

Firewise Landscaping in Texas



“ Fire resistant does not mean fire proof. Homeowners should maintain a healthy landscape with proper cleaning, pruning and watering.

Put the right plant in the right place.



THE RIGHT PLANT FOR THE RIGHT PLACE

The purpose of this guide is to provide basic information about Firewise landscaping. It will help Texas landowners choose the “right plant for the right place” by explaining fire-resistant plant characteristics. The first 30 feet from your home in all directions is called your defensible space. Maintaining defensible space around your home is key to improving your home’s chance of surviving a wildfire.

The following landscape elements apply across Texas and at all scales. Larger properties should incorporate the entire ignition zone, which is 200 feet from their home. Owners of smaller properties also need to evaluate what is within their defensible space and ignition zone and make needed adjustments. Property owners also may want to consider working with adjacent landowners.

Portions of the guide are adapted from the “Fire in the Wildland-Urban Interface” series produced as a joint product of the University of Florida, Institute of Food and Agricultural Sciences (IFAS) and the USDA Forest Service, Southern Research Station, Southern Center for Wildland-Urban Interface Research and Information.



Bluebonnets

Reasons to Maintain a Firewise Landscape

The idea of a Firewise landscape is to have fire-resistant plant materials placed in such a manner as to lessen the chances of wildfire reaching and burning your home. The landscape surrounding a home can become fuel for a wildfire. Vegetation to encourage wildlife or to enhance water or energy conservation goals can be included in a Firewise landscape as long as the defensible space is maintained.

Decks and siding easily can ignite when plants that burn quickly and produce high heat are placed adjacent to the home. A burning plant or group of plants in front of windows can cause glass breakage allowing fire to enter the home. Taller flames adjacent to the home can enter through the soffits. These flames may reach combustible materials and cause material failure, such as gutter or siding that melts, exposing the wood.



Overgrown vegetation that is within the 30 feet of defensible space can produce significant heat, potentially igniting the home.

Fire can get into the crowns of trees if plants are layered in such a way that the fire climbs into the treetops (ladder fuels). When flames burn through the tree crowns (canopy), intense heat and embers are given off. This causes burning materials to fall on the roof and surrounding vegetation.

Plants placed so that a fire can spread to your home increase the chance of your home receiving direct flame and embers as the fire spreads. Your home is a continuation of the fuel. Creating “defensible space” will greatly reduce your home’s risk to wildfire.



Ladder fuels allow ground fires to spread to the crowns of trees. Once in the crowns, a wildfire is very hard to stop.

Choosing Landscape Design Elements



Island landscaping allows for space between fuels and will slow the spread of fire.

In Firewise landscaping, choose design elements using vertical and horizontal separation of plants. The most important portion of the home ignition zone is the defensible space. Highly flammable plants should be removed or isolated. Plants or plant groups should be placed using vertical and horizontal separation, breaking up the fuel continuity. Also remove dead and dying plants and plant materials.

Within the 30 feet surrounding the home, the first few feet from the house foundation are very important. Fire in this area can increase the chance of damage or destruction of the structure, including the deck, outbuildings and fencing.

In the vertical space, trees hanging over the roof and those located in the first 10 feet from the home also can cause fire problems. Keeping more volatile and larger trees and plants to the outer portions of the defensible space is important.

In the second zone, 30 to 100 feet from the home, more plants can be present. However, the same Firewise principles apply. Firewood, small brush piles or stacks of building materials should be moved to this zone or further away.



Characteristics of Fire-Resistant Plants

While there is no “fireproof” plant, there are plant characteristics to consider when planning a Firewise yard or landscape. The characteristics can be separated into the following two groups:

1. Fire resistance
2. Growth characteristics

Fire resistance incorporates how readily the plant will catch fire (ignitability). This is important when plants are exposed to a heat source (radiant, ember or direct flame) during a wildfire. Plants that do not readily ignite and can withstand high temperatures are best. These include plants that have a high-moisture content and stems that are watery (lack resins, oils and volatiles). Another characteristic of the fire-resistant group is combustibility or how much energy the plant releases. Highly combustible plants will produce a lot of heat and large flame lengths. If planted near other vegetation, these plants will contribute to the spread of a wildfire. Plants also can scorch a home if they are planted nearby. Another consideration is ember production.

Plants that produce a large amount of embers will increase a home’s risk in the event of a wildfire. Embers can land in leaf litter, pine litter or enter the home through vents and other openings.

Growth characteristics describe the amount of vegetation that is present. The two characteristics in this group are growth rate and growth pattern. Growth rate is important because a plant that grows quickly will produce more fuel available to burn in the event of a wildfire. Slower-growing plants reduce trimming and maintenance time for the owner and are recommended for the defensible space.

The growth pattern relates to the natural growth characteristics of the plant. Low-growing plants that are less dense are good in Firewise landscapes because they help maintain the vertical separation of fuels and produce less material to burn. A dense (compacted) plant contains more fuel than light-structured and open-branched species.

The following are examples of acceptable fire-resistant plants that could be used in the first 30 feet around your home. There are many more that you can choose from that have fire-resistant characteristics. Check with your local plant nursery.

Acceptable in first 10 feet

Low growing/moist

Columbine Primrose
Violet Phlox



Columbine

10 feet to 30 feet

Taller plants

Bluebells Aster
Bluebonnet Gay feather



Aster

30 feet and beyond

Shrubs

Lantana Butterfly bush
Beauty berry Turks cap



Lantana

Creating Defensible Space in Landscape Design



The following zones in the defensible space provide recommendations for plants with certain fire-resistant characteristics, spacing ideas and key maintenance considerations to make your yard or landscape Firewise.

