

A photograph of a modern wooden house with a stone path leading to a fenced area with trees. The house features dark wood siding and a balcony. The path is made of large, flat stones set in a bed of gravel. A black metal fence runs along the path. In the background, there are tall trees with sparse foliage under a clear blue sky.

Fire-Resistant Landscaping in North Carolina

NC STATE

EXTENSION

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Do you live in a home or community that is tucked into the woods or surrounded by natural shrubs, woodlands, or marsh? If so, this publication will teach you how to create and maintain a fire-resistant landscape and reduce your risk of damage from a wildfire while achieving other landscape objectives.

What Is Fire-Resistant Landscaping?

Fire-resistant landscaping involves creating “defensible space,” or selecting, placing, and maintaining plants and other landscape features around your home in a way that helps make your home less vulnerable to damage or loss from wildfire. Defensible space is the area extending outward from your home that is designed to serve as a buffer to slow or stop a wildfire. The ideal amount of defensible space in a fire-resistant landscape should extend outward from your home and any attached structures such as fences or decks at least 100 feet in all directions.

Defensible space doesn’t mean you cannot have trees or other vegetation in your yard. Nor does it need to be a stark landscape absent of wildlife. Instead, fire-resistant landscaping guidelines allow you to make decisions about what you value while taking steps to reduce your risk.

This publication summarizes basic guidelines for creating and maintaining a fire-resistant landscape around your home. It includes lists of native plants with flammability ratings for use in landscaping and maintenance decisions. Many of North Carolina’s native plants are well suited for fire-resistant landscaping. These plants have evolved to thrive in the state’s soils and climate, are considered noninvasive and aesthetically pleasing, and are best suited to provide food, shelter, and nesting sites for North Carolina’s wildlife.

Basic Concepts

All vegetation can burn and is potentially fuel for a fire. There are no fireproof plants. The type, amount, and placement of vegetation near your home, however, can have a dramatic effect on fire behavior. Plant choice, spacing, and maintenance are critical to fire-resistant landscaping.

The recommended distance for defensible space varies based on the kinds of vegetation around your home and the steepness of the terrain. For homes and other structures on terrain that slopes less than 20 percent, a minimum of 100 feet is recommended for defensible space (Figure 1). For steeper terrain, defensible space may need to extend from the structure as far as 200 feet. To determine how much defensible space you

need for your home, contact your local fire officials, the North Carolina Forest Service or your local Cooperative Extension center (see Additional Resources).

Plant Selection

Reduce the flammability potential of your landscape by selecting plants with low flammability characteristics (Table 1), and maintaining these characteristics by managing the vegetation over time (Table 2). For areas nearest the house, select plants with the lowest flammability rating (Table 3). Though not recommended, some homeowners still wish to include one or more moderately to highly flammable species in their landscape for aesthetic or other reasons. In a fire-resistant landscape, it is highly recommended to place these plants as far away from the home as possible and surround them with fuel breaks (low or nonflammable areas like lawns, dry riverbeds, or walkways).

