FIRE RESISTANT PLANTS
FOR
CHELAN/DOUGLAS COUNTY
WASHINGTON

A Step-by-Step Guide for Choosing the Right Plant for the Right Place
Thanks to our funding partners:

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Introduction for the Fire Resistant Plants for Chelan and Douglas Counties of Washington

A well-designed landscape around a home is key to reducing the risk of loss from a wildland fire. Maintaining that landscape is essential to providing defensible space for the home and for providing for the safety of firefighters when a wildland fire occurs.

All vegetation is potential fuel for a fire. There is no absolutely fire-proof vegetation. All plants will burn if the conditions are right. There are, however, plants that are FIRE-PRONE, and those that are FIRE-RESISTANT. The use of fire-resistant vegetation and proper maintenance are paramount in reducing the risk of home losses in the Wildland Urban Interface (WUI).

Landscapes change over time. Plants mature to their genetically predetermined size. We often landscape with small, young plants only to be amazed at the mature size some plants achieve years later. Plan ahead! Plant the appropriate plants in the correct areas. To minimize fire danger, keep in mind plants’ sizes at maturity and appropriate plant location.

When selecting plants and plant locations, consider these major points:

- **Climate & Soil**: Is the selected plant hardy for the climate zone? Will it grow well in the type of soil it is going to be planted in?
- **Root Space**: Are the roots of the plant going to cause future problems to areas such as septic drain fields, sidewalks, or foundations in the selected location?
- **Plant Height**: Does the selected plant have the room to grow to its pre-determined genetic height in the selected area?
- **Plant Spread**: Does the selected plant have room to spread to its pre-determined genetic width?

Design the landscaping to include a combination of fire-resistant vegetation and non-combustible materials such as decorative bricks, walls, paths, patios, rock mulches, and other attractive fire-resistant features.

Purpose

The purpose of this publication is to provide building owners guidance and education about ways to landscape property with fire-resistant plants. Fire-resistant plants placed in the appropriate areas around homes and businesses, coupled with proper maintenance, can help reduce damage from wildland fires.

Objectives

- Provide homeowners, businesses, and landscapers in the Chelan and Douglas County region with examples of plant species to use in landscapes to lessen the potential for losses from wildland fires.
- Inform residents about landscaping techniques which can be used in fire-prone environments to reduce the risk of experiencing loss from a wildland fire.
- Understand the need and value of planting different types of plants in different areas around a structure in the Wildland Urban Interface (WUI).
- Gain an appreciation of favorable plant attributes that are more fire-resistant.
- Understand less-favorable plant attributes that are more fire-prone and, therefore, less desirable in close proximity to a structure.

Fire occurrence in North Central Washington

On average, wildland fires occur in Chelan and Douglas counties between every six and 30 years. Wildland fire has been a part of the Columbia River Basin ecosystem since the retreat of the Continental glaciers more than 10,000 years ago. Wildland fire is an essential part of the environment in this area. It serves as a key component in maintaining a healthy and productive ecosystem. To minimize fire risks in the fire-prone environment of the Columbia Basin,
property owners should properly site buildings, use appropriate construction materials, and select fire-resistant plants in their landscapes.

**Firebrands (Sparks or Embers)**

Wildfire threatens homes in three ways: direct contact by flames, radiated heat, and firebrands (burning embers). More homes burn due to firebrands than due to any other cause. When fire conditions are right, firebrands can be lofted high into the air and transported more than a mile from the main fire. Firebrands also can be carried by wind and fire whirls. If firebrands land in easily ignitable materials such as dried grass, fallen leaves, wood shake roofs, leaf or needle- filled gutters, a new fire easily can start. Home owners can take action to reduce the ignition potential on and immediately adjacent to the home to combat incoming firebrands.

**Disclaimer**

This document contains suggestions and recommendations based on professional judgment, experience, and research. It is intended to serve only as a guide. The compilers of the information contained in this document and the publisher disclaim all warranties with respect to the information in the document and assume no liability or responsibility with respect to the information contained herein.

**How to Use this Publication**

The plants in this guide are divided into seven (7) categories. The seven (7) categories are ground covers, herbaceous perennials, vines, deciduous shrubs, evergreen shrubs, non-turf grasses, and trees. The plants listed are alphabetized within each category by their scientific name (botanical name), which is followed by the common name. Scientific names are used because most plants have several common names, but only one scientific name. Along with the plant name and photo, you’ll find some information about the plant and icons that give a quick indication of the plant’s cultural requirements. Short comments provide information about the unique qualities or specific problems of each plant. This information can help in the selection of plants that meet the needs and preferences of the gardener and his/her landscape.

**Fire Resistance**

Some landscape plants are described and marketed as fire-resistant. It is important to remember, given certain conditions, that all plants can burn regardless of how they are classified. In general, select plants that are low-growing, open-structured, and less-resinous (oily or waxy). Plant maintenance and placement are equally important as the species of plants selected for the site. Maintenance and landscape management (e.g., pruning, watering, and cleanup) have a greater impact on whether or not a plant ignites than does the species. When choosing plants for a fire-resistant landscape, select plants with the following characteristics:

- High moisture content in leaves (these ignite and burn more slowly).
- Little or no seasonal accumulation of dead vegetation.
- Open branching habits (they provide less fuel for fires).
- Fewer total branches and leaves (again, less fuel for fires).
- Slow-growing, so less pruning is required (to keep open structure as noted above).
- Non-resinous material on the plant (i.e. stems, leaves, or needles that are not resinous, oily or waxy). Junipers, pines, spruces, and firs are resinous and highly flammable.
Introduction

Landscape with Noncombustible Materials

Using masonry, gravel, or stone walls to separate plant groups adds to the variety and improves the fire resistance of a landscape by breaking up fuel continuity. Use decorative rock, gravel and/or stepping stones in pathways. Cement driveways, walkways, water features and retaining walls also break up continuity. Replace bare, weedy, or unsightly patches of ground near your home with groundcover, turf grass, non-turf grasses, rock gardens, vegetable gardens, and inorganic mulches.

Mulches

Mulches used around the landscape are valuable because they conserve moisture and help reduce weed growth. Organic mulches, such as bark, are often used. However, firebrands from a wildland fire can ignite dry bark mulch, conveying the fire to a building. Consider using less-flammable types of mulch such as gravel or decorative rock, or a combination of wood bark mulch surrounded by decorative rock mulch. Choose the location of plants or garden beds that require organic mulches carefully so not too much bark mulch is near the home or outbuildings. Fine (less than 1/4 inch particles) or stringy organic mulches ignite and burn more rapidly than larger chunks. When exposed to fire, thick mulch layers (greater than 2 inches deep) tend to smolder and are difficult to extinguish. Do not use wood or bark mulches within 3 to 5 feet of the house. Instead consider colored rock, rock cinders (scoria, sometimes referred to as lava rock), pavers or other non-flammable, inorganic materials.

Defensible Space

The most important person in preventing a structure from burning in a wildland fire is the property owner. Home owners, not fire departments, have the responsibility to take action before a fire ever happens. Actions taken before the fire often determine the final outcome. Creating defensible space around a home is one of the most important and effective steps one can take to protect families, firefighters and homes from catastrophic wildfire. Defensible space is the area between a structure and oncoming wildfire (or between a burning structure and wildland vegetation) where nearby vegetation has been modified to reduce a wildfire's intensity and ability to spread. Having a defensible space not only protects homes, it also helps protect those who are defending homes by providing safe ingress and egress.

Building Materials

The home design, location, construction materials, and access all influence its survivability during a wildland fire. The most exposed portion of your home is the roof. Class C or better roofing offers fire resistance and greatly improves the likelihood of the structure surviving a wildland fire. The use of fire-resistant building materials such as cement board siding, dual-pane windows, boxing in eaves, and metal screening (1/8” or less) covering vents reduces the probability of ignition of one’s home. Make sure decks and fencing are in good repair and free of clutter and debris. Remember, if it is attached to your house, it is part of your house! Consider the use of metal gates and other non-flammable materials to separate fences and decks from your home. Lawn furniture, decorations and other flammable items may serve as receptor of firebrands and pose an increased risk to your home. See www.firewise.org for additional information about building materials and construction standards.
Introduction

Home Ignition Zone and Landscape Zones

The Home Ignition Zone (HIZ) begins at the home and extends out as far as 100 to 200 feet depending on the characteristics of adjacent lands. Keeping and maintaining the Home Ignition Zone lean, clean and green reduces ignition risk and the fire spread potential. Within the Home Ignition Zone, a fire-resistant landscape can be created by reducing flammable fuels. A method to accomplish this is to establish landscape zones that start at the home and move progressively outward. These Landscape Zones (LZ) within the Home Ignition Zone can be used when selecting fire-resistant vegetation in fire-prone environments.

Landscape Zone 1, (LZ1), is the area five feet out from the home or structure when constructed with one-hour flame-resistant siding and 10 feet from a structure constructed with a non-flame-resistant siding. Nothing flammable should be planted or placed in this zone. This includes trees, brush, tall grass, leaves, firewood piles, bark mulch, and other flammable materials. Carefully examine under decks and in dense vegetation for accumulated dead material and debris. Prune trees that have branches and foliage that hang into Landscape Zone 1 to eliminate the possibility of fire moving to the structure. Within this zone low-flammable plants can be planted; assure they are properly cared for and maintained. The desired categories of plants in LZ1 are groundcovers, vines, sod grasses, bulbs, and annual and perennial herbaceous plants.

Landscape Zone 2, (LZ2), is the area five to 30 feet from the house or structure. Maintain a well-kept lawn or other suitable landscape in this area. Avoid evergreens that ignite easily and burn quickly. Use raised beds, rock gardens, stone walkways, walls, water features, and patios to create visual interest and fuel breaks. Trees planted in LZ2 should have both a vertical and horizontal clearance distance of at least 30 feet from the house or structure at mature height and spread. Leave 10 to 15 feet of space between the edges of tree crowns to avoid fire transfer. The desired categories of plants in LZ2 are groundcovers, turfgrass, vines, sod grasses, bulbs, annual and perennial herbaceous plants, broadleaf evergreen and deciduous shrubs, small and medium sized deciduous trees, and select non-turf grasses.

Landscape Zone 3, (LZ3), is the area 30 to 100 feet from the house. Remove yard debris and thin vegetation for a distance of 30 feet away from the house or structure. Properly designed driveways within LZ3 can provide a fuel break as well as safe ingress and egress for fire suppression resources. On slopes greater than 20%, one should extend the

There are three Landscape Zones:

Landscape Zone 1 is closest to the home, while Landscape Zones 2 and 3 subsequently extend out from the structure 30 feet and 100 feet, respectively. Within this Home Ignition Zone of 100 feet this publication makes recommendations for specific fire-resistant plants suitable for Landscape Zones (1, 2 and 3).
thinning of vegetation to 100 feet or more on the downhill side of the home or structure. Shrubs and ground covers should be selected based on mature height, not the size at the time of planting. Low and moderately flammable plants are acceptable in this location. Density of plant material also should be minimized. Brush and weeds should be mowed at least annually. Terracing of steep slopes will help slow wildfire spread, but this depends on wind speed and fuel availability. Trees in LZ3 should have a minimum of 10 to 15 feet of space between tree crowns to prevent the spread of fire. Desired categories of plants in LZ3 include groundcovers, vines, turfgrass, annual and perennial herbaceous plants, broadleaf evergreen and deciduous shrubs and deciduous trees, and non-turf grasses.

### Landscape Zones 1, 2, 3
The Landscape Zones in the Home Ignition Zone (HIZ)

- **Zone 1:** 0-5 feet if the structure has one-hour flame-resistant siding OR 0-10 feet if the structure has non-flame-resistant siding. In this zone, use plants and materials with very low ignition potential.
- **Zone 2:** 10-30 feet. In this zone, use plants that are well spaced, pruned up, lean, clean, and green. Avoid dead fuels to create a very low fire-spread potential.
- **Zone 3:** 30-100+ feet. In this zone, use well-spaced and pruned-up plants to minimize potential for crown ignition. Native vegetation is acceptable. The intent is to keep any ignition at a low intensity.

#### Zone 1: Within 10 feet of the structure
- Plant no trees or shrubs.
- Use only inorganic mulch. (Rubber mulch is not acceptable for use.)
- Plant fire-resistant plants with high moisture content.

#### Zone 2: Within 10-30 feet from the structure
- Plant single trees that are pruned at least 10’ from the ground.
- Plant single shrubs. Keep well groomed.
- Clean up dead fuels.
- Eliminate continuous ground fuel and ladder fuels.

#### Zone 3: Within 30-100 feet from the structure
- Maintain well-spaced trees with crowns well separated.
- Eliminate ladder fuels.
- Minimize ground/surface fuels.
- Keep shrubs pruned, thinned, and well-spaced.

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**Recommended Separation Distances for Shrubs and Small Conifers**

For areas with dense brush and small conifer trees, the recommended separation distance is dependent upon shrub height and steepness of slope. Specific recommendations are presented below.

![Recommended Separation Distances](image)

- **Flat to Gently Sloping:** 0-20%
  - Separation: 2x

- **Moderately Steep:** 21-40%
  - Separation: 4x

- **Very Steep:** +40%
  - Separation: 6x

Note: Separation distances are measured between canopies (outermost branches) and not between trunks.

For example, if your home is located on a 10% slope and the brush is four feet tall, the separation distance would be two times the shrub height or eight feet. The recommended separation distance can be accomplished by removing plants or through pruning that reduces the diameter or height of shrubs (shorter height means less separation is needed). Removal works best for sagebrush. For shrubs which readily resprout, pruning to reduce height may be the best approach.
Categories of Plants

Groundcovers
A category of low-growing or trailing plants generally used to carpet the ground. These plants are used to cover bare ground and create a uniform appearance. Groundcovers are ideal for Landscape Zone 1. These plants can be utilized in all three landscape zones (LZ 1, 2, or 3) to provide cover and diversity to one’s yard. They are low to the ground, generally have high moisture content, usually require low maintenance, and are, in most cases, difficult to ignite.

Herbaceous Perennials
Plants in this category have soft rather than woody tissues, die to the ground in winter, and re-sprout the following spring. These plants can be planted in Landscape Zone 1 as well as in Landscape Zones 2 and 3. These plants can add a wide variety of color and texture to a landscape.

Vines
Plants in this category have long, slender stems. They trail or creep on the ground, or climb by winding themselves about a support or holding fast with tendrils or claspers. These plants can be used in Landscape Zones 2 or 3. If vines are used in Landscape Zone 1, annual maintenance to remove the previous year’s growth and dead vegetation is required to maintain healthy growth and keep the vines fire-resistant. Without proper maintenance all deciduous vines will act as ladder fuels. Only use vines in Landscape Zone 1 if they are properly maintained. Proper placement and grooming help keep vines in a desired location while meeting the landscape objectives.

Trees
Trees are woody perennial plants that have a single stem (trunk) generally growing to a height greater than 20 feet. A tree has a crown with lateral branches starting well above ground level. There are two main categories of trees: deciduous and conifer. Most broadleaf trees hardy in Chelan and Douglas counties are deciduous. Conifers, cone-bearing trees, make up the majority of evergreen trees that grow well here.

Non-Turf Grasses
These generally are non-lawn-forming grasses, native or naturalized to the area. In most cases, they are non-invasive. Sometimes referred to as “conservation grasses,” they generally are deep-rooted, grow taller than turfgrasses (lawn grasses) and produce more flowering shoots than lawn grasses. Most non-turf grasses have deep roots and - - once established - - require little irrigation.

