

Xeriscaping: Retrofit Your Yard

Fact Sheet 7.234

Garden Series | Basics

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The average home landscape uses as much as 50 percent of the water in a household. Even if you already have a well established landscape, you can substantially reduce water use by following some simple steps to transition your yard (or portions of it) to a less thirsty but still functional space.

Start with Turf: Survey Your Yard

Turf plays an important role in the landscape when well placed and maintained. Turf prevents erosion by wind and water and serves as a filter for runoff. It builds soil tilth and is one of the best means of urban fire control. Play areas for children and exercise areas for pets are often best left in turfgrasses that can take heavy wear. Turf is not always appropriate, though, and you may wish to remove turf as part of your xeriscaping plan, particularly lawn areas that are difficult to water and maintain. These include:

- along fences
- on slopes where water tends to run off and/or mowing is difficult or dangerous
- corners of lawns where it is hard to water without overlapping into other areas
- narrow strips of lawn between the house and sidewalk or driveway
- irregularly shaped lawn areas that do not fit the spray pattern of most sprinklers.

Strips of grass narrower than 8 feet are difficult to irrigate effectively with spray heads. Size turf and garden areas accordingly. Irregularly shaped areas should be re-shaped to fit sprinkler irrigation patterns and the odd-shaped areas converted to appropriately irrigated (or unirrigated) xeric plantings or hardscape. To remove turf, follow the instructions in CSU Fact Sheet [7.241, Renovating the Home Lawn](#).

Perennial Beds and Shrub Borders

Some perennial garden favorites can use as much (or more) water than a lawn. A wide selection of Colorado-native and adapted plants is available in the nursery trade though, for a low-water, resilient flower or shrub garden. Using native and adapted plants not only saves water but can reduce the need for other garden inputs like soil amendments and fertilizers. For any higher water-use plants you wish to keep, using drip irrigation and a three- or four-inch deep layer of woodchip mulch can reduce the amount of water you need to apply to keep them looking good. See Fact Sheet [4.702, Drip Irrigation for Home Gardens](#) for more information about drip irrigation.

Making the Change

Once you've chosen the portion(s) of your yard to retrofit, make a plan to complete the transformation. If the area



Quick Facts

- As much as 50 percent of household water is used for the yard and garden.
- Change turf areas on steep slopes, hard-to-water places and narrow mowing strips to low-water ground covers.
- Use or update an irrigation controller for cycle and soak irrigation to minimize runoff from slopes and compacted soils.
- Modify sprinkler systems to water only turf areas, not hardscapes.
- A low pressure, micro-irrigation (drip) system can save water.
- Like any plants, xeric plants require more water for establishment.

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you've chosen is large or if you are new to gardening in Colorado, consider implementing your new landscape in phases so you can get an idea of your new garden's maintenance needs and which plants do well in your yard. Drought-tolerant plants can be used in any garden style; choose plants to complement one another in bloom time, texture, form, and scale.

Step One: Remove existing plants, mulch, and landscape fabric.

Stockpile the mulch for re-use if it is in good condition. Be sure that any turf and weeds are completely dead or removed before proceeding.

Step Two: Evaluate the soil and amend as needed.

Compaction is among the largest challenges for Colorado landscapes to overcome, even for native and adapted plants in a xeriscape. Prevent soil compaction in your new gardens but not walking or driving in them when the soil is wet. If your soil is already compacted, use a spade or spading fork to gently lift the soil to help create air spaces between the soil aggregates. Consider submitting a soil sample for testing to determine your soil texture, organic matter content, and nutrient availability. Most drought-tolerant plants will not require soil amendments and perform better in the long term in leaner soils that more closely resemble the region's natural conditions.

Step Three: Modify or install irrigation as needed.

Perhaps you are switching a turf area to a xeriscape—you will want to adjust the irrigation to accommodate the new plantings. This could mean replacing spray heads with a drip system or moving/removing heads or the entire zone. Be sure to consider the future size of plants and how they might impact irrigation coverage and access to system components for maintenance.

Step Four: Plants.

Note that even drought-tolerant plants require regular and relatively high amounts of water after transplanting or seeding until established. Depending on the size of plant you choose to install in your new xeriscape this can range from days to years. In general, the smaller the plant the more quickly it establishes. Only after xeric plants are well established can they be gradually weaned from

supplemental water. Consider water availability when deciding the timing of a change from a moderate- or high-water use landscape to a xeriscape.

Step Five: Mulch.

Mulching your new xeriscape will help mitigate soil compaction and prevent water loss from the soil due to evaporation. Many mulch options are available and appropriate depending on which plants you have chosen and your preferred appearance. Wood chips, pine needles, and other organic mulches have good water-retention capacity and can help mitigate compacted soil.

A good practice is to try to mimic the natural “mulch” from a plant's native habitat. Gravel mulch can be beneficial for many native and drought-tolerant plants since it allows water to drain away from their crowns quickly. Whichever mulch you choose, you do not need to apply weed barrier fabric beneath it—weed fabrics can inhibit water- and air-exchange into the soil and do not actually prevent weed growth in permanent plantings.