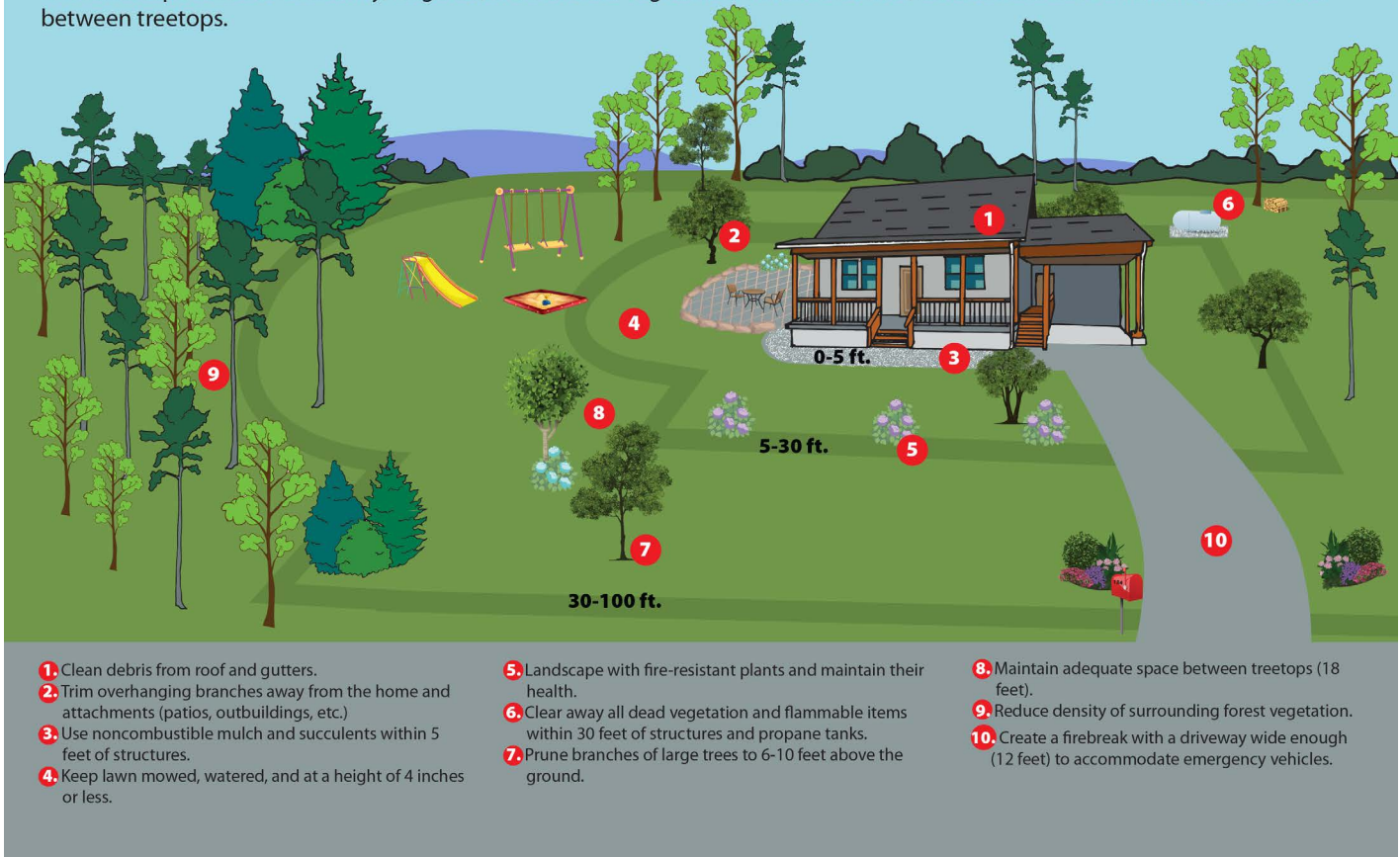
Plant Placement

Keep plants widely spaced vertically and horizontally. Fire can spread rapidly from one plant to another when there is no space between plants. Use small, irregular clusters and island plantings to maintain ample space between plants, and separate these groupings by fuel breaks such as a well-watered lawn. Decreasing the volume of fuel available in your landscape will reduce the threat of damage from wildfire. Fire-resistant landscaping also enables easier access to the home for firefighters helping to defend it in the event of a wildfire.

Do not plant vines or ornamental grasses within the defensible space, particularly near the home or other structures. Vines and ornamental grasses, such as switchgrass (*Panicum virgatum*), are extremely flammable plants that can cause a wildfire to spread rapidly. Thatch, duff, or build-up of dead growth associated with such plants can cause fire to spread even faster. Vines and ornamental grasses also can become “ladder fuels” if they are planted under other vegetation. Ladder fuels allow a fire to move from the ground to the canopy of trees by climbing closely spaced plants of varying heights. Avoid creating ladder fuels by leaving ample vertical space above plants. Be sure the edges of tree limbs (the dripline) are no closer than 10 feet to the home or structure.

A Fire-Resistant Landscape

A home's design, building materials and landscape (out to 100 feet) determine its vulnerability to airborne embers, surface fires and crown fires. A fire-resistant home has at least 30 feet of surrounding space that is clear of dead vegetation and flammable debris. It has at least 5 feet of noncombustible mulch material such as river rock or pea gravel. Trees and shrubs are maintained. The landscape consists of healthy, irrigated, fire-resistant vegetation. Within 5-30 feet, trees should have a minimum of 18 feet between treetops.



1. Clean debris from roof and gutters.
2. Trim overhanging branches away from the home and attachments (patios, outbuildings, etc.)
3. Use noncombustible mulch and succulents within 5 feet of structures.
4. Keep lawn mowed, watered, and at a height of 4 inches or less.
5. Landscape with fire-resistant plants and maintain their health.
6. Clear away all dead vegetation and flammable items within 30 feet of structures and propane tanks.
7. Prune branches of large trees to 6-10 feet above the ground.
8. Maintain adequate space between treetops (18 feet).
9. Reduce density of surrounding forest vegetation.
10. Create a firebreak with a driveway wide enough (12 feet) to accommodate emergency vehicles.

Figure 1. A fire-resistant landscape. Source: North Carolina Forest Service








Plant Maintenance

Fire resistance requires maintenance! A landscape is a dynamic system that is constantly changing. Trees, shrubs, and herbaceous plants that have a low flammability rating and low fuel volumes can lose these characteristics over time if they are not maintained properly. Conducting seasonal maintenance activities, such as pruning, will help you to maintain the plants' fire-resistant properties by keeping them green and healthy. When scheduling and conducting maintenance, remember that North Carolina's fire seasons are typically in the spring and fall. During those times, fire risk may be heightened and plant maintenance is especially important. To decide what plant maintenance is needed

for your fire-resistant landscape, consult local experts from the North Carolina Forest Service or your local Cooperative Extension center or refer to Table 2. You may also find the following tips helpful:

- Remove vegetation encroaching on power lines.
- Remove branches within 10 feet of the chimney and roof.
- Remove vegetation touching the house or structure.
- Prune outside the nesting season, which takes place between early March and late July, to minimize wildlife impacts.

