

Frost Damage Reported Throughout Cheshire County, Greater Monadnock Region

Trees and shrubs are under constant attack from insects and fungi during the growing season. As early as April, insects are feeding on the buds or lush new growth of our native plant species. This May however, the region's trees and shrubs have experienced damage to their leaves that mimics many of our fungal diseases that normally show up in the late summer. Too early for fungal infections to cause the death of a leaf, there can only be one culprit; frost.

Frost in early May is common in New Hampshire; however the exceptionally warm April jump started a lot of our trees and shrubs into the growing season. This early start left their newly formed leaves exposed to the early May frosts we've experienced in the region.

Frost injury in trees and shrubs during the spring months usually occurs when temperatures reach around 28 degrees F or lower. During this time, water inside plant cells freezes and forms ice crystals. These crystals act as tiny daggers, piercing the membranes of cells and the organelles with each cell resulting in water loss and eventually death. When the whole leaf is frozen it may have a saggy or drooping appearance to it once it thaws. Very quickly the water evaporates for the leaf and it becomes very brittle and often turns black or brown in color.

Trees and shrubs experiencing frost damage will most likely recover from this injury. Within a few days, new leaf buds will appear on live branches and begin to send out new shoots of foliage. By mid-summer the damage caused by the frost will be unrecognizable if the tree or shrub is in good condition. Older trees may not recover and dead branches should be pruned to minimize the damage to the rest of the tree.



May 2010