

# Living With Wildfire

## A Guide for Arkansas Homeowners



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# About Arkansas FireWise

Each year, thousands of acres of Arkansas wildland and numerous homes are threatened or destroyed during the spring and fall fire seasons. Arkansans cannot prevent fire seasons, but they can reduce the wildfire threat to their homes and other structures.

Firewise planning aids in protecting buildings from fires that begin in forests, brush or grass. Homes built next to wooded or brushy areas are susceptible to wildfire in this wildland/urban interface. Arkansas FireWise, a wildfire mitigation effort of the Arkansas Forestry

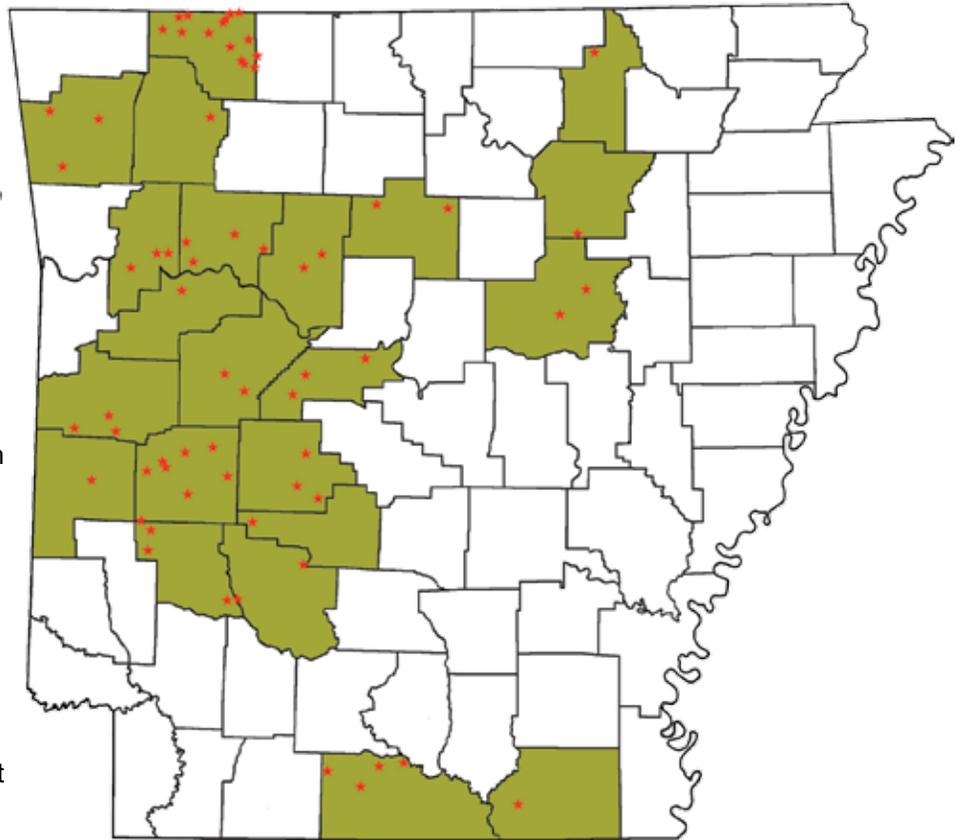
Commission, works with communities to teach homeowners how to coexist with wildfire and eliminate exterior fire hazards such as overhanging tree limbs, dead brush, flammable building materials and poor access for emergency vehicles.

Concerned local citizens form Firewise boards to identify high-risk areas and implement local solutions with help from Arkansas FireWise program leaders and funding from federal grants. The fire safety program is a cooperative effort among federal, state and private agencies to recognize Arkansas Firewise

Communities and promote fire prevention to those living in or near natural areas.

For more information, visit [www.arkansasfirewise.com](http://www.arkansasfirewise.com), e-mail the Arkansas FireWise Coordinator at [firewise@arkansas.gov](mailto:firewise@arkansas.gov), or call the Arkansas Forestry Commission at (501) 296-1940.

*The Arkansas Forestry Commission offers its programs to all eligible persons regardless of race, color, national origin, sex, age or disability and is an Equal Opportunity Employer.*



- Alpena
- Antoine
- Appleton
- Bald Knob
- Beaver
- Blue Eye
- Caddo Valley
- Cairo
- Calion
- Camp Albert Pike
- Carrollton
- Cecil
- Cherokee Village
- Coin
- Dallas Valley
- Danville
- Denver
- Diamondhead
- Eureka Springs
- Fairfield Bay
- Fayetteville
- Grassy Knob
- Green Forest
- Hartman
- Hatley
- Higginson
- Holiday Island
- Holley Mountain
- Airpark
- Hollis
- Hot Springs
- Hot Springs Village
- Hugh
- Hunt
- Inspiration Point
- Joplin
- Kingston
- Langley
- Ludwig-Lakewood
- Lutherville-Holman
- Maple
- Meeks Settlement

- Mt. Holly
- Oden
- Pine Ridge
- 250
- Nella
- Ozark
- Plainview
- Unity-Frost
- Newhope
- Ozark Country Estates
- Pleasant Plains
- Prairie
- Nimrod
- Paris
- Point Cedar
- Wedington
- Norman
- Pencil Bluff
- Sims
- Y-City
- Norphlet
- Perry
- Story
- Yocum
- Oak Grove
- Strickler

Visit [www.firewise.org](http://www.firewise.org) to see the complete list of Firewise Communities/USA from all participating states.