Table 1. Low Flammability Plant Characteristics

Characteristic	Low Flammability Example	Characteristic	Low Flammability Example
Grows without accumulating large amounts of combustible dead branches, needles, or leaves.	<p data-bbox="410 186 748 218"><i>Cornus florida</i>, flowering dogwood</p> 	Grows slowly and requires little maintenance, such as pruning.	<p data-bbox="1109 186 1446 249"><i>Carpinus caroliniana</i>, ironwood or American hornbeam</p> 
Open, loose branches with a low volume of total vegetation.	<p data-bbox="410 548 802 579"><i>Euonymus americanus</i>, strawberry bush</p> 	Short and grows close to the ground.	<p data-bbox="1109 548 1398 579"><i>Viola pedata</i>, bird-foot violet</p> 
Low sap or resin content. Pines, junipers, and most other conifers are highly flammable due to large volume of sap or resin content.	<p data-bbox="410 898 753 968">Many deciduous species, including <i>Cercis canadensis</i>, Eastern redbud</p> 	Quickly resprouts following fire, minimizing the costs of replanting a landscape after a fire.	<p data-bbox="1109 898 1386 930"><i>Rhus glabra</i>, smooth sumac</p> 
High moisture content.	<p data-bbox="410 1262 721 1293"><i>Impatiens capensis</i>, jewelweed</p> 		

Images from the North Carolina Extension Gardener Plant Toolbox (plants.ces.ncsu.edu).

Table 2. Managing Vegetation

Fuel Type	Recommended Practice
Standing dead trees	<ul style="list-style-type: none"> <input type="checkbox"/> Remove all standing dead trees within the defensible space. <input type="checkbox"/> Keep dead trees, or snags, to attract wildlife <i>only</i> if the snag is on the outer edge of the defensible space, 80–100 feet from the home.
Standing live trees	<ul style="list-style-type: none"> <input type="checkbox"/> Prune lower branches of large trees 6–10 feet from the ground. Maintain at least 60 percent of the total height of the tree as canopy. <input type="checkbox"/> Prune lower branches of smaller trees, removing no more than 1/3 of the total tree height. <input type="checkbox"/> Space shrubs at least 10 feet from the lower branches of the tree.
Downed dead trees	<ul style="list-style-type: none"> <input type="checkbox"/> Remove downed dead trees if they have recently fallen and are not yet embedded in the ground. Leave in place downed trees that are embedded in the soil and cannot be removed without soil disturbance. <input type="checkbox"/> Remove all exposed branches from embedded downed trees.
Dead shrubs	<ul style="list-style-type: none"> <input type="checkbox"/> Remove all dead shrubs within the defensible space.
Live shrubs	<ul style="list-style-type: none"> <input type="checkbox"/> Maintain spacing in planting beds and control height under trees (to avoid ladder fuels) by pruning.
Grasses, wildflowers, herbaceous plants, and lawn grasses	<ul style="list-style-type: none"> <input type="checkbox"/> Mow or trim turfgrass to a height of 4 inches or less within the defensible space. <input type="checkbox"/> Cut and remove dried-out or “cured” grasses and wildflowers. <input type="checkbox"/> Keep plants well watered.
Dried needles, leaves, twigs, branches, and cones (on ground)	<ul style="list-style-type: none"> <input type="checkbox"/> Remove dead leaves, twigs, cones, and branches. <input type="checkbox"/> Remove all needles, leaves, branches, and cones within 5 feet from home (including on decks, patios, and fences). <input type="checkbox"/> Reduce thick layers of pine needles, but you may leave needles beyond the 5-foot zone around the home. Take care not to disturb the “duff” layer (dark area at the ground surface where needles are decomposing), if present.
Dried needles, leaves, twigs, branches, and cones (off ground)	<ul style="list-style-type: none"> <input type="checkbox"/> Remove all dead leaves, branches, twigs, and needles still attached to living trees and shrubs so that a surface fire cannot climb into upper portions of a tree or shrub. Prune trees 6–10 feet from the ground. For shorter trees (less than 30 feet tall), do not remove more than 1/3 of the overall tree height. <input type="checkbox"/> Remove all debris that accumulates on the roof and in the rain gutters at least once a year, particularly before spring and fall fire seasons or when wildfire danger is high.
Mulch	<ul style="list-style-type: none"> <input type="checkbox"/> Remove any leaves or other organic debris that accumulate in mulch within 5 feet of the home. Nonflammable mulch such as gravel and decomposed granite is recommended. <input type="checkbox"/> Outside the 5-foot zone around the home, maintain a thin moist layer of mulch (4 inches maximum) around plants, making sure not to create ladder fuels between mulch and other plants.
Firewood and combustible items	<ul style="list-style-type: none"> <input type="checkbox"/> Store firewood and other combustible items (for example, wood scraps, grass clippings, leaf piles, fuel tanks, play structures, boats, and RVs) at least 30 feet from the house, uphill if possible.

Construction Materials

Home construction and the materials used can substantially affect a home's flammability and fire resistance. The fire resistance of a home or structure is affected not only by the home and area around it, but also by all attached structures such as fences, outbuildings, and decks. Use materials that are less susceptible to fire, such as fire-resistant roofing material or double-paned, tempered glass windows. If larger changes to the home's construction are not practical, consider making small modifications to the home (for example, closing in eaves). Perform regular maintenance to remove flammable debris that accumulates in or around the home (for example, clearing leaves accumulated on roofs and in gutters). Many homes destroyed by wildfires are ignited by relatively small embers, not the flaming front of the fire. Small steps such as placing metal mesh screens over vents can prevent these embers from endangering your home. For more information on materials and construction techniques that can improve a home's fire resistance, visit the Prepare for Wildfire website or the National Fire Protection Association's Firewise USA® program website (see Additional Resources).

