Preparing for Wildfires
Marlene Finley
WSU Extension Skagit County Master Gardener

Despite its wet reputation, Western Washington is not immune to wildfires, especially during dry years. Defensible space around your home, that is landscapes where potential fuels have been removed or modified to prevent the spread of fire, are encouraged and even required in areas throughout the west. Vents, eves and gutters should be free of leaves or other debris, areas under decks should be clear of flammables, and no plants or flammables within 5 feet of your home. The first 5 feet are the most important! Trees overhanging roofs can be problematic in the event of wildfire. These are just a few practices you can take to be prepared this fire season.

Sweet Creek Milepost 2 Fire, Oregon Department pf Forestry, photo by Marcus Kauffman

There are steps you can take in your garden that will reduce the risk of loss in the case of wildfire.

As gardeners, we are keen observers, taking notice of the slightest changes in our gardens and surrounding natural areas. We tend to be a curious lot and as a result, tend to be good problem solvers.

The Washington State Climate Summary 2019 reported that the climate in Washington has increased 1.5 degrees F over the last 20 years. This climate summary goes on to make 3 dire predictions. First, historically unprecedented warming is projected through the century. Second, warming temperatures will lead to earlier melting of snowpacks which are critical for spring and summer water supplies. In addition, more precipitation will be in the form of rain instead of snow, which could lead to flooding. Lastly, more wildfires are predicted during dry summer months. These fires are forecasted to occur more frequently and with greater severity. Climate change is expected to cause additional forest mortality and long-term transformation of forested landscapes across the Northwest by increasing wildfire, insect outbreaks, tree diseases and drought stress. (source: University of Washington Climate Impacts Group)

Considering these trends and predictions, there are plant choices and gardening practices that will help keep your treasured landscape resilient and thriving under threat of wildfire and a changing climate.

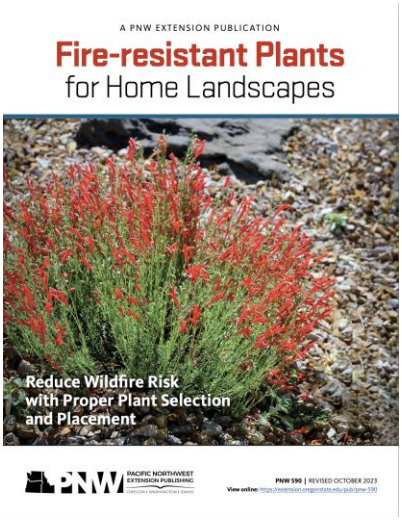
First, **clean** your gutters of debris and make sure your roof is clear of leaves and moss. Many of the large, catastrophic fires in the west in recent years were fueled by warm, dry and in many cases extreme wind, blowing hot embers sometimes a mile in advance of the fireline. These embers catch fire in dry leaves in gutters and unscreened attic vents, eves and soffits. Install 1/8 inch metal mesh screening to block embers. Never store flammable materials underneath elevated decks or porches (for example firewood) and clean dead vegetation from between deck boards and under deck. San Juan Islands Conservation District schedules free, customized homeowner assistance on reducing the threat of wildfire, as well as providing helpful information specific to our area on their website.

In the case of blowing embers, the first 5 feet from the foundation of the house are the most important. This zone immediate to the house should have a non-combustible surface which means no plants and a noncombustible surface of hardscape, rocks or bare soil.

Second, **healthy plants** tend to be more resilient to swings in temperature and moisture. Choosing plants to fit the specific conditions in your garden, considering soil, moisture, amount of sun, exposure and other good gardening factors will help create a resilient garden.

