

The Waste Wise vegetable patch

Schools



Fact sheet

Did you know?

- Growing your own food cuts out the transport and storage costs as well as packaging waste associated with bought produce
- About 13 per cent of a schools waste is organic, a good proportion of this can be used in the vegetable garden and diverted from landfill
- Working with soil and plants we learn about earths natural cycle where waste does not exist as one organism's waste becomes food for another (Cradle to Cradle).

A Waste Wise school vegetable garden

A waste wise vegetable garden ideally incorporates organic and permaculture principles. It can be established alongside a chicken coop, worm farms and compost systems. With this infrastructure in place, you will have the ability to 'close the loop' on recycling organic waste. Vegetables grown at school can be used for 'crunch and sip' and for cooking lessons. The vegetable scraps can then be placed in the worm farm to return to your garden as worm castings and fertiliser or be placed in the compost system to return as rich, dark compost.

The school vegetable garden serves as a terrific 'classroom', providing hands-on activities to educate students about waste, the organic recycling loop and consumption. It can also become a 'hub', fostering the school's sense of community by allowing the opportunity for teachers, students and parents to work together.

Top tips for starting out

If growing vegetables is a relatively new experience for you, begin at a manageable pace and expand your garden as your confidence and experience grows. Begin by planting relatively fail safe crops such as potatoes, beans and tomatoes. These varieties are pretty hardy and will generally produce a high yield, enabling students to see the results of their efforts.

Growing food organically

Growing fruit and vegetables organically, simply refers to gardening practices that refrain from using chemical fertilisers and pesticides. It is about maintaining healthy, balanced soil that is favourable to the living conditions of beneficial insects, mould, bacteria, fungi and earthworms.

Although chemical fertilisers do encourage plants to grow big and lush, they are generally weaker and highly attractive to pests. Organic produce however is hardy, tasty and firm. Growing food organically

can also be better for your health. You and your students will avoid coming into contact with nasty chemicals used to control pest insects. Furthermore, these chemicals kill all insects including those that are beneficial to your garden.



Growing plants from seed

There are a number of benefits to growing and raising plants from seed. To begin, purchasing seeds is a significantly cheaper option than purchasing seedlings from a nursery. Growing plants from seed will also reduce the amount of plastic waste from bought seedling punnets and trays. Plants directly sown and grown in the environment where they will mature are also more tolerant to pests and stronger than plants imported into your garden.

As you become a more confident gardener, you could begin to save seeds from plants that have grown well in your own school garden. By doing this, students will have the opportunity to record the life of a plant from seed to harvest. For more information on seed saving, have a look on the seed saver website in the helpful websites section.

Planning the layout

When planning the location for different plants in your garden, you should consider the growing characteristics of the vegetables you are planting. Corn, for example, is best positioned where it does not cast a shadow over other vegetables. In Perth, sow corn along the southern side of your garden with other tall crops such as climbing beans, peas and tomatoes. If you plan to plant vining crops such as zucchini, pumpkin, squash or cucumber, consider placing these plants on the periphery of your vegetable patch so that they can ramble without compromising the growth of other vegetables nearby.

When space is at a premium, grouping plants according to their season length can be beneficial. For example, early maturing crops ready for harvest at the same time, should be grouped together. This will open up a block of space for your next crop when they are harvested. Grouping long-season crops together will leave them undisturbed when early maturing crops are harvested. And remember to position your vegetable patch in an area that receives at least six hours sunshine everyday as most plants need this for optimal growth.



Companion planting

Some plants, when grown close to another species, can enhance the growth and promote good health in that species. For example, the strong scent of celery will repel the cabbage white butterfly, so celery should be planted with members of the cabbage family; cabbage, broccoli and cauliflower.

Sources

Byrne, J. 2007, Gardening Australia, Acting Local, Green Tips from A to Z, viewed 8 October 2010. <http://www.abc.net.au/gardening/stories/s1994862.htm>

McDonough, W. & Braungart, M. 2002, Cradle to Cradle, Remaking the Way We Make Things, New York, North Point Press.

McFarlane, A, 2002 Organic vegetable gardening, NSW: Australian Broadcasting Corporation.

New Scientist, 3 February 2001, United Kingdom: Reed Business Information Ltd.

O'Brien, L, 2008, Organic Gardener- November/December, Ultimo, NSW: Australian Broadcasting Corporation.

O'Brien, L, 2009, Organic Gardener- November/December, Ultimo, NSW: Australian Broadcasting Corporation.

Sinnamon, L, July 2007, Warm Earth Organic Gardening, Childers, Queensland: Warm Earth Publishing.

Sinnamon, L, July/August 2008, Warm Earth Organic Gardening, Childers, Queensland: Warm Earth Publishing.

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In contrast, there are other plants that, when grown close to another species, can hinder that particular plants growth and health. Avoid plant combinations such as potatoes and onions, beetroot and tomatoes, red cabbage and tomatoes or beans and onions. Check the list of helpful websites to download a simple to use guide on companion planting.



Crop rotation

Crop rotation should be practiced in order to maintain healthy fruit and vegetables while avoiding disease build up in the soil. Soil borne diseases will target a host plant. By rotating your vegetable groups and growing an unrelated plant in the place of a host species, you will be taking a step toward controlling disease build-up in the soil.

Having a school organic food garden will reward you season after season, but only if a balance is achieved. Given the opportunity, the garden itself aims to naturally maintain a balance between the conflicting interests of its plants and animals, its microflora and microfauna. Refer to the Gardening Australia website in the helpful websites list for assistance on how this can be achieved.

Sinnamon, L, March 2007, Warm Earth Organic Gardening, Childers, Queensland: Warm Earth Publishing.

Waste Wise Schools Program, 2010, The Waste Wise Schools Program Waste Wise Way. Department of Environment and Conservation.

Websites

- www.seedsavers.net/seed-savers-handbook-online
- www.diggers.com.au
- www.gardensimply.com/comchart.shtml
- www.abc.net.au/gardening/vegieguide/crop_rotation.htm
- www.abc.net.au/gardening/stories/s3006176.htm (design ideas for creating a vegetable garden)
- www.abc.net.au/gardening/stories/s2954301.htm (build a 'no dig' garden)



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