WASHINGTON STATE UNIVERSITY
CHELAN COUNTY EXTENSION

Firewise Landscaping Plant Materials

Firewise Landscape

A landscape design plan that reduces a home's vulnerability to wildfire is called *Firewise Landscaping*. Good plant selection, proper placement and maintenance help diminish possible fire ignition, lower fire intensity and reduce the capability for fire to spread.

In North Central Washington, urban/wildland interface fires are becoming more of a problem as people choose to live in previously undeveloped areas on the edges of cities. These areas are often surrounded by trees, shrubs, and grasses that can be very flammable.

If your home is located in the urban/wildland interface, you should consider the location, spacing and potential flammability of the plants within your home landscape and surrounding area.

Recent fires – such as the Wenatchee Complex Fire, and the extensive fires around the region over the last decade are reminders that we live in an area where fire is a natural part of the landscape.

Homeowners should plan and take steps to minimize or reduce the fuel and fire hazard around their homes. This includes using low flammable plant, proper spacing of trees and shrubs, and keeping the landscape lean, clean, and green.

A wide selection of trees, shrubs, and other plants are available which are both attractive and fit Firewise landscape principles (Table 1).

Badger Mountain Fire 2008. Photo Credit Debbie Robinson/DNR

What are fire-resistant plants?

Fire-resistant plants are plants that don't easily ignite from a flame or other ignition sources. The plant foliage and stems do not contribute significantly to the fuel potential and fire intensity although Firewise plants can be damaged and even killed by fires.

Firewise plants materials have the following characteristics:

- **Leaves are moist and supple**
- **Plants have an open, loose branching habit with little dead wood and tend not to accumulate dry, dead material within the plant.**
- **Sap is water-like and does not have a strong odor.**

Highly Flammable Plants

Highly flammable plants have these characteristics in common:

- Contain fine, dry or dead material such as twigs, needles and leaves within the plant
- Leaves, stems and twigs contain volatile waxes, oils, or terpenes (naturally occurring compounds found in the cells of certain plants).
- Leaves are aromatic (strong odor when crushed)
- Sap is gummy, resinous and/or has a strong odor.
- Plant has loose or papery bark.

Avoid planting highly flammable plants around your home. Reconsider plantings of this kind that are already in place. They should not be bunched together particularly at home entry locations. Replace these plants with less flammable ones. **It is important to remember that even fire-resistant plants can burn, especially if they are not maintained in a healthy condition.**

<u>Highly Flammable Plants</u>

- Yew
- Junipers
- Arborvitae
- Leyland cypress
- Bitterbrush
- Sagebrush
- Conifers in general

Juniper species are highly flammable

Fire Safety Through Design

Most people do not view plants on their property in terms of fire danger. Under wildfire conditions vegetation adjacent to homes can influence the survival capability of these homes. Therefore, a fire break – a clearance area that avoids flammable materials – around your home creates what is called *defensible space*. Defensible space varies due to the type of vegetation growing near the house and the surrounding vegetation and very importantly, the slope of the land.

A minimum of a 30 foot buffer reduces the chance of wildfire from spreading to your home on fairly level ground. On more sloping ground as much as 100 feet of clearance may be necessary.

Other landscape design elements that can strengthen defensible space include:

- Effective use of greenery such as lawns, conservation grasses, clover, and bulbs
- Non-combustible materials such as rock, brick, concrete, etc.

Table 1.

FIREWISE PLANTS

Ground Covers

Common Name	**Scientific Name**
Carpet Bugleweed	*Ajuga reptans*
Kinnikinnick	*Arctostaphylos uva-ursi*
Mock Strawberry	*Dechesnea indica*
Hens and Chicks	*Echeveria species*
Snow-in-Summer	*Cerastium tomentosum*
Yellow Ice plant	*Delosperma nubigenum*
Japanese Pachysandra	*Pachysandra terminalis*
Creeping Phlox	*Phlox subulata*
Creeping Thyme	*Thymus praecox*
Sedum or Stonecrops	*Sedum species*
Periwinkle	*Vinca minor*
Epimedium	*Epimedium x discolor*

Perennials

Common Name	**Scientific Name**
Yarrow	*Achillea species*
Sea thrift	*Armeria maritime*

