



## Drip irrigation

With dry times and the possibility of climate change effects, now is the time to consider introducing drip irrigation into your garden. Drippers control water flow to the soil around the plants, allowing better control over where the water is applied and allowing it to be spread further.

These emitters are available as 'in-line' or 'on-line' products. In-line drip tubing contains drippers moulded into the tubing at regular intervals. On-line products allow you to insert drip emitters into the irrigation pipe where you require them.

In-line drippers are now the easiest to install and cheapest form of drip irrigation. This product is ideal for high density plantings, vegetable gardens and around groups of plants or larger shrubs and trees. Most product is available in 1.6 litres per hour (LPH) or 2 LPH. The in-line product should have the emitters spaced at around 300mm.

On-line drippers are available in 2 LPH, 4 LPH and 8 LPH. The 2 LPH emitters are most suited for Canberra's soil types. This lower application rate will allow the water to move deeper into the root zone, reducing the risk of run-off or pooling.

To design a drip irrigation system that is suitable for your garden, talk to your local irrigation professional.

Drip irrigation is less affected by evaporation, is not affected by wind and due to the low application rate rarely will you experience run-off. However, before you do any watering it is important to understand your soil and your plants' requirements.

### SOIL TYPES

Generally in Canberra we have clay-based soils. Whilst it is hard to get water into these soils, when they are wet they have an excellent ability to hold water. We need to use our soils as a 'water bank'.

Our plants and environmental conditions withdraw water from the soil. Rainfall and irrigation deposit water into the soil.

Using drip irrigation is an effective way to penetrate our soils with water. Unlike our general gardens, most vegetable gardens consist of free draining soils. These soils behave like this due to the high amount of organic material. You need to either use higher flow rate drippers i.e. 8 LPH, or more drippers, closer together in these soils. For clay soils, 2 LPH drippers are most appropriate.

To understand how the soils in different parts of your garden respond to drippers, and therefore the best way to apply drip irrigation for your situation, use the cyclic watering method described below.

### CYCLIC WATERING

Cyclic watering is an efficient watering method that keeps your garden healthy with minimal water usage. This method does not cause excessive pooling or run-off, and helps water to penetrate the soil. You can apply the following principles of cyclic watering to the operation of your drip irrigation system.

Turn your drip irrigation on for around 20 to 30 minutes, or until pooling or run-off begins and then turn the system off. Wait for half an hour to one hour to allow the water to soak into the soil, and then repeat the cycle. In between watering cycles, dig down to see how far the water has penetrated the soil. Repeat the cycle until the water reaches the depth of the root zone.

## BENEFITS OF DRIP IRRIGATION

- Great for everything from plants on slopes to vegetable gardens.
- Ideal for windy areas as the water goes straight into the root zone.
- Suits most soil and plant types.
- Reduces the risk of insect and fungal disease as drip irrigation only wets the soil around the plant's roots, not the leaves.
- Drippers only put the water where you want it. Therefore you will reduce the amount of weed growth in your garden.

## MORE WATERING TIPS

- Don't mix drippers and sprays on the same line.
- Mulching your garden beds will help retain moisture in your garden.
- Split your irrigation up into sections—irrigating plants with similar root zones and watering needs together.
- Don't forget to regularly flush and maintain your system. A leaking or misaligned drip irrigation system can waste a lot of water. Also check regularly for blocked drippers.
- Make sure you are aware of Permanent Water Conservation Measures and any temporary water restrictions that may determine when and how you can water.

## WATER RESOURCES STRATEGY

*Think water, act water* is the ACT Government's strategy for sustainable water use and management. It aims to reduce Canberra's per person water consumption by 12 per cent by 2013 and 25 per cent by 2023.

*Think water, act water* provides a comprehensive framework for a partnership between the community, industry and government in managing, using and conserving the water resources of the region.

It includes an extensive range of measures, which will ensure water supply security for the ACT, protect and improve ecological values associated with our waterways, and improve the amenity of urban areas.

The strategy outlines a range of initiatives to be put in place to assist Canberrans to increase water efficiency around the home and garden.

## WATER EFFICIENCY INCENTIVE PROGRAMS

You may wish to consider the home and garden water efficiency programs offered as part of the ACT Government's water strategy, *Think water, act water*.

Details of all ACT Government water efficiency incentive programs are available from [www.thinkwater.act.gov.au](http://www.thinkwater.act.gov.au)

## WATERWISE GARDENING WORKSHOPS

ACTEW Corporation, in conjunction with local, independent specialists, offers waterwise gardening workshops designed to teach you how to have a healthier garden that uses less water. At the workshop you will learn about efficient garden watering systems and methods, and the benefits of using mulch and drought tolerant plants. For more information, or to book a place at a workshop, call ACTEW's Water Conservation Office on 6248 3131.

### MORE INFORMATION

For more information on water issues, water efficiency rebates and *Think water, act water* initiatives:

Ph: 13 22 81

Email: [WaterResources@act.gov.au](mailto:WaterResources@act.gov.au)

Website: [www.thinkwater.act.gov.au](http://www.thinkwater.act.gov.au)

For more information on Permanent Water Conservation Measures or other temporary water restrictions, call the ACTEW Water Conservation Office on 6248 3131, or visit [www.actew.com.au](http://www.actew.com.au)