

## WINTER INJURY

### Other Winter Problems -

Heavy snow or ice can break twigs or limbs.

During the winter animals can also cause physical damage by feeding or

other activities. Deer, rabbits, mice, and other rodents feed on the leaves, buds, and bark of certain plants.

### Conditions That Favor Winter Injury

A rapid temperature drop after unseasonably warm

conditions often favors winter injury. Low soil moisture favors winter burn on evergreens and low temperature injury to roots. Recent transplants and stressed plants are more prone to winter injury.

### Control

Specific measures can lessen winter injury.

1. Plant trees and shrubs that are hardy to the area.
2. Plant trees and shrubs in well drained soils.
3. Ensure sufficient moisture in the root zone before the soil freezes. Use of mulch will help retain moisture.
4. Use wind breaks in exposed areas.
5. Maintain plants by providing necessary nutrients, water, and protection against stress for more tolerance to winter injury.

In the spring, prune injured or dead branches and twigs after growth has started. Provide water and nutrients for healthy growth.

Reference: TruGreen ChemLawn Tree and Shrub Field Guide, pp. M-14-15



### Cause and Symptoms

Winter injury results from low temperatures, frost, or drying conditions (winter desiccation). Injury varies from leaf or flower burn to complete death of the plant.

**Low Temperature** - Low temperature injury occurs when temperatures drop below a plant's tolerance. Plants not hardy to the area are more prone to low temperature injury. Frost cracks and/or sun scald on tree trunks results when a temperature drop occurs after the bark has warmed up.

Injury symptoms are brown or black leaves, stem or branch dieback, bark splitting, and occasionally entire plant death. Complete plant death occurs when roots are killed.

**Frost** - Frost injury occurs during the fall and/or spring periods when plants are actively growing and temperatures drop below or near freezing. New growth, flowers, and fruits are most susceptible to frost injury.

Symptoms of frost injury include brown to black flowers, fruits, buds, and/or leaves. In addition, new leaves and shoots can be twisted, wilted, cupped, or curled. In some cases, leaves have holes in them after they expand.

**Desiccation & Drying Conditions** (winter burn) - Desiccation occurs when the leaves continue to lose water which is not replaced. This injury is usually associated with dry or frozen soil. Evergreen plants in exposed sites (winter wind) are more prone to this injury.

Symptoms are marginal leaf scorch, tip burn, leaf mottling, leaf drop, or death of entire leaves, twigs, or plants.