Astilbe	*Astilbe cultivars*
Basket-of-gold	*Aurinia saxatilis*
Heartleaf bergenia	*Bergnia cordifolia*
Sun rose	*Helianthemum nummularium*
Sedges	*Carex species*
Ostrich fern	*Matteuccia struthiopteris*
Daylilies	*Hemorocallis hybrids*
Coreopsis	*Coreopsis species*
Campanulas	*Campanula species*
Coral bells	*Heuchera species*
Hosta lilies	*Hosta species*
Cranesbill	*Geranium species*
Red-hot poker	*Kniphofia uvuria*
Evening primrose	*Oenothera missouriensis*
Penstemon	*Penstemon species*
Lupine	*Lupinus species*
Leopard plant	*Ligularia dentata*
Lamb’s ear	*Stachys byzantina*
Columbine	*Aquilegia species*
Iris sp.	*Iris hybrids*
Blanket flower	*Gaillardia varieties*
Yucca	*Yucca species*
Oriental poppy	*Papaver orientale*

Shrubs & Vines

Common Name	**Scientific Name**
Red-osier dogwood	*Cornus stolonifera*
Cotoneaster	*Cotoneaster species*
Creeping Oregon grape	*Mahonia repens*
Rock daphne	*Daphne cneorum*
Oregon boxwood	*Pachystima myrsinites*
Tall Oregon Grape	*Mahonia aquifolium*
Burning bush	*Euonymus alatus*
Rose-of-sharon	*Hibiscus syriacus*
Oceanspray	*Holodiscus discolor*
Mock orange	*Philadelphus species*
Sumac	*Rhus species*
Currant	*Ribes species*
Hardy shrub rose	*Rosa species*
Spirea	*Spiraea species*
Snowberry	*Symphoricarpos albus*
Lilac	*Syringa species*
Cranberry bush	*Viburnum trilobum*
Vine maple	*Acer circinatum*
Serviceberry	*Amelancier alnifolia*
Weigela	*Weigla florida*

Blue mist spirea	*Caryopteris x clandonensis*
Honeysuckle	*Lonicera species*
Russian sage	*Perovskia atriplicifolia*
Rhododendron or azalea	*Rhododendron species*
Fernleaf buckthorn	*Rhamnus frangula* ‘Asplenifolia’
Viburnum	*Viburnum species*

Trees - Conifer

Common Names	**Scientific Name**
Western larch	*Larix occidentalis*
Ponderosa pine	*Pinus ponderosa*
Lodgepole pine (Foliage moderately resistant to fire)	*Pinus contorta var. latifolia*

Trees – Deciduous Broadleaf

Common Name	**Scientific Name**
Big leaf maple	*Acer macrophyllum*
Amur maple	*Acer ginnala*
Norway maples	*Acer platanoides*
Red maples	*Acer rubrum*

Horse chestnut	*Aesculus hippocastanum*
Mountain alder*	*Aluns tenuifloia*
Birch	*Betula speices*
Western catalpa	*Catalpa speciosa*
Common hackberry	*Celtis occidentalis*
Eastern redbud	*Cercis Canadensis*
Flowering dogwood	*Cornus florida*
Hawthorn*	*Crataegus species*
Beech	*Fagus species*
Ash	*Fraxinus species*
Honeylocust cultivars	*Gleditisia triancanthos var. inermis*
Kentucky coffee tree	*Cymnocladus dioica*
Walnut	*Juglans species*
American sweetgum	*Liquidambar styraciflua*
Crabapple*	*Malus species*
Aspen/Cottonwood*	*Populus species*
Flowering cherry	*Prunus species*
Chokecherry	*Prunus virginiana cvs*
Bur oak	*Quercus macrocarpa*
Pin oak	*Quercus palustris*
Northern red oak	*Quercus rubra*
White oak	*Quercus albe*
English oak	*Quercus robur*

Purple Robe locust	*Robinia pseudoacacia* 'Purple Robe'
Willow*	*Salix species*
European mountain ash	*Sorbus aucuparia*
* *Pest-prone plants.* By Paula Dinius, Urban Horticulturist/Certified Arborist, WSU Chelan County Extension, 400 Washington St., Wenatchee, WA 98801.	

Source information: Fire-Resistant Plants for Oregon Home Landscapes, Stephen Fitzgerld and Amy Jo Waldo, OSU Extension Service; UC Extension Hortscript, 1996, No. 18; Living With Fire: A guide For The Homeowner, PNW Wildfire Coordinating Group; FireSafe Spokane.

Other Resources

FireWise Plant Materials www.ext.colostate.edu/pubs/natres/06305.htm
Fire-Resistant Plants for Oregon Home Landscapes
http://extension.oregonstate.edu/deschures/FireResPlants02.pdf
Firewise Plants for Utah www.utahfireinfo.gov/prevention/firewiseplants.pdf
Virginia Firescapes Firewise Landscaping for Woodland Homes
www.ext.vt.edu/pubs/turf/430-300/430-300.html

Paula Dinius, Urban Horticulturist WSU Chelan County Extension. Firescape Plant Materials for North Central Washington, Up-date 10/2012.