North Carolina Native Plants

Tables 3 to 5 provide a guide to the flammability ratings of North Carolina native plant species. Many factors influence the flammability of plants, including placement and maintenance. When selecting plants for your home, keep in mind that a plant described as having low flammability can easily become more flammable if not properly placed and maintained.

These tables also include other information you may find useful when selecting plants for your landscape, such as the conditions preferred by each species, wildlife benefits provided, and native region. Not all native plants are suitable in the three regions of North Carolina, so be sure to choose species that are suitable for where you live. Figure 2 shows the three regions of North Carolina used in these tables—coastal plain, piedmont, and mountains. Region boundaries are not absolute, so if you are unsure if a plant is native to your region, contact the North Carolina Forest Service or your local Cooperative Extension Center.

Native plants may not be available at typical home and garden stores. The North Carolina Native Plant Society maintains a list of nurseries in North Carolina that sell native plants, along with links to related resources (see Additional Resources).

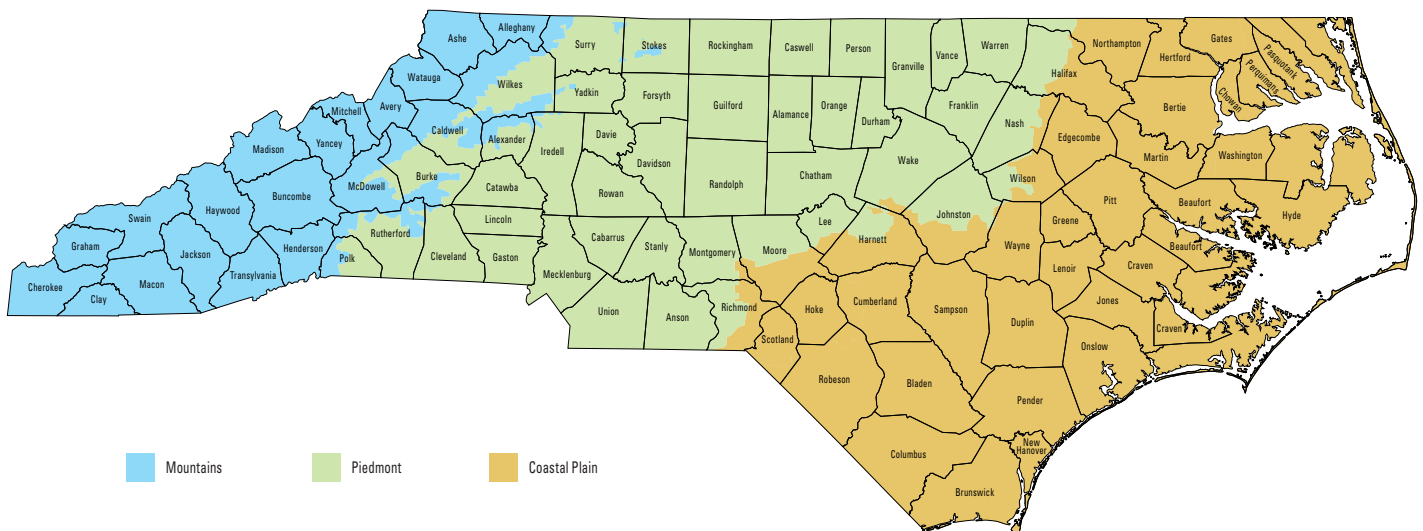


Figure 2. Three regions of North Carolina.

