



# Trees and Extreme Weather

*Make your landscape STORM READY!*

Forestry Topic 64

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## Benefits of Trees

We all appreciate the benefits trees provide: shade, clean air, wildlife habitat, clean water, beautiful landscape, energy savings, health benefits, and more. The fact is, healthy trees can:

- ◆ Protect from damaging winds.
- ◆ Reduce flooding impacts by holding soil, slowing rainwater and preventing sediment runoff all while using the water.
- ◆ Reduce summer air conditioning costs by up to 35% by shading homes from hot summer sun.<sup>1</sup>
- ◆ Reduce winter heating costs by up to 30% by protecting homes against cold winter winds.<sup>1</sup>

Neighborhoods with more canopy cover generally have less tree damage from storms.



Healthy trees can protect homes from damaging winds and reduce flooding impacts during extreme storms.

## Storm Preparation

The key to retaining tree benefits while preparing for storms is maximizing benefits and minimizing risks. Make your landscape storm resilient by preserving healthy trees and removing unhealthy trees. Healthy trees are less likely to succumb to damaging storm winds and floods.

Take steps to ensure your trees are healthy and properly maintained so you can enjoy their benefits for years to come.

## Before Removing Your Trees, Have Them Evaluated

### Checkups

- ◆ Get a checkup for your trees by an ISA-certified arborist.
- ◆ Evaluate for concerning symptoms:
  - Over-maturity or dieback
  - Large cavities, decay or conjoined trunk
  - Cracks in trunk or major limbs
  - Damaged roots, bark or trunk
  - One-sided or leaning tree
  - Branches close to utility lines or structures
- ◆ Find an ISA-certified arborist: [www.treesaregood.org/findanarborist](http://www.treesaregood.org/findanarborist)

<sup>1</sup> Arbor Day Foundation

## Make Your Trees Storm Resilient

### Responsible Care

- ◆ Avoid construction and other soil-compacting activities near tree roots.
- ◆ Avoid damaging shallow roots with machinery.
- ◆ Mulch the base of trees properly to help protect roots and prevent trunk damage.

## Proper Tree Pruning

- ◆ Remove dead, poorly attached or diseased limbs.
- ◆ Ideally, have a certified arborist prune trees every 3-6 years.
- ◆ Training young trees via proper pruning helps them grow more resilient.
- ◆ Say NO to tree topping (cutting the entire top off a tree).

## Plant Trees

Healthy trees help protect your home and property during extreme storms. Trees of various ages and sizes will maximize protection.

- ◆ Trees protect each other – clusters of trees support each other and are more resilient.
- ◆ The most beneficial trees are large native deciduous trees planted on the east, west and northwest sides of your home.
- ◆ More room means more stability.
  - Small Trees = 10 ft. x 10. ft.
  - Medium Trees = 20 ft. x 20. ft.
  - Large Trees = 30 ft. x 30 ft.
- ◆ Choose a variety of native, storm-resilient species.

## Plant the Right Tree in the Right Place

Plant a Variety of Native Species	Plant Wind-Resistant Species	Plant Flood-Resistant Species
<ul style="list-style-type: none"> <li>◆ Trees native to Virginia have more resistance than species from different areas.</li> <li>◆ Planting a mixture of different sizes and species have better wind resistance.</li> </ul>	<ul style="list-style-type: none"> <li>◆ American holly</li> <li>◆ Bald cypress</li> <li>◆ Black gum</li> <li>◆ Eastern hophornbeam</li> <li>◆ Eastern redbud</li> <li>◆ Live oak</li> <li>◆ River birch</li> <li>◆ Southern magnolia</li> <li>◆ Sweetgum</li> </ul> <p>*These are just a few examples.</p>	<ul style="list-style-type: none"> <li>◆ American sycamore</li> <li>◆ Bald cypress</li> <li>◆ Black gum</li> <li>◆ Hackberry</li> <li>◆ Live oak</li> <li>◆ Overcup oak</li> <li>◆ Persimmon</li> <li>◆ Sweetbay magnolia</li> </ul> <p>*These are just a few examples.</p>

## Additional Resources

- ◆ [Don't Cut Down That Tree! Preserving a Protective Buffer Against High-Speed Winds](#). (Sea Grant North Carolina Coastwatch, North Carolina State University)

Find more information at [www.dof.virginia.gov](http://www.dof.virginia.gov).

For more information about services or programs in your area, contact your local VDOF office:

[www.DOF.Virginia.gov](http://www.DOF.Virginia.gov)



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