

## Conserving Water by Planting Low-water Use Plants/Xeriscape™

When people are making plans to purchase or develop their small acreage, they often ask what factor on their land will have the most influence on what they are able to accomplish on their property. Almost without exception, the answer is WATER!

Whether you're planting pasture grasses, looking at different types of alternative production practices on your land, possibly to provide additional income, or you're wanting to landscape your home and grounds, having sufficient water available to accomplish these goals is difficult, particularly on the dryland small acreages so common in many parts of Colorado. It's important to remember that, over time, in the semi-arid climate of Colorado, including the Front Range and eastern plains, we receive between 12" – 15" of water annually in the form of rain and snowfall. Compare this to the 32" – 36" averaged for eastern Iowa or the 35" – 40" received in western New York State.

In my position as Adams County Small Acreage Coordinator, I always encourage property owners to incorporate low-water use plants or use Xeriscape™ methods when planning their landscaping and other plantings on their land. People who don't understand Xeriscaping are saying, "I don't want to use rock mulch and cactus in my plantings." The great thing is, you don't have to limit yourself to these "old school" ideas of how you do plantings with material having low water requirements. Today, many people cannot tell a Xeriscape™ garden from a more traditional planting without close inspection.

Much of the plant material used in Xeriscaping or low-water requirement plantings are native species, which means they are well adapted to the water availability and climate in our area. Through selection of outstanding varieties, native plants provide fabulous color and diversity. The following websites provide information on plants for your needs:

**Plant Select** – "a program designed to seek out and distribute the very best plants for gardens from the high plains to the intermountain region."

[www.plantselect.org/](http://www.plantselect.org/)

**Xeriscape™ Colorado** – a source for more Xeriscaping information and a directory to Xeriscape™ Demonstration Gardens so you can see what this landscaping looks like.

[www.xeriscape.org/](http://www.xeriscape.org/)

**Colorado State University Cooperative Extension Fact Sheets** – research-based informational sheets on a variety of topics, including Xeriscaping.  
<http://cerc.colostate.edu/> (click on Fact sheets)

There are seven common-sense steps to “water wise” gardening that can be applied to new planting areas or to retrofit old gardens.

### ***Seven Steps to Xeriscape™***

#### **1. Planning and Design**

Good planning and design may seem obvious, but this is the key to final success. With proper advance planning and a drawn design, the other six Xeriscape™ steps will be easier to accomplish.

Each area around a dwelling or other structure exists in or creates its own microclimate. The existing locations of outside water sources may pose a distance problem and possibly limit the finished design. Drawing a sketch of the site will identify some of these differences. The location for plantings is critical to their successful growth and survival. If done to scale, the drawing will also allow basic calculations for the size and quantity of plants and other materials needed for the new Xeriscape™ garden.

#### **2. Soil Improvement**

Most Colorado soils are predominantly sand and clay minerals. In their natural state, these soils usually contain little organic matter or humus. Sandy soils do not hold much water or many nutrients for plants. Clay soils become hard and compacted, making it difficult for water, air, nutrients and plant roots to move through the soil. For lawns and gardens to thrive, the natural soil needs to be amended with organic matter like aged manure or compost. Amending the soil is the most important step when the actual physical work begins on the Xeriscape™ garden. There are many local companies marketing soil amendments such as aged manure or well-composted wood chip and manure products. Composting organic matter creates humus and gives the soil it's mixed with a light texture. Improving the soil quality allows plants to receive water, air and nutrients more readily.

#### **3. Limit Turf Areas**

The greatest use of water outdoors is to maintain lawns. The best way to reduce this use and to conserve water is by limiting lawn areas or by planning these areas for specific uses. Limiting the size of lawns also results in savings of time and other resources. Lawns require regular

maintenance and often rely heavily on costly fertilizer and pesticide applications. Most Colorado lawns are Kentucky bluegrass, however, by determining the actual use for the lawn area in advance, few to no high maintenance grass areas requiring heavy water and chemical input will need to be established. As an example, this past summer I had the opportunity to see several blue grama and blue grama/buffalo grass mix lawns in low traffic areas that were beautiful and required minimal supplemental irrigation to keep these turf areas healthy and growing. In general, when used correctly, grasses offer some of the most versatile Xeriscape™ plantings. Many ornamental grasses provide excellent color and contrast within flowerbeds.