The primary objective of including non-turf grasses in this document is to provide alternatives to some of the non-native invasive plants that are common to the Chelan and Douglas County region. Cheatgrass (Bromus tectum) (as well as several other introduced species) poses a high fire hazard in this area. The grasses listed here are less of a fire hazard and offer several other benefits that may be desirable to home owners. Bunch grasses generally remain green two to four weeks longer that cheat grass and - - if ignited - - fire is generally less severe. All grasses, once dried, can become a fire hazard. For this reason they need to be mowed/cut to reduce the intensity and rate of spread of a potential wildland fire. There are several grass species listed here that are able to reduce the density of cheat grass. The probability of eliminating cheat grass entirely from a site is not high without intensive rehabilitation efforts over an extended period.

Deciduous Shrubs
These are woody, multi-stemmed plants that lose their leaves in fall and become dormant during the winter. Plants shed their leaves as an adaptation to prevent winter damage.

Broadleaf Evergreen Shrubs
These are woody, multi-stemmed plants that retain their leaves throughout the year. Broadleaf evergreen shrubs do shed their leaves, but only a few at a time and on a constant cycle, so there never appears to be any change. Broadleaf evergreen shrubs can provide year-round screening/privacy and are much more fire-resistant than coniferous evergreen shrubs. (Note: Plants that hold their leaves through winter may suffer winter damage due to the cold and dry climate in our area. These plants usually will put on new healthy green leaves in the spring.)

Key for Symbols

- Prefers full sun (6 or more hours).
- Prefers part shade.
- Prefers full shade (6 or more hours).
- Avoid afternoon sun.
- Very low water-use plant; performs well in dry sites.
- Low water-use plant; performs well with minimal supplemental irrigation.
- Moderate water-use plant; performs well with supplemental irrigation.
- High water-use plant performs well with regular irrigation.
Groundcovers

**Antennaria dioica**
Rubra’ pussytoes
Hardiness Zone 3-9
Size H/W 6”x12”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Tiny white to pale pink flowers bloom in late spring to early summer on stems rising to 10” tall.

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**Antennaria rosea**
Pink pussytoes
Hardiness Zone 4-7
Size H/W 12”x12”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Establishes quickly. Ideal for erosion control in dry areas where few other flowers will grow.

---

**Arctostaphylos uva-ursi**
Kinnickinnick
Hardiness Zone 4-8
Size H/W 6”x15”
Succulent no
Landscape Zone 2 or 3

**Characteristics & Problems**
Fruit green in summer, ripening to red in fall. Fruit sometimes remains throughout winter.

---

**Aubrieta deltoidea**
Rockcress
Hardiness Zone 4-8
Size H/W 8”x15”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Low-growing, mat-forming habit. Ideal for rock gardens and front of borders. Produces vivid purple-red flowers in late spring and early summer.

---

**Aurinia saxatilis**
Basket-of-gold
Hardiness Zone 4-7
Size H/W 2”x15”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Low-growing, spreading habit. Produces profuse bright yellow spring blossoms that are particularly attractive in rock gardens.
**Bellium minutum**  
Miniature mat daisy  
Hardiness Zone 5-9  
Size H/W 12”x36”  
Succulent no  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
Bellium covers itself with blooms all through spring and early summer.

**Cerastium tomentosum**  
Snow-in summer  
Hardiness Zone 3-7  
Size H/W 12”x3”  
Succulent no  
Landscape Zone 1, 2 or 3  

**Characteristics & Problems**  
A short-lived, low-growing, mat-forming perennial which is typically massed in sunny locations.

**Ceratostigma plumbaginoides**  
Hardy plumbago  
Hardiness Zone 5-9  
Size H/W 8”x48”  
Succulent no  
Landscape Zone 1, 2 or 3  

**Characteristics & Problems**  
A wiry, mat-forming perennial which spreads by rhizomes to form an attractive ground cover.

**Convallaria majalis**  
Lily-of-the-valley  
Hardiness Zone 3-8  
Size H/W 2”x8”  
Succulent no  
Landscape Zone 1, 2 or 3  

**Characteristics & Problems**  
Bell-shaped, sweetly fragrant, white flowers (corollas to 1/3” long) which bloom in early to mid-spring. For use in shady areas where aggressive spreading is desired.

**Delosperma nubigenum**  
Yellow iceplant  
Hardiness Zone 4-10  
Size H/W 3”x30”  
Succulent yes  
Landscape Zone 1, 2 or 3  

**Characteristics & Problems**  
Mat-forming species that reportedly has the best winter hardiness of the ice plants currently in cultivation. It typically grows to only 2” tall but spreads to 20” wide.

**Dianthus species & hybrids**  
Pinks  
Hardiness Zone 2-9  
Size H/W 12”x16”  
Succulent no  
Landscape Zone 1, 2 or 3  

**Characteristics & Problems**  
Flowers bloom from late spring to late summer with continued but somewhat sporadic additional bloom into fall.
Groundcovers

**Fragaria species & cultivars**
Strawberries
Hardiness Zone 3-9
Size H/W 9”x24”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Several varieties and cultivars available.

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**Marrubium rotundifolium**
Silver edged horehound
Hardiness Zone 4-9
Size H/W 10”x18”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
One of the best xeric groundcovers for poor soil areas with hot, sunny growing conditions.

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**Pachysandra terminalis**
‘Green Sheen’
Japanese spurge
Hardiness Zone 4-9
Size H/W 8”x15”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Flowers are not particularly showy, but on close inspection are quite attractive.

---

**Penstemon davidsonii v. menziesii**
Green mat penstemon
Hardiness Zone 4-8
Size H/W 2”x12”
Succulent no

**Landscape Zone** 1, 2 or 3

**Characteristics & Problems**
Evergreen, with beautiful flowers that are very attractive to hummingbirds.

---

**Phlox subulata**
Creeping phlox
Hardiness Zone 4-8
Size H/W 6”x24”
Succulent no
Landscape Zone 2 or 3

**Characteristics & Problems**
A vigorous groundcover phlox that blooms in mid-spring.

---

**Saponaria ocymoides**
Rock soapwort
Hardiness Zone 2-10
Size H/W 6”x24”
Succulent no
Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Lovely pink flowers in spring draw attention.
**Sedum lanceolatum**  
Yellow stonecrop  
Hardiness Zone 5-9  
Size H/W 4”x12”  
Succulent yes  
Landscape Zone 1, 2 or 3

**Characteristics & Problems**  
Cannot grow in shade. Thrives in dry or moist soil and can tolerate drought.

**Sempervivum tectorum & cultivars**  
Hens & chicks  
Hardiness Zone 4-10  
Size H/W 6”x10”  
Succulent yes  
Landscape Zone 1, 2 or 3

**Characteristics & Problems**  
Primarily grown in gardens for their attractive and unusual foliage.

**Stachys byzantina**  
Lambs’ ear  
Hardiness Zone 4-8  
Size H/W 4”x24”  
Succulent no  
Landscape Zone 2 or 3

**Characteristics & Problems**  
Leaves evergreen in warm climates, but will depreciate considerably in harsh winters.

**Thymus praecox**  
Creeping thyme  
Hardiness Zone 4-10  
Size H/W 2”x48”  
Succulent no  
Landscape Zone 2 or 3

**Characteristics & Problems**  
Clusters of tiny, tubular, whitish-to-rose-purple flowers appear in summer. Flowers are attractive to bees.

**Veronica liwanensis**  
Speedwell  
Hardiness Zone 3-8  
Size H/W 1”x18”  
Succulent no  
Landscape Zone 1, 2 or 3

**Characteristics & Problems**  
Small erect clusters of blue flowers appear above the foliage (to 2” tall) in late spring, covering the mat with a profuse blossoms. Can be invasive into lawns.

**Vinca minor**  
Lesser periwinkle  
Hardiness Zone 4-8  
Size H/W 6”x18”  
Succulent no  
Landscape Zone 1, 2 or 3

**Characteristics & Problems**  
Tubular, lavender blue, phlox-like flowers (to 1” across) appear in the leaf axils in spring and continue to flower intermittently throughout summer into fall.
### Groundcovers

<table>
<thead>
<tr>
<th>Aegopodium podagraria</th>
<th>Antennaria microphylla</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bishop's weed</td>
<td>Little-leaf pussytoes</td>
</tr>
<tr>
<td>Hardiness Zone 4-9</td>
<td>Hardiness Zone 3-8</td>
</tr>
<tr>
<td>Size H/W 6”x24”</td>
<td>Size H/W 6”x18”</td>
</tr>
<tr>
<td>Succulent no</td>
<td>Succulent no</td>
</tr>
<tr>
<td>Landscape Zone 1, 2 or 3</td>
<td>Landscape Zone 1, 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Becomes invasive if over watered. Good for shady areas.</td>
<td>Ideal for open sunny places or is good for rock gardens and around stepping stones and pathways.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Antennaria parvifolia</th>
<th>Arabisspecies &amp; cultivars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small-leaf pussytoes</td>
<td>Rockcress</td>
</tr>
<tr>
<td>Hardiness Zone 4-7</td>
<td>Hardiness Zone 4-7</td>
</tr>
<tr>
<td>Size H/W 2”x24”</td>
<td>Size H/W 6”x6”</td>
</tr>
<tr>
<td>Succulent no</td>
<td>Succulent no</td>
</tr>
<tr>
<td>Landscape Zone 1, 2 or 3</td>
<td>Landscape Zone 1, 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Blooms first appear in early spring and continue into late spring. Features small, tubular flower heads in tight terminal clusters.</td>
<td>Easily grown in gritty or sandy, well-drained soils in full sun. Tolerates hot, dry conditions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Artemisia schidtiana ‘Silvermound’</th>
<th>Artemisia caucasica</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver mound artemisia</td>
<td>Silver spreader</td>
</tr>
<tr>
<td>Hardiness Zone 3-9</td>
<td>Hardiness Zone 4-7</td>
</tr>
<tr>
<td>Size H/W 2”x8”</td>
<td>Size H/W 5”x24”</td>
</tr>
<tr>
<td>Succulent no</td>
<td>Succulent no</td>
</tr>
<tr>
<td>Landscape Zone 2 or 3</td>
<td>Landscape Zone 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Silvery, aromatic foliage is finely textured with silky pubescence. Excellent accent for borders.</td>
<td>Prostrate low grower.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Artemisia stelleriana</th>
<th>Artemisia viridis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver brocade</td>
<td>Creeping artemisia</td>
</tr>
<tr>
<td>Hardiness Zone 2-9</td>
<td>Hardiness Zone 3-8</td>
</tr>
<tr>
<td>Size H/W 6”x24”</td>
<td>Size H/W 6”x8”</td>
</tr>
<tr>
<td>Succulent no</td>
<td>Succulent no</td>
</tr>
<tr>
<td>Landscape Zone 1, 2 or 3</td>
<td>Landscape Zone 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Plants form a spreading mat of bright silvery-white scalloped leaves.</td>
<td>Needs some shade.</td>
</tr>
</tbody>
</table>
## Groundcovers

### Aubrieta species & cultivars

**False rockcress**
- **Hardiness Zone**: 4-7
- **Size**: H/W 2”x15”
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Colorful flowers cover plants in spring. Flowers generally four-petaled, cross-shaped and can be purple, pink or white.

### Callirhoe involucrata

**Poppy mallow**
- **Hardiness Zone**: 4-8
- **Size**: H/W 6”x36”
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Plants typically form a low foliage mound from 6-9” tall on procumbent stems which spread along the ground to 3’ wide.

### Campanula poscharskyana

**Serbian bellflower**
- **Hardiness Zone**: 3-8
- **Size**: H/W 6”x18”
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Typically forms low-growing clumps of basal foliage which slowly spread to form an attractive ground cover.

### Campanula carpatica

**Carpathian bellflower**
- **Hardiness Zone**: 3-8
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Prostrate, sprawling habit. Typically forms a low, mounding ground cover.

### Ducheshea indica

**Mock strawberry**
- **Hardiness Zone**: 5-9
- **Size**: H/W 4”x3”
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Known for its small, red fruit, yellow flowers, and little leaves.

### Delosperma basuticum

**White eyed ice plant**
- **Hardiness Zone**: 5-10
- **Size**: H/W 1”x24”
- **Succulent**: no
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Good soil drainage is essential for, particularly in winter where moist-to-wet soils can be fatal.

### Delosperma cooperi

**Purple ice plant**
- **Hardiness Zone**: 5-10
- **Size**: H/W 4”x30”
- **Succulent**: yes
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
Heat, drought and salt tolerant, this adaptable plant thrives with little care, even in rocky, unimproved soils.

### Delosperma cooperi

**Pink ice plant**
- **Hardiness Zone**: 5-10
- **Size**: H/W 1”x24”
- **Succulent**: yes
- **Landscape Zone**: 1, 2 or 3

**Characteristics & Problems**
The neon-like intensity of the flowers' color and length of bloom enhance the ornamental interest. Succulent, fleshy, cylindrical, medium-green leaves.
Groundcovers

**Delosperma hybrid ‘John Proffit’**
**John Proffit Ice plant**
**Hardiness Zone** 5-10
**Size** H/W 1”x24”
**Succulent** yes
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Good soil drainage is essential, particularly in winter where moist-to-wet soils can be fatal.

**Ephedra regeliana**
**Creeping ephedra**
**Hardiness Zone** 4-7
**Size** H/W 6”x24”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Slowly creeps with more leafless, thin, green stems which look like a miniature equisetum until they become bejeweled with red fruits in mid to late summer.

**Fragaria indica ‘Pink Panda’**
**Mock strawberry**
**Hardiness Zone** 3-9
**Size** H/W 8”x48”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Prompt removal of fruit as it appears encourages additional flowering.

**Galium boreale**
**Northern bedstraw**
**Hardiness Zone** 4-8
**Size** H/W 8”x40”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Can be difficult to find in commerce because usually few nurseries, other than native plant specialists, sell it.

**Galium odoratum**
**Sweet woodruff**
**Hardiness Zone** 4-8
**Size** H/W 8”x24”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Small, fragrant, 4-petaled, white flowers appear in loose cymes in spring.

**Lamium armenum**
**Dead nettle**
**Hardiness Zone** 4-8
**Size** H/W 10”x24”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
A tufted-to-small-mat-forming perennial from a stout rootstock. Do not plant L. galiobdolon because it is invasive.

**Liriope muscari**
**Liriope**
**Hardiness Zone** 5-10
**Size** H/W 4”x24”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
Has good tolerance for heat, humidity and drought.

**Liriope spicata**
**Liriope**
**Hardiness Zone** 4-10
**Size** H/W 9”x15”
**Succulent** no
**Landscape Zone** 1, 2 or 3
**Characteristics & Problems**
A rhizomatous, grass-like perennial which forms a clump of narrow, arching, glossy, dark green leaves (to 1/4” wide) typically growing 9-15” high.
### Groundcovers

**Penstemon caespitosus**  
**Mat penstemon**  
**Hardiness Zone:** 4-7  
**Size:** H/W 8”x48”  
**Succulent:** no  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Lavender-purple, two-lipped flowers (to 1/4” long) with hairy throats bloom in summer.

**Penstemon davidsonii**  
**Davidson’s penstemon**  
**Hardiness Zone:** 5-8  
**Size:** H/W 2”x12”  
**Succulent:** yes  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Huge lavender-pink flowers held over its dark green evergreen foliage.

