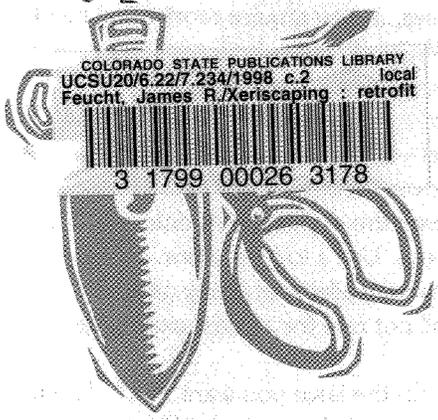


UCSU 20/6.22/7.234/1998

c.2

G A R D E N I N G S E R I E S



RECEIVED
FEB 10 1999
STATE PUBLICATIONS
Colorado State Library

BASICS

Xeriscaping: Retrofit Your Yard

no. 7.234

by J.R. Feucht¹

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 make changes in your yard.

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.

Modify sprinkler systems to water only turf areas.

A drip system can save water.

Black plastics and large areas of gravel or rock waste water through runoff and increase soil and air temperatures.

Survey Your Yard

Observe turf grass areas that are difficult to water and maintain.

These include:

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

If you have an underground sprinkler system, turn it on and observe where the water goes. Better yet, place shallow containers, such as plastic margarine tubs or metal coffee cans, in various locations and measure the water depth after 20 minutes. Areas that don't receive as much water as others may be good candidates for a change from turf to other plantings, such as low-water ground covers, shrubs or garden flowers.

Steep slopes, especially those on south and west exposures, waste water through runoff and evaporation. These areas can be converted to ground covers that tolerate the exposure and thrive with less water than most turfgrasses. They also are easier to maintain because you won't need to mow them.

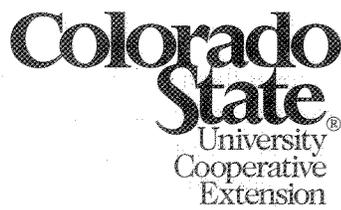
Study the normal foot traffic areas in your yard, including play areas for children and pets. These areas are best left in turfgrasses that can take the wear. Other areas, however, can be converted to shrub borders, flower gardens and nonturf ground covers that use less water.

Look for lawn areas that do poorly because of heavy shade from trees or structures. Rather than keep these areas in turf, plant alternative ground covers that tolerate the shade or, if the location is appropriate, install a patio or raised deck.

Removing Turf

Mark off unwanted turf areas with a string and stakes or a garden hose. Do not leave sharp angles or small strips that are difficult to water without overlapping into nonturf areas.

Modify your sprinkling system so water is applied only to the turf you retain. In some cases, this may involve changing the spray patterns of the heads



© Colorado State University Cooperative Extension. 3/96. Reviewed 9/98. www.colostate.edu/Depts/CoopExt

from a full circle to a partial circle. In other cases, it may require reorienting heads to direct water away from the nonturf areas. Major changes, however, may require installation of in-line shutoff valves or even relocation of complete sprinkler lines.

It is not necessary to strip unwanted sod. An easier method is to apply glyphosate (sold as Roundup or Kleenup) to actively-growing grass. Wait about seven days, then plant to alternative ground covers, shrubs or flowers. Glyphosate must be applied carefully, however, because even the slightest drift onto adjoining grass or other nontarget plants will damage them. Use a low-pressure, coarse-droplet spray or, better yet, a wick-type applicator available at many garden centers. Apply only when you are certain it will not rain for at least eight hours after application.

Another way is to overlap newspaper on the lawn you want to kill. Lay the paper on the grass in overlapping sections at least 10 sheets thick. Weigh it down with 3 to 4 inches of wood chips to keep it from blowing. You usually can purchase wood chips from tree service companies. Sprinkle the chips with water to settle them and keep them from blowing.

The newspaper and wood-chip mulch smothers the grass. After a few weeks the grass will be dead and the newspaper will begin to decompose, creating extra organic matter that is beneficial to the soil.

In areas where you plan to use mulches or if you are going to plant on a steep slope, **leave the killed grass in place**. The dead grass and its roots and runners help reduce soil erosion until the new planting is established. To improve appearance and reduce future weed growth, cover the dead grass with about 5 inches of mulch, such as wood chips or bark chunks. Spot treat with glyphosate any grass and weeds that sprout through the mulch. As the dead grass decays, it contributes organic matter to the soil.

Where you want flower beds, it is best to till under the dead grass. Any glyphosate residue that comes into contact with soil will be deactivated and will not harm new plantings, except where direct seeding is done.

If you seed flowers, alternative grasses and vegetables, remove the dead grass and roots. Residue in the dead plant material can interfere with seed germination. An alternative is to thoroughly rototill the dead grass into the soil and wait until the grass has fully decomposed. If kept moist (but not wet), this may take one month to six weeks in warm weather.

Drip Systems

Drip systems can be a good way to water nonturf areas and reduce water use. Most are easy to install and modify. Drip irrigation kits are available at most garden centers. They allow you to water each plant separately. You can enlarge the system as plants grow or as new plants are added.

