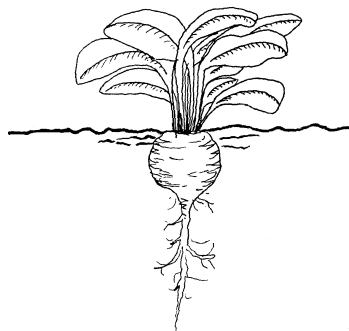


# SOIL FOR LIFE

*Build the soil, harvest the plants, feed the people, heal the planet*



## ARTICLE 2

### **GROWING YOUR OWN VEGETABLES the simplest (and cheapest) way to good health**

*Sponsored by the Soil for Life organisation*

*Soil for Life is a CapeTown-based NGO which teaches people to grow their own food. For more information about Soil for Life membership, and organic methods for growing vegetables, herbs and fruit, please phone Pat on (021) 794 4982*

Statistics published in recent editions of community newspapers make the mind balk at the incredible volumes of waste generated by Capetonians – enough, it was said, to cover four football pitches to a depth of one metre every single day. Have a good look at what you are throwing into your garbage can everyday. Much of what we throw out is actually either food for the soil, or materials which can generate some income somewhere along the line by them being re-used or recycled.

If you read the previous edition of Biophile, and are serious about the state of your, and your family's, health, you will surely have developed a heightened awareness of the waste that you generate in your household every day and be doing something about it. There can be no more productive solution than to take your own rubbish and put it to good use in a vegetable garden. So, having gathered it all together and sorted it into the biodegradables and fashioned some of the rest into simple garden tools and equipment, you'll be ready to get on with the next important activities.

## PLANNING YOUR FOOD GARDEN

### Choosing a site

- Vegetables need a lot of sun. Choose a sunny spot. If your garden does not get sun all day, make sure that you put the garden where there is morning sun. Trees, hedges and buildings may cast shadows on your garden and so your plants will get less sunlight
- The vegetable garden should be close to your house so that it is easy to look after it. *Out of sight, out of mind.*
- It should be close to a source of water.
- Choose a place with the best possible soil (but even if you have poor soil, it is easy to improve it by working in plenty of organic matter.
- Once you have chosen the site, remove all grass, bushes, trees and their roots. Keep all this plant material for composting, mulching and filling trench beds.



### Laying out the garden

Three points to bear in mind when laying out your garden plot:

- 1 If your plot is on a slope the length (long axis) of the beds should always be across the slope to prevent the soil from being washed away by rain
- 2 The long axis of the beds should run from east to west
- 3 The width of beds should never be more than one metre. All garden work should be done from the pathways so that the soil in the beds is never trampled and compacted
- 4 Paths between the beds should be about half a metre wide

Mark out the beds using a measuring stick and garden lines. The best size for each bed is one metre wide by two or three metres long. Once your garden is marked out, start preparing the soil in the beds for planting.

### Soil preparation – the most important job

Soil must have sufficient air, water and nutrients for the germination of seeds and the healthy growth and development of the small plants. Most soils have been compacted by feet and other traffic and this makes it difficult for the roots to grow down towards the nutrients.

There are many different methods for preparing the soil for planting: However most soils are poor and compacted, and, in South Africa, there is a shortage of water. Trenching is the method we suggest for best results, although other methods will be