**Phlox stolonifera**  
**Creeping phlox**  
**Hardiness Zone:** 5-9  
**Size:** H/W 12”x18”  
**Succulent:** no  
**Landscape Zone:** 2 or 3  
**Characteristics & Problems**  
Loose clusters of fragrant, tubular, lavender flowers as large as to 3/4” wide.

**Phlox x procumbens**  
**Creeping phlox**  
**Hardiness Zone:** 5-9  
**Size:** H/W 6”x12”  
**Succulent:** no  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Excellent for edging, cascading over walls, or as a groundcover.

**Saponaria officinalis**  
**Bouncing bett**  
**Hardiness Zone:** 4-8  
**Size:** H/W 8”x3”  
**Succulent:** no  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Can be invasive. It may persist for years around abandoned home sites and other areas.

**Saponaria x lempergii ‘Max Frei’**  
**Giant flowered soapwort**  
**Hardiness Zone:** 3-7  
**Size:** H/W 6”x48”  
**Succulent:** no  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Clusters of pink flowers (1” wide) cover the plant in summer.

**Sedum rupestre**  
**Stonecrop**  
**Hardiness Zone:** 5-8  
**Size:** H/W 6”x20”  
**Succulent:** yes  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Excellent groundcover. Ideal for border fronts or rock gardens.

**Sedum sichotense**  
**Creeping stonecrop**  
**Hardiness Zone:** 4-9  
**Size:** H/W 3”x6”  
**Succulent:** yes  
**Landscape Zone:** 1, 2 or 3  
**Characteristics & Problems**  
Flat, tapering, toothed green leaves turn glowing crimson in fall. Yellow bloom in summer.
### Groundcovers

#### Sedum sieboldii ‘October Daphne’

**October Daphne stonecrop**  
**Hardiness Zone**: 5-9  
**Size**: H/W 4”x12”  
**Succulent**: yes  
**Landscape Zone**: 1, 2 or 3  

#### Sedum spathulifolium & cultivars

**Stonecrop**  
**Hardiness Zone**: 3-9  
**Size**: H/W 5”x18”  
**Succulent**: yes  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: The wild variety grows on rocky outcroppings and along trail.

#### Sedum spurium & cultivars

**Stonecrop**  
**Hardiness Zone**: 3-8  
**Size**: H/W 5”x18”  
**Succulent**: yes  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: Thick, succulent, opposing, flattened leaves (to 1” long) with wedge-shaped bases are toothed near the ends.

#### Thymus serpyllum & cultivars

**Mother of Thyme**  
**Hardiness Zone**: 4-8  
**Size**: H/W 2”x48”  
**Succulent**: no  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**: A hairy, prostrate, creeping, woody-based perennial primarily grown as an ornamental ground cover. Rarely used in cooking.

#### Veronica oltensis

**Speedwell**  
**Hardiness Zone**: 4-9  
**Size**: H/W 8”x8”  
**Succulent**: no  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: Profuse blue flowers cover this groundcover in spring. Can be invasive into lawns.

#### Veronica gentianoides

**Gentian speedwell**  
**Hardiness Zone**: 4-7  
**Size**: H/W 12”x18”  
**Succulent**: no  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: Easily grown in average, medium, well-drained soil in full sun.

#### Veronica pectinata

**Wooly speedwell**  
**Hardiness Zone**: 4-7  
**Size**: H/W 6”x9”  
**Succulent**: no  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: Deer resistant. Evergreen.

#### Veronica peduncularis

**Creeping veronica**  
**Hardiness Zone**: 6-9  
**Size**: H/W 9”x12”  
**Succulent**: no  
**Landscape Zone**: 1, 2 or 3  
**Characteristics & Problems**: After the main flush of bloom, a sparse, intermittent rebloom might continue throughout summer.
### Groundcovers

**Veronica rupestris**  
Prostrate speedwell  
Hardiness Zone 4-8  
Size H/W 9”x12”  
Succulent no  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
Sparse, intermittent rebloom might occur in summer and fall.

**Veronica austriaca sub.teucrium**  
Large speedwell  
Hardiness Zone 4-8  
Size H/W 18”x12”  
Succulent no  
Landscape Zone 2 or 3  
**Characteristics & Problems**  
Blue flowers in spring on mounding-to-sprawling plants clad with toothed, oblong, green leaves.

**Waldsteinia species, varities & cultivars**  
Barren strawberry  
Hardiness Zone 4-7  
Size H/W 5”x12”  
Succulent no  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
Features 5-petaled yellow flowers (3/4” diameter) which bloom singly or in clusters in spring.

### Key for Symbols

- ☀️ Prefers full sun (6 or more hours).
- 🌞 Prefers part shade.
- ☼️ Prefers full shade (6 or more hours). Avoid afternoon sun.

- 💦 Very low water-use plant; performs well in dry sites.
- 💦 Low water-use plant; performs well with minimal supplemental irrigation.
- 💦 Moderate water-use plant; performs well with supplemental irrigation.
- 💦 High water-use plant performs well with regular irrigation.
<table>
<thead>
<tr>
<th>Herbaceous Perennials</th>
<th>Firewise Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Achillea species</strong></td>
<td><strong>Hyssop</strong></td>
</tr>
<tr>
<td><strong>Yarrow</strong></td>
<td><strong>Hardiness Zone</strong> 5-9</td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 4-8</td>
<td><strong>Size</strong> H/W 1'-4'x1'-2'</td>
</tr>
<tr>
<td><strong>Size</strong> H/W 6&quot;-23&quot;x12&quot;-24&quot;</td>
<td><strong>Succulent</strong> no</td>
</tr>
<tr>
<td><strong>Succulent</strong> no</td>
<td><strong>Deciduous</strong></td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 2 or 3</td>
<td><strong>Landscape Zone</strong> 2 or 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong></td>
<td><strong>Characteristics &amp; Problems</strong></td>
</tr>
</tbody>
</table>

| **Alcea rosea**      | **Lady’s Mantle** |
| **Hollyhock**        | **Hardiness Zone** 4-8 |
| **Hardiness Zone** 4-8| **Size** H/W 15"x24" |
| **Size** H/W 72"x24" | **Succulent** no |
| **Succulent** no     | **Deciduous**      |
| **Landscape Zone** 2 or 3 | **Landscape Zone** 1, 2 or 3 |
| **Characteristics & Problems** | **Characteristics & Problems** |
| Biennial or short-lived. | Self-seeding, clumping perennial. |

<p>| <strong>Allium species</strong>   | <strong>Windflower</strong> |
| <strong>Chives/Onion</strong>     | <strong>Hardiness Zone</strong> 4-8 |
| <strong>Hardiness Zone</strong> 4-8| <strong>Size</strong> H/W 8&quot;x6&quot; |
| <strong>Size</strong> H/W 12&quot;-24&quot;x20&quot;-24&quot; | <strong>Succulent</strong> no |
| <strong>Succulent</strong> no     | <strong>Deciduous</strong>      |
| <strong>Deciduous</strong>        | <strong>Landscape Zone</strong> 2 or 3 |
| <strong>Landscape Zone</strong> 1, 2 or 3 | <strong>Landscape Zone</strong> 2 or 3 |
| <strong>Characteristics &amp; Problems</strong> | <strong>Characteristics &amp; Problems</strong> |
| Easy to grow. More than 700 species available. | Naturalizes by rhizomes and reseeding. |</p>
<table>
<thead>
<tr>
<th>Herbaceous Perennials</th>
<th>Firewise Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Aquilegia species</strong></td>
<td><strong>Armeria maritima</strong></td>
</tr>
<tr>
<td><strong>Columbine</strong></td>
<td><strong>Columbine</strong></td>
</tr>
<tr>
<td>Hardiness Zone 3-9</td>
<td>Sea thrift</td>
</tr>
<tr>
<td>Size H/W 10”-36”x10”-12”</td>
<td>Hardiness Zone 4-8</td>
</tr>
<tr>
<td>Succulent no</td>
<td>Size H/W 6”-10”x8”-12”</td>
</tr>
<tr>
<td>Deciduous</td>
<td>Succulent no</td>
</tr>
<tr>
<td>Landscape Zone 1, 2 or 3</td>
<td>Deciduous</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Landscape Zone 1, 2 or 3</td>
</tr>
<tr>
<td>Short-lived, but will reseed.</td>
<td>Characteristics &amp; Problems</td>
</tr>
</tbody>
</table>

| **Asclepias species** | **Aster species** |
| **Milkweed**          | **Aster** |
| Hardiness Zone 4-8    | **Aster** |
| Size H/W 24”x6”       | Hardiness Zone 4-8 |
| Succulent no          | Size H/W 24”x12” |
| Deciduous             | Succulent no |
| Landscape Zone 1, 2 or 3 | Deciduous |
| Characteristics & Problems | Landscape Zone 1, 2 or 3 |
| Food source for Monarch butterfly. | Characteristics & Problems |

| **Aurinia saxatilis** | **Baptisia species** |
| **Basket-of-gold**    | **False indigo** |
| Hardiness Zone 3-7    | Hardiness Zone 4-8 |
| Size H/W 8”-18”x1’-2’ | Size H/W 3”x3” |
| Succulent no          | Succulent no |
| Deciduous             | Deciduous |
| Landscape Zone 1, 2 or 3 | Landscape Zone 2 or 3 |
| Characteristics & Problems | Characteristics & Problems |
| Low-growing, spreading habit. Bright yellow flowers. | Slow-expanding clumps with deep root system. |
**Bergenia cordifolia & cultivars**  
**Pig squeak**  
Hardiness Zone 3-8  
Size H/W 12”-14”x12”-18”  
Succulent no  
Deciduous  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
Clump-forming perennial often grown as groundcover.

**Campanula species & cultivars**  
**Bellflower**  
Hardiness Zone 3-8  
Size H/W 6”-30”x12”-18”  
Succulent no  
Deciduous  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
Clump-forming. Spreads by rootstocks. Reseeds, but not to point of being unmanageable.

**Centranthus ruber**  
**Jupiter’s beard**  
Hardiness Zone 4-8  
Size H/W 24”x24”  
Succulent no  
Deciduous  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
Can be somewhat invasive in average soils.

**Chamerion angustifolium**  
**Fireweed**  
Hardiness Zone 3-7  
Size H/W 22’-3’x2’-3’  
Succulent no  
Deciduous  
Landscape Zone 2 or 3  
**Characteristics & Problems**  
Native. Spreads by rhyzomes and seeds. Can be aggressive.

**Coreopsis species**  
**Coropsis or tickseed**  
Hardiness Zone 3-9  
Size H/W 10”-24”x12”-18”  
Succulent no  
Deciduous  
Landscape Zone 1, 2 or 3  
**Characteristics & Problems**  
70-80 species available. Shear late summer for rebloom.

**Delphinium species & cultivars**  
**Delphinium**  
Hardiness Zone 3-7  
Size H/W 1’-7’x1’-3’  
Succulent no  
Deciduous  
Landscape Zone 2 or 3  
**Characteristics & Problems**  
Requires protection from strong winds, staking.
**Dianthus species & cultivars**
Pinks
Hardiness Zone: 4-8
Size: H/W 6”-12”x1”-18”
Succulent: no
Evergreen: no
Landscape Zone: 1, 2 or 3
Characteristics & Problems:
Forms compact mounds. Prefers slightly alkaline soil.

**Echinacea purpurea**
Coneflower
Hardiness Zone: 3-8
Size: H/W 2’-3’x1.5’-2’
Succulent: no
Deciduous: no
Landscape Zone: 2 or 3
Characteristics & Problems:
Good cut flower. Birds like cones in winter.

**Erigeron species**
Fleabane
Hardiness Zone: 4-8
Size: H/W 6-12”x12-18”
Succulent: no
Deciduous: no
Landscape Zone: 2
Characteristics & Problems:
About 200 species of annuals, biennials, perennials.

**Gaillardia species & cultivars**
Blanket flower
Hardiness Zone: 3-10
Size: H/W 8”-36”x12”-24”
Succulent: no
Deciduous: no
Landscape Zone: 2 or 3
Characteristics & Problems:
Look for disease-resistant varieties. Cut back to encourage late fall bloom.

**Geranium species**
Cranesbill hardy geranium
Hardiness Zone: 4-9
Size: H/W 4”-6”x10”-12”
Succulent: no
Deciduous: no
Landscape Zone: 1, 2 or 3
Characteristics & Problems:
Plants may be cut back to rejuvenate.

**Guem triflorum**
Prairie smoke
Hardiness Zone: 4-9
Size: H/W 18”x12”
Succulent: no
Semi-Evergreen: no
Landscape Zone: 1, 2 or 3
Characteristics & Problems:
Spreads by rhizomes and can be naturalized. Likes dry, well-drained soil.
**Helianthemum nummularium**

*Sun rose*
- **Hardiness Zone**: 4-7
- **Size**: H/W 8”-12”x12”-16”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Low-growing, woody stemmed, shrub-like habit.

---

**Heuchera species & cultivars**

*Coral bells*
- **Hardiness Zone**: 3-8
- **Size**: H/W 12”-20”x12”-15”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Remove stems of spent flowers to encourage rebloom.

---

**Hosta species & cultivars**

*Plantain lily*
- **Hardiness Zone**: 3-8
- **Size**: H/W 6”-36”x20”-24”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Genus of about 70 shade-loving, rhizomatous, clump-forming perennials.

---

**Iris species & cultivars**

*Iris, tall bearded*
- **Hardiness Zone**: 3-10
- **Size**: H/W 16”-30”x14”-24”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Several varieties available including dwarf, tall bearded, Japanese, and Siberian.

---

**Kniphofia species & hybrids**

*Red-hot poker*
- **Hardiness Zone**: 4-9
- **Size**: H/W 1’-4’x2’-3’
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Best in evenly moist, well-drained soil. Intolerant of wet, heavy soils.

---

**Hemerocallis cultivars**

*Daylily*
- **Hardiness Zone**: 3-9
- **Size**: H/W 1’-4’x1’-3’
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
More than 60,000 cultivars. Flowers open for 1-2 days. Flowers produced in succession, so bloom time is extended.
<table>
<thead>
<tr>
<th><strong>Lavandula species</strong></th>
<th><strong>Leucanthemum x superbum</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lavender</strong></td>
<td><strong>Shasta daisy</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong></td>
<td><strong>Hardiness Zone</strong></td>
</tr>
<tr>
<td>4-8</td>
<td>4-8</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>H/W 1-3’x1-4’</td>
<td>H/W 36”x36’</td>
</tr>
<tr>
<td><strong>Succulent</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Deciduous</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong></td>
<td><strong>Landscape Zone</strong></td>
</tr>
<tr>
<td>2 or 3</td>
<td>2 or 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong></td>
<td><strong>Characteristics &amp; Problems</strong></td>
</tr>
<tr>
<td></td>
<td>Long-lasting summer bloomer.</td>
</tr>
<tr>
<td><strong>Although it contains scented oils, this plant is slow to ignite if kept moist.</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Lilium species &amp; hybrids</strong></th>
<th><strong>Linum perenne</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lilies</strong></td>
<td><strong>Blue flax</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong></td>
<td><strong>Hardiness Zone</strong></td>
</tr>
<tr>
<td>4-8</td>
<td>2-8</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>H/W 3’x 6”</td>
<td>H/W 12”-20”x12”-14”</td>
</tr>
<tr>
<td><strong>Succulent</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Deciduous</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong></td>
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<tr>
<td>1, 2 or 3</td>
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</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong></td>
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</tr>
<tr>
<td>Genus of about 100 species of bulbous plants including Asiatic, oriental, and trumpet.</td>
<td>Reseeds. Deadhead to encourage new flowers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Lupinus species &amp; cultivars</strong></th>
<th><strong>Monarda species &amp; hybrids</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lupine</strong></td>
<td><strong>Bee balm</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong></td>
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</tr>
<tr>
<td>4-6</td>
<td>4-8</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td><strong>Size</strong></td>
</tr>
<tr>
<td>H/W 18-48”x24-26”</td>
<td>H/W 24” x 32”-36”</td>
</tr>
<tr>
<td><strong>Succulent</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Deciduous</strong></td>
<td>no</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong></td>
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</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong></td>
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</tr>
<tr>
<td>Deadhead spent flowers to encourage rebloom. Attractive tall border plant.</td>
<td>Attracts bees, butterflies, and hummingbirds when massed.</td>
</tr>
</tbody>
</table>
**Herbaceous Perennials**

**Penstemon species & hybrids**
*Beardtongue*

- **Hardiness Zone**: 3-8
- **Size**: H/W 4”-48”x6”-36”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Excellent for low-water garden.