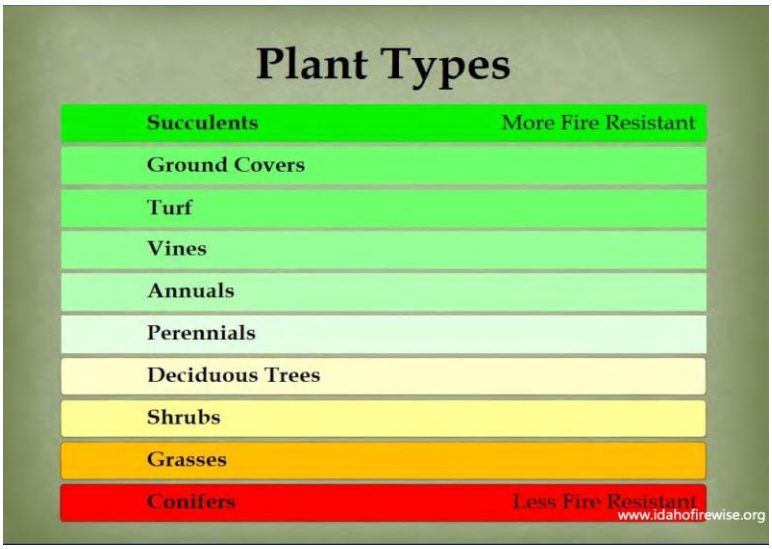
Let's Talk Plants - Get the List!

Washington State University/Oregon State University/University of Idaho produced an excellent, updated publication on Fire-Resistant Plants for Home Landscapes, which includes photos and a list of many plants which tend to be less flammable. https://extension.oregonstate.edu/catalog/pub/pnw-590-fire-resistant-plants-home-landscapes



In general, **good choices** for firewise gardens include plants that have**:**

1. higher moisture content in their leaves
2. little build up of dead vegetation
3. resistance to drought
4. low, compact growth form
5. leaves that will not catch and hold embers

