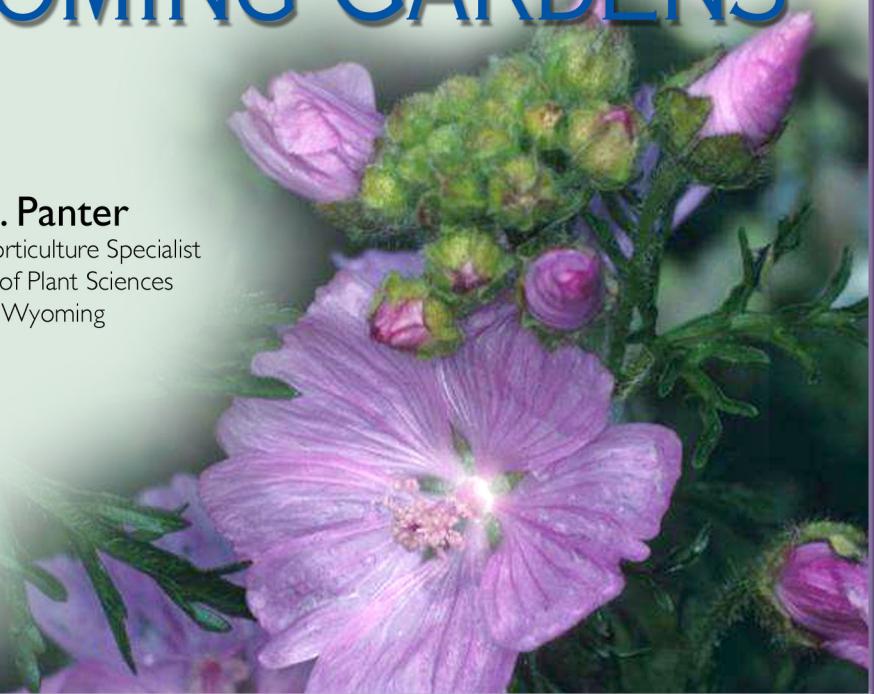


LANDSCAPING: WATER-WISE WYOMING GARDENS

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Watering restrictions in Wyoming are becoming more the norm than the exception.

Many areas in the state are high-elevation deserts, and some areas receive less than 10 inches of precipitation each year. This makes landscape water issues necessities rather than options.

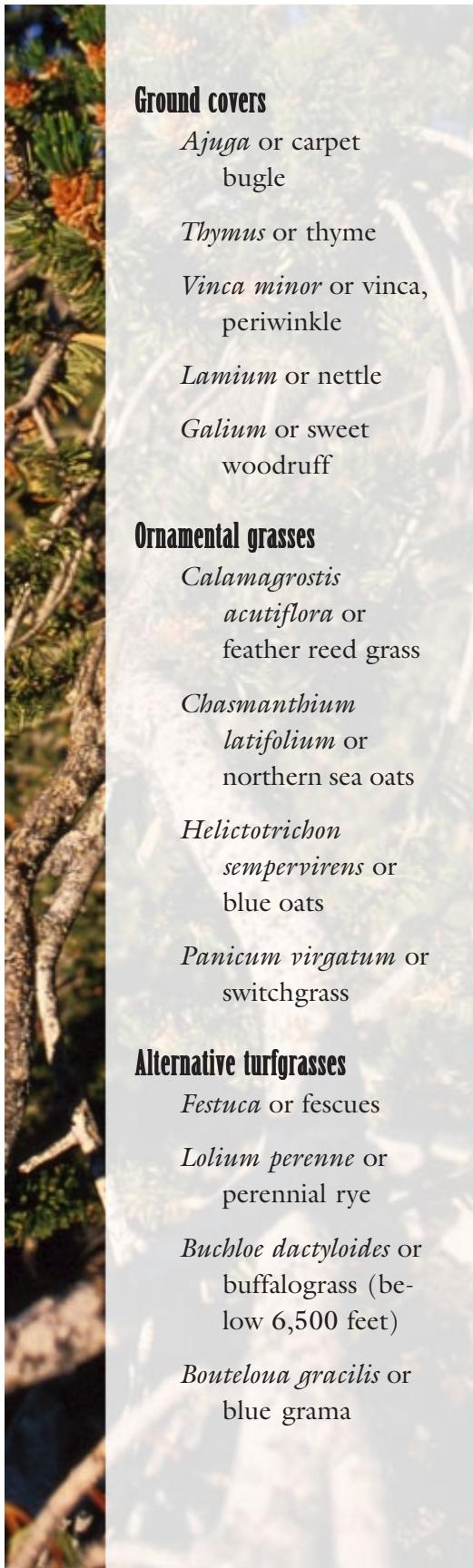
In the landscape there are all sorts of wonderful plant types from annuals to evergreens that do not require much water. For plants that require a bit more irrigation, there are watering systems and mulches available to keep water in the soil where plants need it.