# Protect Your Home With Defensible Space

The key principle to remember when making your home “Firewise” is to create a defensible space at least 30 feet from all structures (more if the residence is in a high-hazard area). This includes any additions, decks or fencing attached to your home, as well as any out-buildings.

Homeowners can create their own defensible space that will slow the progression of an oncoming wildfire by remembering to keep their landscaping lean, clean and green.

Make your landscape “lean” by removing or isolating highly-flammable plants and creating vertical and horizontal separations between plants or plant groups. Prune trees and shrubs periodically to remove “ladder fuels” that could carry a grass fire into the tree canopy. Be sure to prune any tree limbs hanging over your home. Also, incorporate gravel or paved walkways in the landscaping to create a fire break.

“Clean” up your property by removing dead plants and plant materials such as leaves, twigs and branches. Remember to remove fallen leaves and twigs that may accumulate in gutters or on the roof.

Keep your yard “green” by incorporating high-moisture content vegetation when landscaping and maintaining a well-watered lawn. Plants within the 30 foot defensible space should be low-growing and have leaves with high-moisture content. Trees within this space should be deciduous and have open and loose branching patterns. Be sure to space flammable conifer trees at least 30 feet between treetops to reduce the risk of crown fire.



*Arkansas Forestry Commission / David Samuel*

The April 2007 Arkansas FireWise Home of the Month demonstrates the concept of good defensible space. The home belongs to Gary Stephenson of Cane Creek.

For added protection, be sure to screen under decks with 1/8 inch metal wire mesh to prevent the accumulation of leaves and debris that can easily ignite.

“We’re teaching homeowners how to protect themselves by creating an environment in which they will be safe from wildfire,” said Firewise Communities/USA Project Manager Judith Leraas Cook. “The Firewise Communities/USA program was built around the notion of the home ignition zone – a house and its surroundings out to 100 to 150 feet. A house burns because of its relationship with everything in its surroundings. To avoid home ignition, the homeowner must eliminate the potential relationship a wildfire can have with his home. This can be accomplished by interrupting the natural path a fire takes.”

Jack Deaton, Holiday Island Fire Chief, recommends homeowners remove any small underbrush and tree limbs six feet from the ground, and noted residents in his community have been pleased with the results.

“Some have commented that it gives it a park-like appearance,” Deaton

said. Many residents have mentioned they have better views after pruning lower tree limbs, and absentee owners have noticed the alterations have increased the value of their vacant lots.

Deaton also said many residents were initially concerned removing vegetation from their property would scare off wildlife, but instead it’s had the opposite effect.

“When they clean underneath and new growth appears, it actually attracts deer and other wildlife.”

Another positive effect of “Firewise”-ing is that once a property has been cleaned up, it stands out among the others, which in turn prompts surrounding homeowners to clean up their property. This snowball effect has helped maintain momentum for the Firewise program in Holiday Island. Numerous homeowners take advantage of the fire department’s “chipper days” hosted each Wednesday from March to November to remove ladder fuels.

To view photos of Firewise homes, visit [www.arkansasfirewise.com](http://www.arkansasfirewise.com) and click on the Arkansas FireWise Home of the Month link.

# FireWise Construction Checklist

**When constructing, renovating or adding to a Firewise home, consider the following:**

- Choose a Firewise location.
- Design and build a Firewise structure.
- Develop and maintain a Firewise landscape.



**To select a Firewise location, observe the following:**

- Build on the most level portion of the land, since fire spreads more rapidly on any slope.
- Set a single story structure at least 30 feet back from any ridge and increase the distance for buildings higher than one story.