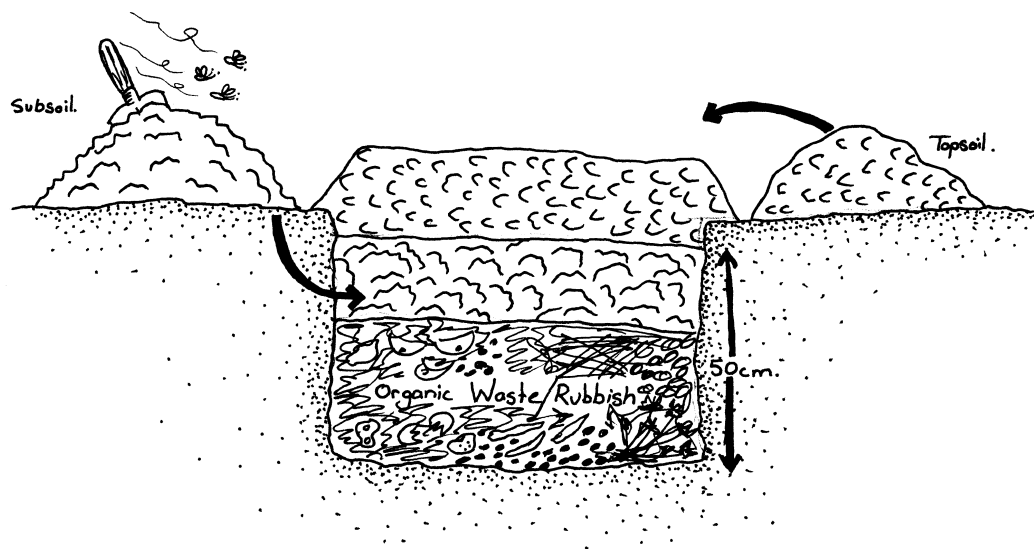
discussed briefly in future articles. It is good where soils are sandy, or hard and compacted, for clay soils, and in very dry areas. It is hard work at first, but you will reap rich rewards for your efforts.

### **Digging your first trench**

Before you start, collect about twelve black bags of assorted 'rubbish' (organic waste) which will provide food for the soil. (Fruit and vegetable waste from home and the supermarket, pot scrapings, egg shells, bones, feathers, cardboard, paper, lawn cuttings, dry leaves, all garden waste, manure, seaweed. In fact, anything that will rot).

Then, having marked out the first bed,

- 1 Dig out the topsoil (one spade-head, or 30cm, deep). Place it to one side of the bed.
- 2 Dig out the bottom soil (subsoil), also to one spade-head deep and put this soil on the opposite side of the bed. Remove all large stones and boulders.
- 3 Loosen the soil at the bottom of the trench with a fork and cover with a layer of cardboard.
- 4 Put a layer (about 20cm deep) of coarse rubbish at the bottom and cover it with a 10cm layer of *subsoil*. Water both layers well.
- 5 Continue with these layers, removing any tins, bottles, plastic, synthetic (man-made) materials and rubber, until the trench is full. Water each layer well as you go.
- 6 Now replace the *topsoil* that you removed from the trench. Add some topsoil from the paths to the top of the bed as well. The surface of the bed will be about 15 – 25cm higher than the path when you have finished. The bed will slowly sink as the rubbish decomposes.



- 7 Spread one bucket of compost (if you have it) over each square metre of bed. Work it in and level the bed using a rake or a flat piece of wood.

- 8 Use a 50cm stake to mark each corner and remember never to walk or stand on the bed.
- 9 Cover the bed with a layer of mulch (a protective blanket for the soil and for the delicate roots of your plants). Dry grass, straw, leaves, even newspaper and cardboard can be used as a mulch.

Your first trench bed is now ready for planting. Once you have planted the first bed, dig and prepare the second one which you can then plant a month later.

**Four trench beds – each one about the size of a door - will keep your family with a constant supply of fresh vegetables and herbs. You will be surprised at how much you can plant in your door-sized beds.**

## PLANTING YOUR FOOD GARDEN

Things to think about when you're planting

- Plant what you'll eat, and remember that the bigger the variety the better for your health, and for the health of the soil
- For a healthy harvest, sow seeds in the correct seasons. Choose from the following list for the next two months. *Carrot, beetroot, turnip, radish, onions and leeks, spinach, CM kale, lettuce, cauliflower, broccoli, Chinese cabbage, parsley, kohlrabi, broad beans, peas and Lucerne.* If you hurry you may also be able to sow some seeds of *New Zealand Spinach* for a year-round harvest of dark green leaves. It is also a good time for planting *soya beans* – delicious when fresh off the bush, and needing very little cooking.

