



Yellowing and browning of this pine tree's canopy was caused by torque stress from the high winds of Hurricane Florence.

HURRICANE HANGOVER

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Cleanup from both Hurricane Florence and Hurricane Michael continues across the Southeast. The effects of the storms are expected to be felt for months to come. During these storms, pine trees were especially susceptible to the following issues:

Torque Stress - Severe twisting or bending of trees from heavy winds

Salt Spray - Damage to foliage as a result of repetitive salt abrasion

Salt Toxicity - Toxic levels of salt absorption due to storm surge

Here are three basic signs of stress that can manifest in pine trees that have been impacted by hurricanes:

1. Yellowing and browning of the canopy as pine needles change color when trees are impacted by any of the aforementioned stress factors.
2. Wilting foliage that causes clusters of needles to hang toward the ground.

3. Rapid change in the visual appearance of the canopy.

Recognizing the signs of stress early is important. Stress and decline can invite Ips beetles to the affected areas. Three species of Ips beetles attack pine trees in the Southeast, and they typically prey on weakened or dying trees. Large infestations of these insects may occur following hurricanes due to the damage caused by high winds, salt spray or saline soil conditions.

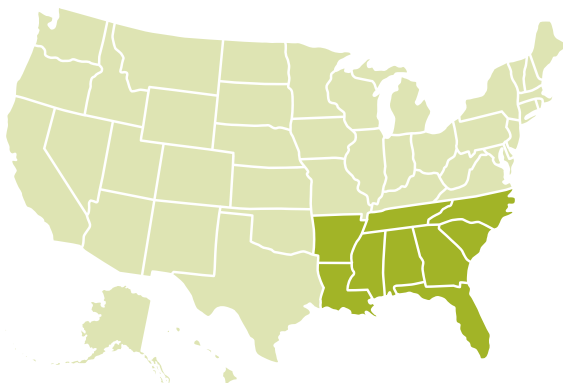
Golf course superintendents can be proactive stewards by looking out for signs of stress and removing declining trees to avoid the loss of healthy ones. After all, managing trees is just as important as removing trees that have fallen during hurricanes.

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