

” The benefits of healthy soil include a healthy planet, beautiful landscapes, diverse habitats, bounteous crops, strong bodies and an exciting future.

SOIL SOLUTION

Without healthy soil and its legions of microbes, there would be no life. Soil is the critical link between our health and the very future of life as we know on earth. By improving the quality of our soil and its fertility we can grow quality food. Few people realise that it's only 20cm of topsoil that separates mankind from starvation.

Here's what you need to know to improve your soil. Firstly, you need to see which type of soil you have - clay or sand. Understanding their respective challenges will determine your gardening success. Clay soils are easily recognised, squeeze a handful of moist soil and it forms a sticky, gummy mass which won't easily break apart. It is dense with little air space for roots. It takes a long time to dry out, but when it does, it becomes cement-like and fine roots find it very difficult to grow.

Sandy soils present other challenges. Water drains through very quickly and roots barely have time to uptake moisture. Nutrients leach out the sand when watered, this can leave them dry, and depleted. If the spaces between the sand particles are too big roots cannot establish good contact with the soil and can be nutrient starved. Adding organic compost is the best way of improving the soil structure. Compost fills the open spaces between sandy particles. This increases water and nutrient retention.

in the pile to create a hole. Build the heap to about 1.2 meters ending with soil or grass clippings to keep the heat in.

5. Keep it moist. This helps transform organic waste through the action of bacteria, fungus and yeasts. Decomposition can take anything from 3 – 6 months depending on the heat generated inside your heap.
6. If necessary turn your compost heap every 6 – 8 weeks. Poking holes in it will aerate it and accelerate the process. The hotter it is, the faster it matures.
7. Your compost is ready when it's dark brown or black in colour, free of heavy odours and it is clear that the organic waste has broken down.

HOW TO MAKE COMPOST

1. Collect garden waste like fallen leaves, soft hedge trimmings and grass cuttings. Collect kitchen waste like uncooked vegetable peels, eggshells, teabags, potato peels and coffee grounds.
2. Choose a spot in the garden where earthworms and other organisms have access. Start with a 15-20 cm layer of dry 'brown' material like dry leaves and alternate with 'green' material and compost activators.
3. To activate the composting process, add kraal manure or comfrey leaves (a natural compost activator), between the layers or visit your local garden centre and purchase a 'Compost Activator'.
4. Air is also needed to break down the organic waste into humus. Put a stake

Composting tips:

- Put your compost heap near the garden, the less distance you have to haul it the more you will use it.
- Leave an 'easy to empty' container near the kitchen for house scraps.
- Have a water source nearby, it will make wetting it a lot easier.
- Build your heap under a tree or natural shelter to protect it from drying out and from heavy rains that may wash out the nutrients.

Compost can also be produced from methods like worm farming and Bokashi Indoor composting.



did you know?

Healthy soil is not only teeming with life but gives life too. Without healthy soil there would be no dense forests, no fertile grasslands. Without these habitats, there would be no wildlife. There would be no life at all. Just miles and miles of nothing.



HOW TO MAKE A WORM FARM

- Choose a container to house your worms. Put it in a shaded, sheltered spot. Worms don't like to be hot.
- Elevate your container above the ground so you can harvest the liquid manure or 'worm tea'. Place a can of water under the legs to prevent ants from invading your worm farm.
- Cover the bottom of your bin with hessian or a liner that stops worms escaping through the holes and keeps the worm casting in.
- Prepare a bedding material like moist shredded cardboard or shredded newspaper.
- Do not use glossy magazine pages. Soak newspaper overnight to get rid of the chlorine used to bleach the paper white.
- Add a layer about 5 – 10 cm deep of vegetable waste chopped into small pieces.
- Add the worms and cover them and their food with a layer of damp mulch like, moist newspaper or Palm Peat.
- Put the lid on so that the worms aren't eaten by birds.

