

Sheet mulching or composting

Build your soil the 'no work' way.

Sheet mulching (or composting) is the simplest, and least labour intensive, method of building the fertility of most soil types and affords the gardener an easier option than back-breaking spade work for establishing a new garden. It encourages the soil biota, many species of which will work the soil over for you - no digging required. It is a three-in-one method which combines composting, mulching and *biodegradable weedkillers* (cardboard and newspaper), and it enables you not only to improve your soil but to grow and harvest a crop all at the same time.

There are many ways of sheet mulching, two of which are discussed. Both require enormous volumes of organic matter initially and, thereafter, it becomes a routine activity in the garden to keep adding more mulching materials to the surface as the soil flora and fauna break them down into life-sustaining humus, and releasing nutrients which are gobbled up by the plants. The whole idea behind it is to minimise soil disturbance.

Here's how to go about it:

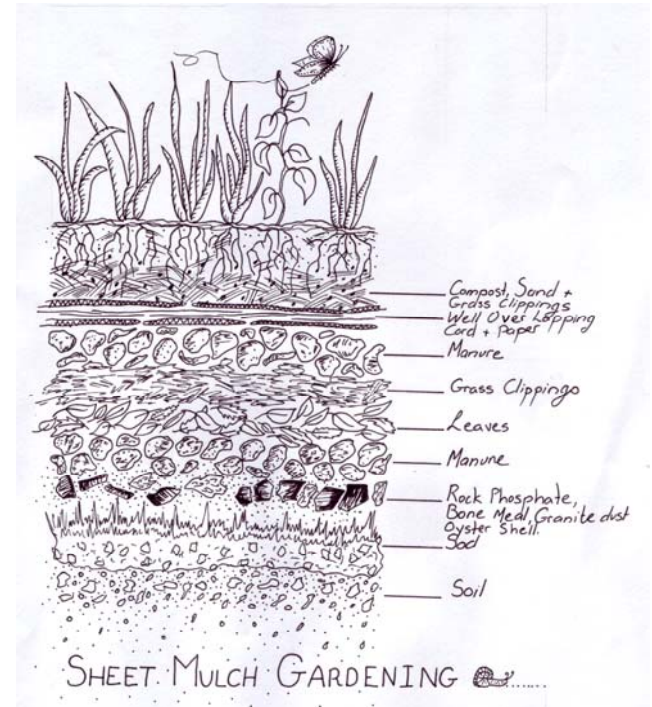
Method 1

- Mark out the areas for your new beds and, right on top of whatever is there (bare soil, weeds, grass), sprinkle some rock phosphate or bonemeal and **wood** ash or dolomitic lime (for acid soils) or sulphur (for those alkaline Cape Flats soils).
- Cover the area with a layer of manure to provide the extra nitrogen to break down the dead leaves and roots of the plants that will be buried by the mulching materials.
- Then add alternating layers (6cm, or 3 fingers, deep) of green, wet materials (lawn clippings, fresh leaves and prunings) and brown, dry materials (untreated sawdust, autumn leaves, straw) and more manure, watering each layer as you go, until you have covered the demarcated area to a depth of at least 20cm. With vigorous Kikuyu grass it is a good idea to mulch the area up to 30 or 40 cm deep. You'll be surprised at how much organic matter it takes to do this.
- Cover the whole area with **overlapping** sheets of newspaper (3 – 5 sheets) or cardboard (1- 3 sheets) to prevent weed seeds from germinating, and grass runners from creeping through, and competing with your plants. Wet the paper and cardboard thoroughly and, in a very short space of time, it will have rotted down and disappeared, its job done.
- Lastly, add a layer of compost, soil and mulch to hide the unsightly newspaper and, hey presto, you're ready to plant. Make a hole in the mulch/soil layer, cut a cross through the paper or cardboard, add a dollop of good potting mix (half compost, half good garden soil) and plant your seed or transplant your seedling. Water well.

Method 2

- Mark out the areas for your new beds and cover whatever is there (bare soil, weeds, grass) with between three to six sheets of newspaper or one to three sheets of cardboard. Make sure the sheets are overlapping well and water.
- Now proceed as above, layering green, wet and brown, dry materials and manure until the bed area is covered to a depth of at least 20 cm.
- Add a layer of mulch to cover.
- To plant up this sheet mulched area, simply make a hole in the mulch, add a good soil mix and plant.

