

## Clay Soils in Canberra

Heavy clay soils have been part of Canberra from the beginning. They are hard to wet in winter, dry in summer; and many plants can struggle in them.

Dealing with clay soils is essential if you want to give your new plants a good start. Some simple principles apply.

**Don't be afraid of your clay!** Clay soils are packed with essential minerals, many of which are unavailable to the plants because of the soil's structure. Turning the clay over with other materials helps the clay to become more friable, making it easier for plants to use these minerals.

**Make the planting hole very wide. If you dig a small hole in clay, you will find that water will sit at the bottom and rot the roots of the plant.** By digging a hole at least 50cm wide, the water will spread out instead of concentrating at the bottom. A mattock or a garden fork is the most useful implement for this.

**Mix the clay soil with organic materials to break it up.** Granite or small stones (not bluestone or roadbase), leaf litter (rotted down), composting mix, coarse sand, or animal manure (not chicken manure) are all good ingredients. Gypsum can also be added with this mix at a rate of 1-2 kg / square metre; re-apply every 6 months in the form of **liquid clay breaker** to maintain soil structure. If importing soil (soil you have purchased elsewhere), don't use compost in large amounts, and be sure to mix it with existing soil.

**Mix the good with the bad.** Putting a plant into a hole with only imported soil will stress or kill it when it gets to the edge of clay walls. After you dig the hole, put half of the clay back in the hole, then mix it with some of the materials mentioned earlier. The plant will get a good start, and will slowly adapt to the clay.

When digging the hole, make sure the sides of the hole are not smooth. Roots need several uneven surfaces to penetrate the clay walls.

**Keep the surface cool and moist by mulching heavily.** Clay can become dry, and will crack in the summer. By mulching the surface, you can prevent this cracking and the subsequent 'baking' of the plant and its roots.

**Choose plants that are known to cope in clay.** There are some plants that grow in clay soil. Remember that they may grow slowly, because of these trying conditions.

## Clay tolerating plants:

- *Acacia boormanii* (Snowy River Wattle)
- *Acacia floribunda* (Gossamer Wattle)
- Dwarf *Acacia* varieties (Wattle)
- *Diosma* species
- *Myoporum parvifolium* (Creeping Boobialla)
- *Leptospermum* sp (Tea-trees)
- *Hakea salicifolia*
- *Pelargonium* sp (Geraniums)
- *Brachyscome* sp (Australian daisy)
- *Kunzea* sp
- *Viola hederacea* (Australian violet)
- *Acacia pravissima* (Oven's Wattle)
- Most *Callistemon* species and varieties (Bottlebrush)
- *Anigozanthus flavidus* (Yellow Kangaroo Paw)
- *Melaleuca* sp (Paperbarks)
- *Hakea eriantha*
- *Cupressus* sp
- *Abelia grandiflora*
- *Lomandra* sp
- *Scaevola* 'Sunfan'

