

## **“Not so green” Evergreens**

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One of the most often asked question coming into my office this winter is about the evergreens that look brown. Trees most affected are the Scotch, Austrian and white pines, yews, arborvitae and firs. The browning needles started showing up right after the start of the new year when we had the week of warmer weather that followed the bitter cold temperatures of December. This was aggravated by the stressed conditions many of the trees were in due to the dry conditions leading up to November. However, the lack of moisture was not the only factor culprit since I have been to landscapes with the brown evergreens where the trees had been watered with hoses or a sprinkler system so these trees were not under undue moisture stress. The primary culprit is the dry and cold conditions before Christmas last year. In December, we had several periods of very bitter cold and windy conditions that caused the killing of the tissue in the needles. Then we experienced some warm weather that dried out the dead tissue of the affected needles and changed it from the frozen green to the dry brown. I have had it described to me as the same condition and “look” as when meat in a freezer dries out and we call it “freezer burn”. As long as the meat is frozen, it does not look too bad, but when it thaws out then the dried meat gets an off-color look.

Most of the people who have sent in samples or called in to the office ask, “ Why do some trees in a landscape show this and not others?”. Some of the trees that turned brown may have a genetic makeup different enough that they are not as hardy to the cold temperatures. Most of the mentioned evergreens affected naturally grow where it may be colder, but not with the winds and dryness in the winters. Others may not have as healthy or developed root system. Some trees may have been weakened by other factors like a basal injury or mite infestations before the fall and winter began. In addition some deciduous trees may have had difficulty this winter and we may see irregular leaf development and some dead branches on some broadleaf trees this spring when they start leafing out in April.

How serious of a problem is this? It depends on the tree and the amount of brown. Most trees that I have checked still have green, moist buds and stem tissue. These trees will recover. You can check this on your trees by scratching a small area on the outer end of a branch with the brown needles. If it is green and moist, then the twig is still alive and there should be new growth this spring. The same is with checking the buds on the end of the branch. The brown needles are dead and will probably not recover. They will eventually fall off causing the tree to look partially “naked” and bare. The green buds will grow out next spring and if there is sufficient amount of new growth, should still be sufficient for most trees to recover. Newly planted trees (less than three years established) are at the greatest risk due to limited root systems. There are some trees that are completely brown and even the root system was probably killed. These trees did not have the genetic “hardiness” for them to be a part of our harsh winter landscape. They will not recover with their root systems killed.

What can you do? Right now, there is nothing that can be done. We do have moisture in the soil profile now for when root growth resumes in April. Fertilizing is not a recommended practice to help these trees recover. Watch the condition of the tree and be ready to help it along this early spring if it looks like it is struggling.