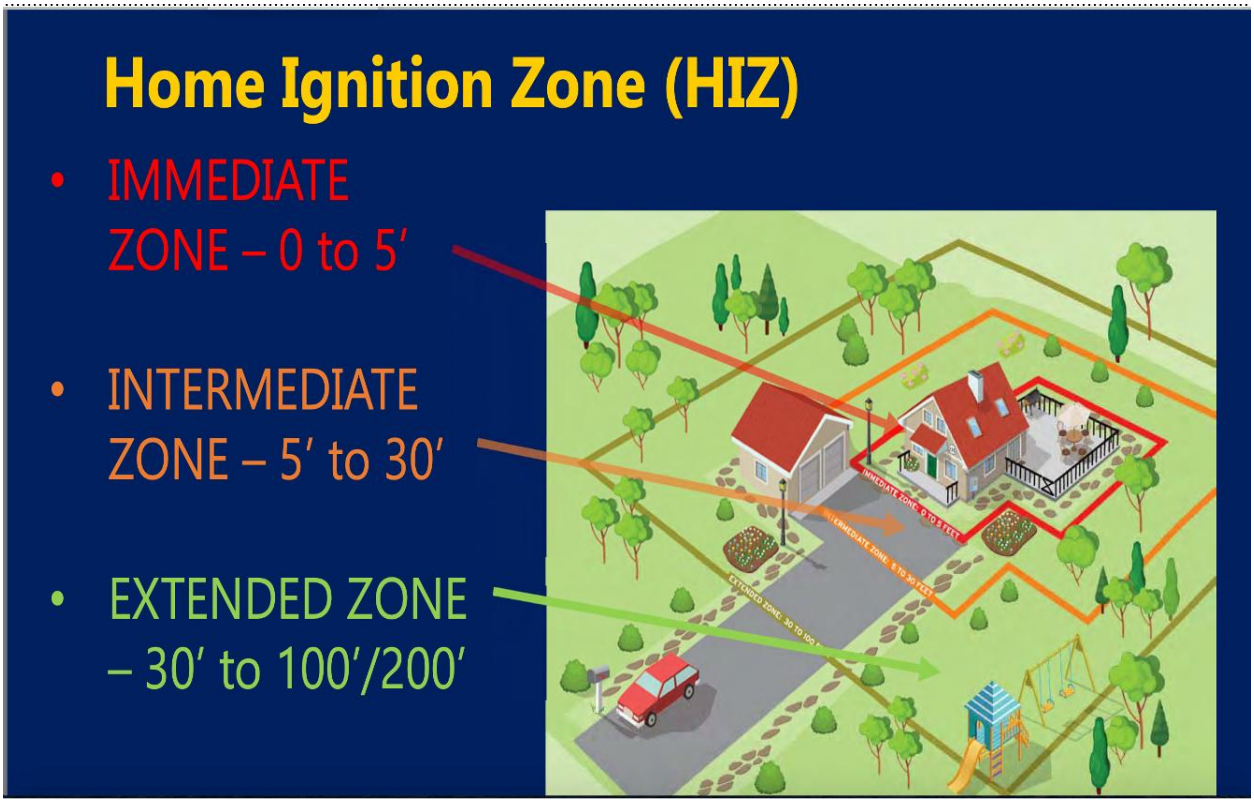


Consider groupings of plants and introduce more diversity of species or varieties to assure more vitality. A well-designed plant community tends to be more drought tolerant and insulating to extreme changes. Native plants often make good choices. Both Conservation Districts and the local chapters of the Washington Native Plant Society hold regular native plant sales and can advise you of good choices for resilient, firewise plants. During the Master Gardener spring plant sale, we recommend groupings of plants that grow well together, both aesthetically and ecologically.

In addition to choosing the right plant for the right place, **watering** plants during extended dry spells, is critical. Even drought resistant plants need water, especially in the first year or two after planting as roots become established. Drip irrigation, delivering just the right amount of water at the right intervals can help conserve water during dry months.

Creating Defensible Space

Third, create your defensible space. Fire professionals often talk about maintaining defensible space within a 100 to 200 feet of your home. This is the area where you modify the landscaping to give your house the best chance to survive on its own—greatly improving the odds for firefighters who are defending your neighborhood. If your home is on a slope or subject to high winds, extend the distance of this zone to the area your fire department recommends. Separate shrubs (grow in clumps with spaces of at least 10 feet between clumps), limb up trees, and use hardscaping such as rock, stone pathways and concrete to break up fuels.



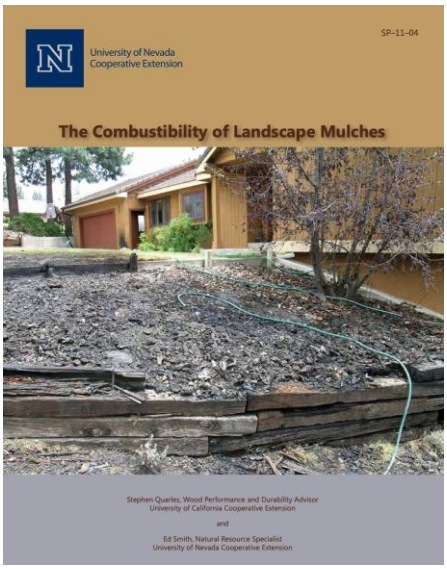
(Courtesy of Skagit Conservation District) Nearest to the home: hardscape, low growing, wet loving plants. Anything flammable (deck, connected wooden fence) will carry fire to the home structure From 5' to 30' only individual trees or shrubs, well maintained, pruned up. No dead, dry leaves, needles or branches. No flammable mulch near foundation.

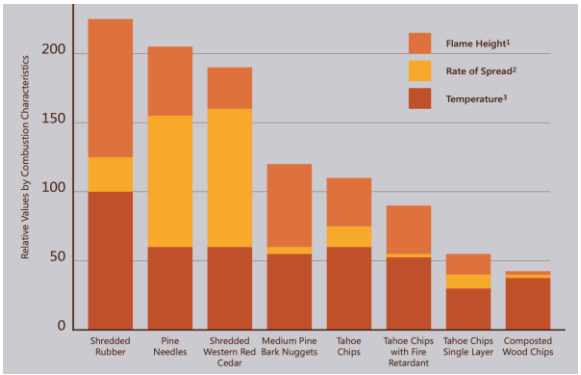
Beyond the inflammable hardscape, **groundcovers such as succulents** and even a narrow band of turf grass can be invaluable. Keep grass near your home (both turf and natural meadows) watered, if possible, and mowed during fire season to no more than 4 inches. Check the list of fire-resistant recommended plants in the publication cited above for best choices of plants and grass to grow from 0 to 30 feet from your foundation.

