

THE SEVEN PRINCIPLES OF XERISCAPE

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Almost half of all the water we use at home is used to maintain the landscape. The problem is that while we live in Colorado, we have traditionally landscaped with plants that are native to regions with much higher annual precipitation. To successfully grow these plants, we must supplement the natural precipitation with our limited surface and groundwater. The use of plants with high water demands is not our only landscaping option; fortunately, neither is removing plants from the landscape.

The concept of *Xeriscape* was developed in Denver, Colorado, in response to water shortages in the 1980's. Xeriscape refers to a landscape that uses little supplemental water. It does not refer to a dry, barren landscape, nor is a xeriscape a "no maintenance" landscape. By using plants that are well adapted, mulches that suppress weeds and conserve water, and efficient irrigation systems to make the most use of water, these landscapes can have color and fragrance with only monthly or seasonal gardening chores.

Xeriscape is not a landscape style or garden design. Xeriscape is a *concept of water conservation* that may be applied to landscapes of any style, from traditional to English, Japanese to Southwestern. They may be formal or natural looking. The principles used to develop xeriscapes are good horticultural practices applied to our unique High Plains desert environment.

Xeriscape incorporates seven water-conserving principles:

- DESIGN

A good landscape and garden begins with a good design. Xeriscapes can be divided into zones with different water requirements. An "oasis," a zone with the highest water use, is usually where people spend more time (a patio area and perhaps the entry area, for example). The oasis receives more water and, as a result, is cooler. This area may require more maintenance, and usually will be the landscape's most colorful area. Beyond the oasis is a transition zone of moderate water use. The transition zone contains plants that require less frequent irrigation and usually less maintenance. Further away may be a low-water-use zone, which requires no supplemental water or very infrequent irrigation during prolonged dry periods. Designing the landscape with areas of differing water demands is called "*hydrozoning*."

- IRRIGATION

Irrigation is necessary in a xeric landscape, at least during the first few years while the plants' root systems are developing. Following establishment, irrigation may still be necessary, depending on the landscape design and plants' needs. The oasis and the moderate-water-use zones have the

greatest need for irrigation, but it is wise to plan irrigation even in the low-water-use zone to allow for new planting, changes, and years of severe drought. Water deeply and infrequently to encourage deeper rooted, more drought tolerant plants.

- MULCH

Mulch provides a cover over the soil, reducing evaporation, soil temperature, and erosion. It also limits weed growth and competition for water and nutrients. Organic mulches help keep the soil moist and reflect less heat. They work well with most xeriscapes.

- SOIL PREPARATION

Soil preparation is an important part of successful xeriscaping and gardening. In the oasis and moderate-water-use zones, adding compost increases the soil's water-holding capacity. In the low-water-use zone, soil preparation may only consist of rototilling to loosen the soil and reduce the soil compaction in planting areas. Loosening the soil improves root development and allows better infiltration of water and air needed by plants' roots. This is important in all water-use zones.

- APPROPRIATE USE OF TURF

The most controversial and misunderstood of the xeriscape principles is the concept of appropriate turf. Turfgrasses have a place in the landscape, even the xeriscape. Turf provides a play surface for children and pets, and is an important element in cooling the environment, reducing erosion, and preventing glare from the sun. Consider where and how large a turf area is desired, how it will be used, and during which seasons it will be used. Limit turf to useful spaces and determine which grasses will best serve your needs. Be aware that the bluegrass turf we use in Colorado is *very well adapted* to prolonged periods of drought. Bluegrass *can* be allowed to go dormant (brown) during the heat of summer – it will recover when watered again in the fall or spring, providing use is restricted during the dormancy.

- LOW WATER USE PLANTS

Plants that require less water are readily available in most nurseries. While you may use many of your old favorites in the oasis zone, there is a wide variety of colorful, fragrant and beautiful plants for the less irrigated part of the landscape. Many have long blooming seasons and attractive leaves. Some provide fall interest with multihued foliage and fruit, while others offer an attractive winter appearance.

- MAINTENANCE

Maintaining the landscape cannot be forgotten, even in a xeriscape. Pruning, occasional weeding and pest management, checking that the irrigation system is functioning properly, and adjusting automatic irrigation systems as the seasons change will be needed. The final design will determine the level of required maintenance.

Xeriscaping offers a way to have beautiful, livable landscapes without excess water use. It allows areas close to us to be cooler and hospitable, while investing less water on parts of the landscape in which we spend less time. Even lower-water-use areas can be very attractive if the seven xeriscape principles are employed.