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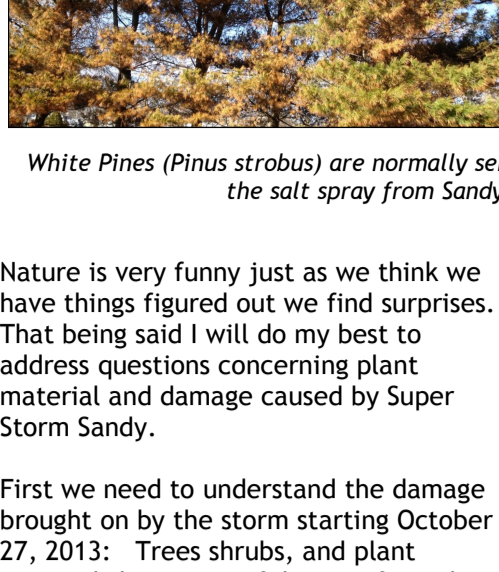
Landscape & Nursery News

Volume 2, Issue 2

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April 12, 2013

Plant material and damage caused by Super Storm Sandy John Neyhart, Horticultural Consultant



White Pines (Pinus strobus) are normally sensitive to air pollution and salt damage, however the salt spray from Sandy has caused additional damage



Nature is very funny just as we think we have things figured out we find surprises. That being said I will do my best to address questions concerning plant material and damage caused by Super Storm Sandy.

First we need to understand the damage brought on by the storm starting October 27, 2013: Trees shrubs, and plant material show signs of damage from the winds, the salt damage from the blowing of salt spray (Because of the wind speed and direction this reached further inland then normally thought) and the extreme flooding of brackish and salt water rivers and bays along the coastal regions.

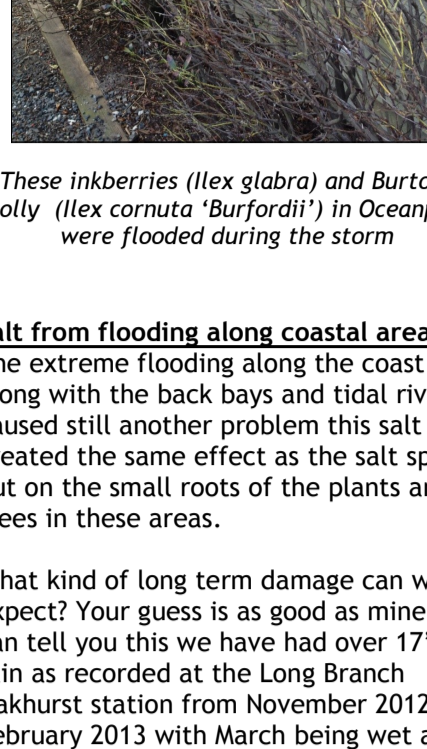
Wind Damage

I am copying information sent out by Dr. Richard Buckley from the Plant Diagnostic Lab at Rutgers University: This is from November 15, 2012

"-damaged trees everywhere. I am amazed at the destructive potential of winds that can topple 100-year old trees like matchsticks. Despite the number of trees that were simply broken in the wind, there are numerous examples all around us of trees that fell because of other issues. Poorly placed urban trees, those with inadequate root space, planting problems - especially girdling roots, and trees on poorly drained sites were readily victimized by the winds. It is also important to note, that we will likely see increases in disease and insect pests in storm damaged trees moving forward. There are many opportunists in nature, so be on the alert for canker causing fungi - like Botryosphaeria and Nectria - as well as boring insects - like clear winged moths and bark beetles - invading the damaged trees over the next season or two. In the short term, proper pruning and good sanitation are our best tools to prevent pest invasion."

Salt Spray

Salt spray was picked up by the high winds and deposited on plant material along the coastal area. It is becoming increasing apparent this salt spray was carried further inland then previously thought. It is also believed the storm did not bring the amount of rain at the time of the salt spray to wash the salt from the plant material. The salt acts to wick moisture out of plants causing a browning of the leaves. This browning of the leaves, stems, and buds is more severe on some plants than others. (Example eastern white pines are more sensitive).



These inkberries (Ilex glabra) and Burtord Holly (Ilex cornuta 'Burfordii') in Oceanport were flooded during the storm

Salt from flooding along coastal areas

The extreme flooding along the coast along with the back bays and tidal rivers caused still another problem this salt created the same effect as the salt spray but on the small roots of the plants and trees in these areas.

What kind of long term damage can we expect? Your guess is as good as mine. I can tell you this we have had over 17" of rain as recorded at the Long Branch Oakhurst station from November 2012 to February 2013 with March being wet also. (Data not available yet for March 2013) This is 3.25" above normal. The rain helps flush the salt from the soil. However November was 2.11" drier then normal which could have damaged many roots, buds and leaves.

I think most garden soils will be fine for planting based on the rain we have had. I would recommend having the soil tested as you would normally do. If the area is a low lying and flooded by salt water I would recommend testing for salts.

Trees and shrubs are going to show various degrees of damage over the next several years. The ability of the plant to recover will depend on the type of plant, the amount of damage, the weather conditions during this recovery period, and secondary pests that take advantage of the weakened state of the plant material.

I hope this information is helpful.

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