

## ABRUPT FREEZE CAUSING DISCOLORATION OF EVERGREENS



**Browning coniferous shrubs, such as this juniper are very common around Cheyenne as a result of the hard freeze we had in November.**

Extreme drops in temperature can cause winter injury to both evergreen and deciduous trees and shrubs. Cheyenne, along with several other communities in the central and northern Rocky Mountains saw a temperature swing of at least 80 degrees in the month of November. November started with record warmth, then the temperatures dropped to an

early-season extreme low within a two-three day period and then returned to warm temperatures by the end of the month.

The ‘browning’ on the evergreens most likely occurred because the plants had not gone into complete dormancy. Woody plants prepare for winter through a process called hardening off. They reach their peak cold hardiness around the end of December. The frequency and severity of winter damage is determined by a number of factors, including the plant species or cultivar and its hardiness to the area, the location and conditions under which the plant is grown, and the timing of the weather extremes within the dormant period.

The abrupt freeze caused complete browning to partial browning on many evergreens. Deciduous trees had already shed their leaves so the damage will not be seen until the plants leaf out in the spring. It is a wait and see situation as to what is dead on both evergreen and deciduous trees. If the buds are viable and were protected by their bud scale, the plant may bud out this spring. Pine and spruce trees typically, “candle or break bud” in June.

If your tree’s brown needled branch is brittle and not pliable then most likely it is dead and can be pruned off the tree. However, if the branch is pliable do not prune it but wait until bud break to see if the branch is alive.



**Although this limber pine is mostly brown, its branches are pliable and likely still alive.**

In the future, to promote hardening off and reduce the risk of cold temperature injury, avoid over watering trees from mid-August until after fall leaf drop and do not apply nitrogen fertilizer after mid- to late July. Nitrogen stimulates leaf growth which is undesirable in the fall because the tree will not have ample time to harden off. Remember, your tree will take up any fertilizer that you apply to you lawn.