**Papaver orientale**
*Oriental poppy*

- **Hardiness Zone**: 3-7
- **Size**: H/W 2’-3’x1-2’
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Tends to need support. Foliage dies back after bloom in early summer.

**Polemonium species**
*Jacob's ladder*

- **Hardiness Zone**: 3-8
- **Size**: H/W 24”x24”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Foliage may scorch in too much sun. Needs consistently moist soil.

**Ratibida columnifera**
*Prairie conflower*

- **Hardiness Zone**: 4-9
- **Size**: H/W 18”-24”x12”-24”
- **Succulent**: no
- **Deciduous**: Landscape Zone 2 or 3

**Characteristics & Problems**
Intolerant of moist, heavy, clay soil. Drought tolerant.

**Oenothera species & hybrids**
*Evening primrose*

- **Hardiness Zone**: 3-7
- **Size**: H/W 6”-12”x12”-24”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Showy. Somewhat aggressive spreading habit.

**Phlox paniculata**
*Summer phlox*

- **Hardiness Zone**: 4-8
- **Size**: H/W 3’x12”-18”
- **Succulent**: no
- **Deciduous**: Landscape Zone 1, 2 or 3

**Characteristics & Problems**
Many cultivars available. Look for mildew-resistant types.
Herbaceous Perennials

**Rudbeckia fulgida**
Black-eyed Susan

- **Hardiness Zone**: 3-9
- **Size**: H/W 2’x2’
- **Succulent**: no
- **Deciduous**: yes
- **Landscape Zone**: 2 or 3
- **Characteristics & Problems**: Biennial or short-lived perennial. Freely self seeds.

**Salvia species & hybrids**
Sage

- **Hardiness Zone**: 4-9
- **Size**: H/W 18”-28”x2”4-34”
- **Succulent**: no
- **Deciduous**: yes
- **Landscape Zone**: 2 or 3
- **Characteristics & Problems**: Hardiness varies among species. Formal, spike-like flowers in many colors. Remove spent blooms to promote reblooming.

**Veronica prostrate, longifolia, spicata**
Speedwell

- **Hardiness Zone**: 4-8
- **Size**: H/W 12”-20”x12”-15”
- **Succulent**: no
- **Deciduous**: yes
- **Landscape Zone**: 1, 2 or 3
- **Characteristics & Problems**: Taller varieties might need support. Deadhead or shear back to promote regrowth and rebloom.

**Yucca filamentosa**
Adam’s needle

- **Hardiness Zone**: 4-6
- **Size**: H/W 2’x3’
- **Succulent**: yes
- **Evergreen**: yes
- **Landscape Zone**: 1, 2 or 3
- **Characteristics & Problems**: Best of yuccas for low maintenance, drought-resistant landscaping.

**Zauschneria garrettii**
‘Orange Carpet’
Creeping hummingbird carpet

- **Hardiness Zone**: 5-9
- **Size**: H/W 18”x25”
- **Succulent**: no
- **Deciduous**: yes
- **Landscape Zone**: 2 or 3
- **Characteristics & Problems**: Regular watering promotes continuous flowering.
## Vines

<table>
<thead>
<tr>
<th>Fire Resistant Plants</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Actinidia kolomikta</strong>&lt;br&gt;‘Arctic beauty’&lt;br&gt;Kiwi vine&lt;br&gt;Hardiness Zone 4-8&lt;br&gt;Size H/W 20’x10’&lt;br&gt;Landscape Zone 1, 2 or 3</td>
<td><strong>Akebia quinata</strong>&lt;br&gt;Chocolate vine&lt;br&gt;Hardiness Zone 4-8&lt;br&gt;Size H/W 30’x9’&lt;br&gt;Landscape Zone 1, 2 or 3&lt;br&gt;Characteristics &amp; Problems&lt;br&gt;Rampant grower. Reseeds readily.</td>
</tr>
<tr>
<td><strong>Bignonia capreolata</strong>&lt;br&gt;‘Tangerine beauty’&lt;br&gt;Crossvine&lt;br&gt;Hardiness Zone 5-9&lt;br&gt;Size H/W 35’x9’&lt;br&gt;Landscape Zone 2</td>
<td><strong>Campsis radicans</strong>&lt;br&gt;Trumpet vine&lt;br&gt;Hardiness Zone 4-9&lt;br&gt;Size H/W 40’x10’&lt;br&gt;Landscape Zone 1, 2 or 3&lt;br&gt;Characteristics &amp; Problems&lt;br&gt;Rampant grower through seeds and roots.</td>
</tr>
<tr>
<td><strong>Campsis x tagliabuana</strong>&lt;br&gt;‘Madame Galen’&lt;br&gt;Trumpet creeper&lt;br&gt;Hardiness Zone 4-9&lt;br&gt;Size H/W 20’x12’&lt;br&gt;Landscape Zone 1, 2 or 3</td>
<td><strong>Clematis species &amp; cultivars</strong>&lt;br&gt;<em>Clematis</em>&lt;br&gt;Hardiness Zone 5-9&lt;br&gt;Size H/W 15’x15’&lt;br&gt;Landscape Zone 1, 2 or 3&lt;br&gt;Characteristics &amp; Problems&lt;br&gt;<em>Clematis orientalis</em> is a Class A weed in Chelan County.</td>
</tr>
</tbody>
</table>

**Characteristics & Problems**
- Requires a substantial trellis. Protect spring growth.
- Vigorous, woody fast-growing vine.
- Rampant grower through seeds and roots.
Humulus lupulus  
Hops  
Hardiness Zone 4-8  
Size H/W 15’x15’  
Landscape Zone 1, 2 or 3  
Characteristics & Problems  
Must be pruned and maintained appropriately to be fire-resistant.

Hydrangea anomala subsp. petiolaris  
Climbing hydrangea  
Hardiness Zone 4-8  
Size H/W 50’x6  
Landscape Zone 1, 2 or 3  
Characteristics & Problems  
Non-showy yellow fall color. Fragrant white flowers in flat-topped clusters in late spring, early summer.

Lonicera sempervirens  
‘Magnifica’  
Trumpet honeysuckle  
Hardiness Zone 4-7  
Size H/W 11’x8’  
Landscape Zone 1, 2 or 3  
Characteristics & Problems  

Lonicera heckrottii  
‘Goldflame’  
Honeysuckle  
Hardiness Zone 5-9  
Size H/W 15’x6’  
Landscape Zone 1, 2 or 3  
Characteristics & Problems  
L. japonica Japanese honeysuckle can be rampant grower through seed and roots.

Parthenocissus quinquefolia  
Virginia creeper  
Hardiness Zone 3-9  
Size H/W 30’x30’  
Landscape Zone 1, 2 or 3  
Characteristics & Problems  
Rampant grower. Reseeds readily.

Vitis coignetiae  
Crimson glory vine  
Hardiness Zone 5-9  
Size Variable  
Landscape Zone 2 or 3  
Characteristics & Problems  
Good fall color. Insignificant flowers, inedible purplish black berries.
Vines

Vitis vinifera ‘Purpurea’
Purpleleaf grape
Hardiness Zone 6-9
Size H/W 9’x9’
Landscape Zone 2 or 3

Characteristics & Problems
Grapes are adapted to a wide variety of soil conditions. Irrigation can be detrimental except for table or raisin grapes.

Fire-resistant does not mean fireproof!
Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.

Key for Symbols

Sun
Prefers full sun (6 or more hours).

Half Sun
Prefers part shade.

Moon
Prefers full shade (6 or more hours). Avoid afternoon sun.

Water
Very low water-use plant; performs well in dry sites.

Watering Can
Low water-use plant; performs well with minimal supplemental irrigation.

Irrigation
Moderate water-use plant; performs well with supplemental irrigation.

High Water
High water-use plant performs well with regular irrigation.
**Deciduous Shrubs**

**Ameilanchier species**  
Serviceberry  
*Hardiness Zone* 4-5  
*Size* H/W 12’x8’  
*Landscape Zone* 3  
**Characteristics & Problems**  
White-pink flowers yield blue berries. Attractive fall color. Resprouts.

**Cornus sericea**  
Red osier dogwood  
*Hardiness Zone* 4-8  
*Size* H/W 8’x10’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
White flowers yield red ornamental fruit. Red branches provide winter color. Cut back at least every 5 years.

**Corylus cornuta**  
Filbert, Beaked hazel  
*Hardiness Zone* 4-8  
*Size* H/W 4’x8’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
A small, suckering, deciduous shrub. Typically found in rich thickets, woodland borders, along streams and in clearings.

**Euonymus alatus**  
‘Compactus’  
Dwarf burning bush  
*Hardiness Zone* 4-8  
*Size* H/W 4’x6’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
Leaves turn brilliant red in autumn. Grows best on eastern exposure.

**Forsythia species**  
*Forsythia*  
*Hardiness Zone* 5-8  
*Size* H/W 15’x15’  
*Landscape Zone* 3  
**Characteristics & Problems**  
Showy yellow flowers bloom in early spring. Fertilize and prune post-bloom. Select low-growing variety.

**Ceanothus americanus**  
New Jersey tea  
*Hardiness Zone* 4-8  
*Size* H/W 3’x5’  
*Landscape Zone* 2  
**Characteristics & Problems**  
Requires winter cold protection.
## Deciduous Shrubs

### Hibiscus syriacus
**Rose of Sharon**  
**Hardiness Zone**: 5-8  
**Size**: H/W 12’x10’  
**Landscape Zone**: 3  
**Characteristics & Problems**: Leaves emerge in late spring. Depending on variety, flowers are lavender, white, rose, or bluish. Can serve as a hedge.

### Holodiscus discolor
**Oceanspray**  
**Hardiness Zone**: 5-9  
**Size**: H/W 6’x6’  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**: Features clusters of small white flowers.

### Philadelphus hybrid species
**Mock orange**  
**Hardiness Zone**: 4-8  
**Size**: H/W 8’x8’  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**: Fragrant pretty white flowers. Leggy growth habit. Prune every other year.

### Rhus glabra
**Smooth sumac**  
**Hardiness Zone**: 3-9  
**Size**: H/W 10’x5’  
**Landscape Zone**: 3  
**Characteristics & Problems**: Provides red fall color. Forms thickets. Can be invasive. Use on slopes.

### Rosa hybridi
**Nearly wild rose**  
**Hardiness Zone**: 4-8  
**Size**: H/W 3’x4’  
**Landscape Zone**: 3  
**Characteristics & Problems**: Pink blossoms all summer.

### Rosa woodsii
**Wood’s rose**  
**Hardiness Zone**: 4-8  
**Size**: H/W 6’x6’  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**: Every 5 years in early spring, prune to 12 inches. Resprouts readily.
**Deciduous Shrubs**

**Spirea bumalde ‘Bumalda’**
Japanese spirea
- **Hardiness Zone**: 3-8
- **Size**: H/W 4’x4’
- **Landscape Zone**: 2 or 3
**Characteristics & Problems**
Pink flowers. Prune after flowering.

**Spirea japonica ‘Goldmound’**
Goldmound spirea
- **Hardiness Zone**: 3-8
- **Size**: H/W 3’x4’
- **Landscape Zone**: 2 or 3
**Characteristics & Problems**
Pink flowers. Prune after flowering.

**Syringa species**
Lilac
- **Hardiness Zone**: 3-7
- **Size**: H/W 10’x8’
- **Landscape Zone**: 2 or 3
**Characteristics & Problems**
Prune after flowering.

**Rhamnus frangela ‘Columnaris’**
Tall hedge buckthorn
- **Hardiness Zone**: 2-7
- **Size**: H/W 12’x3’
- **Landscape Zone**: 3
**Characteristics & Problems**
Can become leggy. Fruit can be messy when it falls to ground. Can be planted to form a hedge.

**Rhamnus frangula ‘Aspelenifolia’**
Fernleaf buckthorn
- **Hardiness Zone**: 2-7
- **Size**: H/W 11’x9’
- **Landscape Zone**: 3
**Characteristics & Problems**
Fern-like foliage. Prefers morning sun and afternoon shade. Grows best in moist, rich soil. When it falls, fruit can be messy on ground.

**Viburnum carlesii ‘Korean spice’**
Korean spice viburnum
- **Hardiness Zone**: 4-7
- **Size**: H/W 5’x7’
- **Landscape Zone**: 2 or 3
**Characteristics & Problems**
Pink buds become fragrant, white flower clusters. Prefers acidic, moist soil.
Deciduous Shrubs

**Viburnum opulus ‘Compactus’**
Snowball bush
Hardiness Zone 3-8
Size H/W 6’x6’
Landscape Zone 3
Characteristics & Problems
White flat-top flowers yield red fruit. Prefers acidic, moist soil.

**Viburnum opulus ‘Roseum’**
European snowball viburnum
Hardiness Zone 3-8
Size H/W 12’x12’
Landscape Zone 3
Characteristics & Problems
Large 3” snowball flower heads. No berries. Red-yellow fall color. Prefers moist, acidic soil.

---

Fire-resistant does not mean fireproof!

Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.

---

Key for Symbols

- ☀️ Prefers full sun (6 or more hours).
- ☀️ Prefers part shade.
- ⚡️ Prefers full shade (6 or more hours). Avoid afternoon sun.
- 🔥 Very low water-use plant; performs well in dry sites.
- 🔥 Low water-use plant; performs well with minimal supplemental irrigation.
- 🔥 Moderate water-use plant; performs well with supplemental irrigation.
- 🔥 High water-use plant performs well with regular irrigation.
**Berberis thunbergii ‘Crimson Pygmy’**  
Japanese barberry  
**Hardiness Zone**: 5-8  
**Size**: H/W 1’x2’  
**Succulent**: no  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**  
A spiny, broad-rounded, deciduous shrub with obovate green leaves. Leaves typically turn attractive shades of orange, yellow and red in fall.

---

**Berberis × lologensis ‘Apricot Queen’**  
Warty barberry  
**Hardiness Zone**: 5-8  
**Size**: H/W 10’x10’  
**Succulent**: no  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**  
Dense grower with delicately arching branches. Small, dark evergreen leaves have bright, bluish-white undersides. Hidden stems are full of needle-sharp spines that make Berberis verruculosa an excellent barrier hedge.