Zero feet – 10 feet from Home

This area should have plants that are low to the ground, green and healthy. Use moist plants around the foundation. Keep them properly watered and avoid large clumps of plants that can generate high heat. Use material such as rock or stone instead of mulch around the home to create a buffer between the grass and foundation. Small shrubs with low density can provide beauty and other benefits. Maintenance includes keeping shrubs small, proper pruning and cleaning under all plants and maintaining a green and mowed lawn.

Ten feet – 30 feet from home

This area will most likely have trees, shrubs and grass. The grass should be watered regularly and cut short. Ladder fuels that allow fire to climb from lower to higher vegetation should be removed in this area. The best choices for trees are deciduous species with wide, broad leaves. Shrubbery and bushes should be placed away from trees and planted in islands or groupings. Use brick or stone along the edge of an island to slow the flame spread. Single plants or groups within islands provide a separation of fuels and are decorative. Small to medium deciduous trees are preferable to evergreens in this zone.

Working With Competing Landscape Goals



Landscaping provides habitat for wildlife.



Native xeric landscaping allows water-wise practices to create a landscape that will flourish in hot and dry conditions.



Landscaping reduces energy cost by providing shade for the home.

Firewise landscaping can be achieved along with other landscaping goals of landowners. Creating a safer Firewise landscape can easily fit into multiple goals just by using the right plants and proper spacing.

The goals of wildlife landscaping are to provide food, water, cover and space for wildlife. By limiting the amount of open space (lawn) and using native plants, natural habitats are encouraged, requiring less maintenance.

Water conservation landscaping uses minimal water resources once the vegetation is established. Plants that are adapted to specific conditions can be grouped in islands that require similar watering needs.

Energy landscaping places trees and shrubs strategically around the home to reduce energy use. Trees and shrubs are used as windbreaks. Plants can be used to create dead air space around the foundation and vines on exterior walls provide shade.

All of the above goals of landscaping have merit. It is important to find ways to provide a safer Firewise landscape while accomplishing other goals.

The goal of Firewise landscaping is to keep a ground fire low and less intense. The continuity of fuel is broken up in the 30 feet of defensible space. Flammable plants and materials are kept away from the side of the house and both vertical and horizontal separation of fuels is maintained. Dead leaves and pine needles are removed.

Depending on property size, the landowner's goals to attract wildlife or conserve water and energy all can be incorporated into the landscape. Just remember emphasis needs to be placed on the initial 30 feet of defensible space from the home, especially in dry conditions.

Checklist for Firewise Plant Characteristics

The following is a checklist for determining what characteristics to look for when planting a Firewise yard or landscape.

Fire resistance

- Plants with high moisture content do not readily ignite and can withstand higher temperatures.
- Plants with resins, oils and volatiles are highly flammable and should be kept away from the home.
- Highly combustible plants will produce a lot of heat and large flame lengths.

Growth characteristics

- Slower growing plants reduce the amount of maintenance time.
- Low-growing plants help maintain the vertical separation of fuels.
- Less dense plants produce less material to burn, while more compact fuels produce more fuel to burn.



The low oil content of Malavaviscus "Big Momma" makes this plant less flammable.



The high moisture content of the Texas bluebell makes it slower to ignite.



Mexican primrose, a low growing plant, helps maintain the vertical separation of fuels.

Checklist for Landscaping Your Home

Do any of the following conditions exist inside your 30-foot defensible space zone? If so, you may want to make it more fire-resistant by applying the following Firewise actions.

Overgrown vegetation that is continuous and close to the house

- Move vegetation at least 3 feet from the foundation of the house.
- Reduce, trim or replace larger plants.
- Break up plant continuity with non-combustible materials, such as rock or lawn.

Plants are adjacent to deck, porch or siding

- Move plants at least 3 feet from deck, porch or siding.
- Use low-growing and/or moist plants.

Ladder fuels are present where fire can climb from lower to higher vegetation

- Remove ladder fuels in the 30-foot defensible space that allow the fire to climb to larger fuel, including your home.
- Laddering is acceptable in isolated islands or pockets away from structures or taller fuels.

Dead vegetation present, such as leaves and pine needles

- Prune and remove dead branches.
- Rake and remove leaves and pine needles from under vegetation.

Large trees and plants

- If present, maintain crown spacing between larger trees.
- Prune dead and overhanging branches over the roof.
- Locate larger trees away from the home.
- Trim lower branches of trees to at least 6 to 10 feet above the ground.

Dry /tall grass or dry plants are present

- Remove dry and tall grass near your home.
- Keep the defensible space green and healthy.

No matter what your landscaping goals may be, your home will be in a better situation to survive a wildfire if you use fire-resistant plants and good spacing. The *right plant for the right place* makes a *big* difference.

Learn more about protecting your home and property at www.firewise.org

To learn more, request one of these brochures.

- Plan and Prepare: Is Your Home Ready?
- Fire Resistant Materials for Home Repair and Construction
- Vegetation Management in the Wildland Urban Interface
- Be Embers Aware



TEXAS A&M
FOREST SERVICE



This institution is an equal opportunity provider. The work upon which this publication is based was funded in whole or in part through a grant awarded by the Southern Region, State and Private Forestry, U.S. Forest Service.