A beautiful low-water use stand of blue grama in a landscape planting on a small acreage in Broomfield, CO.

*Photo by Mark Cronquist*

#### **4. Use Plants with Low Water Requirements**

There are long lists of plants that have proven records for Xeriscape™ gardening. The problem with plant selection is not finding enough suitable plants but actually limiting choices based on space and budget considerations. Please refer to the websites noted earlier in this article for appropriate plants.

Again, the basic plan you developed will be the guide for plant selection by location, height, color and blooming season. Most people collect ideas from existing gardens for their final plan. Visiting established Xeriscape™

demonstration gardens in the Front Range area is an excellent way to identify plants you would like to use. Refer to the Xeriscape™ Colorado website above for demonstration garden locations. Most plantings in these gardens have identification tags on plants to help visitors identify species. Native xeric plants should be used in your plantings to avoid the possibility of non-native xeric ornamentals “escaping” and becoming an invasive weed problem.



Colorful and diverse plantings at the Aurora Water Xeriscape™ Garden.

*Photo courtesy of Aurora Water, Water Conservation Division*

## 5. Use Mulch

After improving the soil and making proper plant selections, mulch is the next most important step in the establishment of a good xeric garden. Mulches accomplish several things in a Xeriscape™ planting. Mulches provide temporary cover until plants mature and fill in open spaces. Also, acting like a blanket over the soil, mulch reduces water evaporation from the soil surface. Because the mulch blocks sunlight, it prevents weed growth, but still allows air and water circulation.

Technically, almost anything can be used as mulch. Straw, newspaper and rocks have all been utilized as mulch. A popular method for applying mulch today incorporates the use of landscape fabric (***this is not black plastic***). Landscape fabric looks and feels much like felt. This fabric is placed directly over the soil and then topped with shredded bark, wood chips, small rocks or other aesthetically pleasing materials. Landscape

fabric “breathes”, allowing air and water to pass through it, unlike black plastic.

## **6. Effective Irrigation**

Once your garden and turf areas are planted, most of your maintenance time, energy and money will be spent on watering. Most, but not all, irrigation can be reduced with the initial selection of “low water requirement” plants and grasses and by grouping plants with greater or lower water needs. Create watering zones by plant needs and locations. Over-watering carries yard chemicals like fertilizers and pesticides into street gutters and storm drains and is a significant cause of water pollution. Drip irrigation systems help avoid this, since emitters can place water right at the root zone of your plants. These systems are excellent for established shrubs and trees. Buried porous hose and/or short umbrella or bubbler sprinklers place large droplets near plants, reducing water loss through evaporation as compared to fine spray sprinklers. Most garden and nursery centers have a wide choice of water-conserving drip systems. Many area conservation districts also sell drip irrigation supplies.

## **7. Appropriate Maintenance**

As with so many long-term projects, the yard and gardens on your property will require regular upkeep. Weeding, watering, mowing, pruning, fertilizing and pest control will still be necessary in the Xeriscape™ setting.

Watering, weeding and mowing can be reduced by limiting turf grass areas, selecting lower growing turf grasses, mulching around plantings and installing drip or water-conserving equipment where possible. Pruning labor will be relative to the number and types of shrubs and trees planted.

Insect pests or plant diseases should pose fewer problems in the Xeriscape™ garden. By selecting hardy native species, disease and pest problems should be minimized. Another way to help control pests is to allow adequate space between plants for air circulation and penetration of sunlight. If disease or pest issues do arise, for those wishing to avoid pesticide applications, alternative methods are available through garden centers, gardening publications and other sources. You can also get advice from the Adams County Master Gardeners by calling (303) 637-8100.

By following a Xeriscaping plan for your landscaping and planting, you’re not only conserving water but saving money on other resources over the “long haul”, too.