---

**Cotoneaster species**  
**Characteristics & Problems**  
Some are deciduous. Vary in size from 6” ground cover to 10’ hedge plant. All species of cotoneaster feature a wide spread three times or more their height, glossy leaves, and red or black fall and winter berries. Most species shrug off adverse conditions like drought, strong winds, salt spray, infertile soil and variable pH.
Daphne x burkwoodii ‘Carol Mackie’
Carol Mackie daphne
Hardiness Zone 4-8
Size H/W 4’x4’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
Semi-evergreen shrub with variegated leaves. Features fragrant, pink/white star-shaped flowers in spring.

Daphne cneorum
Rock daphne
Hardiness Zone 5-8
Size H/W 1’x3’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
Low growing with bright hot-pink fragrant flowers that open mid spring. Can be kept at almost any size by pruning after flowering. Highly fragrant, showy flowers. Keep from excessively wet soils. Can tolerate hot sun and drought.

Euonymus x fortunei
Winter creeper
Hardiness Zone 4-7
Size H/W 4’x3.5’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
A low-growing, erect to semi-erect shrubby form which typically grows as a dense, sprawling, tangled, bushy mat. Features lustrous, ovate to elliptic, toothed, dark green leaves (1-1.5” long) edged with gold. Leaves turn pinkish-red in fall and winter. Inconspicuous, greenish-white flowers might appear in June. Flowers at best sparse, but usually not present. If given support, ‘Emerald ‘n’ Gold’ will climb a wall.

Lonicera pileata
Privet honeysuckle
Hardiness Zone 5-9
Size H/W 3’x8’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
Dense, spreading, evergreen to semi-evergreen shrub which is typically grown as a high ground cover. Glossy green leaves to 1 1/4” long. Small fragrant yellowish-white flowers in spring. Flowers give way to small translucent purple berries (1/4” wide) which mature in fall.

Mahonia aquifolium
Oregon grapeholly
Hardiness Zone 3-9
Size Varies H/W 5’x6’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
Upright growth habit. Shiny, dark-green foliage in summer. Yellow flowers open in spring, followed by blue/black berries in late summer. In autumn leaves turn red-purple.

Mahonia repens
Creeping Oregon grape
Hardiness Zone 3-8
Size H/W 1.5’x2’
Succulent no Landscape Zone 2 or 3
Characteristics & Problems
Similar to Oregon grapeholly, but smaller. Yellow flowers produce blue/black berries. Spreading branches feature green leaves that turn red/purple in autumn.
Characteristics & Problems

Landscape Zone 2 or 3

This thick, light-green leaves on low-growing shrub. Remains more compact in areas with full sun.

Successfully

Characteristics & Problems

Landscape Zone 2 or 3

This compact cherry laurel. Free-flowering.

Successfully

Characteristics & Problems

Landscape Zone 2 or 3

Noted for spring white flowers in drooping clusters, glossy green leaves, needle-like spines, and orange-red berries in fall.

Successfully

Characteristics & Problems

Landscape Zone 2 or 3

Easily grown in average, medium-moisture, well-drained soils in full sun. Best flowering occurs in full sun, but plants tolerate part shade. Established plants grow well in a wide range of conditions and have good drought tolerance. Plants have excellent winter hardiness. Prune in late spring after bloom.

Successfully
### Rhododendron macrophyllum
*Pacific rhododendron*

**Hardiness Zone**: 6-9  
**Size**: H/W 12’x12’  
**Succulent**: no  
**Landscape Zone**: 3

**Characteristics & Problems**

#### Viburnum x burkwoodii cultivars and varieties
*Burkwood viburnum*

**Hardiness Zone**: 5-8  
**Succulent**: no

**Characteristics & Problems**
Densely branched, multi-stemmed habit. Fragrant white flowers arranged in flat-topped cymes (2-4” wide) in spring. Flowers are followed by pendulous clusters of red berry-like drupes which ripen black. Fruit is not particularly showy. Glossy dark green leaves (to 4” long) turn maroon in fall.

### Rhododendron species & cultivars
*Rhododendron/azalea*

**Hardiness Zone**: 6-9  
**Size**: H/W Varies 1’x3’  
**Succulent**: no  
**Landscape Zone**: 2 or 3

**Characteristics & Problems**
A genus of 500 to 900 species that includes both of what are commonly called rhododendrons and azaleas. Most are evergreen; some deciduous. Appreciated for their showy spring flowers and, in the case of evergreen types, for their attractive winter foliage. Colors range from white to pink, red, and purple.

### Viburnum species & hybrids
*Viburnum*

**Hardiness Zone**: 2-9  
**Size**: H/W 4’x15’  
**Succulent**: no  
**Landscape Zone**: 2 or 3

**Characteristics & Problems**
Not all are evergreen. This group of shrubs has showy flowers, many of which are fragrant. Flowers followed by clusters of berries that may be yellow, orange, red, blue or black. Grow in full sun to partial shade in well-drained soil amended with organic matter. Useful in a shrub border or as a screen. Not bothered by rabbits, squirrels or deer.

### Yucca glauca
*Small soapweed*

**Hardiness Zone**: 4-6  
**Size**: Varies H/W 2’x4’  
**Succulent**: yes  
**Landscape Zone**: 1 & 2

**Characteristics & Problems**
Adapted to low-water growth conditions. Also known as small soapweed, soapweed yucca, Spanish bayonet, Great Plains yucca and beargrass. Yucca glauca forms colonies of rosettes.

### Yucca harrimaniae ‘Neomexicana’
*New Mexico yucca*

**Hardiness Zone**: 4-6  
**Size**: H/W 2’x2’  
**Succulent**: yes  
**Landscape Zone**: 1 & 2

**Characteristics & Problems**
Small species forming clumps of rosettes.
**Yucca filamentosa**  
**Adam’s needle**  
**Hardiness Zone** 4-10  
**Size** Varies H/W 4’x3’  
**Succulent** yes  
**Landscape Zone** 2 or 3  
**Characteristics & Problems**  
Swordlike, stiff leaves in various tones of green, gray-green or variegated yellow and green. In summer produces tall stalks topped by plumes of white flowers.

---

**Fire-resistant does not mean fireproof!**

Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.

---

**Key for Symbols**

- ☀️ - Prefers full sun (6 or more hours).
- ☀️ - Prefers part shade.
- 🌅 - Prefers full shade (6 or more hours). Avoid afternoon sun.
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- 🛒 - Low water-use plant; performs well with minimal supplemental irrigation.
- 🛒 - Moderate water-use plant; performs well with supplemental irrigation.
- 🛒 - High water-use plant performs well with regular irrigation.
**Festuca glauca**  
Blue fescue  
Hardiness Zone 3-6  
Size H 6-10”  
Form bunch  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
Fine-textured. When watered stays green well into the summer.

---

**Festuca idahoensis**  
Idaho fescue  
Hardiness Zone 3-6  
Size H 6-10”  
Form bunch  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
Native bunchgrass with fine texture.

---

**Festuca ovina**  
Sheep fescue  
Hardiness Zone 3-6  
Size H 6-10”  
Form bunch  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
A species from Europe and Asia that has become somewhat naturalized in North America.

---

**Poa secunda**  
Sandberg bluegrass  
Hardiness Zone 3-6  
Size H 6-10”  
Form bunch  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
Hardy grass that grows well in rocky areas.

---

**Poa secunda ‘Mountain Home’**  
Sandberg bluegrass  
Hardiness Zone 3-6  
Size H 6-10”  
Form bunch  
Landscape Zone 2 or 3  

**Characteristics & Problems**  
More drought tolerant than some grasses.

---

**Pseudoroegneria cristatum**  
Crested wheatgrass  
Hardiness Zone 3-6  
Size H 12-16”  
Form bunch  
Landscape Zone 3  

**Characteristics & Problems**  
Early season, hardy grass. Course texture.
Non-Turf Grasses

**Koeleria glauca**
Blue hairgrass
Hardiness Zone 3-6
Size H 6-24”
Form bunch
Landscape Zone 2 or 3
Characteristics & Problems
Grows well in dunes and sandy soils.

**Koeleria macrantha**
Prairie junegrass
Hardiness Zone 3-6
Size H 10-14”
Form bunch
Landscape Zone 3
Characteristics & Problems
Cool-season grass. Turns dormant in late summer.

**Sporobolus cryptandrus**
Sand dropseed
Hardiness Zone 3-6
Size H 8-20”
Form bunch
Landscape Zone 3
Characteristics & Problems
Produces a dense, sand-binding network of roots which can spread up to 2’ laterally and 8’ deep.

**Nassella tenuissima**
Mexican feather grass
Hardiness Zone 3-6
Size H 24-36”
Form bunch
Landscape Zone 3
Characteristics & Problems
Readily reseeds.

**Carex species & cultivars**
Sedge
Hardiness Zone 3-6
Size H 12-20”
Form sod
Landscape Zone 1, 2 or 3
Characteristics & Problems
Many different species. Prefers swampy areas.

**Pseudoroegneria spicata**
Bluebunch wheatgrass
Hardiness Zone 3-6
Size H 12-30”
Form bunch
Landscape Zone 3
Characteristics & Problems
Native bunchgrass.
Non-Turf Grasses

Pascopyrum smithii
Western wheatgrass
Hardiness Zone 3-6
Size H 12-36”

Form sod
Landscape Zone 2 or 3
Characteristics & Problems
Often covered with a white coating, lending a silvery cast to its blue-green leaves.

Elymus wawawaiensis cultivars
Snake River wheatgrass
Hardiness Zone 3-6
Size H 8-16”
Form bunch
Landscape Zone 3

Characteristics & Problems
Good competitor with cheat grass. Stays green longer.

Pseudoroegneria spicata inermis
Beardless wheatgrass
Hardiness Zone 3-6
Size H 8-20”
Form bunch
Landscape Zone 3
Characteristics & Problems
Good competitor with cheatgrass. Stays green longer.

Fire-resistant does not mean fireproof!

Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.
**Acer glabrum**
Rocky Mountain maple

**Hardiness Zone**: 2-7

**Size**: H/W 30’x15’

**Landscape Zone**: 2 or 3

**Characteristics & Problems**
Resprouts from root crown. Can be small tree or shrub.

---

**Acer Saccharum**
Sugar maple

**Hardiness Zone**: 2-9

**Size**: H/W 80’x60’

**Landscape Zone**: 3

**Characteristics & Problems**
Source of maple syrup. Excellent shade tree. The sugar maple leaf is the national symbol of Canada.

---

**Acer negundo**
Box elder

**Hardiness Zone**: 2-9

**Size**: H/W 50’x35’

**Landscape Zone**: 3

**Characteristics & Problems**
Not recommended because of a variety of problems. Use cultivars in lieu of box elder.

---

**Acer macrophyllum**
Bigleaf maple

**Hardiness Zone**: 4-9

**Size**: H/W 75’x50’

**Landscape Zone**: 3

**Characteristics & Problems**
Native of Northwest. Leaves sometimes greater than 15” across.

---

**Acer rubrum varieties & cultivars**
Red maple

**Hardiness Zone**: 3-9

**Size**: H/W 60’x40’

**Landscape Zone**: 3

**Characteristics & Problems**
Adaptable. Easy to transplant and establish. Tolerant of many conditions.

---

**Aesculus hippocastanum**
Common horse chestnut

**Hardiness Zone**: 4-8

**Size**: H/W 60’x50’

**Landscape Zone**: 3

**Characteristics & Problems**
Resprouts from root crown. Water deeply to prevent root surfacing.
### Trees

**Aesculus hippocastanum 'Braumannii’**  
Braumannii horse chestnut  
*Hardiness Zone* 4-8  
*Size* H/W 60’x50’  
*Landscape Zone* 3  
**Characteristics & Problems**  
White flowers on this fruitless cultivar.

**Alnus species**  
Alder  
*Hardiness Zone* 4-9  
*Size* H/W 40’x20’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
Resprouts from root crown. Not ideal ornamental tree.

**Alnus glutinosa**  
Black alder  
*Hardiness Zone* 4-9  
*Size* H/W 50’x30’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
Resprouts from root crown. Not ideal ornamental tree.

**Alnus tenuifolia**  
Mountain alder  
*Hardiness Zone* 5-9  
*Size* H/W 25’x20’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
Resprouts from root crown. Not ideal ornamental tree.

**Betula species**  
Birch  
*Hardiness Zone* 2-9  
*Size* varies  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
A wide variety of fire-resistant birch is available.

**Betula occidentalis**  
Water birch  
*Hardiness Zone* 4-6  
*Size* H/W 33’x15’  
*Landscape Zone* 2 or 3  
**Characteristics & Problems**  
Resprouts from root crown. Basal buds & seeds.
**Betula nigra ‘Cully’ Heritage**
Heritage river birch
Hardiness Zone 4-9
Size H/W 55’x50’
Landscape Zone 2 or 3

**Characteristics & Problems**
One of the most disease-free birches.

---

**Carpinus betulus ‘Frans Fontaine’**
Frans Fontaine hornbeam
Hardiness Zone 4-8
Size H/W 40’x20’
Landscape Zone 2 or 3

**Characteristics & Problems**
Columnar variety that can be hard pruned to create large-scale screens or hedges.

---

**Catalpa speciosa**
Northern catalpa
Hardiness Zone 4-8
Size H/W 90’x45’
Landscape Zone 3

**Characteristics & Problems**
Forms high canopy & deep roots.

---

**Celtis occidentalis**
Common hackberry
Hardiness Zone 2-9
Size 60’x50’
Landscape Zone 3

**Characteristics & Problems**
Resprouts from root crown. Tolerates heat, wind, drought, poor soil and air pollution.

---

**Celtis reticulata**
Netleaf hackberry
Hardiness Zone 4-9
Size H/W 30’x25’
Landscape Zone 2 or 3

**Characteristics & Problems**
Deep-rooted, so less likely to crack pavement and facilitates lawn growth beneath tree.
Trees

**Cornus florida varieties & cultivars**
Florida flowering dogwood
Hardiness Zone 5-9
Size H/W 30’x25’
Landscape Zone 2 or 3

**Characteristics & Problems**
Prone to scorch in this area without some shade.

**Fagus sylvatica**
‘Dawyck purple’
Columnar purple European beach
Hardiness Zone 4-9
Size H/W 50’x15’
Landscape Zone 3

**Characteristics & Problems**
Dark purple foliage of this columnar tree is noticable. In spring deep reddish-purple leaves emerge and darken to burgundy purple.

