



Taking care of MOTHER EARTH



Landscape designer Franchesca Watson dispels the myths and looks into new ways of ensuring healthy soil

LATELY I HAVE BEEN READING up on the latest theories about soil health.

I have never believed in continually turning beds – most plants’ feeder roots (i.e. those that they use to find water and nutrients) are close to the surface and turning the soil breaks them. It makes sense. The plant is set back until it grows some new ones – so you are really knocking the growth back repeatedly. I did think, however, that the occasional turning would aerate the soil, and that a good digging in of compost and loosening of the soil is wonderful when preparing new beds. Turns out I and many other gardeners are wrong and we should leave the aeration to natural agents.

There is thinking abroad that a ‘no-dig’ method actually produces best results – this means that the plants are simply inserted into holes dug straight into weeded beds with no turning of the soil in preparation. Compost is merely spread as a mulch on the surface. When I was a student, I worked in Durban under the then unorthodox indigenous specialist Geoff Nichols, who maintained that the best way of planting trees (or anything) was to use smallish plants and just to dig

a hole the size of the bag, insert the plant, add water and let nature take its course.

But it’s not just the roots we are damaging with digging. Plants enlarge the capacity of their root system by connecting the root hairs with mycorrhizal threads. This is a fungi and it apparently helps in bringing nutrients and water into the root zone. The advantage to the fungi is that they pick up exudations of food from the roots as a product of photosynthesis. Apparently at least 95-per-cent of plants establish these symbiotic relationships with fungi in the soil.

Not only digging will damage the mycorrhizal fungi – fungicides and chemical fertilisers will substantially weaken, if not kill, them. There are other beneficial inhabitants of soil we should be careful not to harm. Earthworms, bacteria (which on death, provide nutrients to plants), protozoa (which supply nitrogen to plants) and arthropods, such as mites, beetles, spiders (which shred organic matter). In fact, there are multiple visible and invisible denizens of soil which are better for our garden alive rather than dead. — Franchesca Watson www.franchescawatson.com

THREE IMPORTANT STEPS TO SOIL HEALTH:

- 1 **Avoid regular use of synthetic chemicals** – both fertilisers and pesticides.
- 2 **Avoid cultivating the soil** as much as possible.
- 3 **Increase life in the soil** by adding organic matter to the surface as a compost mulch.