Worms can be fed vegetables including peels and tops, fruit, coffee grounds, tea leaves, bread, rice, crushed egg shells, paper and egg boxes. The following foods must not be used, Citrus fruits, meat and bones, garlic, onion, wood ashes, salts, dairy products and shiny paper.

A healthy bin will have a fresh food layer of up to 2.5cm added daily and uneaten food should never be deeper than 5cm. Rotting food is anaerobic or oxygen deprived. Worms breathe through their skin and anaerobic conditions prevent the worms from breathing and cause them to die.

Start out by feeding the worms a small amount of food each day. Slowly increase the amount as the population multiplies. Harvest the worm tea in a container placed below your worm bin. Worm castings will be ready for harvesting when at least ¾ of the bin is filled with castings.

BENEFITS OF THE BOKHASI

The Bokhasi is an indoor composter perfect for disposing kitchen food scraps. Bokhasi is wheat bran that has been inoculated with probiotic microbes, and when sprinkled over organic waste, it causes a fermentation process that produces incredibly nutrient-rich compost. It's easy to use. Position your composter and lightly dust the bottom with a layer of Bokhasi making sure you don't block the holes. Then add your kitchen waste like (small) bones, meat, vegetables, fruit, cheese and coffee grounds. Food scraps should be added in layers up to 9 cm. Dust each layer with bokhasi. For 'hard to decompose' materials add more bokhasi than usual. Use a wooden spoon to mix the layers and add a little bokhasi on top. Minimize oxygen exposure by putting a plastic bag or plate on top. Repeat this process 4 – 7 times with food scraps until the composter is full. It will produce a liquid compost tea which can be drained every 2 – 3 days and diluted with water to feed indoor or outdoor plants. Dilute in a ratio of 15ml of tea to a litre of water. When the container is full, dig a hole and bury the compost. This will break down in about 2 weeks if it's summer and 4 weeks in winter. After the fermentation process the treated food waste can be layered into the soil or fed to earthworms to maintain a natural cycle of good, natural soil health. As the microbial count increases in the soil, this process speeds up, and the result is long term nutrient-rich, fertile soil.

Composting takes care of most of our garden and kitchen waste. This reduces the amount of waste going to landfills. When sending organic matter to landfills it creates harmful greenhouse gasses like methane, which contributes to global warming and as a result can damage our earth's fragile atmosphere.

TRY THIS ↓

GARDENERS GOLD DUST

- Breaks down compacted heavy clay soils.
- Improves water retention in sandy soils.
- Prolongs the wilting point of plants in summer.
- Better seed emergence.
- Reduces excess salinity in coastal soils.
- Prevents water runoff and erosion.
- Helps to remove excess Boron from soils.
- Assists plants in absorbing more nutrients.

LIVE WORM TEA

Starke Ayres Garden Centre in Rosebank is the first garden centre in the Western Cape to have live worm tea on tap.

By using worm tea, you can expect:

- Greater root depth and extension
- Healthier, hardier plants
- Better resistance to disease and pests
- Larger vegetables, fruit and flowers
- Increased crop production
- Worm tea continues to work, conditioning and restoring your soil after each application. ↓

Get all your garden essentials from



**STARKE
AYRES**

**GARDEN CENTRE
& RESTAURANT**

Starke Ayres Garden Centre supply plants, gardening products and landscaping services. They have a range of flowers and seed, and expert advice to help you with growing.

WIN WIN WIN

Both the Rosebank and West Coast branch of Starke Ayres Garden Centre will be issuing a prize of a Bokhasi Composter starter kit. All you have to do is attach your purchase slip with your name, phone number and email address into the in-store competition box. Note that this applies to all purchases over R250 and is valid for the month of September 2015. Starke Ayres Garden Centre will contact the winner telephonically.

Starke Ayres Rosebank, 21 Liesbeek Parkway, Rosebank,
Cape Town Tel: 021 685 4120

Starke Ayres West Coast Garden Centre, West Coast Village Shopping Centre,
Sunningdale, Cape Town Tel: 021 554 8450



WIN