Climate-Wise Gardening

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Gardening practices to make your landscape more resilient

Western red cedars are turning brown and dying, big leaf maple trees are declining, fruit trees are blooming at odd times, and native plants such as sword fern and salal appear parched. These are just a few signs of climate change we have witnessed over the last few years.

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.

Observing these changes is one thing, but what can we do to make our gardens more resilient to change? And, what can we do to slow or reduce the factors causing climate change?

The Washington State Climate Summary 2019 reported that the climate in Washington has increased 1.5 degrees F over the last twenty years. This climate summary goes on to make three 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.

Considering these trends and predictions, there are plant choices and gardening practices that will help keep your treasured landscape resilient and thriving through change.

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. The effects of rising temperatures on plants can be complicated to predict.

Different plants respond in different ways. Even so, look for plants that evolved in locations with similar patterns of wet winters and dry summers. This could mean introducing new plants to your garden, plants that typically grow in a slightly warmer or drier climate, such as drought tolerant plants. It is also important to consider plants that will thrive in wet winter soil.

Bioswales and rain gardens designed with species that thrive in wet conditions can be helpful in slowing runoff and filtering harmful toxins before stormwater enters rivers and sea. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

Consider groupings of plants and introduce more diversity of species or varieties. A well-designed plant community tends to be more drought tolerant and insulating to extreme changes. During the Master Gardener Plant Fair each spring, we recommend groupings of plants that grow well together, both aesthetically and ecologically.

Mulch is invaluable to retain soil moisture over the summer and insulate in winter. According to scientists at Washington State University, arborist chips are ideal for garden mulch. Keeping leaves covering the soil, just as a forest has a natural leaf mulch, is effective in retaining moisture while slowly returning nutrients to the soil. Drip irrigation, delivering just the right amount of water at the right intervals, can help conserve water during dry months.

With heavy precipitation predicted to occur over shorter periods of time (e.g., downpours and flooding) it is important to keep moisture in the soil. It is imperative to limit hardscape surfaces that shunt water. Instead of concrete, check out permeable alternatives such as rock or the variety of new greenscapes that help water percolate through the soil.

Bioswales and rain gardens designed with species that thrive in wet conditions can be helpful in slowing runoff and filtering harmful toxins before stormwater enters rivers and sea. Well-planned rain gardens can withstand periods of flooding as well as drought, and there are great resources here in Skagit County to help you plan these gardens.

Some native plants, such as this aster, are better suited for drought conditions. *Photo by Nancy Crowell / WSU Skagit County Extension Master Gardeners.*

Soil is effective in holding CO_2, keeping it out of the atmosphere. One way to keep the CO_2 in the soil, is to plant perennials instead of annuals. Annuals require more soil disturbance, releasing more CO_2 than perennials which remain in the soil and come back year after year. Every little action helps!

Lastly, fire-wise landscaping is taking hold as a palette of practices to create a landscape that can slow a wildfire or discourage ignition. Despite its wet reputation, Western Washington is not immune to wildfires, especially during these drier years. Defensible space around your home, which is landscapes where potential fuels have been removed or modified to prevent the spread of fire to the home, are being 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 plants growing near a home should have a low probability of catching fire. Trees overhanging roofs can be problematic in the event of wildfire. Oregon State University Publication 590 provides a list of "Fire Resistant Plants for Home Landscapes." There are excellent publications on fire-wise landscaping online and available through your Skagit County Master Gardeners.

The news on climate change is devastating. Scientists have provided 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. These are just a few ideas for the curious gardeners, the conscientious caretakers of backyards and natural areas.

RESOURCES:

- Chalker-Scott, Linda. The Myth of Pretty Mulch in Horticultural Myths. Washington State University Extension. https://puyallup.wsu.edu/lcs/
- Fire-Resistant Plants for Home Landscapes. Oregon State University Extension, PNW 590. https://catalogue.extension.oregonstate.edu>pnw590
- Rainscaping. Skagit County Conservation District. Web address skagitcd.org
- Washington State Climate Summaries 2019. https://statesummaries.ncics.org>chapter>wa