In both cases there is no need to use herbicides or other drastic measures to kill the grass and other vegetation. The newspaper and cardboard will do it for you. A myriad different creatures will take up residence in this bountiful environment, enriching the soil beneath with valuable humus which will be worked in by earthworms and other organisms which are, in effect, digging the soil for you.



Food from trees

Our indigenous trees are a good source of food; they're both beautiful, and bountiful.

Wild fruits have an exceptionally high vitamin C content – partly what makes them so acid – and sometimes a high protein, fat, carbohydrate or mineral content.

Global warming and climate change are topics that are repeatedly discussed in the media and amongst concerned citizens of Planet Earth. And so they should be. Yet too few people seem sufficiently motivated to make a lasting and positive impact on these disturbing trends by changing their lifestyles even a smidgen. It doesn't have to be a drastic, life-altering change. It can be as simple and rewarding, as planting a tree, or two, or three?

Trees benefit the ecosystems of the world by providing habitats for many creatures that play significant roles in maintaining the balance of nature. They fertilise and look after the soils, absorb massive quantities of carbon dioxide, release life-giving oxygen, and absorb the rainfall and slowly release it back into the atmosphere or into ground water supplies. They provide the *magic, medicine and poison* that minister to the mind and spirit of man; fuel, timber, shade and shelter and, not least of all, food provide for the physical body which is, perhaps, more important in the minds of many people.

Our indigenous trees are a source of all these things, but let's take a look at trees as a potential source of nourishment. Over hundreds of years the wild trees in this country have provided sustenance – the *difference between hunger and plenty, life and death*, for people and their livestock, and for the wild animals which they hunted and on which they fed. Today, with our so-called sophisticated tastes, many of these tree foods are unappealing to the palate.

I was intrigued recently to see the number of folk – young and old - climbing on neighbourhood walls, and hanging precariously off the boughs of the trees planted along the length of one of the main roads in our seaside village in Cape Town. I stopped to investigate. The centre of interest was the beautiful plum-coloured fruits of the waterberry – also known as Waterbessie (Afrikaans), umdoni (Xhosa, Zulu), montlho (Northern Sotho) and (more technically) *Syzigium cordatum* – which were growing in profusion on these rather splendid trees. I tasted the fruits, somewhat taken aback that I had never noticed them before, and was pleasantly surprised at the sweetness of the obviously ripe ones, and the sour and tangy taste of those still to reach their prime.

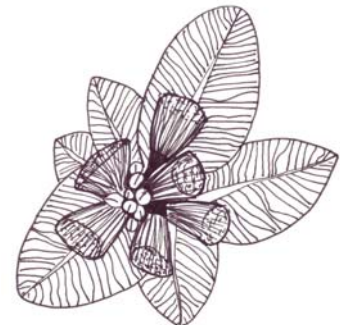
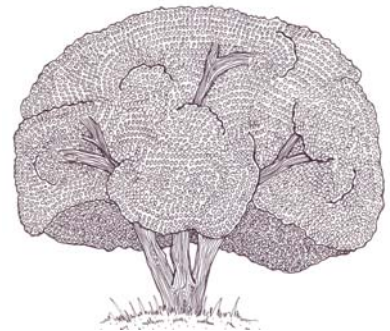
Syzigium cordatum – the waterberry tree – belongs to the family Myrtaceae along with the various guavas, pomegranates and Australian gums. Most people are also familiar with the common *Eugenia* used as a hedging plant. We've all used allspice and cloves in the kitchen. These are the aromatic fruits and flower buds respectively of other members of this same family, and which have great commercial value in Asia.

The waterberry is an evergreen, water-loving tree occurring fairly widely in South Africa and in a wide range of habitats ranging from forest margins, along water courses, in open bush and rocky outcrops, and from sea level to altitudes of 1 600 metres. It reaches heights of 12 to 18 metres, the larger specimens being found in swamp forests where they have been described as being '*literally supported on top of quagmires by the tremendous spread of their roots*'.

