



## HEALTHY SOILS

Plants can't be healthy and drought proof without healthy soils. Good soil will absorb and retain water and nutrients.

It is preferable to improve existing site soils rather than removing it and importing new soil. We recommend starting a compost bin that will provide you with free organic matter for the garden and you will be reducing landfill.

By improving your soil with organic matter like manure or compost and adding minerals to the soil with rock dusts, you will improve plant growth, use less water and fertilisers and have healthier plants. Soil improvement and ripping to a depth of around 400mm is necessary to make it permeable enough for water to reach the roots of plants, rather than be lost by run off. It also assists a soils water holding capacity.

### soil analysis

Soils will vary from site to site and even within a given site. A soil analysis that is random sampled provides information that enables proper selection of plants and indicates soil improvements required.

You can simply dig up a patch of soil to see what type it is and so determine its capacity for growing plants. Canberra has poor soil quality in most areas, with high levels of clay and silt and low levels of organic matter. If you dig and it is 'gluggy', you'll know it is clay.

You may wish to have a soil test conducted to determine correct PH balance and prepare soil accordingly. The simplest method is to purchase a kit from a nursery or hardware store and undertake the test yourself. Alternatively, send off samples to a reputable laboratory for a more detailed analysis.

Many Australian soils are acid (less than neutral pH7), and in all probability soils on your property are acid also. An application of Dolomite as per manufacturer's instructions or rock dusts will help rebalance soils. Do not plant into Dolomite for at least a week after application.

If soil is clay then it is easily compacted, dense, absorbs water slowly with poor drainage causing run off and water wastage. To improve soil quality and drainage, turn over soil with a fork or have the location ripped, then add organic material such as compost, aged manure and/or aged sawdust. Digging in a layer of sandy loam and applying gypsum will also help loosen up clay-based soil.

If it is a mix of clay and rocks, you'll need to shatter the rock then add compost and the appropriate additive to rebalance soils.

Sandy soils are gritty and absorb then drain water quickly. It dries out easily having low water holding capacity and lacks nutrients. The addition of organic matter and even water storing crystals is recommended.

Loamy soil is a gardener's dream as it retains moisture yet drains well.

Improving the existing soil in your garden is preferable to adding topsoil. If you do import soil it should be thoroughly mixed in with what exists on site. If soils are compacted below, the roots will not be able to penetrate past the top soil and will struggle or stop growing and die.

