

Grass Roots

The turf and irrigation research project



The roots of the project

PREPARATION IS THE KEY

Site preparation is incredibly important to establishing a healthy lawn, with the Grass Roots site benefiting from comprehensive preparation, which assisted in promoting deep root growth and overall site health.

A FEW THINGS TO KEEP IN MIND WHEN ESTABLISHING YOUR OWN "GRASS ROOTS" INCLUDE:

- Ensure that you first clear the area of existing lawn or weeds by spraying with a glyphosphate type herbicide.
- To help prepare a deep base and promote a healthy, deep rooting lawn, cultivate the area to a minimum depth of 150mm.
- The Grass Roots site like a large part of Canberra's soil was heavily clay based. To assist the break up of clay in your soil you can apply gypsum during the site preparation. Lime can also be applied at this point to balance the acidity of soils.
- Topsoil should now be incorporated if your soil is inadequate, be sure to rake smooth and remove any rocks and roots.
- Finally, before laying or seeding your lawn, remember to bring the soil up to the same height as any paving or garden edging around the area.

WHAT GRASSES SHOULD I CONSIDER?

I WANT A TURF...

THE RIGHT TURF

THINGS TO CONSIDER

That is the most water efficient and low on maintenance.

Consider a warm season turf variety like Soft Leaf Buffalo or Couch. These require about half the amount of water as a cool season variety and once established are hard wearing.

Warm season turf varieties go into a dormancy period during winter, meaning they change to a straw colour during the colder months.

That remains green all year round and is relatively water efficient.

Consider one of the cool season varieties of Fescue. These are not as water efficient as warm season turf but do remain green all year round.

For an idea of which blend of fescue is right for you check the turf results in the final Grass Roots report available at actew.com.au

That is hard wearing, relatively water efficient and appropriate for a large open space or sports field.

Consider a variety of Couch or the RTF + 10% hard fescue blend. These are both hard wearing, withstand heavy foot traffic and present a good surface for most uses.

Remember, Couch is a warm season turf and will go into dormancy during the colder months. Fescue blends will remain green all year round but do require significantly more water, particularly during summer.

HOW SHOULD I WATER MY LAWN?

As a general rule, irrigation scheduling is calculated using evaporation and rainfall levels, turf crop factors and application efficiency percentages. For a full breakdown of crop factors and water application for each of the varieties of turf, see the *Grass Roots Final Report* outcomes available on ACTEW's website.

The Grass Roots project has also confirmed cyclic watering as the most effective type of irrigation to assist in maintaining a healthy lawn. Not only does it promote healthy root growth but it also is a very efficient method of watering all types of grass. For full details and instructions on how to water using this method refer to the Grass Roots website at actew.com.au

WHAT IRRIGATION SETUP SHOULD I CONSIDER?

IRRIGATION TYPE	PERFORMANCE	THINGS TO CONSIDER
Sprinkler System	With a distribution uniformity (DU) of 81%, the sprinkler section performed well across all of the varieties of turf. Aesthetically this also meant the turf in this section produced excellent average colour throughout the life of the project.	As with all irrigation types, proper setup is crucial in achieving quality uniformity. For more details on the Grass Roots irrigation system refer to the Grass Roots website.
Sub Surface Drip Irrigation (DI)	A good average colour was achieved throughout the DI sections, although this area did not perform as well under stress from dry conditions.	This type of irrigation requires a more complex installation process and does require on-going maintenance because of its subsurface qualities.
Sub Surface Drip Irrigation (WRAP)	The performance of this section was very similar to the standard DI section with good average colour evident throughout the area.	This type differs slightly to the DI section with the addition of a geo-textile fabric that wraps around the drippers. This aims to enhance the lateral (sideways) spread of water and reduce the effect of 'tunnelling' which leads to the uneven distribution of water.
Sub Surface Drip Irrigation (Flat)	This irrigation section did not achieve the same colour uniformity compared to the other irrigation types. As a result the area demonstrated heavy 'railway tracking', with colour variance very evident.	This product was spaced wider apart and received less water on average than the other sections. It includes a flat polyethylene strip and geo-textile fabric to laterally spread the water further. Installation of this product is however far cheaper to purchase than the traditional subsurface drip irrigation systems.



When can I water?

BEFORE WATERING YOUR LAWN, MAKE SURE YOU CHECK IF RESTRICTIONS APPLY. VISIT ACTEW.COM.AU FOR FULL DETAILS.