occur at the margins. If the damage is extensive, the plant may drop the affected leaves.

Prevention is the primary method to control winter injury. Evergreens should be well watered during dry periods in late fall. Plants that are watered biweekly through the growing season will be better able to handle this type of stress. If plants are small, it may be helpful to put a protective fabric over the plants or barrier around them to reduce transpiration loss. Anti-desiccant sprays could be applied in late fall or mid-winter and may provide some protection.

In the spring, some plants will retain damaged leaves. Other plants will shed the affected leaves as new growth appears in the spring. Most plants will recover, but they may become visually unappealing during the recovery process or if the shape is compromised.



Winter injury on boxwood (upper left), blue atlas cedar (upper right), and magnolia (lower center).
Damage varies from leaf spots to browning or discoloration.

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