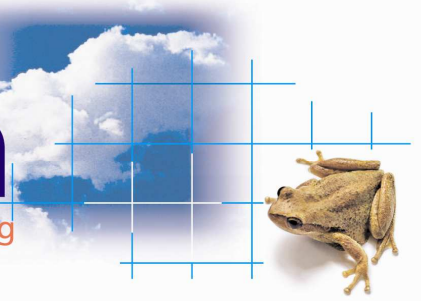




NRM Education

climate change biodiversity water food air waste transport purchasing



Edible Garden Fact Sheet

Inspiration

“Gardening can be a magical experience for children. They love to help out and delight at ripening berries, blooming sunflowers, and gathering up lemons for lemonade.

Most adults can recall happy times spent in the garden when young, learning how to plant seeds and stake tomatoes, an experience often shared with our parents and grandparents. Many of us remember the exquisite taste of home grown food – in contrast to the bland taste of many supermarket fruits and vegetables today.

Unfortunately, with the trend towards shrinking backyards and increasingly busy lives, domestic food gardens have become ‘a thing of the past’. The opportunity to pass on important gardening skills from generation to generation and to share in the joys of home grown food is being lost.

For children without a vegetable patch, or even a fruit tree, there’s little opportunity to observe how food grows. They may only ever see fruit and vegetables at the supermarket where they come neatly packaged, bear little resemblance to the whole plant and may be sold outside the normal growing season” (Fantan and Immig 2007).

Success stories

Star of the Sea



Teachers Peter and Anita provided the momentum needed to initiate this productive vegetable garden. Students from years 3, 6 & 7, grounds people and parents of students provided the labour to help establish the garden.

School finances provided the soil, mushroom compost and the timber border. Initially seeds and seedlings were purchased through the science budget. In more recent times seedling mulch and fertilizer have been donated by the parents.

A parent who works at SA Waste Management donated resources and Team Poly donated a rain water tank.

Class room learning is connected to the garden on a numbers of fronts:

Science explores:

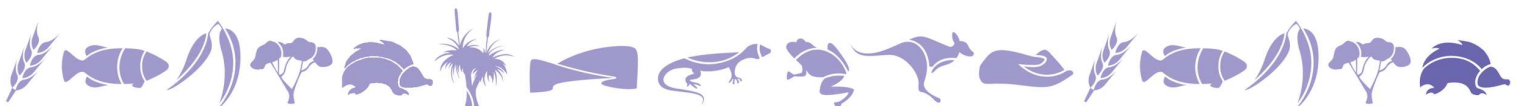
Energy; recycling of food scraps, Carbon cycle
Living Systems; Butterfly life cycle, dealing with pests

Health / Made in the image of God (MITIOG) explores:

Healthy eating and looking after our bodies

Environment explores:

Recycling of food scraps via worm farms and Bokashi



Nazareth Catholic Community



This community school is guided by a set of health and well being goals and has linked these goals with the vegetable garden, edible forest and healthy canteen practices.

Members of the community, Staff, Foodies, City of Charles Sturt and students were all involved in setting up the garden, with funding from Active Australia. Raised beds provided many ergonomic benefits; such as good working height for the students, wheel chair friendly, better visual access for students whilst being taught, and creates physical barriers against trampling feet.

Linked learning activities include seed collecting and the propagation of seeds and cuttings

Getting started

A winter vegetable garden is a great place to start for the novice gardener. Keeping it simple to start with is useful as some students may have trouble establishing an edible garden if it becomes too costly or complex.

For those looking for activities throughout the year, try the following site 'In your patch this month' <http://www.sgaonline.org.au> then search this month in your patch or search the web for Sustainable Gardening Australia

For those of us who aren't born with a green thumb, the following table lists some plants which are more likely to offer success. The table also suggests which plants will suit a more water wise approach.

For more detailed planting guides covering what, when and how, try the following websites: <http://www.greenharvest.com.au> and search for what to do now under the seed shop section. <http://www.mrfothergills.com.au> and look under garden tips and <http://www.yates.com.au/products/seeds/> or search the web for

