

## **Drought-Tolerant Plants**

There are plants in most landscapes that survive periods of drought. Placing these plants in the garden reduces the need to supply extra water during periods of inadequate rainfall. While cacti and succulents may have a place in some drought-tolerant gardens, they are not the only alternatives. There are other choices available which are appropriate for dry areas. With careful selection, planning and execution, drought-tolerant landscapes can be as pleasing as those needing heavy irrigation.

## **Select Plants for the Growing Conditions**

Select plants for the growing conditions in a given area when planning and designing the landscape. These growing conditions create microclimates. Define the microclimates. Create a site plan that groups plants according to similar water needs. Strive for three basic divisions: very low water zone, low water zone and moderate water zone. Each area should be irrigated separately, according to specific water needs. Incorporate leaf size and color, bloom period and size and shape of plant to create visual interest.

Soil type, wind and exposure to sun can create a dry microclimate in an area that receives heavy rainfall. Sandy, well-drained soil will dry out more quickly, while heavy clay soils are likely to remain moist much longer. Mixing humus into the soil will improve water-holding capacity of sandy soils and water penetration in clay soils. Sandy soils with humus will hold larger amounts of water. Clay soils amended with humus will absorb more water, reducing runoff. In locations with poor drainage and heavy soils, many drought-tolerant species may suffer during years with average or abundant rainfall. Wet winters and spring rains may also cause problems for some drought-tolerant plants growing in heavy soils.

## **Limit Turfgrass**

Turfgrass requires more water than other plants in the landscape. By isolating turf from gardens, trees and shrubs, a gardener can separate irrigation zones and waste less water. Limit turf to areas that are regular in shape and easily irrigated. Cultivar selection should be appropriate to the climate, site, level of maintenance, intended use and reduced water consumption. Although coarse in texture and appearance, tall fescue mixes offer good heat and drought tolerance. Cut the grass at a height of 2 1/2 to 3 inches. Longer leaf blades help to shade and cool the ground, reducing evaporation from the soil and lessening the need to irrigate.

## **Irrigate Efficiently**

Efficient irrigation may mean including an irrigation system. The least efficient system is the sprinkler, which delivers a large amount of water in a short period, but loses excessive amounts of moisture to evaporation. Sprinklers are the only choice for turf areas, however. Low-volume trickle or drip irrigators and soaker hoses deliver moisture over a long period, losing little water to evaporation or runoff. Check all systems regularly. An improperly calibrated, clogged or leaking system can waste a great deal of water. Carefully probe the root zone to help determine the moisture content in the soil. With some low-volume systems, the surface of the soil will not appear to be saturated, while the root zone will receive the proper amount of moisture.

In times of drought, utilizing recycled household or graywater helps ease water usage. Graywater should be free from oils, food scraps and bleach. Mixing graywater and fresh water (half and half) is ideal. Graywater should not be used on root crops or potted plants or be a plant's sole source of water. In addition to graywater, saving rainwater from roofs in cisterns and rain barrels will lessen the need to use community or well water. The need for irrigating an area will depend on all the factors of culture and microclimate. Well-established gardens will require less supplemental irrigation during drought than newly planted areas.

### **Use Mulch Properly**

Properly mulching an area lowers the soil temperature and decreases the loss of moisture due to evaporation. In addition to creating texture in the landscape, organic mulches decay and add nutrients to the soil. Appropriate depth of the mulch is important: 2 to 3 inches for trees and shrubs and 1 to 2 inches for vegetables, annuals and perennials.

Carefully planned landscapes and sound cultural practices reduce water needs. Controlling weeds will lower moisture competition with other plants. Lessening competition will strengthen existing plants and make them less susceptible to disease, insects and drought. By carefully preparing and meeting plant requirements, a gardener can develop a landscape full of color and texture while concurrently reducing water requirements.

### **Irrigation Zones**

#### **Very Low Water Zone**

This area is typically farthest from a source of water. Plants in this area must be chosen carefully, requiring little or no supplemental irrigation. Some of these plants may show problems in years of abundant rainfall.

#### **Low Water Zone:**

Plants chosen for this area will require more water than that which is available naturally. During severe drought, supplementing the water supply will become necessary.

#### **Moderate Water Zone:**

This zone will use the greatest ratio of water in the landscape. Keeping this area small will help limit water needs. It is possible to grow drought-intolerant plants in this area.