

Protecting Your Home from Forest Fire¹

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Janice and Dean hovered around the radio, listening for reports on the Waldo fire. They made frequent trips to the end of their lane to check on the situation for themselves. Anxiousness was written across their faces. Their home, nestled among towering pines, would be in danger if the blaze jumped the highway. As Waldo residents were evacuated, they wondered if they would be next. The car was packed with valuables, but they waited to see if the fire fighters beat back the flames, or if the winds pushed the fire their way. As they looked around their pine-shaded home, with the dense mat of pine needles covering the ground, they wondered if they could have done anything to reduce the threat of fire and potential home loss.

The summer of 1998 will long be remembered for the unusual drought and destructive wildfires that swept across Florida. It is easy to forget, however, that fire is normal in Florida. Many of the forest plants are adapted to survive periodic, low intensity ground fires which were common before the era of European settlement and fire fighters. Thick bark, few lower limbs, and

seedlings that grow quickly in full sun are some strategies used by pine trees to survive or repopulate a burned landscape. Hardwoods, shrubs, and grasses regenerate quickly from roots. The high frequency of lightning and human carelessness guarantees that fires did, and will, start in Florida; how intensely they burn is a function of fuel size, fuel density, moisture content, and weather conditions.

Janice and Dean are not alone in the Florida woodlands. Thousands of people live in rural forested areas across the state, and although the setting is idyllic for much of the year, every spring and fall bring a period of little rain and the threat of wildfire. If we want to live in Florida's forests, we must adapt to fire, too. By following these guidelines for building design and landscaping you can help protect your home during the next fire season.

Fireproofing Your Home

Sparks from a fire may be pushed far ahead of the flames and heat from the advancing fire can raise

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the temperature of building materials. You can make your home more fire-proof by using fire resistant or retardant building materials. Homes constructed with brick, masonry, or metal walls and an asphalt, tile, or metal roof are much less flammable than those that use wood siding or shingles. Vinyl siding may partially melt if exposed to high temperatures. If wood or another combustible material is used in the roof, siding, shutters, decks, or trim it can be treated with UL-approved fire-retardant chemicals to reduce (but not eliminate) the likelihood of ignition. Tempered glass will help prevent window shattering and fire-resistant drapes can keep embers from entering through windows. Openings under floors and into roofs and attic space should be covered with metal screens.

Whatever your home construction, other precautions can help fireproof your home:

1. Remove pine needles and other flammable debris from your roof and gutters and from under decks and floors.
2. Maintain landscape clearings around your home (see below).
3. Stack firewood at least 50 feet from your home.
4. Store flammable materials and liquids in approved safety containers in a safe location 30 to 50 feet from your home.
5. Have a water source accessible to fire fighters. Consider capturing rainwater from your roof in a cistern or sharing an emergency storage tank with your neighbors. A minimum of 2,500 gallons is helpful. Clearly label the emergency water sources and keep access to the tank open.

Preventing Fires from Starting on your Property

Despite all our good intentions, carelessness started some of the 1998 fires, and typically starts more fires than lightning. You can help prevent such “carelessness”..

1. Burn trash only by methods, and at times, approved by state regulations; contact your county office of the Florida Division of Forestry for further information.
2. Clean a 10 foot area around propane tanks and barbecues.
3. Bury “cold” ashes from stoves, fireplaces and grills in mineral soil.
4. Annually inspect chimneys and cover them with spark-arresting screens (contact your local fire department for approved specifications). Remove branches and shrubs within 15 feet of the top of your chimney or stovepipe.
5. Quickly report any fire you see starting; then try to extinguish it, if possible.

Creating A Fire-Resistant Landscape

Fires need fuel to burn. Dead branches and needles burn quickly, as well as some highly flammable trees and shrubs. By creating and maintaining open space around your home, often called *defensible space*, you can reduce the chance that the fire will be close enough to catch your home on fire. A 50-foot safety zone around your home is the most crucial defensible space (Figure 1 depicts an ideal defensible space). Within this zone, you should:

1. Remove all dead vegetation, rake the ground of needles, if necessary, and consider landscaping walkways and the space between flower beds with gravel.
2. Use patios, walkways, driveways, stone walls, and pools as fuel breaks.
3. Thin existing trees to create at least 15 feet of open space between the crowns and trim the lower branches up to at least 15 feet above the ground.
4. Create an open space of 20 feet around your house, clear trees and large shrubs. Plant grass, flowers, and small shrubs in this space, if they stay green and growing during the fire season.
5. Create shrub islands of landscape plants at least 10 feet apart. Prune shrubs to keep the foliage off the ground and to give them an open, flattened shape. Avoid conical shrubs that could direct fire upward.
6. Remove small pine trees that are under larger trees or are clumped together, and remove all ladder fuel (limbs, vines, and shrubs that could channel fire from the ground to the tree canopy or your roof).
7. Irrigate through the dry season to keep groundcover green.

Removing all the trees around a home, unfortunately, would eliminate shade and increase the temperature of your yard and house. Older trees are less likely to burn in a ground fire, and dropped oak leaves can even prevent a fire from spreading. Consider keeping tall pines or planting oak or other broadleaf trees within the defensible space.