Table 3. Plant Species Native to North Carolina with a *Low* Flammability Rating

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full sun	Partial shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Tall Trees (taller than 30 feet)																
<i>Acer barbatum</i>	Southern sugar maple		•		•	•	•		•	•			•			
<i>Acer rubrum</i>	Red maple	•	•	•	•	•	•	•	•	•			•			
<i>Acer saccharum</i>	Sugar maple		•		•	•	•						•			
<i>Aesculus flava</i>	Yellow buckeye		•			•	•	•						•		
<i>Betula lenta</i>	Sweet birch		•	•	•	•	•	•					•			•
<i>Betula nigra</i>	River birch		•		•				•	•			•			•
<i>Carya glabra</i>	Pignut hickory		•	•	•	•		•	•	•			•			•
<i>Carya ovata</i>	Shagbark hickory		•	•	•	•	•	•	•	•			•			•
<i>Carya tomentosa</i>	Mockernut hickory		•	•	•	•		•	•	•			•			•
<i>Celtis laevigata</i>	Sugarberry		•		•	•	•		•	•		•				•
<i>Diospyros virginiana</i>	Persimmon		•	•	•	•		•	•	•		•				
<i>Fraxinus americana</i>	White ash		•		•	•	•	•	•				•			•
<i>Fraxinus pennsylvanica</i>	Green ash	•	•	•	•	•		•	•	•			•			•
<i>Liquidambar styraciflua</i>	Sweetgum		•		•	•		•	•	•			•			
<i>Liriodendron tulipifera</i>	Yellow poplar		•		•	•		•	•	•			•	•	•	•
<i>Magnolia acuminata</i>	Cucumber tree		•		•	•		•	•				•			
<i>Magnolia virginiana</i>	Sweetbay	•	•		•	•			•	•			•			•
<i>Nyssa sylvatica</i>	Blackgum		•	•	•	•		•	•	•		•				
<i>Oxydendrum arboreum</i>	Sourwood		•	•	•	•	•	•	•	•					•	
<i>Prunus serotina</i>	Black cherry		•	•	•	•		•	•	•		•			•	•
<i>Quercus alba</i>	White oak		•	•	•	•		•	•	•			•			•
<i>Quercus coccinea</i>	Scarlet oak			•	•	•		•	•				•			•
<i>Quercus falcata</i>	Southern red oak		•	•	•	•		•	•	•			•			•
<i>Quercus michauxii</i>	Swamp chestnut oak		•		•	•			•	•			•			•
<i>Quercus nigra</i>	Water oak		•		•	•			•	•			•			•
<i>Quercus pagoda</i>	Cherrybark oak		•		•	•			•	•			•			•
<i>Quercus phellos</i>	Willow oak		•		•	•			•	•			•			•
<i>Quercus rubra</i>	Northern red oak		•		•	•		•	•				•			•
<i>Quercus shumardii</i>	Shumard oak		•		•	•			•	•			•			•
<i>Quercus stellata</i>	Post oak		•	•	•			•	•	•			•			•
<i>Quercus velutina</i>	Black oak		•	•	•	•		•	•	•			•			•
<i>Robinia pseudoacacia</i>	Black locust		•	•	•	•		•	•				•			•
<i>Salix nigra</i>	Black willow	•	•		•	•	•	•	•	•						•
<i>Sassafras albidum</i>	Sassafras		•	•	•	•		•	•	•		•				•
<i>Taxodium distichum</i>	Baldcypress	•	•		•	•				•			•			
<i>Tilia americana</i>	Basswood		•		•	•		•	•	•			•		•	•
<i>Ulmus alata</i>	Winged elm		•	•	•	•		•	•	•			•			•
<i>Ulmus americana</i>	American elm		•		•	•		•	•	•			•			•

Table 3. Plant Species Native to North Carolina with a *Low* Flammability Rating (continued)

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full sun	Partial shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Small Trees and Shrubs (10 to 30 feet tall)																
<i>Aesculus pavia</i>	Red buckeye		•			•				•				•	•	
<i>Aesculus sylvatica</i>	Painted buckeye		•			•			•					•		
<i>Alnus serrulata</i>	Alder	•	•		•	•		•	•	•			•			•
<i>Amelanchier arborea</i>	Serviceberry		•		•	•	•	•	•			•			•	•
<i>Amelanchier canadensis</i>	Juneberry		•		•	•			•	•		•			•	•
<i>Amelanchier laevis</i>	Allegheny serviceberry		•	•	•	•	•	•				•			•	•
<i>Aralia spinosa</i>	Devil's walking stick		•		•	•		•	•	•		•			•	
<i>Asimina triloba</i>	Pawpaw		•		•	•	•	•	•	•		•				•
<i>Carpinus caroliniana</i>	Ironwood		•		•	•	•	•	•	•		•				•
<i>Celtis tenuifolia</i>	Dwarf hackberry			•	•	•			•			•				•
<i>Cercis canadensis</i>	Eastern redbud		•	•	•	•		•	•			•			•	•
<i>Chionanthus virginicus</i>	Fringetree		•	•	•	•		•	•	•		•				
<i>Cornus florida</i>	Flowering dogwood		•	•	•	•		•	•	•		•			•	•
<i>Crataegus</i> spp.	Hawthorn		•		•	•	•	•	•	•		•		•	•	•
<i>Halesia carolina</i>	Carolina silverbell		•		•	•	•	•	•						•	
<i>Hamamelis virginiana</i>	Witch hazel		•		•	•	•	•	•	•		•				
<i>Ilex decidua</i>	Possumhaw	•	•	•	•	•	•	•	•	•		•			•	•
<i>Ilex verticillata</i>	Winterberry	•	•		•	•	•	•	•	•		•			•	•
<i>Morus rubra</i>	Red mulberry		•	•	•	•	•	•	•	•		•				•
<i>Ostrya virginiana</i>	Hophornbeam		•	•	•	•	•	•	•			•				•
<i>Prunus americana</i>	Wild plum		•	•	•			•	•			•			•	•
<i>Prunus angustifolia</i>	Chickasaw plum		•	•	•				•	•		•			•	•
<i>Prunus pensylvanica</i>	Fire cherry		•	•	•			•				•			•	•
<i>Rhus copallinum</i>	Winged sumac		•	•	•	•		•	•	•		•			•	•
<i>Rhus glabra</i>	Smooth sumac		•	•	•	•		•	•	•		•			•	•
<i>Salix caroliniana</i>	Carolina willow	•	•		•	•			•	•						•
<i>Sambucus canadensis</i>	Elderberry	•	•		•	•		•	•	•		•				
<i>Sorbus americana</i>	Mountain ash		•		•	•		•				•				
<i>Viburnum prunifolium</i>	Blackhaw		•		•	•	•	•	•	•		•				•
<i>Viburnum rufidulum</i>	Rusty blackhaw		•	•	•	•	•		•	•		•				•
Small Shrubs (less than 10 feet tall)																
<i>Callicarpa americana</i>	American beautyberry		•	•	•	•	•		•	•		•				
<i>Calycanthus floridus</i>	Sweetshrub		•			•	•	•	•						•	
<i>Ceanothus americanus</i>	New Jersey tea		•	•		•	•	•	•	•		•		•	•	•
<i>Cephalanthus occidentalis</i>	Buttonbush	•	•		•	•		•	•	•		•	•	•	•	
<i>Clethra alnifolia</i>	Sweet pepperbush	•	•		•	•			•	•		•		•	•	
<i>Corylus americana</i>	Hazelnut		•		•	•		•	•			•				
<i>Euonymus americanus</i>	Strawberry bush		•			•	•	•	•	•		•				