## SOWING SEEDS FOR A BOUNTIFUL HARVEST

- Using your hand or a stick, make partings in the mulch to expose the soil. Do not waste any space. Start right at the edge of the bed. The partings should run across the length of the bed; short rows, not long ones.
- Use a measuring card or your hand to make partings in the mulch. For many vegetables, 20cm between the rows is sufficient. Larger vegetables like cabbage, cauliflower and broad beans need more space. The distance between rows can be between 30 and 50 cm.
- With a stick or your finger make a furrow in the exposed soil. The depth of the furrow depends on the size of the seeds – deeper furrows for larger seeds
- Carefully sow the seeds in the furrows – never too thickly, but always sowing a few more than you need in case some don't come up. If too many come up, then you can transplant them to another bed, eat them or give them to a friend or neighbour.
- Cover the seeds with soil from either side of the grooves, press them down with the side of your hand so that they are in close contact with the soil, and water them gently with a watering can made from a tin with small holes punched in the bottom. Do not use a hosepipe; the strong jet of water will wash the seeds away



- If the weather is very hot and dry, cover the areas where you planted the seeds with a very fine layer of mulch – so thin that you can still see the soil through it. Remove the mulch covering the seedlings as soon as they come through the soil.
- Check every day, twice a day, to see that the seeds do not dry out.

Never be tempted to plant only one type of vegetable in your bed. With a little thought and careful planning, you will be able to plant nine to ten rows of different vegetables in a two metre long bed.

Take note:

- If you plant only one or two types of vegetables in your garden, you will find that there are long periods when you have nothing to eat from it, and short periods when you have too much! So it is important that you plan what you are going to plant and that you plant a big variety of vegetables at the same time.
- Roots differ in length and feed at different depths. Some plants have big leaves and need room to spread; others are small. Some plants are tall, while others are short.

Planting from seed costs you far less than buying seedlings from a nursery. However many people do not have much success when they first start. Here are a few tips to make it easier for you:

- Use fresh seed. You do not want to waste growing time by planting seed that won't germinate because it is old and no longer viable (alive)
- Seeds must be sown at a depth of three times their own size. Be careful not to plant too shallow or too deep.
- With very fine seed (carrots and lettuce) mix a teaspoon of seed with a cup of fine, dry sand when sowing. This makes it easier to sow thinly

If you're worried about the birds eating your carefully planted seeds, or the heavy rain washing them away or compacting the soil, make a net from plastic mesh bags – the type that vegetables are sold in; open them out and stitch them together to make a cover that is big enough to protect your bed.

***To test the viability of your seeds:***

*Place 50 seeds on a piece of damp cloth or paper towel in a sealed plastic bag. Periodically blow into the bag so that mould does not develop. After about two weeks, check to see how many seeds have germinated.*

*If 40 seeds have germinated out of the original 50, the germination rate is 80%. If fewer than 20 seeds have germinated, (40% germination) then the seed is old and either you throw it away and buy fresh seed, or you will need to plant many more seeds than normal since there will be a low germination rate.*

If you have planted your seeds carefully, said a little prayer for each one, and made sure that they are kept damp you will soon have the excitement of seeing the earth stirring as the baby plants muster the strength to force their way through the soil to the warmth of the sun.

Good luck!

**Next issue:**

More about soil preparation; taking care of your garden; succession planting; transplanting; winter crops for the soup pot.

Soil for Life membership costs very little and entitles you to access to fresh, low cost seed (R2.50 a packet), access to the Resource Centre, a telephone advice service, a quarterly newsletter **and** an opportunity to help others to help themselves. Become a part of the food-growing culture in South Africa.

Membership forms can be obtained by phoning Pat or Moira on 021-794 4982 during normal office hours.