Fire Smart Landscapes

Information on weather-ready landscapes

EXTENSION

WHAT IS IT?

Fire Smart Landscaping is creating a defensible space, planning ahead for a fire event, and management of the surrounding landscapes to decrease potential fire damage.

Research proves that house survival during a wildfire is not random. It is how the house is built, the characteristics of the adjacent vegetation and other fuels, and routine maintenance that determines which homes burn and which homes survive. Pre-fire activities are critical actions that are completed before a wildfire occurs, which improve the survivability of people and the home.

HIstorically in Nebraska, peak wildfire season begins in mid-February and lasts around 13 weeks.

Three factors that influence wildfire behavior:
Fuels, Weather, and Topography
Fuels is the only factor that humans can impact.

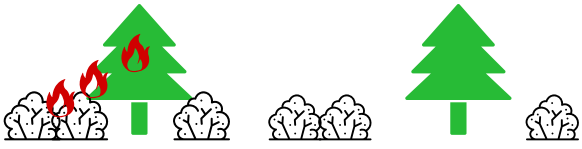
Fires can rapidly spread with dry conditions and fuel sources.
Strategically planted plants and maintained green areas can help to resist the spread of wildfire through your landscape and to your home.

Plant Spacing Guidelines

Provide vertical and horizontal space between shrubs and trees. Also leave space between plant groupings.

Vertical Spacing

- Plants beneath large trees should be removed. This eliminates a vertical 'fire ladder'.
- Avoid mass planting shrubs at the base of trees.
- Leave space between plant groupings.
- Remove limbs 6-10' from the ground or make sure that there is 1/3 trunk to 2/3 canopy. (Not recommended for windbreaks.)

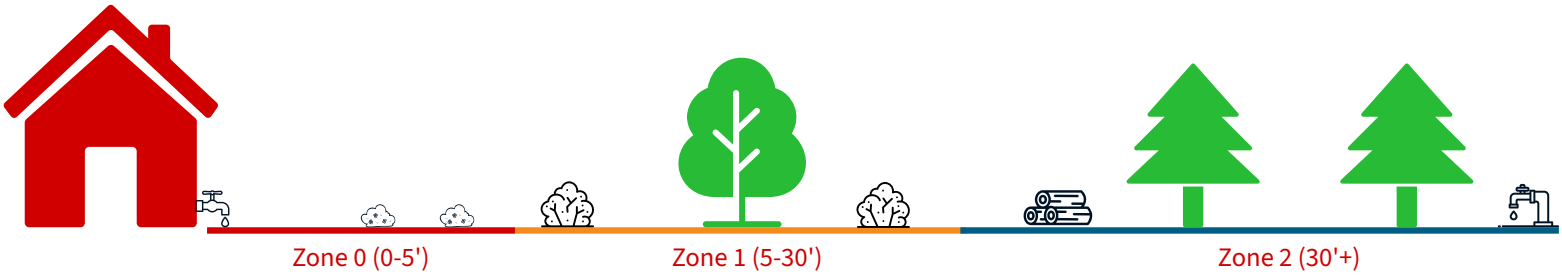


Horizontal Spacing

Horizontal spacing between plants depends on how steep the slope is and the size of the plant.

	Flat to Gently Sloping 0-20%	**Moderately Steep** 21-40%	**Very Steep** +40%
Grass Dry grass & Weeds	30 feet	100 feet	100 feet
Shrubs & Woodland Sagebrush, yucca, small red cedar	100 feet	200 feet	200 feet
Trees Forest trees such as pine or cedar	100 feet	100 feet	200 feet

Zones In A Defensible Space



DEFENSIBLE SPACE

There are three zones for a defensible space.

Zone 0
Ember Resistant Zone
0-5 feet from the House

Objective: Create the most fire-resistant zone in the area immediately surrounding your home to avoid home ignition from blowing embers.

Greatest hazard: Plants against the house and near doors and windows.

Plant and Use:
- Sparsely planted, low-growing, non-woody, herbaceous plants less than 18" tall
- Non-combustible materials like concrete, brick, pavers, gravel

Avoid:
- Climbing plants
- Branches within 10' of chimney
- Litter in roof gutters
- Combustible items near the house or under the deck like trash containers, mulch, fencing, furniture, firewood
- Combustible landscape items attached to the house like fences, arbors, & trellises

Zone 1
Lean, Clean, & Green Zone
5-30 feet from the house

Objective: Reduce heat and movement of flame by creating a 'lean and clean' environment.

Plant and Use:
- Low-growing, well-irrigated plants
- Use non-combustible materials for walkways
- Break up mulched areas into several smaller mulched beds
- Move firewood, lumber, other flammable items out of zone 1
- Allow ample spacing between plants
- Management is critical: Cut back woody and twiggy overgrowth, prune out dead plant material, and remove potential fuel sources like dead grass, dried stems, or dead leaves

Zone 2
Reduce Fuel Zone
30 feet from the house to the edge of the property

Objective: Decrease energy and speed of a fire by eliminating continuous, dense vegetation both vertically and horizontally.

Often a transition zone between managed and fringe areas.

Plant and Use:
- Plants farthest away from the house may not need to be irrigated
- Wood mulch can be used in this zone
- Allow for ample spacing between plants
- Coordinate with neighbors on roads and water sources for fire vehicles and property line management

Plant Selection:
All plants burn. Plants that are more resistant to fire do not readily ignite from a flame and have decreased flammability.

Characteristics of plants with decreased flammability include:
- low oil or resin content
- high moisture content
- compact growth forms and green stems
- drought tolerant

For more information, visit **go.unl.edu/weather-ready**

Written by Elizabeth Exstrom © 2025, Revised 2026

NEBRASKA STATE CLIMATE OFFICE
NEBRASKA EXTENSION