**Gingko biloba**
Maidenhair tree
Hardiness Zone 3-8
Size 80’x40’
Landscape Zone 2 or 3

**Characteristics & Problems**
An ancient genus of tree.

**Gleditsia triacanthos inermis**
‘Sunburst’
Sunburst honeylocust
Hardiness Zone 3-8
Size H/W 40’x35’
Landscape Zone 2 or 3

**Characteristics & Problems**
Prone to wind damage.

**Cotinus coggygria varieties & cultivars**
Smoketree
Hardiness Zone 5-8
Size H/W 25’x15’
Landscape Zone 3

**Characteristics & Problems**
Amount of fine fuel this tree produces results in lowered fire resistance rating.
<table>
<thead>
<tr>
<th>Trees</th>
<th>Fire Resistant Plants</th>
</tr>
</thead>
</table>
| **Gymnocladus dioicus**  
Kentucky coffeetree  
**Hardiness Zone** 3-8  
**Size** H/W 70’x55’  
**Landscape Zone** 3  
**Characteristics & Problems**  
High canopy. Frost sensitive. Very fire-resistant tree. | **Juglans nigra**  
Black walnut  
**Hardiness Zone** 4-9  
**Size** H/W 65’x65’  
**Landscape Zone** 3  
**Characteristics & Problems**  
Resprouts from root crown. Prone to disease. |
| **Liriodendron tulipifera**  
Tulip tree  
**Hardiness Zone** 4-9  
**Size** H/W 100’x50’  
**Landscape Zone** 3  
**Characteristics & Problems**  
Roots may surface in lawn if not watered deeply and independently of turf. | **Maclura pomifera ‘White shield’**  
White shield Osage-orange  
**Hardiness Zone** 5-7  
**Size** H/W 30’x40’  
**Landscape Zone** 2 or 3  
**Characteristics & Problems**  
Both fruitless and thornless. |
| **Malus floribunda**  
Japanese flowering crabapple  
**Hardiness Zone** 4-7  
**Size** 15’x25’  
**Landscape Zone** 2 or 3  
**Characteristics & Problems**  
Disease resistant. Slightly susceptible to scab, powdery mildew, and fireblight. | **Morus alba**  
White mulberry  
**Hardiness Zone** 4-8  
**Size** H/W 30’x50’  
**Landscape Zone** 2 or 3  
**Characteristics & Problems**  
Tolerates heat, drought, wind, cold & air pollution. Berries produce a mess when they drop to ground. |
Platanus acerifolia
London plane tree/sycamore
Hardiness Zone 4-8
Size H/W 100’x75’
Landscape Zone 3
Characteristics & Problems
Plant 25’-30’ from any concrete.

Populus species
Aspen/cottonwood/poplar
Hardiness Zone 1-9
Size H/W 60’x40’
Landscape Zone 2 or 3
Characteristics & Problems
Fairly short-lived genus, 50-70 years. Some species can be problematic.

Populus tremuloides
Quaking aspen
Hardiness Zone 1-6
Size H/W 50’x30’
Landscape Zone 3
Characteristics & Problems
Sprouts readily, so can be problematic in landscapes.

Quercus gambelii
Gambel oak
Hardiness Zone 3-8
Size H/W 10’x5’
Landscape Zone 2 or 3
Characteristics & Problems
Higher tolerance to fire compared to other oaks.

Quercus macrocarpa
Bur oak
Hardiness Zone 3-8
Size 60’x30’
Landscape Zone 3
Characteristics & Problems
Acorns can be an important source of food for wildlife.

Quercus rubra
Red oak
Hardiness Zone 4-8
Size H/W 75’x70’
Landscape Zone 3
Characteristics & Problems
Generally a durable and long-lived tree.
**Tilia americana**  
American linden  
**Hardiness Zone**: 2-7  
**Size**: H/W 80’x50’  
**Landscape Zone**: 3  
**Characteristics & Problems**:  
Dense canopy may inhibit turf growth, if planted in or near lawn.

**Robinia pseudoacacia**  
‘Purple Robe’  
Purple robe locust  
**Hardiness Zone**: 4-8  
**Size**: H/W 40’x30’  
**Landscape Zone**: 2 or 3  
**Characteristics & Problems**:  
Very adaptable in tough environments.

---

**Fire-resistant does not mean fireproof!**

Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.

---

**Key for Symbols**

- ☀️ Prefers full sun (6 or more hours).
- ♨️ Prefers part shade.
- ☁️ Prefers full shade (6 or more hours). Avoid afternoon sun.
- 🚆 Very low water-use plant; performs well in dry sites.
- 🛠️ Low water-use plant; performs well with minimal supplemental irrigation.
- 🌟 Moderate water-use plant; performs well with supplemental irrigation.
- 🛍️ High water-use plant performs well with regular irrigation.
**Acer species**
Maple

**Hardiness Zone** 2-9

**Size** H/W 75’x75’

**Landscape Zone** 3

**Characteristics & Problems**
Often reseeds and sprouts.

---

**Acer saccharum ‘green mountain’**

*Green Mountain maple*

**Hardiness Zone** 4-8

**Size** H/W 60’x45’

**Landscape Zone** 2 or 3

**Characteristics & Problems**

---

**Acer negundo ‘Sensation’**

*Sensation boxelder maple*

**Hardiness Zone** 2-8

**Size** H/W 30’x25’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
Grown for attractive foliage.

---

**Acer negundo ‘Violaceum’**

*Boxelder*

**Hardiness Zone** 2-9

**Size** H/W 15’x20’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
Very pretty spring flowers.

---

**Acer ginnala varities & cultivars**

*Amur maple*

**Hardiness Zone** 2-9

**Size** H/W 30’x20’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
Resprouts from root crown. Low-branched, multi-stemmed growth habit. Might become invasive by reseeding.

---

**Aesculus species**

*Horsechestnut & Buckeye*

**Hardiness Zone** 4-8

**Size** H/W 60’x50’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
The genus *Aesculus*, with varieties called ‘buckeye’ and ‘horse chestnut’, comprises 13-19 species.

---

**Aesculus × carnea ‘Briotii’**

*Red horse chestnut*

**Hardiness Zone** 5-8

**Size** H/W 35’x35’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
A beautiful landscape tree for large lawns. Noted for its dark red flowers.

---

**Betula populifolia ‘Whitespire’**

*Whitespire birch*

**Hardiness Zone** 3-6

**Size** H/W 40’x20’

**Landscape Zone** 2 or 3

**Characteristics & Problems**
Noted for its non-peeling chalky, white bark with dark chevron trunk patches appearing below each branch base and its long, pointed, triangular, green leaves.
<table>
<thead>
<tr>
<th><strong>Fire Resistant Plants</strong></th>
<th><strong>Trees</strong></th>
<th><strong>Fire Resistant Plants</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Catalpa × erubescens ‘Purpurea’</strong>&lt;br&gt;Purple leaf catalpa&lt;br&gt;<strong>Hardiness Zone</strong> 4-8&lt;br&gt;<strong>Size</strong> H/W 45’x40’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Blackish-purple, heart-shaped leaves in spring.</td>
<td><strong>Catalpa bignoniodes ‘Nana’</strong>&lt;br&gt;Umbrella catalpa&lt;br&gt;<strong>Hardiness Zone</strong> 5-9&lt;br&gt;<strong>Size</strong> H/W 20’x15’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Nonflowering. Good in small spaces, under power lines, or in street right-of-way.</td>
<td></td>
</tr>
<tr>
<td><strong>Cercis canadensis varieties &amp; cultivars</strong>&lt;br&gt;Eastern redbud&lt;br&gt;<strong>Hardiness Zone</strong> 4-8&lt;br&gt;<strong>Size</strong> H/W 35’x30’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Leaves turn pale yellow to greenish-yellow in fall. Several varieties and cultivars available.</td>
<td><strong>Cercocarpus montanus</strong>&lt;br&gt;Mountain mahogany&lt;br&gt;<strong>Hardiness Zone</strong> 5-10&lt;br&gt;<strong>Size</strong> H/W 12’x8’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;A native American small tree which grows in dry foothills and lower mountain regions of the West.</td>
<td></td>
</tr>
<tr>
<td><strong>Cercocarpus ledifolius</strong>&lt;br&gt;Curl-leaf mountain mahogany&lt;br&gt;<strong>Hardiness Zone</strong> 4-8&lt;br&gt;<strong>Size</strong> H/W 15’x12’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Can be considered an evergreen shrub or small tree depending on how maintained.</td>
<td><strong>Cornus stolonfera</strong>&lt;br&gt;Pacific dogwood&lt;br&gt;<strong>Hardiness Zone</strong> 3-7&lt;br&gt;<strong>Size</strong> H/W 15’x20’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Attractive flowers in the spring.</td>
<td></td>
</tr>
<tr>
<td><strong>Cornus kousa</strong>&lt;br&gt;Kousa dogwood&lt;br&gt;<strong>Hardiness Zone</strong> 5-8&lt;br&gt;<strong>Size</strong> H/W 15’x30’&lt;br&gt;<strong>Landscape Zone</strong> 2-3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;A stunning flowering tree or large shrub with good fall color. Effective as shrub border.</td>
<td><strong>Cornus sericea</strong>&lt;br&gt;Red twig dogwood&lt;br&gt;<strong>Hardiness Zone</strong> 3-8&lt;br&gt;<strong>Size</strong> H/W 9’x12’&lt;br&gt;<strong>Landscape Zone</strong> 2 or 3&lt;br&gt;<strong>Characteristics &amp; Problems</strong>&lt;br&gt;Small tree if pruned to remove canes; without pruning more like a shrub.</td>
<td></td>
</tr>
<tr>
<td>Trees</td>
<td>Fire Resistant Plants</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------</td>
<td></td>
</tr>
</tbody>
</table>
| **Diospyros virginiana**  
American persimmon  
Hardiness Zone 4-9  
Size H/W 25’x30’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Resprouts from root crown & buds. Frost sensitive. |  

| **Fagus species**  
Beech  
Hardiness Zone 3-9  
Size H/W 80’x80’  
Landscape Zone 3  
Characteristics & Problems  
No serious insect or disease problems. |  

| **Fagus sylvatica ‘Aspleniifolia’**  
Fernleaf beech  
Hardiness Zone 4-7  
Size H/W 60’x60’  
Landscape Zone 3  
Characteristics & Problems  
Leaves turn golden brown in fall. |  

| **Fraxinus species**  
Ash  
Hardiness Zone 3-9  
Size H/W 70’x40’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Emerald ash borer is a problem for this genus. There are several varieties and cultivars. |  

| **Fraxinus americana**  
White ash  
Hardiness Zone 3-9  
Size H/W 60’x40’  
Landscape Zone 3  
Characteristics & Problems  
There are several varieties and cultivars. |  

| **Fraxinus americana ‘Autumn purple’**  
Autumn purple ash  
Hardiness Zone 3-9  
Size H/W 80’x40’  
Landscape Zone 3  
Characteristics & Problems  
Beautiful purplish-red fall color. Ash borer can become a problem. |  

| **Fraxinus pennsylvanica ‘Marshall’**  
Marshall green ash  
Hardiness Zone 3-7  
Size H/W 60’x40’  
Landscape Zone 3  
Characteristics & Problems  
Glossy, dark-green foliage turn yellow in fall. This cultivar is seedless. |  

| **Gingko biloba ‘Autum Gold’**  
Autumn gold  
Hardiness Zone 3-8  
Size H/W 40’x30’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Bright golden autumn leaves. |  

---
<table>
<thead>
<tr>
<th><strong>Gleditsia triacanthos inermis</strong></th>
<th><strong>Gleditsia triacanthos inermis 'Impcole'</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Thornless honeylocust</td>
<td>Imperial honeylocust</td>
</tr>
<tr>
<td>Hardiness Zone 3-8</td>
<td>Hardiness Zone 3-8</td>
</tr>
<tr>
<td>Size H/W 60’x50’</td>
<td>Size H/W 40’x35’</td>
</tr>
<tr>
<td>Landscape Zone 3</td>
<td>Landscape Zone 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Thornless; Tolerant of poor soils, heat, drought, wind and cold.</td>
<td>No fall color.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gleditsia triacanthos inermis ‘Rubylace’</strong></th>
<th><strong>Gleditsia triacanthos inermis 'Shademaster'</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubylace honeylocust</td>
<td>Shademaster honeylocust</td>
</tr>
<tr>
<td>Hardiness Zone 4-8</td>
<td>Hardiness Zone 3-8</td>
</tr>
<tr>
<td>Size H/W 30’x25’</td>
<td>Size H/W 70’x50’</td>
</tr>
<tr>
<td>Landscape Zone 2 or 3</td>
<td>Landscape Zone 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Prone to wind change.</td>
<td>Provides denser shade than other honeylocusts. Avoid planting near utility lines. Thornless.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gleditsia triacanthos inermis ‘Skyline’</strong></th>
<th><strong>Gymnocladus dioicus ‘Espresso’</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Skyline honeylocust</td>
<td>Espresso Kentucky coffee tree</td>
</tr>
<tr>
<td>Hardiness Zone 3-8</td>
<td>Hardiness Zone 3-7</td>
</tr>
<tr>
<td>Size H/W 45’x35’</td>
<td>Size H/W 50’x35’</td>
</tr>
<tr>
<td>Landscape Zone 2 or 3</td>
<td>Landscape Zone 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Juglans major</strong></th>
<th><strong>Koelreuteria paniculata</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arizona walnut</td>
<td>Goldenrain tree</td>
</tr>
<tr>
<td>Hardiness Zone 5-9</td>
<td>Hardiness Zone 5-9</td>
</tr>
<tr>
<td>Size H/W 30’x30’</td>
<td>Size H/W 40’x40’</td>
</tr>
<tr>
<td>Landscape Zone 2 or 3</td>
<td>Landscape Zone 2 or 3</td>
</tr>
<tr>
<td>Characteristics &amp; Problems</td>
<td>Characteristics &amp; Problems</td>
</tr>
<tr>
<td>Bears small walnuts known in Spanish as “nogale”.</td>
<td>Showy, long, yellow flowers. Reseeds readily.</td>
</tr>
<tr>
<td>Laburnum watereri</td>
<td>Liquidambar styraciflua</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Goldenchain tree</strong></td>
<td><strong>American sweetgum</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 5-7</td>
<td><strong>Hardiness Zone</strong> 5-9</td>
</tr>
<tr>
<td><strong>Size</strong> H/W 30’x30’</td>
<td><strong>Size</strong> H/W 80’x45’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 2 or 3</td>
<td><strong>Landscape Zone</strong> 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong> Poisonous seed pods might pose danger to children or pets.</td>
<td><strong>Characteristics &amp; Problems</strong> Resprouts from root crown. Spiny fruit in yard could be a nuisance.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maackia amurensis</th>
<th>Phellodendron amurense</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maackla</strong></td>
<td><strong>Amur corktree</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 3-7</td>
<td><strong>Hardiness Zone</strong> 3-7</td>
</tr>
<tr>
<td><strong>Size</strong> H/W 30’x30’</td>
<td><strong>Size</strong> H/W 45’x60’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 2 or 3</td>
<td><strong>Landscape Zone</strong> 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong> Dark, olive-green leaves are attractive in summer but produce no fall color.</td>
<td><strong>Characteristics &amp; Problems</strong> Noted for its attractive shape, bark and foliage.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Populus tremula ‘Erecta’</th>
<th>Quercus species</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Columnar swedish aspen</strong></td>
<td><strong>Oaks</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 1-6</td>
<td><strong>Hardiness Zone</strong> 3-9</td>
</tr>
<tr>
<td><strong>Size</strong> H/W 40’x10’</td>
<td><strong>Size</strong> H/W Variable</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 2 or 3</td>
<td><strong>Landscape Zone</strong> 2 or 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong> Upright, columnar growth habit; does not sucker as much as quaking aspen.</td>
<td><strong>Characteristics &amp; Problems</strong> Oaks cover a wide spectrum of size and habitat.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quercus acutissima</th>
<th>Quercus alba</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sawtooth oak</strong></td>
<td><strong>White oak</strong></td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 6-9</td>
<td><strong>Hardiness Zone</strong> 3-9</td>
</tr>
<tr>
<td><strong>Size</strong> H/W 60’x60’</td>
<td><strong>Size</strong> H/W 75’x75’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 3</td>
<td><strong>Landscape Zone</strong> 3</td>
</tr>
<tr>
<td><strong>Characteristics &amp; Problems</strong> Sawtooth oak is considered a low-maintenance tree with good pest resistance.</td>
<td><strong>Characteristics &amp; Problems</strong> Most oaks survive periodic fires.</td>
</tr>
<tr>
<td><strong>Fire Resistant Plants</strong></td>
<td><strong>Trees</strong></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Quercus bicolor</strong></td>
<td>Swamp white oak</td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 3-8</td>
<td><strong>Size</strong> H/W 55’x55’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 2 or 3</td>
<td><strong>Characteristics &amp; Problems</strong> Tolerates wet soil.</td>
</tr>
<tr>
<td><strong>Quercus garryana</strong></td>
<td>Oregon White oak</td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 6-8</td>
<td><strong>Size</strong> H/W 90’x60’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 3</td>
<td><strong>Characteristics &amp; Problems</strong> Open-grown trees develop very broad, rounded crowns with massive, crooked branches on short, massive trunks.</td>
</tr>
<tr>
<td><strong>Quercus palustris</strong></td>
<td>Pin oak</td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 4-8</td>
<td><strong>Size</strong> H/W 75’x40’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 3</td>
<td><strong>Characteristics &amp; Problems</strong> Infrequently attacked by the common diseases of oaks.</td>
</tr>
<tr>
<td><strong>Quercus robur ‘Fastigiata’</strong></td>
<td>Columnar English oak</td>
</tr>
<tr>
<td><strong>Hardiness Zone</strong> 5-8</td>
<td><strong>Size</strong> H/W 60’x20’</td>
</tr>
<tr>
<td><strong>Landscape Zone</strong> 3</td>
<td><strong>Characteristics &amp; Problems</strong> Good substitute for lombard poplar.</td>
</tr>
<tr>
<td>Trees</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
</tbody>
</table>
| **Robinia species**  
Locust  
Hardiness Zone 4-9  
Size H/W Variable  
Landscape Zone 2 or 3  
Characteristics & Problems  
Numerous varieties best grown in dry or native planting areas. Regular watering promotes dense, weak branching which increases maintenance. Can be invasive. |
| **Salix species**  
Willow  
Hardiness Zone 3-7  
Size H/W Variable  
Landscape Zone 2 or 3  
Characteristics & Problems  
Readily sprouts and reseeds. Short-lived. |
| **Salix alba**  
Golden willow  
Hardiness Zone 2-8  
Size H/W 65’x65’  
Landscape Zone 2 or 3  
Characteristics & Problems  
White willow generally not recommended for residential landscapes. Susceptible to numerous diseases and insect pests. |
| **Salix amygdaloides**  
Peachleaf willow  
Hardiness Zone 3-7  
Size H/W 25’x40’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Grows very quickly. Short-lived. Can only spread by seeds, while most other willows can propagate from roots or snapped bits of twig. |
| **Sophora japonica**  
Japanese pagoda tree  
Hardiness Zone 4-8  
Size H/W 75’x75’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Cultivated for its attractive compound foliage and fragrant late-summer flowers. |
| **Sorbus alnifolia**  
Korean mountain ash  
Hardiness Zone 3-7  
Size H/W 50’x25’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Considered one of the best of the mountain ashes because of its pest resistance and form. |
| **Sorbus aucuparia**  
European mountain ash  
Hardiness Zone 3-6  
Size H/W 30’x20’  
Landscape Zone 2 or 3  
Characteristics & Problems  
Flowering ornamental. |
| **Sorbus sitchensis**  
Western mountain ash  
Hardiness Zone 2-7  
Size H/W 13’x13  
Landscape Zone 2 or 3  
Characteristics & Problems  
Small growth habit. Colorful berries attract birds. |
**Tilia cordata**
Littleleaf linden
**Hardiness Zone** 3-7
**Size** H/W 70’x50’
**Landscape Zone** 3