Beyond this 50-foot safety zone, fuel loads should also be reduced to a distance at least 150 feet from your home. The goal is to slow the fire and keep it on the ground. To achieve this goal, it will be important to replace the flammable species with fire-resistant, drought-resistant plants and water your groundcover enough to keep it green and growing through the fire season, if possible. You can also:

1. Thin existing trees so the crowns do not touch each other. Priorities should be to remove small pine trees and save as many hardwoods as possible. Contact your Extension Office for lists of tree removal crews; consider working with neighbors to thin enough timber to sell.
2. Remove lower branches within at least 15 feet of the ground. You don't want a ground fire to climb into the canopy.
3. If you plant additional hardwood trees and shrubs, keep at least 10 feet between crowns.
4. Clear at least 10 feet around woodpiles.
5. Remove dead and dying branches.
6. Remove saw palmetto, juniper, wax myrtle and small pines. They burn easily and can throw sparks when they burn.

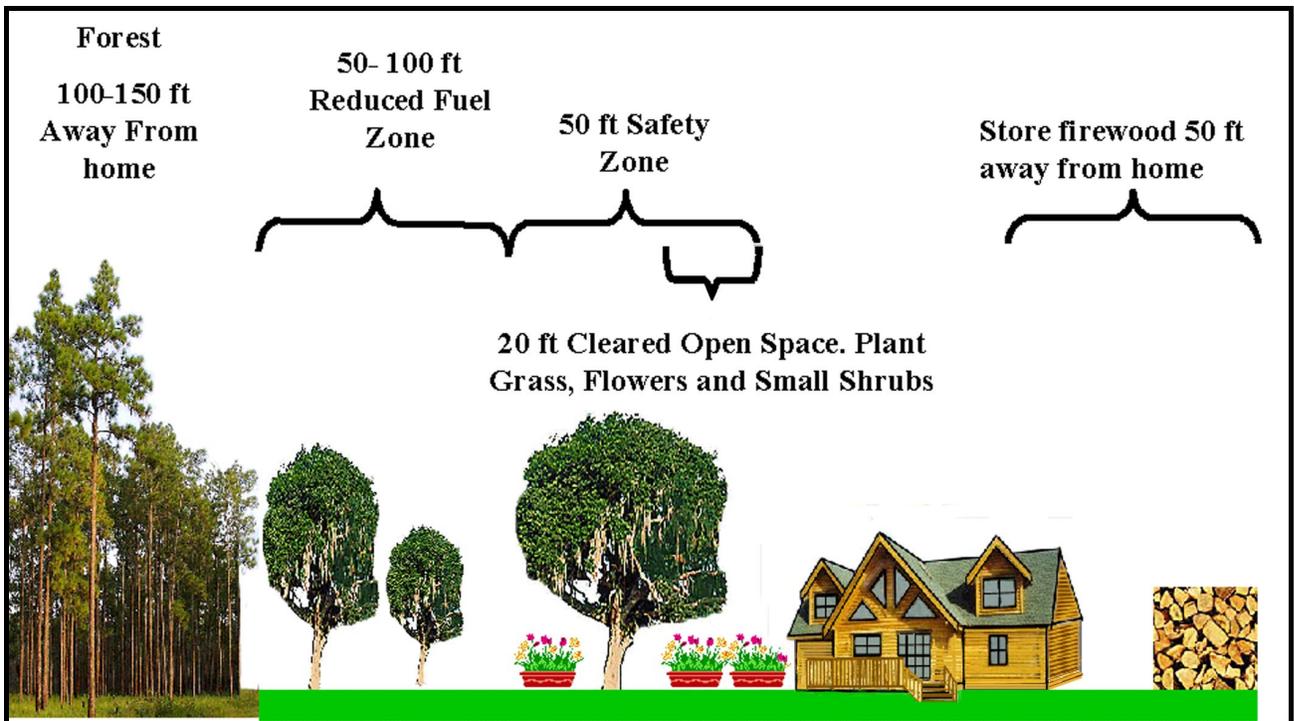


Figure 1. Defensible space involves clearing, trimming, and maintaining a home landscape to discourage fire from spreading to the house.

The Role of Controlled Burns in Creating a Fire Resistant Landscape

On a larger scale than small land ownerships, prescribed fires are purposefully ignited under controlled conditions to reduce fuel loads in Florida's forests, improve habitat for certain species, and reduce the intensity of wildfires. They usually occur in the winter and early spring when the ground is moist. Permits are distributed by the Division of Forestry based on nearby fire permits and wind conditions. Repeated controlled fires may be the best protection against run-away wildfire and the support of landowners will be critical for continued use of controlled fires in Florida's natural landscape.

Creating a fire-resistant landscape in Florida means balancing sometimes conflicting needs for shade, water, aesthetics, and defensible space. Controlled burns can reduce the threat of wide-

spread wildfire and may be the most efficient solution. Maintaining the defensible space around your home provides the final and most certain barrier.

As the "all clear" sounded and the Waldo residents returned, Janice and Dean began to relax. The crews restricted the fire to the other side of the road and eventually extinguished it, but only after the fire scorched 6900 acres. Janice and Dean did not have to evacuate their home, and they immediately made plans to establish a 50 foot clearing, set up an emergency water tank, and talk to neighboring land owners about a spring controlled burn. They did not relish living through another fire season without taking more precautions.