

PURPLE NEEDLES ON SPRUCE TREES

The appearance of purple spruce needles usually points to root dehydration. If the damage appears during the winter or early spring, it's probably the result of winter injury.

All spruce trees, but especially those growing in or near lawns, need water during the dry fall and winter months. This keeps the needles hydrated and healthy. Other factors can dehydrate spruce roots and should be considered when diagnosing the problem. For example, de-icing salts and excess fertilizer can also cause or contribute to the off-color because they dehydrate roots. A girdled root cuts off or reduces the amount of water reaching the needles, causing purple needles. Any activity that damages spruce roots (like trenching or digging) also prevents them from absorbing water well, producing the off-color.

OTHER SPRUCE PROBLEMS

Over the past several years a number of area spruce have been having problems. Some of the reason for this include:

* Spruces are not really well adapted this area. They prefer moderately moist, well drained soil. They do not grow well under hot, dry, or polluted conditions. Colorado spruce is probably the best adapted to our climate but still can have problems.

- * Winter drought stress over the past several winters.
- * Possible cold temperature injury to the roots during the winter.
- * High soluble salts in the soil.
- * Injury to roots from soil compaction and/or construction.
- * Drought stress during last summer or previous summers.
- * Repeated attack by aphids and/or mites without adequate control.
- * Other damaging pests include:
-spruce bud scale; Cooley spruce gall aphid; and spruce needle miner.
- * Herbicide injury - soil sterilants or dicamba used somewhere in the root zone.

Review these possibilities. Review watering practices during the summer, fall, and especially winter. Insect problems may have gone unnoticed.