

H₂O FACTS



Be water wise!

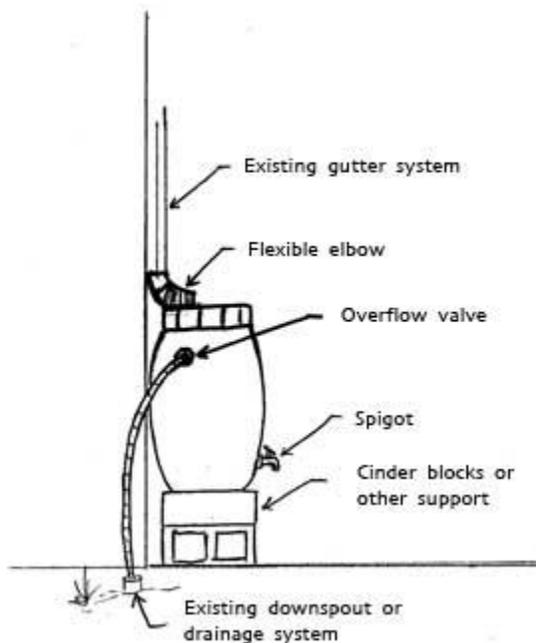
Water is one of our most precious resources and we often take it for granted. We should conserve water at all times but this is especially important during droughts or water shortages. Here are some tips that might help.

Rain barrels – harvesting and storing rainwater is one of the most cost effective ways to conserve water. Rain barrels come in many different shapes and sizes.

The barrel should have an overflow valve and hose to divert excess water into a second barrel or just away from the foundation. It should also be equipped with a spigot near the bottom of the barrel for filling up watering cans or buckets.

To install a rain barrel,

- build a platform to raise the rain barrel off the ground at least a foot. This will make filling watering cans much easier. Make sure the platform can handle the weight of a full barrel – a typical rain barrel holds 220L so will weigh at least 220Kg (484 lbs) when full. Cement or cinder blocks work well.
- detach the elbow from the bottom of your down spout
- cut the down-spout at a height that, once the elbow is re-attached, enables the rain water to flow directly into the barrel
- re-attach the elbow
- save the bottom of the downspout so it can be reattached for the winter (you will need a collar to make the joint)
- drain barrels in late fall before freeze up and turn them over so no water collects inside
- when draining the barrels for the fall, use that final bit of water to give your cedars a final drink to avoid winter browning of the bough tips.



Install a rain barrel at each downspout or daisy-chain multiple barrels so that the overflow from the first barrel fills the second and third barrels. The barrels will need to be at staggered heights to allow gravity to do the work.

A rain barrel that is equipped with a mosquito screen should not be a breeding ground for mosquitoes.

Storing & finding water – you can store water (in addition to what you have in your rain barrels) in recycled detergent or bleach bottles or pails (after a thorough rinsing). Make sure you put the cap or lid

back on the container to prevent mosquitoes from breeding. Carry the bottles to the plants that need watering and use a dipper in the pails.

There are other sources of water around your home. Save the water from your de-humidifiers. Collect bath water. Put the plug in when showering so that water can be saved. Put a plug in the laundry tub so you can collect the rinse water. Keep a pail in the kitchen sink and when you rinse something, collect the water in the pail rather than letting it go down the drain.

Mulching – There are two thoughts on mulch. One is that it holds moisture in the soil; the other is that it can prevent a shallow rainfall from reaching the soil and consequently the plant's roots. We believe that the benefits of an organic mulch far outweigh any possible negative impact. Our recommendation is to apply 5-10cm of organic mulch which has the added benefit of improving the soil as it breaks down. Mulch is best applied in early spring or fall when the soil is already moist. It should be topped up annually to maintain the optimum depth. The mulch will also suppress weeds which will limit competition for the moisture.

Plants – there are many plants that can tolerate long periods of drought (once they are established). Choose your garden plants wisely. Native plants are a good choice because they have adapted to survive with only the water that mother-nature provides. Encourage all plants to have deep and strong root systems – unnecessary watering only discourages them from putting down deep roots. (A partial list of some drought tolerant plants is attached.)

Drought tolerant plants have some common characteristics: leaves that are hairy, succulent, or thick are often signs of a drought resistance. These characteristics are defence mechanisms to limit water transpiration.

Group plants with similar watering needs together. Plants that need more water could be planted in a low spot or close to the rain barrels.

Don't transplant during droughts. Wait for a forecast that calls for a few days of rain. Many gardeners enjoy moving plants around during a rainfall because they know their plants will recover quickly. Spring and fall are the best time to transplant.

Allow more space between plants in the vegetable garden, giving each plant more room to spread its roots and collect water. This might also be effective for annual flower beds. This extra space in combination with mulch will greatly reduce the need to water.

Raised beds dry out more quickly, so choose drought tolerant plants and mulch the surface.

Select indeterminate varieties of tomatoes since they have deeper root systems and are better able to fend for themselves in dry conditions.

