# The Xeriscape Garden

**A Water Wise Gardening Guide**

**By Brenda Falk**
**Tanglebank Gardens**

Xeriscaping-what is it and why do it?

Xeriscaping is really just water wise gardening. It will save you time, energy and money. It will save precious water and help you create a garden that looks great even in the hottest of summers.

In 1981 the concept of Xeriscape as well as the name Xeriscape were developed as a result of drought and real water limitations in the Denver area. Ken Ball a conservation specialist for the Office of Water Conservation at the Denver Water Department became instrumental in taking the idea of the Xeriscape garden to the national level. The term Xeriscape comes from the Greek work xeros meaning dry and the German word shap which pertains for view, hence a dry view to gardening.

Water is a valuable resource and with more and more demand for this precious life sustaining liquid and hotter and dryer summers there is a responsibility to gardeners to use it wisely. Xeriscaping helps us do just that. And although the term conjures up views of cacti and gravel it really refers to a type of gardening that might also be labelled 'Right Plant in the Right Place'. Xeriscaping focuses on grouping plants together in the garden according to their needs and the actual site conditions found in the garden. By doing this you can greatly reduce your gardens' watering needs. Your truly drought tolerant plants will be spared from certain death due to drowning and your water lovers from dehydration. It lets you focus your attention on those areas of the garden that need extra care.

1. So where do you start? The best place to start is at the earth itself. Do you have a dry, sandy soil or heavy clay? Or are you one of the blessed ones that have humus rich loam. If you happen to have either sandy soil or heavy clay, take heart. There is hope. The answer to both is compost. Yes you heard right, COMPOST, lots of rich organic material. It will help to increase the pore size of that heavy clay and help reduce pore size of that wonderful sand. If you happen to live on a rock you can always do raised beds.
Compost will help to retain moisture in sandy soils and help to encourage drainage in heavy clay soil breaking up the tight structure of the soil. The pluses to these types of soils, clay is very nutrient retentive and has lots of mineral content, while sandy soil is free draining, great for preventing winter rot in areas with heavy rainfall.

2. From here take a look at the current plants in your garden. Do they look great all summer long with just a little help or they wilt and droop without constant attention to them. Make notes and try to locate an area where they will thrive and then group like plants with them. By putting all of the really thirsty plants together you can water them more often without having to water the whole garden when you really only need to water one or two.

3. After you have chosen your plants and planted them, mulch them. A mulch of 2-3 inches will greatly reduce the amount of water lost to evaporation, add much needed protection for plants in winter, help eliminate weeds (it also makes pulling weeds easier) and adds nutrients back into the soil. With all these benefits who wouldn't want to mulch. When mulching, be sure to reduce the amount of mulch directly on the crowns of the plants to prevent them from rotting off during wet weather.

Choose mulch that is free of weeds and appropriate to the site. For example acid loving plants do not like alkaline mushroom compost however most perennials don't mind in the least. Bark, manure and homemade compost will all work great. As well consider gravel and river rock mulches for their decorative and practical uses as in paths and walkways or in Mediterranean style gardens or simulating dry riverbed looks. But take note, gravel or rock mulches can increase summertime temperatures of your house if right next to it (this can be a benefit in cold winters). Recent research shows that mulches can reduce the maximum daily temperatures at the soils surface by 2-3 degrees Celsius, and the minimum daily temperature by 1-2 degrees.

4. Consider trees and hedge rows. Planted in the right place they can reduce summertime temperatures in your garden sheltering plants and lawn from the hottest noon day sun. They also act as large air conditioners cooling the garden and creating air flow in and around them. Hedges can prevent drying conditions created by prevailing winds and can help in the reduction of water loss due to evaporation as well.

5. Ask yourself how much lawn do you really need. One of the best ways to conserve water is to limit the amount of turf in your garden. Lawns can require 2-3 or more times the number of inches of annual rainfall in many areas and by limiting these water loving plants and replacing them with drought tolerant plants you can greatly reduce the amount of watering you will need to do this summer as well as time spent mowing. Consider adding gardens or patios and exchanging water loving turf grasses for some of the more drought tolerant ornamental grasses and ground covers.

When planting lawns, a base of 4-6 inches of good top soil is essential. In the summer months considering raising the height of your mower and leave your grass longer. Longer grass means deeper roots enabling them to more easily find water.

6. How do you plant on slopes. A lot of water is lost to run off on slopes and therefore proper planning can keep the water on the plant where it is needed. If you have a sloping yard, consider terracing it or grading it into a series of level planting areas. Terracing can turn a steep slope into a beautiful water conscious garden.

7. Berms can be a lovely way of adding depth and interest to a garden but much water will be lost to run off. Don't mound earth into berms between curbs and walks, irrigation will easily run off and be wasted. Instead channel or scoop out these areas so they will retain excess water and filter it slowly into the soil. On the plus side, if you have plants that are extremely drought tolerant and need extra protection from winter wet this may be the perfect place to plant them.