Plant	When to plant (SA conditions)	Ease of growing	Water Wise	Growing days to harvest	Plant spacing (cm)	row spacing (cm)
Bok Choy	Sept	Easy	Yes	70 - 84	25 - 35	40 - 60
Basil	Sept	Easy	Yes	Frequent harvesting	20	20
Broad Beans	May - Aug	Easy	Yes	84 - 98	15	70
Broccoli	April - Aug	Easy	Yes	84 +	25 - 30	40
Cauliflower	April - Aug	Easy	Yes	84 +	50	50
Chives	Sept - April	Easy	Yes	56	20	20
Eggplant/aubergine	Late Sept - Oct	Easy	Yes	70 - 98	60 - 70	60 - 70
Lemon	Avoid frost	Easy	Yes	Nearly year round		
Parsley	Sept - April	Easy	Yes	70	20 - 25	30
Peas	Feb - Aug	Easy	yes	77 - 98	3 - 5	40 - 50
Potato	Sept - Feb	Easy		84 - 140	50	50
Rocket	Sept - April	Easy	Yes	49 - 56	30 - 40	30 - 40
Sweet corn	Oct	Easy	No	14 after flowering	20 - 30	50 - 60
Tomato	Aug - Nov	yes	Yes	70 - 98	75 - 100	50 - 60

Yates then click on Garden guide tab and Judy's calendar.

Vegetable garden options



Figure sourced from Yummy Yards

Option A – Potted Garden

This type of garden allows plots to be easily moved. The garden can be located directly outside the classroom for ease of access and can be easily established for minimum cost.

Yummy Yards kit 4
<http://www.sgaonline.org.au> then search for Yummy Yards.





Figure sourced from Yummy Yards

Option B - Plastic mesh structure

A very lightweight and flexible system which can be used where space and quality earth is a premium, yet it still offers the benefits of a raised bed.

Yummy yards kit 1

<http://www.sgaonline.org.au> then search for Yummy Yards.



Option C - Rain water tank structure

This structure is ideal to create more ergonomic garden beds and has been successfully employed at Nazareth Primary School. This system needs to be pot riveted together, but is much cheaper.

Yummy yards kit 2

<http://www.sgaonline.org.au> then search for Yummy Yards.

Buckos Garden Solutions M 0433 403 296

Fielders (Ben) ask for school price! P 82923611



Option D - Sleeper Structure

This concept is also ideal to create raised garden beds and has been successfully employed at Plympton Primary, Their sleepers are made from recycled plastic.

Yummy yards kit 3

<http://www.sgaonline.org.au> then search for Yummy Yards.



Option E – A simple and productive vegetable garden -

Star of the Sea Primary School

This simple garden plot is 10 x 15 metres and is located on the school boundary; offering an excellent sustainable display to the passing public.

The worm farms are located here and are fed waste from the Bokashi Systems and the liquid produced from the worms is returned to the vegetable garden or sold to raise money.

Monitors from year 3 weed and plant in the garden and pick the vegetables, which are then used to make soup in the school canteen.



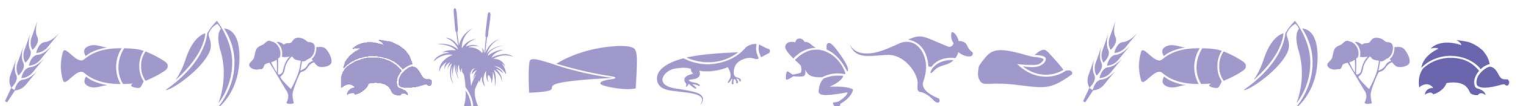
Option F – A very large and diverse garden –

Black Forest Primary School

This vegetable garden has been successfully engaging school children for 25 years.

The garden has informative display beds, produce beds, fruit trees, vegetables, herbs and flowering plants.

Activities include seed collecting, propagation planting and nature craft. Classes are for all years and each class has a scheduled lesson once a term.



Integrating the garden with the other school activities

Food is an integral part of life and is easily incorporated in many school activities, for example:

- the canteen can use the garden produce
- fund raising from the sale of food creates a logical extension of the garden
- worm farms make worm juice and can be used to fertilise the garden
- indigenous food is an excellent springboard to learn about other cultures
- medicine offers another practical use derived from plants
- gardens offer outdoor inspiration for craft
- home economics is clearly connected to produce gardening
- migrant heritage, both recent and established, can be connected to produce gardening
- school culture and sustainability can be reinforced with a produce garden
- local food production can help to minimise transport and carbon footprints
- healthy eating can be embraced through the growing of food
- compost bins and Bokashi can become an integral part of the food garden

Site selection

- an open sunny position with a minimum of six to eight hours of sun is ideal for an edible food garden
- avoid sites near large trees with invasive roots
- existing boundaries such as fences and buildings can minimise fencing requirements, particularly if vandalism/security is an issue
- unused cricket pitches can be ideal locations
- consider locating fruit trees on the southern side of the garden to ensure the remainder of the garden has full access to sunlight
- raised garden beds, as shown in the options above, can allow a garden to be placed where paving would otherwise exclude one
- access to tap water is important, but the use of rain water is a more sustainable option
- automated dripper systems can be useful to fit in with water restrictions.

