



2408 604.
Montvue 302.
Avenue
Abbotsford 6400

Veggie Water-Wise Gardening | Soil. Rain. Water. |



Good **SOIL** is the base for **efficient irrigation**

Rainwater is a **naturally occurring** renewable
resource

Saving Water **reduces costs** and **wasted** effort

Efficient irrigation produces **BETTER** plants and
harvests

SOIL



Soils that have 5% organic matter can hold 5 times the amount of water as soils that have 1% organic matter, meaning they will not dry out as quickly

Soils high in organic matter also hold lots of air even though they hold lots of water.

The garden beds used at the Garden Project were filled using a method called Lasagna Gardening. It's also be called

- Sheet composting, or
- Layer Gardening

A 'Lasagna Garden' is created by composting materials in layers in one spot. You can use whatever organic material is at hand. It will eventually all rot and provide a great soil for your plants.

It's most effective if you alternate layers of:

1. **Carbon ('brown' dried layer), and**
2. **Nitrogen ('Green' layer made of living material)**

These beds were layered using fall leaves, straw, and animal manures. Only the top 8" or so is purchased topsoil.

**Lasagna Gardening effectively
allows growing on barren, stony, sandy, or compacted
clay soils**

caution:

- too much Carbon/woody material can make soil 'hydrophobic' (the soil repels water) and can attract too many insects/plant pests, and keeps the plant from getting the needed Nitrogen
- too much Nitrogen makes for a smelly, unpleasant compost



Lots of worms in the compost is a sign that you have an active, living, properly balanced compost



RAIN



A typical garden requires at least an inch of water a week, which should leave the soil soaked about 5-6 inches deep.

For a rough estimate of how much water your garden requires weekly, use 5 gallons of water per 8 square feet.
OR, almost **1 cubic metre per 200 square feet of garden every two weeks**

The Garden Project requires at least 4 cu metres of water per week

Available roof runoff = area of roof x amount of rainfall

eg. 12 sq metres x 572mm (Feb 1 - Jun 30, avg) = 6.86m³

see <http://www.calctool.org/CALC/other/default/rainfall> for a simple online calculator

- Harvesting rainfall reduces the consumption on the City's resources.
- Plants don't need potable water from municipal taps.
- A rainfall harvest & storage system is a one-time setup with multiple uses over it's lifetime

WATER



**There are two times during the growing season when it is critical that your garden receives adequate moisture:
When the seeds are germinating and just prior to harvest.**

As much as 60% of water is wasted when surface watering with a hose and sprinkler

Ollas can save upwards of 50% of water use since irrigation occurs at root level - not at surface level where run-off and evaporation are a problem

It's recommended to use five 5-gallon ollas for a 100-square-foot garden plot. One test plot used 1.25 gallons per olla every four days

How often should the OLLAS be refilled?

This is determined by a few variables: how much water your plants use, soil type, temperature, and rainfall. Often, filling OLLAS 1-2 times a week is sufficient. You'll find the pattern for your area with a little observation. It is best, if possible, to keep some water in the OLLA at all times.

There are many reasons to use an OLLA:

-If your water use is restricted.

-If you want to save time by watering less often.

-If you container garden.

-If you have a small area which is difficult to irrigate or gets sun all day.

-If you cannot water your plants on a regular basis (travel, work, summer home, etc.)

-If you don't like to weed.

-If you want healthier plants and better vegetable

<https://suburbanfarmonline.com/2010/08/09/make-your-own-ollas/>

<https://www.permaculture.co.uk/readers-solutions/clay-pot-irrigation-simple-adaptation-ancient-technique>

<https://growoya.com/>