**In designing and building your Firewise structure, the primary goals are fuel and exposure reduction:**

- Use construction materials that are fire-resistant or non-combustible whenever possible.
- For roof construction, consider using materials such as Class-A asphalt shingles, slate or clay tile, metal, cement and concrete products or terra-cotta tiles.
- On exterior wall cladding, fire-resistant materials such as stucco or masonry are much better than vinyl, which can soften and melt.
- Consider size and materials of windows: Smaller panes of double glass or tempered glass are most effective; plastic skylights can melt.
- Cover windows and skylights with non-flammable screening shutters.
- Cover exterior attic and under-floor vents with 1/8 inch wire mesh; make sure under-eave and soffit vents are closer to the roof line than the wall.
- Include a driveway that is big enough to provide easy access for fire engines. Driveways should be at least 12 feet wide with a 15-foot vertical clearance and a slope of less than 12 percent. Driveways and access roads should be clearly marked and include ample turnaround space near the house. Also consider access to a water supply if possible.
- Provide at least two ground-level doors for safety exits and at least two means of escape in each room, so that everyone has a way out of a building in case of emergency.
- Keep gutters, eaves and roofs clear of leaves and other debris.
- Make an occasional inspection of your home or building, looking for deterioration such as breaks and spaces between roof tiles, warping wood or cracks and crevices in the structure.
- Inspect your property, clearing dead wood and dense vegetation from at least 30 feet around your house. Move firewood away from the house or attachment, like fences or decks.

**Any structures attached to the house, such as decks, porches, fences and outbuildings should be considered part of the house:**

- If you wish to attach an all-wood fence to your home, use masonry or metal as a protective barrier between the fence and house.
- Use non-flammable metal when constructing a trellis and cover with high-moisture, non-flammable vegetation.
- Prevent combustible materials and debris from accumulating beneath a patio, deck or elevated porches. Screen under decks with 1/8 inch wire mesh.
- Make sure an elevated wooden deck is not located at the top of a hill where it will be in direct line of a fire moving up a slope; consider a terrace instead.

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# FireWise Landscaping Checklist

**When designing and installing a Firewise landscape, consider the following:**



- Local area fire history.
- Site location and overall terrain.
- Prevailing winds and seasonal weather.
- Property contours and boundaries.
- Native vegetation.
- Plant characteristics and placement (water, resin and salt content, fuel load ratio and size.)
- Irrigation requirements.

**To create a Firewise landscape, remember that the primary goal is fuel reduction. To do this, create a series of defensive landscape zones. Zone 1 is closest to the structure and Zones 2-4 move progressively farther away.**

- Zone 1:** This well-irrigated area encircles the structure for at least 30 feet on all sides, providing space for fire suppression equipment in the event of an emergency. Plantings should be limited to carefully spaced, fire-resistant species.
- Zone 2:** Fire-resistant plant materials should be used here. Plants should be low-growing, and the irrigation system should extend into this section.
- Zone 3:** Place low-growing plants and well-spaced trees in this area, remembering to keep the volume of vegetation (fuel) low.
- Zone 4:** The farthest zone from the structure is often a natural area. Thin selectively here and remove highly flammable vegetation.

**Also remember to:**

- Leave a minimum of 30 feet around the house to accommodate fire equipment if necessary.
- Carefully space the trees you plant.
- Take out ladder fuels, vegetation that serves as a link between grass and treetops. Ladder fuels can carry fire to a structure or from a structure to vegetation.
- Give yourself added protection with fuel breaks such as driveways, gravel walkways and lawns.

**When maintaining a landscape:**

- Keep trees and shrubs pruned. Prune all trees from 6 to 10 feet above the ground.
- Remove leaf clutter and dead and overhanging branches.
- Mow your yard regularly.
- Dispose of cuttings and debris promptly, according to local regulations.
- Store fire wood away from the house.
- Be sure the irrigation system is well-maintained.
- Become familiar with local regulations regarding vegetative clearance, disposal of debris and fire safety requirements for equipment.
- Follow manufacturers' instructions when using fertilizers and pesticides.

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# Firewise Plants Offer Colorful Choices for Fire Safe Gardens

Firewise plant species include low-growing, herbaceous annuals and perennials, and plants with fleshy leaves such as sedum and cactus. Avoid flammable, resinous species such as pine, cedar and juniper. Instead, consider native, deciduous shrubs and trees such as Eastern redbud, flowering dogwood and viburnum. The following list is a short representation of Firewise trees, shrubs and ground covers from which homeowners can choose.