8. Vegetable and fruit gardens can be water wise also. Raised vegetable beds will dry out faster than ones planted directly in the ground in gently hilled ground in soil that is improved with as much compost as is possible and mulched up to 4 inches deep as soon as plants are tall enough and soil temperatures have warmed in spring and preferably after a good watering or rainfall. Mulch applied to early will keep the soil too cool. If you have an unexpectedly wet summer remove the mulch as it can retain too much moisture, encouraging rot and can attract slugs and snails. Mulches can include; straw, leaf mold, grass clippings, even newspaper. As a general rule, the vegetable garden requires an inch of water per week. It is recommended to water ½ inch twice a week.

9. Once you have everything planted. Water Wisely.

- Find out what watering restrictions may apply in your area. These are usually announced in your local newspaper or on the radio. Once you know what these are adhere to them. Some areas have water police who will issue hefty fines to those who do not adhere to them.
- Let the plants tell you when they are thirsty. Learn to watch for signs of drought stress or wilting and let that be your guide. * Caution. Some trees and shrubs will not show signs until it is too late. If in doubt ask your local garden centre what specific water requirements your plants may have.
- Avoid watering in the heat of the day. A large portion of the water will be lost to evaporation and never hit the ground. Drip or trickle irrigation can use up to one to two-thirds less water than sprinkler systems.
- When you do water, water deeply but not often. By watering deeply you encourage plant roots to go down deep in search of water instead of just producing surface roots that will easily dry out with lack of water. Check with a spade to trowel to see how deeply the water has gone. It should penetrate at least 4-6 inches or so in order to do any good. * As a general rule one inch of water will penetrate heavy clay soils 4inches, loam 4-6 inches and sandy soil as much as 12 inches. In sandy soil you may choose to water less but more often.
- Invest in a water gauge to measure just how much water you are putting on your garden. You may be surprised at how little or how much you are adding. The average lawn requires about one inch per week to stay green.

10. All plants need water until well established, drought tolerant or not so make sure to help them along the first year until well established. Plant during the cool and wet seasons of spring and fall. This helps them and you, as they will have a chance to develop strong healthy root systems better able to cope with summer dry when it comes. Drought tolerant plants should be able to fend for themselves after the first year with only occasional watering necessary during extremely dry weather.

11. Last but not least. Visit other gardens. Take note of what survives in the yards of neglected homes. Notice plants like Iris germanica, daylilies, peonies and lilacs never seem to die. Also read up on drought tolerant gardening. There are lots of great books as well as web sites and garden clubs that can help you out as well.

You can have an amazing garden and actually use less water than your current lawn. Go ahead and take the challenge. You can save water, money and even time.

# How to spot a Drought Tolerant Plant

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Certain traits are common among drought tolerant and will make spotting them in your local nursery even easier.

- Grey, silver or white foliage.
  The leaves of these pale foliaged plants are actually green but they are so densely covered with hairs that they can appear light. These hairs protect from sun and wind exposure. They help collect and retain moisture, reflect sun and heat and trap water in the form of drops of water as in morning dew. Example, lady's mantle, lambs ear, arabis or rock cress
- Hairy leaves
- Lots of tiny leaves.
  Less leaf surface allows for less loss of water due to evaporation. Examples, Thyme, Aubretia
- Deeply lobed leaves.
  Again less surface area allows for less loss of water. Examples, Acanthus spinosus
- Leaves that tightly hug the ground. These plants have developed a habit that allows them to stay close to the moisture in the ground and out of drying winds. They often combine this habit with tiny leaves. Examples, Creepng phlox, thymes, Gazania
- Highly resinous or aromatic leaves
  Oils in the leaves are volatile. In heat they can react by generating a protective haze around the plant that protects it from drying out. Examples, Rosemary, lavender hyssop, pine
- Succulent leaves.
  Deeply fleshy leaves allow for the storage of water within the plant allowing it to go long periods without additional moisture. Pores open at night and close during the day. These plants do not like excessive moisture. Examples, Sedum, Euphorbias, rock purslane
- Bulbs and corms and other thick fleshy root structures. These enable the plants to store extra moisture in their roots making them better able to with stand periods of drought. Examples, daylily, peony, liriope, kniphofia
- Summer dormant.
  Many spring ephemerals and grasses use this mechanism to protect against hot summers. Grasses will sprout quickly in spring, put down deep roots, go summer dormant and then green again in cooler wet weather. Lawns, spring anemones
- Deep tap root
  These plants develop roots that can extend deep into the soil searching for water. Example.Carrots and dandelions, yucca, poppies
- Rhizome and wide spreading, root systems. Examples, Arctic Willow, some trees, sea lavender

Many plants have developed one or more of these qualities combined to help them withstand adverse weather conditions.

For Example, some lavender have silver, small and aromatic leaves. Thymes have small, aromatic leaves with stem structures that hug the ground.