Deadhead flowers promptly! The plants use energy to form seeds so deadheading allows the plants to conserve that energy (and therefore require less water).

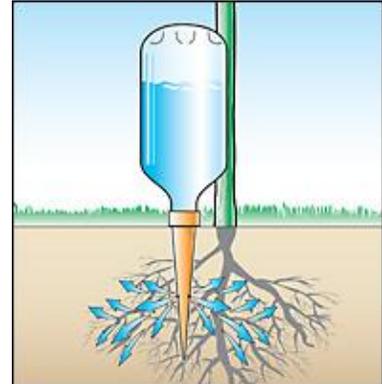
Direct the water to the plant – newly planted trees, shrubs and even perennials must be watered. Build a 'dike' around them to ensure the water that you apply stays with that plant and doesn't flow away.

When watering, pour the water slowly so that it has time to be absorbed into the soil and does not run off.

Another way to direct water to a special plant or recent transplant is using a watering spike that attaches to a 2 litre pop bottle and slowly releases the water in the bottle to your plant.

Avoid using an oscillating sprinkler; too much water is wasted. Instead, thread a soaker hose around the plants.

Water plants in the morning so that they get a chance to absorb the water before the sun evaporates it. Watering at night should be avoided since it can lead to fungal problems.



Lawns

Replace lawns with drought tolerant plants or ground covers. Grass requires a high amount of water to remain lush and green. Alternatively, keep the grass but don't worry when it goes dormant during a hot dry spell. That is its natural defense and it will green up again when cooler and moister weather arrives.

Don't use synthetic fertilizers during a period of drought. They need to be watered in to avoid burning the lawn and the dissipation of its nutrients.

Set your mower blade higher. Grass should be cut to 7.5 cm height. At this length, the grass actually shades its roots and reduces evaporation. Never cut more than 1/3 of the grass's length – so cut it by the time it reaches 10 cm. This reduces the amount of stress placed on the grass, therefore requiring less energy to recover from being cut.

Other ideas

Do other garden chores during dry-spells. For example, edging is often easier when the soil is dry.

When weeding or preparing a garden bed, don't cultivate the soil as the loosened soil will dry out more quickly. Hand pull weeds or use a trowel to only disturb the soil around the weed.

Never use a sprinkler system on a timer. Everyone has seen lawns being watered during the middle of a downpour.

Put garden beds in the "snow trap" areas of your yard. These are areas where the snow collects – the plants will enjoy the added benefit of a good snow cover for warmth in the Winter and additional moisture as the snow melts in the Spring. A snow fence or a hedge will encourage snow to collect instead of drifting across the yard. Snow traps are also formed when plants are not cut to the ground in the fall.

Read a book or do more on-line research on xeriscaping, dryland gardening or drought tolerant plants.

A List of Some Drought Tolerant Plants

Perennials:

Achillea ☼
Adiantum ●
Agastache ☼
Androsace ☼
Anthemis ☼
Arabis ☼
Armeria ☼
Artemesia ☼
Aruncus ☼
Asclepias ☼
Aster ☼
Baptisia ☼
Buddleia ☼
Campanula ☼
Cerastium ☼/●
Coreopsis ☼
Dianthus ☼
Dictamnus ☼
Echinacea ☼
Epimedium ●
Eremurus ☼
Erigeron ☼
Erodium ☼
Eryngium ☼
Euphorbia ●
Gaillardia ☼
Geranium ☼
Gypsophila ☼
Helianthemum ☼
Hemerocallis ☼
Heuchera ●
Hosta ●
Iberis ☼
Iris ☼

Knautia ☼
Lamiaeum ●
Lamium ●
Lavandula ☼
Lewisia ☼
Liatris ☼
Linum ☼
Lychnis ☼
Nepeta ☼
Oenothera ☼
Origanum ☼
Pachysandra ●
Papaver ☼
Penstemon ☼
Perovskia ☼
Phlox ☼
Pulsatilla ☼
Rudbeckia ☼
Salvia ☼
Scabiosa ☼
Sedum ☼
Sempervivum ☼
Silene ☼
Stachys ☼
Sylphium ☼
Symphytum ☼
Tiarella ●
Verbascum ☼
Veronica ☼
Vinca ●
Yucca ☼

Annuals:

Alyssum ☼
Gazania ☼

Helichrysum ☼
Papaver ☼
Pelargonium ☼
Silene ☼
Verbena ☼

Bulbs:

Allium ☼
Daffodils ☼

Trees/shrubs:

Amelanchier ☼/●
Caryopteris ☼
Cornus ☼/●
Cotoneaster ☼/●
Euonymus ☼/●
Hypericum ☼
Potentilla ☼

Grasses (or grass like):

Calamagrostis ☼
Carex ☼
Festuca ☼
Panicum ☼
Pennisetum ☼
Stipa ☼

Vines:

Ampelopsis ☼
Clematis ☼
Lonicera ☼/●
Parthenocissus ☼/●

Sun: ☼

Shade: ●