

# Use Water Wisely



Tips For Your Lawn and Garden

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## Introduction

Normally, the City of St. John's receives a lot of rain. Mother Nature takes good care of our trees, plants and lawns. However, some years we receive below average precipitation:

**PRECIPITATION (millimeters)**

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>Average</b>
<b>April</b>	77.4	86.0	223.2	51.8	105.6	61.8	<b>108.8</b>
<b>May</b>	49.6	133.8	61.2	66.4	118.6	87.4	<b>85.9</b>
<b>June</b>	39.5	105.0	102.6	61.4	129.2	60.6	<b>87.5</b>
<b>July</b>	50.0	69.6	49.6	114.0	107.1	---	<b>78.1</b>
<b>August</b>	58.8	130.7	139.4	152.3	123.3	---	<b>120.9</b>
<b>September</b>	205.7	124.3	94.8	53.5	67.6	---	<b>109.2</b>
<b>Average</b>	<b>80.2</b>	<b>108.2</b>	<b>111.8</b>	<b>83.2</b>	<b>108.6</b>	<b>69.9</b>	

## Water Saving Tips

Throughout the summer months, municipal water use doubles. This is the season when homeowners are outdoors watering lawns and gardens, filling swimming pools and washing cars.

Summer peak demand places stress on municipal water systems and may increase operating costs. As water supplies diminish during periods of low rainfall, some municipalities must declare restrictions on lawn and garden watering.

By applying some handy tips, your lawn and garden can cope with drought conditions and you can minimize water wastage.



## General Tips

Much of the summer peak demand is attributed to lawn and garden watering. Often water is applied inefficiently, resulting in significant wastage due to over watering, evaporation or runoff. Here are some *General Watering Tips* to help avoid wastage:







Before watering, always take into account the amount of water Mother Nature has supplied to your lawn or garden in the preceding week. Leave a measuring container in the yard to help you monitor the amount of rainfall and follow the tips below to help determine how much water to add.





Bear in mind the new **Water Conservation Order** that is in effect in the **City of St. John's**.

## General Tips

-  Regularly check your hose or irrigation equipment for leaks or blockages.
-  Set your sprinkler or hose to avoid watering hard surfaces such as driveways and patios. If you're not careful, it's water that's down the drain.
-  Water before sunrise or after sunset to reduce evaporation. Water on calm days to prevent wind drift and evaporation.
-  Water slowly to avoid runoff and to ensure the soil absorbs the water.

## General Tips

 Use water from dish rinsing, dehumidifiers or other gray water sources that do not contain harmful chemicals.

 Collect rainwater from your roof in a rain barrel or other large container and use a bucket or hose to water your garden. Direct the down spout of your eaves troughs into the container.



## General Tips



Depending on your lot size and budget, an **irrigation system** can make a difference.

A garden hose with small holes placed on the ground applies water to the soil surface where it is needed, rather than to the leaves, and reduces evaporation.

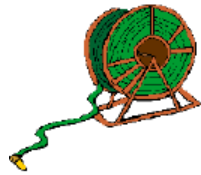
Drip or trickle irrigation systems are highly efficient because they deliver water slowly and directly to the roots under the soil surface. This promotes deeper roots, which improve a plant's drought resiliency.

If you use a sprinkler, choose one with a timer and that sprays close to the ground.





## Tips For Your Lawn



Established lawns generally require about 2.5 cm (1 inch) of water per week to thrive.

If Mother Nature is providing this amount of rainfall, your lawn will thrive without supplemental watering. When rainfall does not provide adequate moisture, your grass may start to turn brown. This does not mean it is dead, it's simply dormant.

An established lawn will recover and resume its green appearance shortly after sufficient rainfall returns.



## Tips For Your Lawn

Apply these tips to save water without compromising the health of your lawn:



Apply about 2.5 cm of water not more than once per week and skip a week after a good rain. The correct amount can be estimated by placing an empty tuna can on your lawn as you apply water evenly across the surface. When the water level reaches the top of the can, you've applied about 2.5 cm of water which is all your lawn needs. You can time how long it takes to reach this level, then set the timer on your sprinkler.



## Tips For Your Lawn



Water thoroughly. Deep watering at this rate is better than frequent, shallow watering because it encourages deep roots.



Don't water your lawn excessively. When it's waterlogged, it may turn yellow and develop fungus and diseases. Oxygen and mineral uptake may be restricted on heavy clay soils. Too much watering can also lead to thatch and fertilizer leaching.



Avoid mowing and unnecessary traffic on your lawn when the lawn is dry or dormant.

## Tips For Your Lawn



Don't cut your lawn too short. When it is 6 cm in height or taller, the roots are shaded and better able to hold water.



Aerate your lawn once a year in the early spring or fall to improve water penetration. Afterwards, top-dress by applying a thin layer (max. 15 mm) of organic material and rake to distribute evenly. You can over-seed after this to help thicken the lawn.



## Tips For Your Lawn



Application rates, sources and timing will depend on many factors including soil type. As a rule, a healthy lawn with good soil needs 1 to 2 kg of nitrogen per 100 m<sup>2</sup> every year.

Leave grass clippings on the lawn to return about 1 kg of nitrogen per 100 m<sup>2</sup> to the lawn, and reduce weeds and moisture loss.

If you are thinking of buying a new lawn mower, look for one with a mulching blade. Or you can replace the blade on your existing lawn mower with a mulching blade.



## Tips For Trees, Shrubs, & Flower Gardens



Here are some water-saving **tips for trees, shrubs and flower gardens:**



Direct water to the root system. In the case of trees and shrubs, the roots that take up the most water are generally located within the top 30 cm of the soil and near and even beyond the drip line. This is the area directly below the outer tips of the branches.