Years ago, Denver Water coined the term “xeriscape” to denote landscaping with low-water-using plant material. (No, it is not pronounced “zeroscape.”) Unfortunately, many people think this means using gravel and cactus, but nothing could be farther from the truth. Others have used the term “water wise.” Either way, there is a definite process involved in landscaping to cut down on irrigation needs.

There are seven steps involved in setting up a water-wise landscape or xeriscape. These steps are, briefly: 1) developing a landscape plan, 2) reducing turf areas, 3) improving the soil, 4) selecting appropriate plants, 5) mulching the soil, 6) irrigating efficiently, and 7) maintaining properly. Always keep in mind that any new perennial plantings will require consistent moisture until they are established (usually two to three years, depending on the plant), especially during the winter.

STEP 1 – DEVELOPING A LANDSCAPE PLAN.

Spend some time planning and designing on paper. Analyze the site, taking into account existing structures, other plants, shade, sun, wind exposure, and neighbors. Then decide what areas are needed - turf area for kids, a vegetable garden, a center for entertaining, or a dog zone.



Ground covers

- Ajuga* or carpet bugle
- Thymus* or thyme
- Vinca minor* or vinca, periwinkle
- Lamium* or nettle
- Galium* or sweet woodruff

Ornamental grasses

- Calamagrostis acutiflora* or feather reed grass
- Chasmanthium latifolium* or northern sea oats
- Helictotrichon sempervirens* or blue oats
- Panicum virgatum* or switchgrass

Alternative turfgrasses

- Festuca* or fescues
- Lolium perenne* or perennial rye
- Buchloe dactyloides* or buffalograss (below 6,500 feet)
- Bouteloua gracilis* or blue grama

STEP 2 – LIMITING TURF AREAS.

Note that this does not say *eliminate* turf areas. For areas with little or no foot traffic, consider groundcovers such as carpet bugle (see sidebar). For heavily used areas, consider mixtures of turfgrasses. For areas that may be tough to maintain and mow, consider perennial ornamental grasses. Some alternative turfgrasses are possibilities, depending on the altitude. Perennial flower beds or tree and shrub additions are also appropriate. Even hardscapes such as patios, walks, and decks should be considered.

Keep in mind that turf areas help to cool down the environment, soften the landscape, and provide essential oxygen. Using rock or gravel mulch near a home may result in heating the area. Any savings in water might be offset by air conditioning costs inside.

STEP 3 – SELECTING AND ZONING PLANTS APPROPRIATELY.

Put the right plants in the right places. Group plants with similar water requirements together to make irrigation simpler and more efficient. Look for microclimates around structures. Every yard or landscape will have shady areas that stay moister than south or west-facing zones. In Wyoming there is the potential for windy spots, too. Group low-water-use plants together, those that require moderate watering together in another area, and those plants that require consistent watering and are high water users in yet another spot. Then irrigate each area accordingly.

STEP 4 – IMPROVING THE SOIL.