Waterberries are dense with round or spreading canopies and are often more luxuriant at the coast where the air is more humid, and water tables may be higher. In fact, it is believed that the presence of these trees in the wild indicates the presence of ground water. The blue-green leaves are thick and leathery, well able to tolerate the gale-force winds in the South-Western Cape and new foliage is bright red which adds to the aesthetic appeal of the tree. In the wild, browsing animals such as the Kudu eat the leaves and there are certainly birds such as the Crowned Hornbill which indirectly benefit by feeding off the hairy caterpillars of moths and butterflies that sometimes infest it occasionally.

In early spring and summer the clusters of sturdy buds at the ends of the branches burst into creamy-white or pink flowers which drop their petals very quickly leaving little puffs of stamens. The flowers have a delicate scent, produce large amounts of nectar and provide a good food source for bees and other insects. In late summer and autumn, the fleshy, deep pink to purple berries ripen, each one with one pip and these provide food for humans and a variety of animals including monkeys, birds, tortoises and mice.

This tree is perhaps one of the most useful in our arboreal anthology:



- It provides nesting sites and habitats for a variety of wild life.
- Its bark provides a reddish-brown or orange dye, is used as an emetic and to treat stomach complaints and diarrhoea. Powdered bark is also used as a fish poison.
- The leaves and roots are used for treating respiratory ailments and tuberculosis.
- The timber is heavy and hard, strong and elastic with a beautiful grain and, after seasoning in water, has been used for beams and rafters, furniture, boat building and fuel.
- It is purportedly strongly fire-resistant. Perhaps we should be planting more of it as fire-breaks in vulnerable areas.
- The berries are a source of purple dye, food for humans and animals, and are used for making alcoholic drinks and flavoured vinegars. Indeed, with a stretch of the imagination and a sense of adventure, a bowl of deep purple waterberries with their sweet-sour taste with just a hint of green apple could be quite a novel addition to your culinary experience. By the way, please don't confuse our waterberries with the American term for small watermelons, or a cocktail combination of watermelon and strawberries!



Chef Justin Patterson has come up with some novel ideas for incorporating these berries into both sweet and savoury dishes.

Before you start, there are three points to keep in mind:

- A lot of waterberries are needed to make a small portion of jam or sauce, simply because they have a very high water content.
- The berries have to be pitted before use; luckily this is very easy.
- Take care to pick only the ripest berries so that the bitter-tasting stalks are not included in the food.
- They have a very delicate flavour so it is best not to combine them with other strong flavours.

Good luck and bon appetit.

Waterberry and mint sorbet

(Makes about 600 ml)

250 ml water
 250 ml white sugar
 1 litre waterberries (pitted)
 1 teaspoon mint jelly
 1 egg white

1. Chop waterberries finely in a food processor.
2. Add the chopped berries to a saucepan with water, 200ml sugar and mint jelly.
3. Heat gently and stir until the sugar has dissolved.
4. Remove from the heat and let the mixture cool.
5. Place mixture into ice cream machine and let it churn. As soon as the mixture starts to freeze, remove.
6. Whisk the egg white until stiff, add 50ml sugar and continue beating till it is smooth and shiny (the meringue stage) and fold into sorbet mixture.
7. Put the mixture into a container and freeze.

Note: If an ice cream machine is not available, place the mixture into the freezer and break the forming ice crystals every hour with a whisk.

Waterberry compote

(Makes 250 ml)

Serve as accompaniment to desserts or strong flavoured cheeses.

300g Waterberries (pitted)
 100g sugar
 1 small cinnamon stick
 2 Star anise
 Water to cover

1. Place the ingredients in a saucepan and bring to boil. Turn down the heat and cook until thickened. The mixture must coat the back of a spoon when hot.
2. Remove from the heat and let cool.
3. The mixture will thicken when cold and has a slight jammy consistency.

You can also try steeping them in cider vinegar for a richly coloured, flavourful vinegar, or making jam and cordials. Try plucking them off the tree as you take a leisurely walk through your garden in the evening. They will most certainly boost your immune system, and provide you with the purple pigments necessary for good health.

Easy to cultivate, hardy and fast-growing, attractive, and a dense shade tree, the waterberry is a worthwhile addition to any garden. You can even grow your own specimen from seed which should be planted as soon as it is ripe, and before it dries out.

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Chef Justin Patterson of Chef-on-Call, www.chefoncall.co.za