## Tips For Trees, Shrubs, & Flower Gardens



Plants have different watering requirements at various stages of their growth.

- For example, in the first year of planting, trees need about 2 to 3 cm of water once a week.

- During the next four years, they need 2 to 3 cm of water every 2 to 3 weeks. Generally, mature trees require about 2 to 3 cm of water once a month.

- If Mother Nature is providing at least this amount of moisture, supplemental watering should not be necessary. But moisture requirements depend on a range of factors, including soil type and species.

- For example, native tree species carefully selected to match the site conditions are most likely to withstand drier conditions.

## Tips For Trees, Shrubs, & Flower Gardens



Water perennials and vines well in the first year during establishment.

Afterwards, perennials selected to match site conditions should not be killed off by drought if no supplemental watering is provided.

They may wilt, but should bounce back once it rains, or simply go dormant until the next growing season.

If you notice wilting or die-back on your perennials, water to a depth of 10 to 20 cm to help restore the plant's health.





## Tips For Trees, Shrubs, & Flower Gardens



Apply a layer of mulch about 10 cm deep over the surface of the garden to retain moisture, moderate soil temperature, control erosion and suppress weeds. Pine bark, straw and crushed rock are just a few of the materials that can be used as mulch.



Use a perforated hose or hand water your garden, rather than using a sprinkler. This will help to apply water to the soil and roots—rather than the leaves—and reduce evaporation.



Grass under your tree competes with the tree's roots for water. Apply mulch instead which helps to retain water. You can remove the lawn and replace it with mulch material.

## Designing a Water Efficient Garden

You can create a lush, colourful garden that requires little maintenance of water by applying **The Seven Principles of Xeriscaping** - an approach to designing landscapes so that their water requirements correspond to local climatic conditions.

While these are sound principals for any garden, they are particularly useful if you live in a region with low rainfall or experience water shortages.



# Designing a Water Efficient Garden

## The Seven Principles of Xeriscaping

**1. Design for your site and your needs.** Sketch your lot including property lines, buildings, driveways and features that will remain. Add trees, shrub and flower beds, lawn areas, patios, decks, etc. Consider the specific conditions of your yard, taking into account that water requirements will differ in shady versus sunny spots, and slopes versus flat areas or depressions. Some places, such as narrow side yards, may be hard to water. Where possible, drain paved surfaces to garden and lawn areas.



## Designing a Water Efficient Garden

**2. Group plants with similar water needs to make watering more efficient.** Shrubs and perennials should be grouped together in mulched beds. Trees should also be clustered in mulched beds rather than isolating individual specimens in lawn areas. This will help to reduce moisture loss and competition.

**3. Amend the soil.** First, find out what type of soil you have and improve its water retention capabilities accordingly, for example, by adding compost or other organic materials.



## Designing a Water Efficient Garden

### **4. Size your lawn area to meet your practical needs for play and traffic.**

- Avoid many small or narrow lawn areas in favour of a consolidated lawn, since it is easier and more efficient to water.

- For primarily visual areas, consider water-efficient ground covers, perennials or shrubs.

- For foot-traffic routes or narrow spots, such as side yards, a permeable inert surface such as wood chips requires no water.

- Paved or flagstone patios as well as decks can be used as an active use no-water alternative to lawns. Avoid asphalt or concrete because they prevent the rain from soaking into the ground. These surfaces also reflect heat causing evaporation.

## Designing a Water Efficient Garden

### **5. Choose plants that are well adapted to your climate and site conditions.**

-Consult your local garden centre or the Memorial University Botanical Garden to find plant lists.

-Know your site including its soil types.

-In shady areas, use shade-tolerant species or consider a woodland shade garden. In sunny spots, use drought tolerant, sun-loving species or consider a wildflower meadow. Drought tolerant species should be used on rapidly-draining slopes (avoid turf grass). You can consider moisture-loving plants in lower spots.

-For a water-saving lawn, choose a species best suited to rainfall levels in your region.

-Low maintenance lawn seed mixes are commercially available. Check your local seed companies or garden centre.

## Designing a Water Efficient Garden

**6. Use mulch.** (Refer to Tips for Trees, Shrubs and Flower Gardens)

**7. Use an efficient irrigation system and appropriate maintenance.** (Follow the tips in the previous sections.)



## Other Conservation Tips

### Other Outdoor Activities



Lawn and garden watering is not the only outdoor activity contributing to summer peak demand. You can relieve the burden on municipal water supplies by doing the following:



Use a broom instead of water to remove debris from paved surfaces such as driveways.



Use a bucket and sponge to wash and rinse your car, instead of a hose.



Cover swimming pools when they are not in use to reduce evaporation.



## Additional Information

If you require further information why not check out these internet sites:

- [www.icangarden.com](http://www.icangarden.com)
- [www.ec.gc.ca/water](http://www.ec.gc.ca/water)
- [www.climatechangesolutions.com](http://www.climatechangesolutions.com)
- [www.patsplants.ca](http://www.patsplants.ca)
- [www.canadiangardening.com](http://www.canadiangardening.com)
- <http://isa-arbor.com>
- <http://sis.agr.gc.ca>
- [www.healthylawns.net](http://www.healthylawns.net)
- [www.gov.nf.ca/env](http://www.gov.nf.ca/env)
- [www.farmersalmanac.com](http://www.farmersalmanac.com)
- [www.landscapenf.org](http://www.landscapenf.org)
- [www.mun.ca/botgarden](http://www.mun.ca/botgarden)



# Contact Information

CALL 24 HOURS A DAY: **3-1-1**  
OR ONLINE: [WWW.STJOHNS.CA/ACCESS](http://WWW.STJOHNS.CA/ACCESS)

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