Table 3. Plant Species Native to North Carolina with a *Low* Flammability Rating (continued)

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full sun	Partial shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Small Shrubs (less than 10 feet tall) (continued)																
<i>Gaylussacia frondosa</i>	Blue huckleberry		•	•	•	•	•		•	•		•			•	•
<i>Hydrangea arborescens</i>	Wild hydrangea		•			•	•	•	•				•		•	
<i>Itea virginica</i>	Virginia willow	•	•			•	•	•	•	•			•		•	
<i>Lindera benzoin</i>	Spicebush		•	•	•	•	•	•	•	•		•				•
<i>Photinia pyrifolia</i>	Red chokeberry		•		•	•		•	•	•		•				•
<i>Vaccinium corymbosum</i>	Highbush blueberry		•		•	•			•	•		•			•	•
<i>Vaccinium stamineum</i>	Deerberry		•	•	•	•		•	•	•		•			•	•
<i>Vaccinium pallidum</i>	Lowbush blueberry			•	•	•		•	•	•		•			•	•
<i>Viburnum acerifolium</i>	Mapleleaf viburnum		•	•		•	•	•	•			•				•
<i>Viburnum dentatum</i>	Arrowwood		•	•	•	•	•	•	•	•		•				•
<i>Viburnum nudum</i>	Wild raisin	•	•		•	•	•	•	•	•		•				•
Ferns																
<i>Polystichum acrostichoides</i>	Christmas fern		•			•	•	•	•	•	•					
Herbs and Wildflowers																
<i>Apocynum cannabinum</i>	Hemp dogbane		•	•	•	•		•	•	•					•	
<i>Arisaema triphyllum</i>	Jack-in-the-pulpit		•			•	•	•	•	•		•				
<i>Aristolochia serpentaria</i>	Virginia snakeroot		•	•		•	•	•	•	•						•
<i>Chrysogonum virginianum</i>	Green-and-gold		•				•		•	•			•		•	
<i>Desmodium</i> spp.	Beggarlice		•	•	•	•		•	•	•			•			•
<i>Eupatorium coelestinum</i>	Mistflower		•		•	•		•	•	•			•		•	
<i>Eupatorium fistulosum</i>	Joe-pye-weed		•		•			•	•	•			•	•		•
<i>Geranium maculatum</i>	Wild geranium		•	•	•	•		•	•				•		•	
<i>Houstonia caerulea</i>	Bluets		•	•	•	•	•	•	•	•					•	
<i>Impatiens capensis</i>	Jewelweed		•			•	•	•	•	•				•	•	
<i>Iris cristata</i>	Crested iris		•			•	•	•	•					•		
<i>Phlox carolina</i>	Carolina phlox		•	•	•	•		•	•	•					•	
<i>Phlox divaricata</i>	Blue phlox		•			•	•	•	•	•					•	
<i>Phlox paniculata</i>	Summer phlox		•		•	•		•	•	•					•	
<i>Phlox pilosa</i>	Prairie phlox		•	•	•	•			•	•					•	
<i>Phlox subulata</i>	Moss pink		•	•	•			•	•						•	
<i>Silene virginica</i>	Fire pink		•	•		•	•	•	•	•			•	•	•	
<i>Spigelia marilandica</i>	Indian pink		•			•	•	•	•	•				•		
<i>Viola pedata</i>	Bird-foot violet		•	•	•	•		•	•	•						•

Table 4. Plant Species Native to North Carolina with a *Medium* Flammability Rating