This is probably the most important step in any landscaping, xeriscaped or otherwise. Before most plants are put in the ground, good-quality organic matter should usually be added. (Exceptions may exist for plants that are native to Wyoming; most of these require little soil improvement if any.) Put a layer about two inches thick on the area to be planted and then till or spade it in to a depth of about six inches. Also, core aerate lawn areas at least once a year. Avoid aerating in



hot, summer months, though, in order to reduce evaporation from newly exposed soil. Core aeration allows better water and air penetration to the grass root systems. Leave the cores on the turf since they will add nutrients and organic matter back to the area as they break down.

STEP 5 – USING MULCHES.

This is arguably the second most important step in landscaping. Good-quality organic mulches (bark, straw, etc.) keep moisture in the soil, minimize evaporation, moderate soil temperatures, mitigate freeze/thaw damage, and add organic matter back into the soil as they decompose. They also help prevent weed seeds from germinating. One problem with organic mulches, however, is that they are prone to blowing away in windy areas. Inorganic mulches (gravel, rock, etc.) can also be used but tend to get hot and warm up the surrounding area. The type that should be used (inorganic or organic) depends on the landscape design and the long-term goals for the area.

STEP 6 – IRRIGATING EFFICIENTLY.

Note that this does not say “stop watering.” Water according to area and plant type as well as weather patterns. Use drip irrigation or soaker hoses where possible for annuals, perennials, and vegetables. Other types of watering systems should be used for large trees and shrubs as well as turf areas. These can include overhead sprinklers and automatic systems. If the sprinklers are on an automatic-timer system, remember to change the clock according to the weather and season. “Set and forget” is too common and is not appropriate. Whatever system is used, make sure it is functioning properly and is not clogged or split or leaking. Another important point is to irrigate at night or early in the morning to minimize evaporation.

STEP 7 – MAINTAINING PROPERLY.

A *no*-maintenance landscape is almost nonexistent, but *low* maintenance is possible, depending on the plant material. Some xeriscape or water-wise gardens may need as much maintenance as a more traditional garden. Such routine tasks as weeding, deadheading, fertilizing, and occasional mowing may still need to be done.

Here are some suggestions for water-wise plant materials from trees to annuals and even a few shade plants.



Trees

<i>Acer ginnala</i>	amur maple	deciduous
<i>Crataegus crus-galli</i>	cockspur hawthorn	deciduous
<i>Gymnocladus dioicus</i>	Kentucky coffeetree	deciduous
<i>Juniperus scopulorum</i>	Rocky Mountain juniper	evergreen
<i>Pinus aristata</i>	bristlecone pine	evergreen
<i>Pinus ponderosa</i>	ponderosa pine	evergreen
<i>Pinus cembroides edulis</i>	pinyon pine	evergreen
<i>Prunus virginiana</i>	chokecherry	deciduous
<i>Quercus macrocarpa</i>	bur oak	deciduous



Shrubs

<i>Atriplex canescens</i>	four-wing saltbush	semi-evergreen
<i>Caragana arborescens</i>	peashrub	deciduous
<i>Caryopteris x clandonensis</i>	blue mist spirea	deciduous
<i>Ceratoides lanata</i> <i>(Krascheninnikovia lanata)</i> <i>(Erotia lanata)</i>	winterfat	deciduous
<i>Cercocarpus ledifolius</i>	mountain mahogany	deciduous
<i>Cotoneaster apiculatus</i>	cranberry cotoneaster	evergreen
<i>Holodiscus dumosus</i>	rock spiraea	deciduous
<i>Juniperus chinensis</i>	Chinese juniper	evergreen
<i>Juniperus communis</i>	common juniper	evergreen
<i>Juniperus horizontalis</i>	spreading juniper	evergreen
<i>Juniperus sabina</i>	savin juniper	evergreen
<i>Potentilla fruticosa</i> <i>(Pentaphylloides floribunda)</i>	cinquefoil	deciduous
<i>Rhamnus cathartica</i>	common buckthorn	deciduous
<i>Rosa rugosa</i>	rugosa rose, ramanas rose	deciduous
<i>Symporicarpos alba</i>	snowberry	deciduous