Scientific name	Common name	Comments
<i>Gleditsia triacanthos</i>	Thornless honeylocust	Tolerates drought, soil salts and high pH.
<i>Gymnocladus dioicus</i>	Kentucky coffeetree	Tolerates drought and urban conditions.
<i>Juglans cinerea</i>	Butternut	Slow growing. Tolerates varied conditions.
<i>Juglans nigra</i>	Black walnut	Prime timber tree. Toxic to many other plants.
<i>Koelreuteria paniculata</i>	Goldenraintree	Tolerates heat, drought, air pollution and low fertility.
<i>Liriodendron tulipifera</i>	Tulip poplar	Does not tolerate poor growing conditions. Grows fairly rapidly.
<i>Nyssa sylvatica</i>	Blackgum, Black tupelo	Not tolerant of air pollution or alkaline soils. Tolerates wet soil.
<i>Prunus serotina</i>	Black cherry	Tolerates most soils. Can become invasive. Poisonous to livestock.
<i>Quercus alba</i>	White oak	Susceptible to construction damage.
<i>Quercus falcata</i>	Southern red oak	Tolerates various soils.
<i>Robinia pseudoacacia</i>	Black locust	Tolerates dry, saline soils. Spines on young growth.
<i>Cercis canadensis</i>	Eastern redbud	Small ornamental tree.
<i>Cornus florida</i>	Flowering dogwood	Understory tree that is hardy and ornamental.
<i>Sassafras albidum</i>	Sassafras	May become invasive. Difficult to transplant.
<i>Rhus copallinum</i>	Shining sumac	Useful for dry, rocky sites.
<i>Sambucus nigra</i>	American elderberry	Tolerates both wet and dry soils.
<i>Viburnum acerifolium</i>	Maple leaf viburnum	Tolerates shade and poor soils.
<i>Hydrangea quercifolia</i>	Oakleaf hydrangea	Needs afternoon shade. Will not tolerate wet feet.
<i>Pachysandra terminalis</i>	Japanese Pachysandra	Six- to 10-inch ground cover. Not tolerant of foot traffic or full sun.

# Assess Wildfire Risk To Your Home

## Directions

Answer each question using assigned point values as it applies to your home. If the question does not apply, score it as a zero. Total the points to get a value and determine the risk hazard to your home.

## Entrance

- A.** Mailbox or 9-1-1 address is clearly marked with 4 inch reflective letters. (0 points)  
**B.** Mailbox is clearly marked but difficult to read. (5 points)  
**C.** Address is not clearly marked. (10 points)
- A.** Drive is at least 12 feet wide with 15-foot vertical clearance for emergency vehicles. If there is a gate, it is 30 feet from the road, 2 feet wider than the drive, opens inward, and has a key box if locked. (0 points)  
**B.** Drive is less than 12 feet wide and cleared of brush. (5 points)  
**C.** Drive is obstructed with no access for emergency vehicles. (10 points)

## House

- A.** Home exterior has flame/heat resistant brick, stucco or metal. (0 points)  
**B.** Home has vinyl siding. (5 points)  
**C.** Home has wood or cedar shake siding. (10 points)
- A.** Roof consists of fire resistant material such as tin, tile or asphalt shingles. (0 points)  
**B.** Roof has cedar shake shingles. (15 points)
- A.** Chimney has a spark arrestor and is capped. (0 points)  
**B.** Chimney is not capped. (5 points)
- A.** Gutters are cleaned of debris. Eaves are boxed. (0 points)  
**B.** Gutters are not clean. Eaves are boxed. (5 points)  
**C.** Gutters are not clean. Eaves are not boxed. (10 points)
- A.** Windows are double-pane, tempered glass. (0 points)  
**B.** Windows are single-pane. (5 points)
- A.** Attic vent is covered with 1/8 inch mesh screening. (0 points)  
**B.** Attic vent is not covered. (5 points)
- A.** Deck is screened underneath with lattice and 1/8 inch wire mesh. (0 points)  
**B.** Deck is not screened. (10 points)
- A.** Wood fence or trellis is located 10 to 12 feet from the home or is non-combustible. (0 points)  
**B.** Wood fence or trellis is less than 10 feet from the home. (5 points)

## Landscaping

- A.** Property is landscaped with drought-resistant plants. Shrubs are at least 5 feet from structures. Gravel, compost or chunky bark is used as mulch. (0 points)  
**B.** Shrubs and other landscaping are less than 5 feet from the home. Flammable material such as wood chips or grass have been used as much. (10 points)
- A.** Overhanging limbs have been trimmed to 10 feet from structures. (0 points)  
**B.** Overhanging limbs are less than 10 feet away from structures. (5 points)

## Perimeter

- A.** Home has 100 feet or more space cleared from the wildland/urban interface. (0 points)  
**B.** Home has 30 to 100 feet of defensible space. (3 points)  
**C.** Home has less than 30 feet of defensible space. (10 points)
- A.** Firewood and propane gas tanks are least 30 feet from structures. (0 points)  
**B.** Firewood is stacked near the house. LP tank is less than 30 feet from the home (5 points; 10 points if gas tank is obstructed with overgrown brush)
- A.** Outbuildings are equipped with accessible rake, shovel, ladder and hose. (0 points)  
**B.** Outbuildings are not equipped with tools. (5 points)

**Total Score** \_\_\_\_\_

## Score values

**11 points or fewer:** Congratulations! You have a Firewise home; **12-30 points:** Low to moderate hazard; **31-81 points:** Moderate to high hazard; **82-125 points:** High to extreme hazard means that the chances of your home surviving a wildfire are slim. Changes are needed.

ARE YOU FIREWISE?



Arkansas

# FIREWISE

COMMUNITIES



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