Teaching resources

Web links

Community Gardening in SA Resource Kit – Fact sheets on a range of garden topics, and a how to set up community gardens resource booklet with loads of useful information. <http://www.canh.asn.au/projects/community-gardens.aspx> or search the web for Community Gardening in SA Resource Kit

Sustainable Gardening Australia (SGA); Yummy yards. Fact sheets with designs for raised bed vegetable gardens and good information about how to grow most common garden vegetables. Surf around the SGA site to find info about water conservation, sustainable pest control, soil health and habitat gardening. <http://www.sgaonline.org.au> and search for fact sheets.

Seed Savers Network. Purchase a copy of the Seed to Seed – Food gardens in school resource. Other information about growing vegetables and saving seed also available. <http://www.seedsavers.net/school-gardens> or search the web for - Seed Savers School Gardens Manual

Seed Savers Handbook. Purchase a copy of Seed Savers Handbook – complete reference for growing, preparing and conserving 117 traditional varieties of food plant. <http://www.seedsavers.net/handbook/> or search the web for - Seed Savers Handbook

Australian City Farms and Community Garden Network. Information about edible classrooms, garden tips and about setting up community gardens. <http://www.communitygarden.org.au> or search the web for - Community Gardens Australia

Kindergarten: An introduction to the many ways children can interact with plants and the outdoors. Ideas for gardening with kids in school and community gardens
Available at <http://aggie-horticulture.tamu.edu/kindergarten/Child/cgintro.htm>

The Edible Schoolyard. This middle school garden in the US has been an inspiration to many school gardens. The website contains resources and tips for starting a school garden, the process of their garden's creation, lesson plans, and



lots of useful information.

<http://www.edibleschoolyard.org/> or search the web for - Edible Schoolyard

Greening School Grounds: Creating Habitats for Learning. Grant, Tim and Gail Littlejohn (eds), 2001, Green Teacher, Toronto. This anthology from the Canadian *Green Teacher* magazine includes step-by-step instructions for numerous schoolyard projects, for reception to year 12. Articles on rooftop gardens, practical tips on minimising vandalism, maximising participation and raising funds, outdoor classroom activities and curriculum links. 144pp. ISBN 0-86571-436-3.

Table of contents and orders at <http://www.greenteacher.com/gsg.html> or search the web for - Green Teacher

“The Case For More High School Gardens” in Urban Agriculture Notes. Wei Fang

Available at <http://www.cityfarmer.org/highschool77.html> or search the web for The case for more High School gardens

Heritage Fruit and Nut Trees in Schools: A bridge from past to future generations. Jude Fanton and collaborators have prepared this kit for students in years five to ten. Includes activities based around a story of a boy and his grandmother.

Download from <http://www.genevar.com.au/seedsavers/resources/14.html> or search the web for - Heritage Fruit and Nut Trees in Schools

Bio-what? A starter kit for primary schools to conserve and promote biodiversity in their school community. SA Urban Forest Biodiversity Program (1998). Lesson plans for upper primary school students linked to the SACSA curriculum framework. Includes many ideas easily adapted to use with school gardens.

Available from SA Urban Forest Biodiversity Program at www.urbanforest.on.net and click on resources and downloads and then educations resources

Our Cool School - This website for year levels 1 to 10 covers many educational aspects of sustainable living, including vegetable gardens, and it has many activities and work sheets.

<http://www.ourcoolschool.org> or search the web for Our Cool School

Green Harvest Organic Gardening Supplies - Orders can be placed online for supply requirements for any organic garden.

<http://www.greenharvest.com.au/index.htm> or search the web for Green Harvest Organic Gardening Supplies

Food Gardens Video - This informative video can be found on our NRM Education web site. It discusses how to establish a food garden. Just scroll down the page on the following link to locate the video.

<http://nrmeducation.net.au/index.php?page=resources-2>

Black Forest Primary School Garden Movie Clip – This video offers a great insight into how this well know food garden was established and is currently used as an integral part of the schools curriculum.

<http://nrmeducation.net.au/index.php?page=resources-2>

Curriculum in School Gardens This page suggests ways in which you can link edible food gardens into your school curriculum.

<http://nrmeducation.net.au/index.php?page=professional-development-2>

NRM Education Loan Library has many informative and useful books on gardening.

http://nrmeducation.net.au/uploads/Resources/library_gardens.pdf

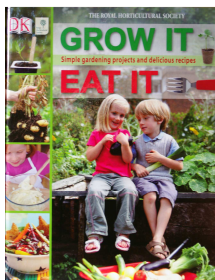
Benefits for Students

Gardening activities foster vital skills for students' future.