Perennials

<i>Achillea</i> sp.	yarrow	various colors, midsummer
<i>Asclepias tuberosa</i>	butterfly weed	various colors, midsummer
<i>Callirhoe involucrata</i>	wine cup	maroon, midsummer
<i>Centranthus ruber</i>	valerian	pink, crimson, all summer
<i>Eriogonum umbellatum</i>	sulfur flower	yellow early summer
<i>Gaillardia x grandiflora</i>	blanket flower	gold, late summer
<i>Hemerocallis</i> sp.	daylily	various colors, all summer
<i>Nepeta x faassenii</i>	catmint	lavender blue, early summer
<i>Oenothera missouriensis</i>	evening primrose	yellow, all summer
<i>Perovskia atriplicifolia</i>	Russian sage	blue, late summer
<i>Penstemon</i> (some species)	beardtongue	various colors, early summer
<i>Salvia</i> (many species)	sage	grown for foliage
<i>Sedum</i> sp.	stonecrop	various colors, late summer
<i>Tanacetum densum</i>	partridge feather	yellow, late spring

Vines

<i>Lonicera</i> (some species)	honeysuckle vine	various colors, all summer
<i>Parthenocissus quinquefolia</i>	Virginia creeper	grown for foliage, berries
<i>Polygonum aubertii</i>	silver lace vine	white, all summer

Groundcovers

<i>Antennaria dioica</i>	pussytoes	pink, early summer
<i>Cerastium tomentosum</i>	snow-in-summer	white, early summer
<i>Polygonum affine</i>	fleece flower	white, all summer
<i>Sedum</i> (many species)	stonecrop	various colors, late summer
<i>Sempervivum</i> sp.	hens and chicks	grown for foliage
<i>Thymus pseudolanuginosus</i>	woolly thyme	pink, midsummer
<i>Veronica pectinata</i>	woolly speedwell	blue, early summer





Grasses

<i>Agropyron cristatum</i>	crested wheatgrass	bunch turf grass
<i>Bouteloua gracilis</i>	blue grama grass	clump ornamental, turf
<i>Buchloe dactyloides</i>	buffalograss	turf, below 6,500 feet
<i>Calamagrostis acutiflora</i>	feather reed grass	ornamental
<i>Festuca arundinacea</i>	tall fescue	turf grass
<i>Festuca ovina glauca</i>	blue fescue	ornamental
<i>Helictotrichon sempervirens</i>	blue oat grass	ornamental
<i>Lolium perenne</i>	perennial ryegrass	turf grass
<i>Oryzopsis hymenoides</i>	Indian rice grass	ornamental



Annuals

<i>Coreopsis tinctoria</i>	tickseed
<i>Eschscholzia californica</i>	California poppy
<i>Gaillardia pulchella</i>	blanket flower
<i>Gazania</i> (several species)	gazania
<i>Gomphrena globosa</i>	globe amaranth
<i>Lavatera trimestris</i>	annual mallow
<i>Pennisetum setaceum rubrum</i>	purple fountain grass
<i>Portulaca grandiflora</i>	moss rose
<i>Portulaca oleracea</i>	purslane
<i>Sanvitalia procumbens</i>	creeping zinnia
<i>Zinnia angustifolia</i>	narrowleaf zinnia



Shade plants

<i>Aconitum</i>	monkshood	perennial
<i>Arctostaphylos uva-ursi</i>	kinnikinnick, bearberry	evergreen shrub
<i>Heuchera sanguinea</i>	coral bells	perennial
<i>Mahonia repens</i>	creeping grape holly	evergreen
<i>Symporicarpos x chenaultii</i>	chenault coral berry	deciduous

These other University of Wyoming resources are available on the World Wide Web at www.uwyo.edu/ces/ceshome/:

Low-Maintenance Grasses for Revegetating Disturbed Areas and Lawns, Bulletin B-1070, November 1998.

Landscaping: Turf in Wyoming, Bulletin B-1129, October 2002.

Landscaping: Recommended Trees for Wyoming, Bulletin B-1090, December 2000.

Landscaping: Recommended Shrubs for Wyoming, Bulletin B-1108, August 2001.