There is seldom enough animal manure available to keep the soil fertile. It is therefore necessary to make compost.

**What is compost?**

In nature compost is formed all the time to keep the soil fertile. Compost is a mixture of decomposed plant and animal material. Decomposition means that plant and animal remains are broken down into smaller parts.

Organisms such as bacteria, fungi, earthworms, snails, insects and birds help to decompose the material and turn it into humus.

Humus is a form of food which the plant can use.

**Why it is necessary to use compost**

When we make compost in our gardens we are really doing what nature does to ensure that our plants will grow well.

Using compost is important because it:

- returns nutrients to the soil
- helps the soil to hold water and air
- binds the soil and so prevents erosion
- produces healthy crops with few diseases.
What to use in making compost

About half of the refuse we throw away each day can be turned into compost.

Most healthy materials of plant or animal origin (organic material) that rot easily can be used.

**Garden material**

Grass cuttings, soft garden trimmings, leaves, flowers, and vegetable remains. Chop up the stalks of sweetcorn, cabbage, broccoli and Brussels sprouts so that they will decompose faster. Weeds are especially suitable. Their long roots absorb many nutrients from the soil and these nutrients will be released in the compost. The weeds should be pulled up before they develop any seeds.

**Kitchen waste**

Vegetable peelings and leaves, fruit peelings and cores, cooked table scraps, tea leaves and bags, egg shells, stale bread.

**General**

Paper and cardboard, sawdust (only small quantities) and woodshavings, animal manure, woodfire ash, seaweed.

**Materials which you should not add to a compost heap**

Kikuyu grass, woody garden clippings, pine needles, rose cuttings and other cuttings with thorns, seeds, bulbs, garden wastes sprayed with pesticides, toilet waste or septic tank sludge, diseased animal carcasses and diseased plants, anything that does not decompose, such as metals, glass, plastic.

Where to make a compost heap

Make the compost heap under a leafy tree or next to a tall hedge. This will prevent the sun and wind from drying out the outer layer of the heap.
Do not make the heap in a hollow where rainwater could gather for a number of days.

**Building a compost heap**

A good size for the compost heap is 2 paces by 2 paces (2 m x 2 m). The heap should be about twice as big at the bottom as at the top. Start by levelling the spot. Mix all the material well—all big pieces should be chopped up. Do not add layers of only one material.

**Base**

As the micro-organisms in the heap need air to work, the base is built to improve aeration. Use coarse material such as twigs, mealie cobs, bricks, tins, etc for the base. This layer must be about 2 handwidths (20 cm) deep.

**First layer**

Spread a layer of plant material about 2 handwidths deep on the rough basis.
**Second layer**

If you have kraal or chicken manure, mature compost or bonemeal, spread a layer about 1 handwidth (10 cm) deep on top of the first layer. The manure, compost or bonemeal speeds up decomposition.

**Third layer**

Next add a thin layer of soil and ash (3 fingers or 3 cm deep). The organisms in the soil, earthworms in particular, will help the rotting process, mix the material and increase air flow.

Repeat the first three layers until the heap is as high as you want it.

**Moisten each layer as you build.**

**Last layer**

Stop with a layer of soil, dry grass, leaves or sawdust. This will keep smells in and will not attract flies.

**Sticks**

Take 2 sticks of about 2 paces (2 m) long and push them into the heap. The sticks can be taken out later to test the heat and moisture of the compost. They also help to aerate the compost.

**Cover**

Cover the heap with straw, soil, old sacks or plastic. This keeps in moisture and heat. Heat helps decompose plant and animal material and destroys weeds.
**Watering the heap**

Take out the sticks regularly and test the moisture. Add water, if necessary.

Do not allow it to dry out or to become too wet.

**Turning the heap**

After about 3 weeks turn the compost so that the outside layer goes inside and the other way around.

Turning the heap speeds up decomposition.

If any of the material is dry, moisten it.

Take out the sticks regularly and test the heat.

If the heap has cooled down, it should be turned.

Turn again after another 3 weeks or even every week.

The more the heap is turned, the sooner the compost will be ready.

After about 10 weeks the compost should be ready for use.

**How to know when the compost is ready**

Compost is ready to use when it is crumbly, dark and has the good smell of clean earth. It can now be dug into the garden soil.
Having a constant supply of compost

Do not keep on adding material to the same heap.

Keep three or four compost heaps at the same time.

Start the second heap 3 weeks after the first and the third 3 weeks after the second.

This will ensure that you always have compost when you need it.
For further information contact your nearest extension officer or the ARC-Roodeplaat Vegetable and Ornamental Plant Institute, tel. (012) 841 9611, or the Resource Centre, Department of Agriculture, tel. (012) 319 7141/7085.