

Sparse Spruce

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ave you noticed that your spruce tree may be thinning out? Over the last four years, many spruces have been slowly changing—going from full and dense specimen trees to shadows of their former selves, “moth-eaten” and “mangy” looking. They are not providing the nice screen or blocking the view of the neighbor’s garage as well as they once did. Their beauty is diminishing. What can be done?

Spruce trees all over the metro area have been gradually losing needles over this time period. There are several reasons for this:

- **Sustained drought** — '01, '02, '03, and '04 were all years in which rainfall and snow were much below normal. Long periods of time elapsed when soils remained dry. Spruce have suffered the most from this. Feeder roots dry (desiccate) and die under these conditions. Needles are shed (green) to try to limit water loss; they are shed (brown) once the needle or branch has died. If too many roots die, the needles all turn brown and the tree dies.
- **Root rot fungi** — Paradoxically, over that same time period of 2001-2004, there were *some* periods of intense rain (such as last June). The alternating very dry and very wet soil is very conducive to root rot fungi. They are opportunistic and attack and feed on dead and dying roots. Upon gaining strength, they are able to attack the living roots, as well. This situation is difficult to treat and is often missed by the unschooled practitioner. Root loss from this infection causes needles to brown or yellow and fall.
- **Cytospora canker** — This is a fungus that attacks the bark of branches and trunks. It is often present in moderate amounts on spruces without manifesting any symptoms. Additional stresses (such as drought or root rot infection) can cause the tree to lose containment of Cytospora and thus, kill branches or branch tips, resulting in a great loss of needles.
- **Needlecast and/or needle blight fungi** such as Rhizosphaera cause needles to brown or redden and fall as they are infected. Infection amounts are increased now because of last June’s wetness.

One or all of these factors can be working, singly or in concert, to bring about the thinness and needle fall that is so prevalent. Because of this complexity, it must be determined what factors are present and to what degree, in order to formulate an effective treatment strategy.

Call your trusted Certified Arborist at Wachtel to do a thorough examination of the problem for you and let you know the **correct R_x** for your trees.