

The third principal of xeriscape is “irrigate efficiently.” Adjusting irrigation practices can reduce water usage by 70 percent. Begin improving your irrigation effectiveness by timing your watering to reduce evaporative losses. Evaporation is lowest from late evening to early morning, making the best time to water sometime between 9 p.m. and 8 a.m.

Utilizing drip or trickle irrigation will also minimize water lost to evaporation. This type of irrigation places water where it is needed. It is applied directly to the soil surface, so that more may be taken up by the plant and less evaporated from the plant surfaces. Drip or trickle irrigation come in a variety of forms, including pvc pipes with perforations, hoses made of a tire-like material from which water oozes, and bladders, with small holes on their undersides, that zip around the trunk of the plant. You can even make your own drip irrigation device by poking pinholes in the bottom of a five-gallon bucket.

If you use an automated irrigation system, improve your irrigation efficiency by updating the system’s clock. It should be adjusted for daylight savings times, day length, and for changes in weather. Consider installing a rain shut-off device so that the irrigation system will not operate during rain events. A tensionmeter, or soil moisture meter, can be added to irrigation systems. These devices monitor the amount of water in the soil that is available to the plants and turns on the irrigation system only as appropriate to maximize plant growth rates while minimizing water use.

It is important to determine how much water plants actually need and water accordingly. Increasing irrigation efficiency means avoiding over-applying water, as excess water can be detrimental to the health of plants, making them dependent on supplemental watering and less likely to withstand periods of drought.

The fourth principle of xeriscape is “limit turf area.” This does not imply you cannot have a lawn, it just means lawn should only be the size necessary to meet the needs of the traffic and outdoor activities it must support. Consider the benefits of reducing the size of your lawn. A smaller lawn means a reduced application of chemical fertilizers and pesticides, resulting in less cost and less risk of groundwater contamination from run-off. Reducing lawn size also results in a reduction of the second largest component of the solid waste stream, yard waste, of which grass clippings make up 2/3. Reduced water usage is also a benefit of a smaller lawn. A typical suburban lawn uses at least 10,000 gallons of supplemental water each year.

To minimize lawn area, add shrubs, groundcovers, native grasses and other plantings, particularly on slopes greater than 20 percent and other difficult to maintain areas. If lawn is used for outdoor entertaining, consider adding or expanding decks, patios and other hardscapes as a replacement. Do this responsibly to avoid problems associated with run-off. Perhaps the easiest way to reduce lawn area is to enlarge mulched beds. When doing this, make sure you create spaces that can be easily mowed and do not require weed whacking.

“Selecting appropriate plant material” is the fifth principle of xeriscape. When you choose plants, consider the conditions of the site, and what features they will demand from a plant. You should choose plants that will grow well in the existing soil, climate and drainage conditions of your site; avoid trying to force plants to adapt. Try to steer clear of plants that demand too much water, instead choose drought tolerant varieties. If you choose plants with varying levels of drought tolerance, be sure to group those with

similar watering needs together in hydrozones. This will conserve water by separating plants that do not require supplemental watering from those that do, allowing you to water only as necessary. Trees, shrubs, groundcovers and perennials are good low-water requiring choices. Annuals and turf grasses tend to demand more water.