**Characteristics & Problems**
Dense canopy may inhibit turf growth, if planted in or near lawn.

---

**Tilia × euchlora**
Caucasian linden
**Hardiness Zone** 3-8
**Size** H/W 40’x30’
**Landscape Zone** 2 or 3

**Characteristics & Problems**
Small cultivar of linden.

---

**Fire-resistant does not mean fireproof!**

Even fire-resistant plants will burn if not well maintained. Be sure to keep all of your landscape plants healthy with appropriate watering, proper pruning, etc.

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**Key for Symbols**

- ☀️ Prefers full sun (6 or more hours).
- ☀️ Prefers part shade.
- ☀️ Prefers full shade (6 or more hours).
  Avoid afternoon sun.

- 🚪 Very low water-use plant; performs well in dry sites.
- 🚪 Low water-use plant; performs well with minimal supplemental irrigation.
- 🚪 Moderate water-use plant; performs well with supplemental irrigation.
- 🚪 High water-use plant performs well with regular irrigation.
**Note on Maples (Genus Acer)**

Maples produce many seeds that germinate at a high rate. One tree can produce thousands of seeds each year. When these wind-dispersed seeds germinate, they grow into plants that can displace natives as well as landscape plants. To keep maples in the desired locations, annual maintenance is required. Weeding out unwanted maple seedlings will help keep the area lean, clean and green.

Deciduous trees are fire-resistant, as a general rule. In Chelan and Douglas counties shade in the summer and sun in the winter are desired amenities. Most deciduous trees do a good job of providing these attributes, while conifers do not provide the same attributes. Consider the use of deciduous trees in place of conifers on the east, west and south sides of your home for summer shade, winter sun, and fire-resistant characteristics.

**Note on fruit-bearing trees**

Chelan and Douglas counties are important fruit-growing regions. To protect the valuable commercial fruit production in our area, the Chelan County Horticultural Pest Board can require a homeowner/occupant to spray or remove a fruit tree. Organic and conventional spray schedules are available on the Chelan/Douglas County Master Gardener website. The following pests specifically are required to be prevented and controlled:

- Codling moth and San Jose Scale on apples and pears.
- Pear psylla on pears.
- Western cherry fruit fly and spotted wing drosophila on cherries.

This publication intentionally omits orchard-type fruit-bearing trees so as to not encourage homeowners to plant potentially problem-causing vegetation. If homeowners and occupants choose to select orchard-type fruit-bearing trees or shrubs, it is imperative that they perform proper maintenance and pest control. Ornamental flowering fruit trees with fruit less than 3/8 inch in diameter are considered safe but should be monitored for pests.

**Conifers**

Conifers are evergreen trees or shrubs of the class Coniferinae (or group Coniferales) including pine, fir, spruce, and other cone-bearing trees and shrubs. This category also includes yews and their plant relatives that bear drupe-like seeds.

Most conifers do not possess fire-resistant attributes. However, some conifers are very fire resilient, meaning they are adapted to survive in fire-prone environments. Many people enjoy conifers for the other characteristics these trees offer. To help reduce the flammability of conifers, owners can employ maintenance techniques to reduce fire hazards. Some of these techniques include spacing, thinning, pruning, removing dead needles in the tree, raking, planting a proper distance from structures (greater than 30 feet), as well as keeping the area clean and properly disposing of vegetative debris. It is important to keep in mind that these trees continue to pose a fire hazard.

**Turfgrasses, Annuals and Bulbs**

Annuals, bulbs and turfgrasses planted anywhere in Landscape Zones 1, 2, or 3 can provide an excellent fuel break around a home or business. These plants create defensible space for the home and firefighters. These plants, when properly maintained, have a very high moisture content, grow close to the ground, and are difficult to ignite.
Hardiness Zones and Heat Zones

The United States Department of Agriculture (USDA) Plant Hardiness Zone Map ([http://planthardiness.ars.usda.gov/PHZMWeb/InteractiveMap.aspx](http://planthardiness.ars.usda.gov/PHZMWeb/InteractiveMap.aspx)) is the standard gardeners use to determine which plants are most likely to thrive at a location. The map is based on the average annual minimum winter temperature.

Chelan and Douglas counties are within Plant Hardiness Zones 5 to 7 depending on your specific location within the counties. It is important to remember that the zones are based on average annual minimum temperatures, not the lowest winter temperature experienced. For this reason, one may choose plants that will survive in lower winter temperatures.

American Horticulture Society Heat Zones have the same concept with a zone range from Zone 1 to Zone 12. Plants with a heat zone rating between 4 and 7 will generally thrive in Chelan and Douglas counties depending on your specific location.

Key for Symbols

- ☀️ Prefers full sun (6 or more hours).
- 🌕 Prefers part shade.
- ☁️ Prefers full shade (6 or more hours). Avoid afternoon sun.
- 🛍️ Very low water-use plant; performs well in dry sites.
- 🛍️ Low water-use plant; performs well with minimal supplemental irrigation.
- 🛍️ Moderate water-use plant; performs well with supplemental irrigation.
- 🛍️ High water-use plant performs well with regular irrigation.
Maintenance

Maintenance is essential to a fire-resistant landscape. Plants listed as fire-resistant, if allowed to grow unchecked and poorly maintained, can become fire hazards. Proper maintenance of landscaping is crucial and cannot be ignored. Remember: “Lean, clean, and green” are the essentials to a fire-resistant landscape.

Maintenance practices for fire-resistant landscapes

- Washing dead debris out of plants
- Pruning to remove ladder fuels
- Thinning
- Spacing
- Raking
- Weeding
- Mowing/Weed Eating
- Using only inorganic mulch close to structures
- Watering
- Clean roofs and gutters
- Cleaning up and properly disposing of yard waste
- Removing dead fuels
- Separating shrubs horizontally so they are no closer than twice their height
- Separating plants vertically so the space between the top of a shrub and the lower branches of a tree are at least three times the height of the shrub
- Practice “Lean, Clean and Green” maintenance at least 30 feet around the structure
  - Reduce spread and intensity
  - Prevent ignitions
Invasive plants and noxious weeds

Invasive plants, not native to a specific location, unfortunately have been introduced to the landscape. They tend to spread.

An invasive plant is a plant which grows aggressively, spreads, and displaces other plants. Invasive plants tend to appear on disturbed ground, and the most aggressive can actually invade healthy ecosystems.

A “noxious weed,” according to the Washington State Noxious Weed Control Board, is the legal term used for an invasive, non-native plant that is so aggressive it harms the local ecosystem or disrupts agricultural production. These plants crowd out native plant species that fish and wildlife depend upon. They also cost farmers, orchardists and ranchers millions of dollars because of control efforts and lost production.

None of the plants in this publication is on the Chelan County Noxious Weed List as of the date of publication. However, there are some species in this publication that can be considered invasive if proper care and maintenance are not performed.

Favorable plant characteristics and attributes

Fire-resistant attributes of plants
- Low growing
- Herbaceous plant parts
- Open configuration
- High moisture content/succulent parts
- Water-like sap
- Broad leaves
- Low accumulation of dead materials
- Tight bark

Favorable vs. Unfavorable fire-resistant plant attributes

**Favorable**
- Short
- Herbaceous
- High moisture
- Deciduous
- Watery
- Spread out
- Broad leaves
- Tight

**Unfavorable**
- Tall
- Woody
- Low moisture content
- Evergreen
- Thick/Sticky Sap
- Thick/dense
- Needles
- Loose Bark/Wood
Unfavorable plant characteristics

Arborvitae, the common name given to at least eight different species and cultivars of the genus Thuja, are one of the most fire-prone, and least fire-resistant shrubs planted in the Chelan/Douglas county region. Arborvitae is not a recommended fire-resistant plant. There are several species of juniper that also are not recommended fire-resistant species. Both arborvitae and juniper have a thin covering of green vegetation and a dense mat of dead, very flammable material underneath the green covering.

Below is a short list of some of the plants that are not recommended for use in fire-prone environments. The plants in this category have some common characteristics:

- High surface area to volume ratio, that is they have fine-textured parts.
- Low moisture content.
- High percentage of dead fuel matter or debris.

<table>
<thead>
<tr>
<th>Trees</th>
<th>Shrubs</th>
<th>Grasses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine</td>
<td>Bitterbrush</td>
<td>Pampas grass</td>
</tr>
<tr>
<td>Firs</td>
<td>Sagebrush</td>
<td>Cheat grass</td>
</tr>
<tr>
<td>Larch</td>
<td>Mugo pine</td>
<td>‘Karl Foerster’</td>
</tr>
<tr>
<td>Spruce</td>
<td>Arborvitae</td>
<td></td>
</tr>
<tr>
<td>Douglas fir</td>
<td>Juniper</td>
<td></td>
</tr>
<tr>
<td>Yew</td>
<td>Yew</td>
<td></td>
</tr>
<tr>
<td>Arborvitae</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hemlock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cedar/Juniper</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Arborvitae may look green on the outside but the interior of the plant is mostly dry, dead fuel, presenting a major threat to nearby structures.
Further reading and websites for Fire-resistant plants and Firewise Information

Choosing the Right Plants for Northern Nevada's High Fire Hazard Areas. 
This publication has a plant list and extensive Firewise information.

Fire Resistance of Plants Master Database & Placement of Species within Firewise Landscape Zones for Southern Idaho. 
http://idahofirewise.org/assets/library/Homeowner%20Information/Firewise%20Landscaping/Fire%20Resistance%20of%20Plants%20Master%20Database.pdf
This publication has a comprehensive plant list that rates plants by flammability. Also, it has a significant amount of fire-resistant plant information.

Firewise Plant Materials. 
http://extension.colostate.edu/topic-areas/natural-resources/firewise-plant-materials-6-305/
A publication from Colorado that has a comprehensive plant list and discusses landscaping and maintenance.

Protecting and Landscaping Homes in the Wildland/Urban Interface. 
http://www.uidaho.edu/~media/Files/Extension/Forestry/Fire/WUI/FireProtectBro2010final
A complete Firewise document that discusses a broad spectrum of topics starting with a plant list and including preventing loss of home and evacuation, if necessary.

Defensible Space Landscaping in the Urban/Wildland Interface: A compilation of fire performance ratings of residential landscape plants. 
http://cesutter.ucanr.edu/files/156934.pdf
A comprehensive reference source about plants, with citations.

Arizona Fire-resistant Plant List. 
http://www.cals.arizona.edu/pubs/natresources/az1289.html
A list of trees, shrubs and grasses.

Fire-Resistant Plants for Home Landscaping. 
https://catalog.extension.oregonstate.edu/pnw590
A list and description of plants for Oregon and Washington.

California Division of Fire – CDF, Cal Fire. www.fire.ca.gov

Ready for Wildfire CDF website. www.readyforwildfire.org

Idaho Firewise. www.idahofirewise.org

Washington State University extension service. www.extension.wsu.edu/

University of Nevada- Reno. https://www.unce.unr.edu/

Living with fire. www.livingwithfire.info

U.S. Forest Service. www.fs.fed.us

Bureau of Land Management. www.blm.gov

National Interagency Fire Center. www.nifc.gov


Fire adapted communities. www.fireadaptedcommunities.org

Fire-Resistant Plants for Oregon Home Landscapes. Fitzgerald, Stephen; Waldo, Amy Jo. OSU Extension Service. 
Firewise Plant Materials. Dennis, F.C. CSU Cooperative Extension Natural Resources No. 6.305.  
http://www.ext.colostate.edu/PUBS/NATRES/06305.html

Washington State Department of Natural Resources. https://washingtondnr.wordpress.com/category/wildfire/  
USDA Rocky Mountain Research Station. http://firelab.org


Fire education for landowners: Fuel reduction series. Information about fire behavior and fuels reduction methods from Oregon State University.  
http://www.cof.orst.edu/cof/extended/extserv/wildlandfire/woodlandowners.php

Let’s clear the air about outdoor burning. Washington State Dept. of Ecology Website.  


