Caring for Trees: Post-Storm Assessment

After a damaging storm, trees are always a concern. Tree debris is the most common problem blocking roads and foot traffic, and it is likely have damaged property.

High-Risk Storm Damage
First, assess the risk a storm-damaged tree poses to people or property should it fail in any way. Buildings, power lines, roadways, and, most importantly, people are targets for falling trees. If the damaged tree will fall in a rarely visited or unimproved place, it is not as worrisome as a tree that can fall on a home, road, parking lot, or frequently used patio or playground area. A tree with a target is a tree that has to be managed. The larger the tree, the more important the problem be dealt with quickly.

Leaning Trees
Some of the worst storm injuries happen below ground to the root system. High winds combined with rain cause trees to rock in wet, loose soil, which can break or pull roots free. In extreme cases, this can cause the whole tree to fall. The most prominent sign of this kind of root failure is leaning trees. If a tree is leaning after a storm, look for a soil mound at the base of the tree on the opposite side of the lean. On the inside of the lean, there may be an indentation in the soil. If the mounded soil has cracks in it, consider the tree a serious problem. Leaning trees with mounding indicates broken and damaged roots. Removal is recommended. Try to remember if the lean existed before the storm. Naturally leaning trees will often have branches or tops that have adjusted to the lean. In such cases, the branches will be growing toward the light, even if the tree is leaning away.

Cracked Trunk or Branches
Storms twist and bend trees. If the storm is extreme, the wood will crack. The most common cracks are in crotches where branches or trunks connect. In very high winds, vertical cracks may happen in trunks. All cracks are a major problem and require immediate attention. Trees with cracks may fail at any time and will develop decay, compounding the problem. In most cases, these trees need to be removed.

Call a certified arborist if you observe the following:
- **Horizontal crack on main trunk**
  - Recommended maintenance: immediately remove and replant
  - Survival chances: low
  - Danger: high
  - Considerations: Horizontal cracks are rare, but dangerous and can be hard to spot due to the bark

- **Vertical crack on main trunk**
  - Recommended maintenance: immediately remove and replant
  - Survival chances: low
  - Danger: high
Survival chances: low
Danger: high
Other considerations: These cracks are common and will generally require full tree removal.

• On branch
Recommended maintenance: Prune branch to ISA standards.
Survival chances: high
Danger: moderate
Considerations: Consider whole tree removal if the cracked branch is large and the tree species does not respond well to pruning, such as water or laurel oak.

Moderate-Risk Storm Damage
This type of storm damage may not require immediate attention and can wait a few days. However, trees will need attention because this damage increases the chances of failure in a new storm.

Splits
Splits occur when large branches break away from the tree. These usually create large wounds that allow decay to enter, causing structural problems later.

Smaller splits or broken limbs are easier for the tree to seal. This sort of damage requires checking for years to come. If the tree does not seal over the wound, have an ISA certified arborist examine it.

Broken off trunks require that the tree be removed. Even if lower limbs remain, losing the treetop is a major concern.

Walk around the tree looking for cracks, twisted wood spiraling around the tree, torn or ripped bark, or breaks. Note the severity of the damage.

• Broken or stubbed trunk
Recommended maintenance: Remove and replant.
Survival chances: low

• Hardwood trunk broken from the ground to two-thirds up
Recommended maintenance: Remove and replant.
Survival chances: low

• Pine trunk broken anywhere
Recommended maintenance: Remove and replant.
Survival chances: low

• Split or broken limbs greater than 30% of stem diameter
Recommended maintenance: Remove and replant.
Survival chances: low

• Hardwood trunk broken in top third of the tree
Recommended maintenance: Prune away damage and monitor.
Survival chances: moderate

• Split or broken limb between 30 and 50% of trunk diameter
Recommended maintenance: Prune away stubs and monitor or remove.
Survival chances: moderate

• Split or broken limb with damage to less than 30% of diameter of the stem
Recommended maintenance: Prune away stubs and monitor.
Survival chances: high

Bark Ripping on Trunk
Bark ripping can result from a limb partially breaking and as it falls ripping the bark down the side of the tree. This is not initially a structural problem. But it can girdle the tree or allow decay and insect problems in the future.

• Amount of Stripped Bark: 50% or more
Recommended maintenance: Remove and replant.
Survival chances: low

• Amount of Stripped Bark: 25 to 50%
Recommended maintenance: Trim the bark and monitor.
Survival chances: moderate

• Amount of Stripped Bark: 25% or less
Recommended maintenance: Trim the bark.
Survival chances: high

Remember
• The trees you examine and make quick decisions about are the trees that might hurt people or property. They have a target.

• The bigger and older the tree is, the more important any damage to it becomes.

• Any potential for failure must be alleviated.

• Remove trees that have suffered irreparable damage.

Beau Brodbeck, Regional Extension Agent, Forestry, Wildlife and Natural Resource Management, and Jack Rowe, Extension Community Forestry Specialist, Auburn University.

For more information, contact your county Extension office. Visit www.aces.edu/directory.

© 2015 by the Alabama Cooperative Extension System. All rights reserved. www.aces.edu

This document is part of a larger publication titled Emergency Handbook: Preparation and Recovery (ACES-2168).

Use pesticides only according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label. Trade and brand names used are given for information purposes only. No guarantee, endorsement, or discrimination among comparable products is intended or implied by the Alabama Cooperative Extension System. This publication is for information purposes only and should not be a substitute for recommendations or treatment by a health care provider.

Published by the Alabama Cooperative Extension System (Alabama A&M University and Auburn University), an equal opportunity educator and employer. New 2015