

## Winter Stresses on Trees & Shrubs

Winter's heavy snow and ice, as well as frozen soil conditions, can damage cherished trees and shrubs in suburban landscapes. Even areas without major snowfall experience high winds and huge fluctuations in temperatures during winter. But homeowners can lessen the adverse effects of winter weather with preventive maintenance.

### What can happen in winter, and how you can avoid it?

Branches of trees can break due to the excessive weight of ice or snow. Proper pruning encourages the formation of the strongest possible branches and branch attachments. When pruning alone isn't enough, properly installed cables and rigid braces can add support to a weakened part of the tree.

Winter winds cause evergreens to lose moisture from their needles. Even some deciduous trees suffer from winter drying. If water is not available as moisture is drawn from living cells, permanent damage will result. The best prevention consists of planting only hardy species in areas of prolonged exposure, watering plants adequately in the fall, and mulching to insulate the soil and roots from severe cold.

On sunny days in winter, the tree's trunk and main limbs can warm to 15 degrees higher than the air temperature. As soon as the sun's rays stop reaching the stem, its temperature plummets, causing injury or permanent damage to the bark. The two main types of injury are known as sun scald and frost cracking. The effects of sun scald and frost cracking can be reduced by sound arboricultural practices to maintain overall health, and also by covering the trunks of young, susceptible trees with a suitable tree wrap.

### Winter is a good time to prune

Most skilled arborists prefer pruning when trees are dormant. With no leaves on the tree, the arborist is better able to evaluate its architecture and spot dead or diseased branches. In addition, since the ground is frozen damage to the turf underneath the tree due to falling limbs and tire tracks is negligible. This is also a good time to check trees for diseases and other damage.

Here are some other ways to improve the health of your living landscape:

- Aeration around trees helps improve water and air movement in the soil. This strengthens the tree's root system and reduces soil compaction.
- When planting, choose hardy trees available in your area as they have better chances for survival in severe weather conditions. Choosing the best location and following proper planting procedures should be your highest priorities.
- Stop fertilizing trees in early fall to allow them to prepare for winter.
- In case of moderate storm damage, restoring the tree to its former health and beauty may take some time, but it generally can make a full recovery. Broken, hazardous limbs should be removed immediately. Pruning to remove broken stubs and restore the balance of the crown can be put off a little while, but shouldn't be delayed more than one growing season.

### What you can do?

Homeowners who are looking for someone to assess their landscape and make recommendations should consult a professional arborist. Contact the Tree Care Industry Association (TCIA), a 65-year-old public and professional resource on trees and arboriculture. It has more than 2,300 member companies who recognize stringent safety and performance standards, and are required to carry liability insurance. An easy way to find a tree care service provider in your area is to use the "Locate Your Local TCIA Member Companies" program. You can use this service by calling 1-800-733-2622 or by doing a ZIP code search on the TCIA Web site, [www.treecareindustry.org](http://www.treecareindustry.org).