Chumstick Wildfire Stewardship Coalition. Example of an eastern Washington Firewise Community.  
http://www.chumstickcoalition.org/

Tolt Firewise. An example of a western Washington Firewise community.  

University of Idaho Extension Forestry. http://www.uidaho.edu/extension/forestry

Literature Referenced


Choosing the Right Plants for Northern Nevada’s High Fire Hazard Areas.  

Fire resistance of Plants Master Database & Placement of Species within Firewise Landscape Zones for Southern Idaho.  
http://idahofirewise.org/assets/library/Homeowner%20Information/Firewise%20Landscaping/Fire%20Resistance%20of%20Plants%20Master%20Database.pdf

Colorado State University.  
http://extension.colostate.edu/topic-areas/natural-resources/firewise-plant-materials-6-305/

Fire-resistant Plants for Home Landscapes.  
https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw590.pdf

USDA Plants Database: Washington Noxious and Invasive Plant List.  
http://plants.usda.gov/java/noxious?ptType=State&statefips=53

Chelan County Noxious Weed List.  
Forestry Images
https://www.forestryimages.org/


Arizona fire-resistant plant list. Good list of trees, shrubs and Grasses.
http://www.cals.arizona.edu/pubs/natresources/az1289.html

Protecting and Landscaping Homes in the Wildland/Urban Interface.
https://www.uidaho.edu/extension/forestry/topic/fire

National Resource Conservation Service (NRCS).
https://plants.usda.gov/factsheet/pdf/fs_elwa2.pdf

Marin County Firesafe Council. www.Firesafemarin.org

Fire-resistant Plants for Ashland Oregon. www.ashland.or.us


Acknowledgements

The information and photos in this publication have been gathered from numerous sources, all of which are listed in the literature-referenced section. This publication lists only fire-resistant plants that are in other Firewise documents. Master Gardener volunteers did not perform any empirical research, but only compiled existing information about plants that are likely to thrive in Chelan and Douglas counties, Washington. We wish to thank those who “went before us” in researching and gathering this valuable information.

Plant availability

If you are unable to find a fire-resistant plant at a local nursery, you can contact the Washington State University (WSU) Chelan/Douglas Counties Master Gardeners Plant Diagnostic Clinic at (509) 667-6540 for assistance in finding a nursery that might carry the plant.

Special Thanks to:

Washington State University (WSU) Chelan/Douglas County Master Gardener volunteers
Washington State University (WSU) Extension staff
Washington State Department of Natural Resources
Cascadia Conservation District

Washington State University (WSU) Master Gardeners

WSU Master Gardeners are university-trained community volunteers who provide research-based, sustainable landscape education to communities across Washington State. Volunteers teach about environmental stewardship through providing information about best gardening practices for the goal of protecting natural resources in a sustainable manner.
Glossary of Terms

Annual Plant – A plant that completes its life cycle in one growing season.

Aspect – Cardinal direction toward which a slope faces.

Climate – The prevalent or characteristic meteorological conditions of any place or region and their extremes.

Deciduous Shrub – A woody, generally multi-stemmed plant that loses its leaves and becomes dormant during the winter.

Deciduous Tree – A tree that sheds its leaves at the end of a growing season and regrows them at the beginning of the next growing season. Most deciduous trees bear flowers and have woody stems and broad, rather than needle-like, leaves.

Drought – A period of relatively long duration with substantially below-normal precipitation, usually occurring over a large area.

Duff – The layer of decomposing organic materials below the litter layer of freshly fallen twigs, needles, and leaves and immediately above the mineral soil.

Ecosystem – An interacting natural system including all the component organisms together with the abiotic environment and processes affecting them.

Environment – The complex surroundings of an item or area of interest such as air, water, natural resources, and their physical conditions (temperature, humidity).

Evaporation – The transformation of a liquid to its gaseous state; heat is released by the liquid during this process.

Evergreen shrub – A woody, multi-stemmed shrub that retains its leaves throughout the year.

Fine Fuels – Fast-drying dead or live fuels, generally characterized by a comparatively high surface area-to-volume ratio, which are less than 1/4-inch in diameter and have a timelag of one hour or less. These fuels (grass, leaves, needles, etc.) ignite readily and are consumed rapidly by fire when dry.

Fire Frequency – A general term referring to the recurrence of fire in a given area over time.

Fire Hazard – A fuel complex, defined by volume, type condition, arrangement, and location, that determines the degree of ease of ignition and of resistance to control.

Fire Interval – The number of years between two successive fire events for a given area; also referred to as fire-free interval or fire-return interval.

Fire Risk – The chance of fire starting as determined by the presence and activity of causative agents.

Firebrand – Any source of heat, natural or human-made, capable of igniting wildland fuels. Flaming or glowing fuel particles that can be carried naturally by wind, convection currents, or by gravity into unburned fuels.

Fire – Rapid oxidation, usually with the evolution of heat, fuel, oxygen and the interaction of the three.

Firewise – A national program that emphasizes community involvement and provides important information for residents to reduce the risk of wildland fire igniting homes.

Fuelbreak – A natural or manmade change in fuel characteristics which affects fire behavior so that fires burning into them can be more readily controlled.

Fuel – Any combustible material, especially wildland fuels.

Groundcover Plant – A low-growing or trailing group of plants usually used to cover bare earth and create a uniform appearance.

Hazard Fuel – A fuel complex defined by kind, arrangement, volume, condition, and location that presents a threat of ignition and resistance to control.

Hazard Reduction – Any treatment of living and dead fuels that reduces the potential spread or consequences of fire.

Hazard – Any real or potential condition that can cause injury, illness or death of personnel, or damage to, or loss of equipment or property.

Heat Zone – The American Horticultural Society (AHS) developed the Heat Zone Map, which parallels the USDA Hardiness Zone Map. This map is based on the number of "heat days" experienced in an area. A heat day is defined as a day in which the temperature climbs to over 86 degrees F. At this temperature, many plants begin to experience physiological damage and start to shut down. Heat Zones range from 1 (no heat days) to 12 (210 or more heat days).
Herbaceous Perennial – A plant with soft, rather than woody, tissues. Perennials die back to the ground each year but their roots remain alive and send up new top growth each spring.

Home Assessment – Evaluation of a dwelling and its immediate surrounding to determine its potential to escape damage by an approaching wildland fire. Includes the fuels and vegetation in the yard and adjacent to the structure, roof environment, decking and siding materials, prevailing winds, topography, fire history, etc., with the intent of mitigating fire hazards and risks.

Invasive Plant – A plant that is both non-native and able to establish on many sites, grow quickly, and spread to the point of disrupting plant communities or ecosystems.

Ladder Fuels – Fuels which provide vertical continuity between strata, thereby allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

Landowner – The person or entity that owns the land or has the authority to convey title to others.

Limbing – Removing branches from a standing tree or shrub.

Live Fuel Moisture Content – Ratio of the amount of water to the amount of dry plant material in living plants.

Live Fuels – Living plants such as trees, grasses, and shrubs in which the seasonal moisture content cycle is controlled largely by internal physiological mechanisms, rather than by external weather influences.

Live Herbaceous Moisture Content – Ratio of the amount of water to the amount of dry plant material in herbaceous plants (i.e., grasses and forbs).

Live Woody Moisture Content – Ratio of the amount of water to the amount of dry plant material in shrubs.

Maintenance – The work of keeping something in proper condition, care or upkeep including taking steps to avoid something breaking down (preventative maintenance) and bringing something back to working order (corrective maintenance).

Native Species – A species which is a part of the original fauna or flora of the area in question.

Natural Barrier – Any area where lack of flammable material obstructs the spread of wildfires.

Non-turf grass – A grass that is generally not used in the formation of a lawn or in a continuous mat of grass. Often referred to as conservations grasses.

Noxious Weed – An invasive species of a plant which is designated as harmful to agricultural crops, ecosystems, or humans or livestock.

Probability of Ignition – The chance that a firebrand will cause an ignition when it lands on receptive fuels.

Risk – The chance of fire starting as determined by the presence and activity of causative agents. A chance of suffering harm or loss. A causative agent such as ignition source.

Shrub – A woody perennial plant differing from a perennial herb by its persistent and woody stem, and from a tree by its low stature and habit of branching from the base.

Slope Percent – The ratio between the amount of vertical rise of a slope and horizontal distance as expressed in a percent. One hundred feet of rise to 100 feet of horizontal distance equals 100 percent.

Spot Fire – Fire ignited outside the perimeter of the main fire by a firebrand.

Structure – A constructed object, usually a free-standing building above ground.

Tree – A woody perennial plant, typically having a single stem or trunk growing to a considerable height and bearing lateral branches at some distance from the ground.

Vine – A plant having a long, slender stem that trails or creeps on the ground or climbs by winding itself about a support or holding fast with tendrils or claspers.

Volatiles – Readily vaporized organic materials which, when mixed with oxygen, are easily ignited.

Wildland Fire – Any non-structure fire that occurs in vegetation or natural fuels. Wildland fire includes prescribed fire and wildfire.

Wildland Urban Interface (WUI) - The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Describes an area within or adjacent to private and public property where mitigation actions can prevent damage or loss from wildfire.

Wildland – An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities. Structures, if any, are widely scattered.
### Groundcovers
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
</tr>
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<tbody>
<tr>
<td>Aegopodium podagraria</td>
<td>Bishop's weed</td>
</tr>
<tr>
<td>Ajuga reptans</td>
<td>Carpet bugleweed</td>
</tr>
<tr>
<td>Antennaria dioica</td>
<td>Rubra pvisoyses</td>
</tr>
<tr>
<td>Antennaria microphylla</td>
<td>Little-leaf pvisoyses</td>
</tr>
<tr>
<td>Antennaria parvifolia</td>
<td>Small-leaf pvisoyses</td>
</tr>
<tr>
<td>Arabis species &amp; cultivars</td>
<td>Rockcress</td>
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<tr>
<td>Arctostaphylos uva-ursi</td>
<td>Kinnicknick</td>
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<tr>
<td>Artemisia schidiana ‘Silvermound’</td>
<td>Silver mound artemisia</td>
</tr>
<tr>
<td>Artemisia caucasica</td>
<td>Silver spreader</td>
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<tr>
<td>Artemisia stelleriana</td>
<td>Silver brocade</td>
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<td>Artemisia viridis</td>
<td>Creeping artemisia</td>
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<td>Aubrieta deltoida</td>
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<td>Aubrieta species &amp; cultivars</td>
<td>False rockcress</td>
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<tr>
<td>Bellium minutum</td>
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<td>Callirhoe involucrata</td>
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<td>Campanula poscharskyana</td>
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<td>Campanula carpatica</td>
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<td>Snow-in-summer</td>
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<td>Ceratostigma plumaginoides</td>
<td>Hardy plumbago</td>
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<td>Lily-of-the-valley</td>
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<tr>
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<tr>
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<td>White eyed ice plant</td>
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<tr>
<td>Delosperma cooperi</td>
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<td>Delosperma cooperi</td>
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<tr>
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<td>Saponaria ocymoides</td>
<td>Bouncing bett</td>
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<tr>
<td>Saponaria x lempergii ‘Max Frei’</td>
<td>Giant flowered soapwort</td>
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<tr>
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<tr>
<td>Sedum rupestre</td>
<td>Stonecrop</td>
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<tr>
<td>Sedum sitchense</td>
<td>Creeping stonecrop</td>
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<tr>
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<td>October Daphne stonecrop</td>
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<tr>
<td>Sedum spathulifolium &amp; cultivars</td>
<td>Stonecrop</td>
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<td>Speedwell</td>
</tr>
<tr>
<td>Veronica altissima</td>
<td>Speedwell</td>
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<tr>
<td>Veronica gentianoides</td>
<td>Gentian speedwell</td>
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<tr>
<td>Veronica peckii</td>
<td>Wooly speedwell</td>
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<tr>
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<td>Creeping veronica</td>
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<tr>
<td>Veronica rupestris</td>
<td>Prostrate speedwell</td>
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<td>Lady’s mantle</td>
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<td>Chives/Onion</td>
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<td>Anemone blanda species</td>
<td>Windflower</td>
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<td>Aquilegia species</td>
<td>Columbine</td>
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<td>Armeria maritima</td>
<td>Sea thrift</td>
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<tr>
<td>Asclepias species</td>
<td>Milkweed</td>
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<tr>
<td>Aster species</td>
<td>Aster</td>
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<td>Aurinia saxatilis</td>
<td>Basket-of-gold</td>
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<tr>
<td>Baptisia species</td>
<td>False indigo</td>
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<tr>
<td>Bergenia cordifolia &amp; cultivars</td>
<td>Pig squeak</td>
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<td>Campanula species &amp; cultivars</td>
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<tr>
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<td>Delphinium</td>
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<td>Erigeron species</td>
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<tr>
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<tr>
<td>Geranium species</td>
<td>Lavender</td>
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<tr>
<td>Guernica trilobum</td>
<td>Shasta daisy</td>
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<td>Hesperocallis cultivars</td>
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<td>Hosta species &amp; cultivars</td>
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<td>Oriental poppy</td>
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<td>Polemonium species</td>
<td>Jacob’s ladder</td>
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<tr>
<td>Ratibida columnifera</td>
<td>Prairie conflower</td>
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<td>Rudbeckia fulgida</td>
<td>Black-eyed Susan</td>
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<tr>
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<tr>
<td>Veronica prostrata, longifolia, spicata</td>
<td>Speedwell</td>
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<tr>
<td>Yucca filamentosa</td>
<td>Adam’s needle</td>
</tr>
<tr>
<td>Zauschneria garrettii ‘Orange Carpet’</td>
<td>Creeping hummingbird carpet</td>
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<td>Kiwi vine</td>
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<tr>
<td>Akebia quinata</td>
<td>Chocolate vine</td>
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<tr>
<td>Bignonia capreolata</td>
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<tr>
<td>Campsis radicans</td>
<td>Trumpet vine</td>
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<td>Campsis x tagliabuana ‘Madame Galen’</td>
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<td>Clematis</td>
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<tr>
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<td>Lonicera sempervirens ‘Magnifica’</td>
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Corylus cornuta
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Hibiscus syriacus
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Philadelphus hybrid species
Rhus glabra
Rosa hybrid
Rosa woodsii
Spiraea balmal ‘Balmalda’
Spiraea japonica ‘Goldmound’
Syringa species
Rhamnus frangula ‘Columnaris’
Rhamnus frangula ‘Aspelenifolia’
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Viburnum opulus ‘Compactus’
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Cratoxylum species
Cotoneaster species
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Daphne x burkwoodii ‘Carole Mackie’
Daphne species
Euonymus x fortunei
Lonicera x delavayi
Mahonia aquifolium
Mahonia repens
Paxistima myrtifolia
Potentilla fruticosa
Prunus laurocerasus
Prunus laurocerasus ‘Otto Luyken’
Pyracantha angustifolia ‘Gnome’
Pyracantha species & cultivars
Rhamnus cathartica
Rhamnus species & cultivars
Viburnum x burkwoodii cultivars and varieties
Viburnum species & hybrids
Yucca glauca
Yucca filamentosa

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Festuca arundinacea
Festuca ovina
Poa secunda
Poa secunda ‘Mountain Home’
Poa pratensis
Psuedoagrostis cristatum
Koelenia glauca
Koelenia maccanthes
Sporobolus cryptandrus
Nassella tenuissima
Carex species & cultivars
Psuedoagrostis spicata
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Acer saccharum ‘green mountain’
Acer Saccharum
Acer negundo
Acer negundo ‘Sensation’
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