Drought-Tolerant Garden

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An approach for resource conservation

A successful garden is most likely one that takes advantage of what the site has to offer, especially its microclimate. After all, a garden is no more than a product of the interaction between the prevailing weather pattern and the physical environment—with or without our help as gardeners.

For example, a corner of the yard with sandy soil and an open terrain sloping toward the south will be sunny and dry. We might as well make it a drought-tolerant "garden room." Such purposeful approach gives the garden a stronger meaning and allows us to understand and connect to it.

Our climate in the Pacific Northwest is known for its wet winters and is unique across the rest of the world due to the summer drought. The water-logged soil over the winter often dries out before the summer even arrives. The soil in mid-September, after three months of little rain, can be as dry as the desert Southwest. Many introduced plants could become too drought-stressed to survive.

And the summer seems to become even longer each year, due to the global climate change. The use of a drought-tolerant approach is increasingly appealing and necessary. Xeriscape is the ecological approach to dry, water wise gardening.

A benefit of a drought-tolerant garden is its using water more sensibly, reducing the depletion of this precious natural resource. Many of us also consider a drought-tolerant garden synonymous to a low-maintenance garden. Less irrigation reduces the overgrowth and invites less weed growth. But unless careful forethought is given to its design and installation, low maintenance could be a myth and not an automatic result.

In particular, most drought-tolerant plants do not adapt well to prolonged soil moisture during our wet winters or when subjected to irrigation. Planting them in moist pockets increases maintenance needs stemming from pest pressures on weakened plants. Also, some introduced, exotic species may never establish. Use of well-adapted native plants is a better idea.

To increase the chance for success, learn from the land. It all begins with soil. Test the soil to determine its needs. The topsoil depths should be a minimum of 4 inches for turf and 8 inches for trees. If the native soil is compacted, the hardened layer should be broken up before the placement of topsoil and planting. A layer of organic mulch should cover the soil surface.

A low-maintenance, drought-tolerant garden provides for curb appeal. *Photo by Everett Chu / WSU Skagit County Master Gardeners.*

The selection criteria for the plants should include sun/shade preference and cold hardiness. The closer the setting is to the plant's natural environment, the better. Turf lawns, which require frequent irrigation to look their best, do not fit well in a drought-tolerant garden.

In general, a plant with small, slender and leathery leaves tends to be drought-tolerant. Many drought-tolerant plants have gray or silvery foliage surface to reflect sunlight. Some drought-tolerant plants can avoid the onslaught of a dry summer by dying back to bulbs or tubers. These plants from dry habitats typically flower early, giving colorful blooms to spring and early summer.

Many ornamental grasses are drought-tolerant. They contribute to a simpler style and contrast well with clump-forming gray foliage plants.

The introduced plants should be monitored for the first summer or two and watered as needed. Ideally, the plant selections and planting are made with "hydro zones" in mind – grouping together plants with similar moisture needs. Place low-water zones farther away from the house and high-water zones (such as turf grass) near the house.

If watering is needed, apply deeply but infrequently, to encourage plants to grow deeper roots and become more drought-tolerant. Fertilize conservatively and only with slow-release fertilizers, to prevent excessive growth flushes that are less drought-tolerant.

Some commonly-available drought-tolerant plants are listed below, grouped by their sizes, forms, and types.

Shrubs

*Arbutus unedo (*strawberry tree)
Caryopteris x dandonensis (blue beard)
Carpenteria californica (bush anemone)
Ceanothus (wild lilac)
*Cercis occidentalis (*western redbud)
Choisya ternata (Mexican orange)
Cistus (rock rose)
Cotinus coggygria (smoke bush)
Cotoneaster (bearberry)
Cytisus and Genista (broom)
Elaegnus pungens (silverberry)
Elaegnus umbellate (autumn olive)
Holodiscus discolor (ocean spray)
Juniperus spp. (juniper)
Lavendula (lavender)
Lavatera (tree mallow)
Mahonia aquifolium (Oregon grape)
Nandina domestica (heavenly bamboo)
Osmanthus
Phlomis fruticosa (Jerusalem sage)
Pyracantha (firethorn)
Rhamnus (buckthorn)
Rhus (sumac)
Ribes (currant)
Rosa rugosa (wild rose)
Rosmarinus officinalis (rosemary)
Rubus (bramble, t, salmonberry)
Salvia (sage)
Santolina chamaecyparissus (lavender cotton)
Senecio greyi (s)
Symphoricarpos (snowberry)
Teucurium (germander)
Viburnum tinus (laurustinus)

Perennials, Bulbs, Annuals

Acanthus mollis (bear's breeches)
Agastache (giant hyssop)
Armeria maritime (thrift, sea pink)
Artemisia (mugwort, wormwood)
Catanache caerulea (cupid's dart)
Centaurea (bachelor's button)
Centranthus rubber (Jupiter's beard)
Coreopsis (tickseed)
Cynara cardunculus (cardoon)
Eryngium (sea holly)
Euphorbia (spurge)
Gaura lindheimeri (wand flower)
Heuchera sanguinea (coral bells)
*Iris germanica (*bearded iris)
Muscari (grape hyacinth)
Narcissus (daffodil)
Nepeta (catmint)
Paeonia (peony)
Penstemon (beardtongue)
Perovskia atriplicifolia (Russian sage)
Salvia (sage)
Sedum (stonecrop), upright varieties
Tulipa (tulip)
Verbascum (mullein)
Verbena
Zauschneria cana (California fuchsia)
Zinnia grandiflora (zinnia)

Trees

Arbutus menziesii (madrone, madrona)
Calocedrus decurrens (incense cedar)
Cedrus (cedar)
Cupressus (cypress)
Elaegnus angustifolia (Russian olive)
Eucaliptus (gum, silver dollar tree)
Laurus nobilis (sweet bay)
Maclura pomifera (Osage orange)
Pinus (pine)
Prunus lusitanica (Portugal laurel)
Quercus (oak)
Robinia (locust)

Groundcover, Vine, Grass/Grass-like

Achillea (yarrow)
Agapanthus (lily of the Nile)
Allium (ornamental onion)
Arctostaphylos uva-ursi (kinnikinnick)
Delospermum (hardy ice plant)
Fragaria chiloensis (beach strawberry)
Helictotrichon sempervirens (blue oat grass)
Hypericum calycinum (St-John's wort)
Iberis sempervirens (candytuft)
Mahonia repens (creeping mahonia)
Oenothera (evening primrose)
Oreganum (ornamental oregano)
Phormium (New Zealand flax)
Sedum (stonecrop), spreading varieties
Sempervivum (hens and chicks)
Sisyrinchium idahoense bellum (blue-eyed grass)
Stachys byzantine (lamb's ears)
Stipa gigantean (giant feather grass)
Thymus (thyme)
Vinca minor (common periwinkle)
Yucca

RESOURCES:

- ***Sustainable Landscapes & Gardens: Good Science – Practical Application.*** Linda Chalker-Scott, author and editor, Washington State University. GFG Publishing. 2009.
- ***Gardens by Design: Expert Advice from the World's Leading Garden Designers.*** Noel Kingsbury. Timber Press. 2005.
- ***What Plant Where: The Creative Guide to Choosing the Best Plants for Every Area of Your Garden***. Roy Lancaster. DK Publishing. 1997.

Left: Drought-tolerant Thyme as ground cover (foreground) along a driveway. **Right:** A welcoming drought-tolerant lavender garden blooming in summer. *Photos by Everett Chu / WSU Skagit County Extension Master Gardeners.*