Growing ORGANIC

Until fairly recently organic gardening was generally regarded as the preserve of eccentrics who refused to accept the self-evident truth that twentieth-century progress had transformed the ancient art of gardening. The attitude was 'why fiddle around with compost and garlic spray when modern fertilisers and insecticides are so much more efficient and easier to use?'

Opinions have changed because the benefits of twentieth-century technology have come at a price, and now most gardeners regard 'organic' as the most sensible way to garden. Chemical sprays and fertilisers have done much damage to the environment. As individual gardeners we might not think that we can do much to change the world, but we certainly can take sensible care of the one part of the environment we control: our own garden. And by doing so, we do make a difference, particularly when you add up all the home gardens in the world – they represent a fair chunk of the environment.

Organic gardening is simply the application of common sense such as people have been practising for centuries. It involves digging manure into a planting bed, putting kitchen scraps onto a compost heap, using blood and bone on your tomatoes instead of sulphate of ammonia. By spreading rich compost that you have made, rather than a bag of chemical fertiliser, you know that it will benefit not just the growth of your plants, but the health of your soil for years to come. You are working hand in hand with nature, in harmony with its own rhythms.

In order to maintain a healthy organic garden it is worth spending a few minutes reviewing the cycle of life in the garden, so that you understand all the elements and their interdependence on each other. In a richly forested area, where a huge variety of plants grow abundantly without human intervention, you will notice that the forest floor will be covered by a thin layer of fallen leaves. The leaves are decaying and beneath them is the multitude of living organisms that are digesting the organic matter and in their turn adding their own dead bodies to the soil. They range from worms and small insects down to microscopic bacteria and fungi and without them the recycling process could not occur.

HUMUS

The result of the work of all these organisms is the wonderful substance called humus. It is a sort of black colloid and gives fertile soil its dark colour and sweet earthy smell. It sticks to the mineral particles that form the framework of the soil and fills in the gaps so that water and dissolved nutrients

It takes time to build up the levels of humus in the soil, especially if it has been depleted by wasteful gardening and poisoned by indiscriminate use of insecticides, fungicides and artificial fertilisers. It also takes time to get used to the idea of feeding the soil and not the plants.

are held within the structure, to be made available to plants as they are needed.

Humus is gradually digested and yields its nutrients to plants, and unless it is constantly replaced the soil dies. The soil lives as long as the recycling process is not interfered with – but interference is precisely what happens in a garden. We don't return everything to the soil. We remove weeds to the compost heap; we eat our vegetables and send our own wastes elsewhere. We cut flowers and throw them in the garbage; we burn leaves and prunings. And each of these actions diminishes the humus supply. We may even use poisonous chemicals that kill the micro-organisms. Clearly we need to work to restore the balance.

Unless you replenish the organic matter from which the humus is continually being created, the soil will gradually die. Added chemical fertilisers boost the growth of your plants for a little while, but they do not nourish the living creatures of the soil, nor do they create humus. Chemical fertilisers present other problems as well. To make them soluble they contain things the garden doesn't need: sulphate of ammonia certainly yields nitrogen from the ammonia, but the sulphate part poisons worms, bacteria and fungi.

Organic matter – material that was once alive – must be added continually to feed the humus, which is why it is important to make your own compost by recycling as much organic matter as possible from the garden itself. Fallen leaves, vegetable stalks, spent flowers – nothing should be wasted. Then bring in other matter from outside: vegetable scraps, animal manure, blood and bone, lawn clippings, hair, newspaper and straw.

IS COMPOST A GOOD FERTILISER?

Just how good compost is as a fertiliser depends on how you measure it. The amounts of available nitrogen, potassium and phosphorus (the NPK figures) are rather low and variable when compared to artificial fertiliser. It doesn't force an instant spurt of growth; its benefit is long term. If your soil is naturally low in a particular element, you simply add the required elements to the heap, preferably in a form on which the micro-organisms can work. Anything rich in protein (blood, bone, urine, manure) will add nitrogen; bone meal supplies phosphorus; potash comes from wood ash or seaweed. The demand for compost in a garden is greatest in late winter, when planting beds are being made up, and through spring, when mulching gets under way for summer, but you can spread your compost as and when it suits you.

GROWING TOMATOES ORGANICALLY

Tomatoes love lots of compost and manure. Ideally it should be dug into the bed at least eight weeks before planting to give it time to break down as well as to generate beneficial microorganisms. Time is also required for the nutrients in the compost or manure to be released. Digging the compost or manure into the soil will probably result in a whole lot of weeds germinating, and they can then be weeded out before planting your tomatoes. Around established plants, where you don't want to dig deep and disturb roots, spread compost onto the surface as mulch. As it decomposes it will settle down into the soil and the earthworms will come up and take it down with them. A more-or-less permanent layer of mulch will keep the soil cool, smother any weeds and conserve moisture.

This article was written by Australian Annette Welsford. Annette co-wrote **How to Grow Juicy Tasty Tomatoes** with Lucia Grimmer, a plant nutrition technician and an authority on plant diseases. The book details everything one needs to know about growing tomatoes organically, it has step-by-step instructions for the novice gardener and advanced trial-based information for the professional grower. Visit www.bestjuicytomatoes.com to order a hard copy or buy and download an electronic copy.