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full Sun	Partial Shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Tall Trees (taller than 30 feet)																
<i>Fagus grandifolia</i>	American beech		•			•	•	•	•	•			•			
<i>Gordonia lasianthus</i>	Loblolly bay	•	•		•	•				•	•					
<i>Magnolia grandiflora</i>	Southern magnolia		•			•	•		•	•	•		•			
<i>Persea borbonia</i>	Redbay	•	•		•	•	•			•	•	•				•
<i>Platanus occidentalis</i>	Sycamore		•		•	•		•	•	•			•			
Small Trees and Shrubs (10 to 30 feet tall)																
<i>Castanea pumila</i>	Chinquapin		•	•	•	•		•	•	•			•			
<i>Cornus amomum</i>	Silky dogwood	•	•		•	•		•	•	•		•			•	•
<i>Cyrilla racemiflora</i>	Titi	•	•		•	•	•		•	•	•				•	
<i>Osmanthus americanus</i>	Wild olive, devilwood		•	•	•	•				•	•	•				
<i>Prunus caroliniana</i>	Carolina laurel cherry		•	•	•	•				•	•	•			•	•
<i>Symplocos tinctoria</i>	Sweetleaf		•	•	•	•	•	•	•	•			•		•	•
Small Shrubs (less than 10 feet tall)																
<i>Gaylussacia dumosa</i>	Dwarf huckleberry		•	•	•	•		•	•	•		•			•	•
<i>Lyonia lucida</i>	Fetterbush		•			•	•		•	•	•				•	
<i>Rhododendron atlanticum</i>	Dwarf azalea		•	•	•	•	•		•	•				•	•	
<i>Rhododendron calendulaceum</i>	Flame azalea		•	•		•	•	•						•	•	
<i>Rhododendron maximum</i>	Rosebay rhododendron		•			•	•	•	•		•			•	•	
<i>Rhododendron periclymenoides</i>	Wild azalea		•		•	•	•	•	•	•				•	•	
<i>Vaccinium arboreum</i>	Sparkleberry		•	•	•	•	•		•	•	•	•			•	•
Herbs and Wildflowers																
<i>Aquilegia canadensis</i>	Columbine		•	•		•	•	•	•	•			•	•	•	
<i>Aruncus dioicus</i>	Goat's beard		•			•	•	•	•							•
<i>Asclepias incarnata</i>	Swamp milkweed	•	•		•	•		•	•	•					•	•
<i>Asclepias tuberosa</i>	Butterfly weed			•	•	•		•	•	•					•	•
<i>Asclepias variegata</i>	White milkweed		•	•	•	•		•	•	•					•	•
<i>Aster curtisii</i>	Aster		•	•	•	•		•					•		•	•
<i>Aster divaricatus</i>	Heart-leaved aster		•	•		•	•	•	•				•		•	•
<i>Aster novae-angliae</i>	New England aster		•	•	•	•		•					•		•	•
<i>Aster novi-belgii</i>	New York aster		•		•	•				•			•		•	•
<i>Aster pilosus</i>	White heath aster			•	•			•	•	•			•		•	•
<i>Baptisia australis</i>	Blue false indigo		•		•	•		•	•						•	•
<i>Baptisia tinctoria</i>	Yellow wild indigo			•	•	•		•	•	•					•	•
<i>Bidens aristosa</i>	Sticktight	•	•	•	•	•			•	•			•		•	
<i>Chamaecrista fasciculata</i>	Partridge pea		•	•	•			•	•	•			•			•
<i>Cimicifuga racemosa</i>	Black cohosh		•				•	•	•							•
<i>Coreopsis angustifolia</i>	Narrow-leaved coreopsis			•		•				•			•		•	
<i>Coreopsis falcata</i>	Sickle tickseed	•	•		•	•			•	•			•		•	

Table 4. Plant Species Native to North Carolina with a *Medium* Flammability Rating (continued)

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value				
		Wet	Moist	Dry	Full Sun	Partial Shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar
Herbs and Wildflowers (continued)															
<i>Coreopsis lanceolata</i>	Lance-leaved coreopsis		•	•	•			•	•	•			•		•
<i>Coreopsis major</i>	Greater tickseed		•	•	•	•		•	•				•		•
<i>Coreopsis verticillata</i>	Threadleaf coreopsis		•	•	•	•		•	•	•			•		•
<i>Echinacea purpurea</i>	Purple coneflower		•	•	•			•	•				•		•
<i>Helianthus angustifolius</i>	Swamp sunflower	•	•		•	•		•	•	•			•		•
<i>Helianthus atrorubens</i>	Sunflower		•	•	•			•	•	•			•		•
<i>Helianthus divaricatus</i>	Woodland sunflower		•	•		•		•	•	•			•		•
<i>Heliopsis helianthoides</i>	Ox-eye		•	•	•	•		•	•	•			•		•
<i>Hibiscus moscheutos</i>	Rose mallow		•		•	•		•	•	•				•	•
<i>Liatris spicata</i>	Blazing star		•		•	•		•	•						•
<i>Lobelia cardinalis</i>	Cardinal flower	•	•		•	•	•	•	•	•				•	•
<i>Lobelia puberula</i>	Downy lobelia	•	•	•	•	•		•	•	•				•	•
<i>Lobelia siphilitica</i>	Great blue lobelia	•	•			•	•	•						•	•
<i>Mitchella repens</i>	Partridgeberry		•		•	•	•	•	•	•		•			
<i>Monarda didyma</i>	Beebalm		•			•	•	•						•	•
<i>Monarda fistulosa</i>	Wild bergamot		•	•	•	•		•	•					•	•
<i>Monarda punctata</i>	Horsemint		•	•	•	•			•	•				•	•
<i>Oenothera fruticosa</i>	Sundrops		•	•	•	•		•	•	•			•	•	
<i>Penstemon canescens</i>	Hairy beardtongue		•	•	•	•		•	•					•	•
<i>Penstemon laevigatus</i>	Smooth beardtongue		•		•	•	•	•	•	•				•	•
<i>Phytolacca americana</i>	Pokeweed		•	•	•			•	•	•		•	•		
<i>Pycnanthemum incanum</i>	Hoary mountainmint		•	•	•	•		•	•	•					•
<i>Rudbeckia fulgida</i>	Orange coneflower		•		•			•	•	•			•		•
<i>Salvia lyrata</i>	Lyreleaf sage		•	•	•	•	•	•	•	•				•	•
<i>Solidago</i> spp.	Goldenrod		•	•	•	•		•	•	•			•		•
<i>Vernonia noveboracensis</i>	Ironweed		•		•	•		•	•	•					•

