Ornamental Winter Damage Update
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There have been many questions from Christmas tree farmers, nurseries, and home owners about tree browning this spring (2016). The symptom that several of us at CCE and NYS IPM have seen is rapid browning from the bottom up and inside out. This damage came on very quickly in mid-April and is present across species. These factors indicate that environmental stress is to blame rather than an insect or disease pest. Several species of conifer, arborvitae, and even deciduous trees, including willow, were hit by this year’s winter damage. Balsam seem to be hit the hardest but spruce and other species were also affected (Figure 1).

Depending on your location, last summer was wet and followed by a dry fall and winter. Sandra Jensen at the Cornell Plant Diagnostic Clinic has inspected many samples without discovering a disease culprit. She indicated that one factor contributing to winter desiccation is the health of the root system when trees enter dormancy in the fall. This browning didn’t show up until after the up and down temperature extremes in early April.

One theory is that trees came out of dormancy with the warm March temperatures and used the little water that was available to start photosynthesizing. On April 5th and 6th, night temperatures dropped to 15°F in Albany and below 5°F in some locations in the Capital Region. Trees were scorched by the cold. Christmas trees “wake up” from the root up and therefore show bottom-up browning. Potted plants that were still frozen and trees to our north were likely still dormant and seem to show less severe damage.

Damaged trees are now budding out (Figure 2)! The recommendation is not to cut down affected trees but wait until bud break to see if they will put on new growth this season. Younger trees are more likely to be marketable in the future.