Practices to Avoid

Do not group plants with different water needs together in the same irrigation zone. You will not be able to meet the water needs of any of the plants resulting in poor plant growth or death. A common mistake is to group a high water-use plant such as a spruce together with a low water-use pine. Group plants with similar water needs together in a “hydrozone” so they can be effectively watered for best plant health. Be careful not to over-commit. New xeriscapes, like any new garden, require maintenance to keep them weed-free and growing. Start your transformation with an area of manageable size for you and have a maintenance plan (for example, you might choose to check the garden and manage weeds at a set time every day).

Don't “set and forget” your irrigation timer. Watering needs for your new and existing plants change over the growing season and as plants grow. Some plants will require more supplemental water as they get larger, others less. Check on your plants frequently and make adjustments accordingly.

Don't plant weeds. Some noxious weeds in our state were introduced as landscape ornamentals—research plants you plan to use in your new xeriscape and avoid those that could escape and naturalize into native habitats.

Table 1: Spreading Plants for hot, sunny slopes.

Scientific Name	Common Name
* <i>Achillea millefolium</i>	Common Yarrow
* <i>Antennaria parvifolia</i>	Pussytoes
* <i>Artemisia frigida</i>	Fringed Sage
* <i>Bouteloua dactyloides</i>	Buffalo Grass
*# <i>Bouteloua gracilis</i>	Blue Grama Grass
* <i>Callirhoe involucrata</i>	Prairie Winecups
<i>Delosperma</i> species	Ice Plant
<i>Epilobium garrettii</i> 'Pwwg01s'	Orange Carpet® Hummingbird trumpet
* <i>Eriogonum umbellatum</i>	Sulphurflower Buckwheat
* <i>Eriogonum ovalifolium</i>	Cushion Buckwheat
* <i>Juniperus horizontalis</i>	Creeping Juniper
<i>Juniperus sabina</i> 'Buffalo'	Buffalo Juniper
<i>Oenothera macrocarpa</i>	Ozark Evening Primrose
* <i>Oenothera serrulata</i> var. <i>serrulata</i>	Yellow Sundrops
<i>Paronychia kepele</i> subsp. <i>serpyllifolia</i>	Nailwort
* <i>Penstemon caespitosus</i>	Creeping or Mat Penstemon
* <i>Penstemon linarioides</i> var. <i>coloradoensis</i>	Silverton Bluemat Penstemon
*# <i>Penstemon strictus</i>	Rocky Mountain Penstemon
<i>Sedum</i> species	Stonecrop
* <i>Symphotrichum oblongifolium</i>	Aromatic Aster
<i>Thymus</i> species	Thyme
<i>Veronica liwanensis</i>	Turkish Veronica
* <i>Zinnia grandiflora</i>	Prairie Zinnia
*Colorado <u>Native</u> # Self seeds.	

Table 2: Plants for dry shade.

Scientific Name	Common Name
* <i>Arctostaphylos uva-ursi</i>	Kinnikinnik
* <i>Berberis repens</i>	Creeping Grape Holly
* <i>Campanula rotundifolia</i>	Mountain Bluebell
<i>Ceratostigma plumbaginoides</i>	Plumbago
<i>Geranium macrorrhizum</i>	Bigroot Geranium
<i>Geranium sanguineum</i>	Bloody Cranesbill
<i>Liriope spicata</i>	Lilyturf
* <i>Symphoricarpos rotundifolius</i>	Creeping Snowberry
<i>Teucrium chamaedrys</i>	Wall Germander
<i>Vinca minor</i>	Lesser Periwinkle
# <i>Viola corsica</i>	Corsican Violet
*Colorado Native # Self seeds.	

Table 3: Common Garden Plants and Drought-Tolerant Alternatives.

High to Medium Water Use		Drought-Tolerant Alternative	
Scientific Name	Common Name	Scientific Name	Common Name
<i>Calamagrostis x acutiflora</i> 'Karl Foerster'	Karl Foerster Grass	* <i>Schizachyrium scoparium</i>	Little Bluestem
<i>Chrysanthemum</i> varieties	Garden Chrysanthemum	* <i>Symphotrichum oblongifolium</i>	Aromatic Aster
<i>Geranium</i> 'Rozanne'	Hardy Geranium	* <i>Mirabilis multiflora</i>	Desert Four-O-Clock
<i>Hibiscus moscheutos</i>	Hardy Hibiscus	<i>Alcea rosea</i>	Hollyhock
<i>Leucanthemum x superbum</i>	Shasta Daisy	* <i>Erigeron speciosus</i>	Showy Fleabane
<i>Lupinus</i> varieties	Garden Hybrid Lupine	* <i>Baptisia australis</i>	Blue False Indigo
<i>Miscanthus sinensis</i>	Miscanthus Grass	* <i>Sporobolus wrightii</i>	Giant Sacaton
<i>Phlox paniculata</i>	Garden Phlox	<i>Phlomis cashmeriana</i>	Jerusalem Sage
<i>Rudbeckia</i> varieties	Rudbeckia; Brown-Eyed Susan	*# <i>Heliomeris multiflora</i>	Showy Goldeneye
<i>Veronica spicata</i>	Spike Speedwell; Veronica	*# <i>Penstemon</i> varieties	Penstemon; Beardtongue
*Colorado Native # Self seeds.			

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