Use drip systems to maintain constant moisture in the plant root zone. Do not use them to "water in" new plantings. New plantings need rapid, deep watering that is best done by hand. Once the soil has settled around a new plant, the drip system can maintain moisture. (See 4.702, *Trickle Irrigation for the Home Garden*.)

Practices to Avoid

When removing areas from turf, do not cover them with black plastic and gravel, rock or volcanic cinder. Plastics shed water and create wasteful runoff. They also exclude essential air exchange to plant roots and increase evaporation from surrounding areas by increasing local soil and air temperatures.

Keep rock or gravel areas to a minimum. They tend to increase air and soil temperature. Use weed barrier fabrics (geotextiles) available in garden centers. These materials allow water penetration and air exchange. Polyethylene plastics

Another option for steep slopes is to install a natural rock garden with water-conserving alpine plants. For more information, see 7.401, Rock Gardens.

exclude the air and water needed for plant growth and can cause root injury due to heat buildup.

Instead of rock and gravel, consider organic materials such as wood chips and chunk bark. They give a natural look and help retain moisture, as well as hold weeds in check.

Rock may be required to cover a steep slope where wood chips and gravel may wash away. In these cases, use natural river bed cobble of varying sizes. Lay rock over a weed barrier fabric in much the same way as if you were constructing a rock wall.

Table 1: Low ground covers for hot, steep slopes.

Scientific Name	Common Name
<i>Artemisia schmidtiana</i> 'Silver Mound'	Silver mound sage
<i>Buchloe dactyloides</i>	Buffalograss
* <i>Cerastium tomentosum</i>	Snow-in-summer
<i>Delosperma nubigenum</i>	Yellow ice plant
<i>Festuca ovina glauca</i>	Blue fescue
<i>Juniperus horizontalis</i> 'Wilton' ('Blue Rug')	Blue rug juniper
<i>Juniperus sabina</i> 'Buffalo'	Buffalo juniper
<i>Juniperus sabina</i> 'Tamariscifolia'	'Tammy' juniper
<i>Penstemon pinifolius</i>	Pineleaf penstemon
<i>Phlox subulata</i>	Creeping phlox
<i>Santolina chamaecyparissus</i>	Lavender-cotton
<i>Thymus pseudolanuginosus</i>	Woolly thyme
<i>Veronica prostrata</i>	Prostrate speedwell

*Caution: These plants can be invasive if kept too moist.

Table 2: Plants for narrow planting strips.

Use any of the ground covers in Table 1 between walks and buildings or on parking strips between sidewalks and curbs, unless shaded. If the area is shaded, use one or more of the following:

Scientific Name	Common Name
* <i>Aegopodium podagraria variegatum</i>	Bishop's weed
* <i>Campanula carpatica</i>	Carpathian harebell
* <i>Convallaria majalis</i>	Lily-of-the-valley
* <i>Galium odoratum</i>	Sweet woodruff
* <i>Lonicera japonica</i> 'Halliana'	Hall's Japanese honeysuckle
<i>Mahonia repens</i>	Creeping Oregon grape
<i>Vinca minor</i>	Periwinkle

*Caution: These plants can be invasive if kept too moist.

¹J.R. Feucht, Colorado State University Cooperative Extension landscape plants specialist and professor (retired), horticulture. Reviewed by D. Whiting, Cooperative Extension ornamental horticulture specialist, horticulture and landscape architecture.

Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Milan A. Rewerts, Director of Cooperative Extension, Colorado State University, Fort Collins, Colorado. Cooperative Extension programs are available to all without discrimination. No endorsement of products mentioned is intended nor is criticism implied of products not mentioned.



What else is new in xeriscaping?

If you want to cut water use and still have an attractive garden, Colorado State Cooperative Extension has more fact sheets you'll want to add to your gardening library.

Order them from *The Other Bookstore* for 50 cents each, and become an expert on:

- 4.702 *Trickle Irrigation for the Home Garden*
- 7.212 *Composting Yard Waste*
- 7.222 *Soil: Key to Successful Gardening*
- 7.225 *Landscaping for Energy Conservation*
- 7.228 *Xeriscaping: Creative Landscaping*
- 7.229 *Xeriscaping: Trees and Shrubs*
- 7.230 *Xeriscaping: Ground Cover Plants*
- 7.231 *Xeriscaping: Garden Flowers*
- 7.232 *Xeriscaping: Turf and Ornamental Grasses*
- 7.233 *Wildflowers for Colorado Landscapes*
- 7.234 *Xeriscaping: Retrofit Your Yard*
- 7.401 *Rock Gardens*
- 7.412 *Mulches for Home Grounds*

Address: The Other Bookstore
 115 General Services Bldg.
 Colorado State University
 Fort Collins, CO 80523-4061

Phone: (970) 491-6198
Fax: (970) 491-2961
E-mail: cerc@vines.colostate.edu
Web: www.colostate.edu/Depts/CoopExt