Pruning plants to reduce dead and dying limbs and leaves is critical. While no plants are completely fire resistant, chances of surviving and slowing the spread of fire are better when there is less flammable material on the ground and within plants and trees. You may wonder "why remove dead leaves when we know they create habitat for beneficial insects and wildlife?" Removing flammables during fire season, within the ignition zone of your home will better your chances for survival and keeping your home. Removing ladder fuels (vegetation under trees) prevents fires from reaching the crowns of trees. Prune trees at least 6 to 10 feet from the ground; for shorter trees, do not trim more than 1/3 of the overall tree height. Trees overhanging roofs and structures can be problematic and should be trimmed back, in fact, there should be no trees and or shrubs within the first 0-5 feet of the foundation and few scattered trees or shrubs within 5 feet to 30 feet of the structure.

What About Mulch?

Mulch helps to retain soil moisture over the summer and insulate in winter and can be used beyond 5 feet from the foundation. **Do not use flammable mulches or groundcovers within 5 feet of your foundation**. The University of Nevada Cooperative Extension conducted a study on the flammability of certain mulches.





While the University of Nevada study showed best results for “composted” wood chips, WSU scientist, Dr. Linda Chalker-Scott, recommends using fresh arborist chips because valuable nutrients are lost during composting.

(source: Making Your Landscape Fire Resistant During Wildfire Season, The Garden Professors 2009)

Conclusion

- **Maintenance** – clean gutters and roof, no flammables against house or under deck.
- **Prune** out deadwood and debris, **clean up** pine needles, leaves, twigs
- Landscape according to **Fire Ignition Zones: 5 feet, 30 feet, 100 feet. The first 5 feet is the most important!**
- Maintain **defensible spac**e and create fuel breaks
- No plants are completely fire resistant. **Healthy plants** are fire safe
- Keep **moisture** in the soil during hot, dry spells with drip irrigation, groundcovers, compost and mulch.

The news on climate change is devastating. Scientists provide predictions for the future as well as recommendations regarding plants and garden practices that can slow the effects of climate change as well as provide thriving, functioning landscapes that will persist through the immediate changes while slowing the spread of wildfire. These are just a few ideas for the curious gardeners, the conscientious caretakers of backyards and natural areas.

Resources

Audubon Native Plants by zip code. https://www.audubon.org/native-plants

Chalker-Scott, Linda. "The Myth of Pretty Mulch" in Horticultural Myths. Washington State University Extension. https://puyallup.wsu.edu/lcs/

Drought Conditions by state and county (website from NOAA). Drought.gov

Freehomerisk.com. Insurance related risk assessment of your home.

Great Plant Picks for the Northwest. https://www.greatplantpicks.org

InciWeb provides up to date information on wildfires throughout the country. Not only can you research fire status in your area; you can also check travel routes and destinations. Inciweb.wildfire.gov

Firewise: Reducing Wildfire Risks. Firewise.org

Fire-Resistant Plants for Home Landscapes. Oregon State University Extension, PNW 590. https://extension.oregonstate.edu/catalog/pub/pnw-590-fire-resistant-plants-home-landscapes

The Garden Professors. Great resource and blog for gardening, including climatewise and firewise landscaping. Gardenprofessors.com

San Juan Islands Conservation District. Free, at home consultations on reducing wildfire risk. https://www.sanjuanislandscd.org/wildfire-preparedness

University of Washington Climate Impacts Group. https://cig.uw.edu/our-work/forests-fire/

Watch Duty App is a free, nonprofit app that features updated fire information, personalized alerts.

Marlene Finley, is a former wildland firefighter, retired forest manager and currently active Skagit County Master Gardener. (marlenefinley17@gmail.com)