Table 5. Plant Species Native to North Carolina with a *High* Flammability Rating

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full Sun	Partial Shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Tall Trees (taller than 30 feet)																
<i>Chamaecyparis thyoides</i>	Atlantic whitecedar	•	•		•	•				•	•					•
<i>Ilex opaca</i>	American holly		•	•	•	•	•	•	•	•	•	•			•	•
<i>Juniperus virginiana</i>	Eastern redcedar		•	•	•	•		•	•	•	•	•				•
<i>Pinus echinata</i>	Shortleaf pine		•	•	•	•		•	•	•	•		•			•
<i>Pinus palustris</i>	Longleaf pine		•	•	•			•	•	•	•		•			
<i>Pinus strobus</i>	Eastern white pine		•	•	•			•	•	•	•		•			
<i>Pinus taeda</i>	Loblolly pine		•	•	•			•	•	•	•		•			•
<i>Quercus virginiana</i>	Live oak		•	•	•			•	•	•	•		•			•
<i>Tsuga canadensis</i>	Eastern hemlock		•			•	•	•	•		•		•			
Small Trees and Shrubs (10 to 30 feet tall)																
<i>Ilex vomitoria</i>	Yaupon		•	•	•	•				•	•	•			•	•
<i>Morella cerifera</i>	Wax myrtle		•	•	•	•			•	•	•	•				•
Small Shrubs (less than 10 feet tall)																
<i>Ilex glabra</i>	Inkberry		•		•	•			•	•	•	•			•	•
<i>Kalmia carolina</i>	Carolina laurel		•	•	•	•	•			•	•			•	•	
<i>Kalmia latifolia</i>	Mountain laurel		•	•	•	•	•	•	•	•	•			•	•	
<i>Leucothoe axillaris</i>	Doghobble	•	•		•	•		•	•	•	•				•	
<i>Rhododendron catawbiense</i>	Catawba rhododendron		•			•	•	•	•		•			•	•	
Vines																
<i>Ampelopsis arborea</i>	Peppervine	•	•		•	•				•		•				
<i>Aristolochia macrophylla</i>	Dutchman’s pipe		•	•		•	•	•								•
<i>Berchemia scandens</i>	Rattanvine, supplejack	•	•		•	•			•	•		•				
<i>Bignonia capreolata</i>	Crossvine		•	•	•	•			•	•				•		
<i>Campsis radicans</i>	Trumpet vine		•	•	•	•		•	•	•				•		
<i>Decumaria barbara</i>	Climbing hydrangea		•		•	•	•			•					•	
<i>Gelsemium sempervirens</i>	Carolina jasmine		•		•	•			•	•	•			•	•	
<i>Lonicera sempervirens</i>	Coral honeysuckle		•		•	•			•	•				•		
<i>Parthenocissus quinquefolia</i>	Virginia creeper		•	•	•	•	•	•	•	•		•				
<i>Passiflora incarnata</i>	Passionflower		•	•	•	•		•	•	•				•	•	•
<i>Smilax</i> spp.	Greenbrier	•	•	•	•	•		•	•	•	•	•				
<i>Vicia caroliniana</i>	Wood vetch			•	•	•		•	•	•			•			•
<i>Vitis</i> spp.	Grape	•	•	•	•	•		•	•	•		•				

Table 5. Plant Species Native to North Carolina with a *High* Flammability Rating (continued)

Scientific Name	Common Name	Soil Moisture			Light Needs			Native Region			Wildlife Value					
		Wet	Moist	Dry	Full Sun	Partial Shade	Shade	Mountains	Piedmont	Coastal plain	Winter cover	Fleshy fruit	Seed, mast, or catkin	Hummingbird nectar	Butterfly/insect nectar	Butterfly larvae host
Grasses																
<i>Andropogon glomeratus</i>	Bushy bluestem		•		•				•	•	•		•			•
<i>Andropogon temarius</i>	Splitbeard bluestem		•	•	•			•	•	•	•		•			•
<i>Aristida stricta</i>	Wiregrass		•	•	•	•			•	•	•		•			
<i>Arundinaria gigantea</i>	Switchcane	•	•	•	•	•	•	•	•	•	•		•			•
<i>Panicum virgatum</i>	Switchgrass	•	•		•	•		•	•	•	•		•			•
<i>Sorghastrum nutans</i>	Indiangrass		•	•	•			•	•	•	•		•			

Summary

Wildfire can damage or destroy homes and also significantly reduce the resources and benefits produced by North Carolina’s wildlands, including wildlife habitat, recreation, clean water, timber, and scenic beauty. Roughly 52 percent of North Carolina’s homes are located within the wildland-urban interface (WUI) (Martinuzzi et al. 2015), the zone where human development meets or intermixes with wildland vegetation. The risk that a wildfire will encroach upon a home in the WUI continues to grow due to climate change, population growth, and homes increasingly being built in the WUI. Some homeowners may have to deal only with smoke and evacuation. For others, fire can result in the destruction of their home and property. By using fire-resistant landscaping strategies, homeowners can create landscapes with less potential fuel for a fire and minimize the risk of a wildfire spreading to their home.

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