- seeing something emerging and growing from seed and grasping the whole cycle of plants & food security: seed-soil-water-sunlight-new seed-food-preparation-eating- health, leads to a better appreciation of food and food waste
- pride in sharing with parents and the school canteen the food grown at school, or at home
- volunteering for watering and garden care during short holidays and long weekends
- taking responsibility
- numeracy and literacy can be incorporated through calculating the cost of production and producing literature promoting the benefits of healthy eating and growing your own
- increasing respect and understanding for the food chain.



Books



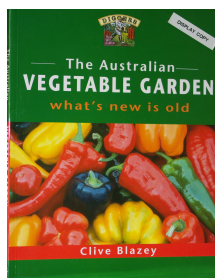
Grow It Eat It

Author: The Royal Horticultural Society

From plot to plate, a cookery and gardening book in one. Children will love learning how to plant seeds and turn their produce into delicious meals they can eat. They'll have juicy tomatoes that make fantastic pizzas, plump pumpkins for a perfect pie, luscious strawberries for a smashing smoothie and many more tempting treats. They'll discover how food grows, from photosynthesis to pollination, and learn to care for their plants.

Then when they've picked their crops, there are recipes for snacks, lunches and dinners that are really tasty and will encourage your child and family to eat healthily. And you don't need a garden: Grow It, Eat It includes plants that can all be grown in pots.

http://www.play4me.com.au/product/grow_it_eat_it_simple_gardening_projects_delicious_recipes_1948022_459682.html or search the web for - Grow it eat it

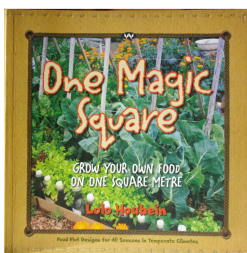


The Australian Vegetable Garden

Author: Clive Blazey

This book discusses heirloom vegetables and features practical information and expert advice on cultivation and creating a mini plot of 42 square metres. Four sections cover the best vegetables for taste; the basics of cultivation; a directory of growing vegetables; and seed saving. This book has stunning photographs, numerous charts and a unique climatic map showing optimum regional growing sections throughout Australia

<http://www.diggers.com.au/books.shtml> or search the web for title



One Magic Square

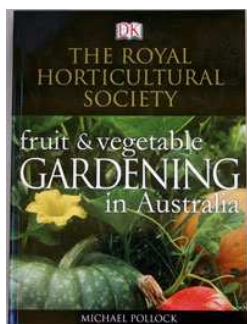
Author: Lolo Houbein

One Magic Square shows how, with a ten-minute effort, you can start your own productive food garden on a single square metre. By following One Magic Square you can start these plot designs that keep your labour pleasurable as your self-sufficiency increases.

Take control of your own fresh food supply! Food gardening is the most intelligent human endeavour on earth – Lolo Houbein shows you how to do it, and why you should.

<http://www.seekbooks.com.au/book/One-Magic-Square/isbn/9781862547643.htm>

or search the web for title

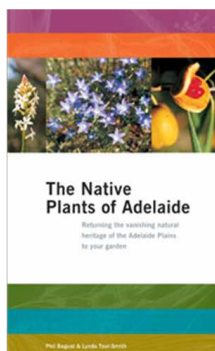


The Complete Book of Fruit Growing in Australia

Author: Michael Pollock

Taking a fresh look at kitchen and vegetable gardens, this definitive guide provides the latest advice and specialist tips from Australian consultants including Allen Gilbert, Laurie Cosgrove and Jennifer Wilkinson, and the RHS team of experts on growing healthy and tasty crops. Using a blend of cutting edge, organic and traditional techniques specifically chosen for their simplicity and reliability, this accessible guide is essential for all gardeners.

<http://www.judyoz.com/ccp0-prodshow/complete-book-fruit-growing-australia-louis-glowinski.html> or search the web for title.



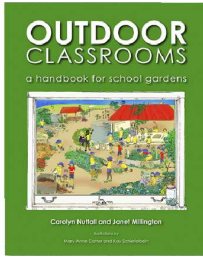
The Native Plants of Adelaide

Authors: P Bagust & L Tout-Smith

This A5 sized book is a well laid out colour reference guide to Adelaide's Indigenous flora. Its subtitle, 'Returning the vanishing natural heritage of the Adelaide Plains to your garden', captures its aims quite well. It is a useful resource for information on bush tucker.

<http://asgap.org.au/APOL2006/jul06-r1.html>





Outdoor Classrooms: a hand book for school gardens Authors: Carolyn Nuttall and Janet Millington

This book arms the next generation with a practical, sustainable skill set. It aims to integrate a garden into the school community by weaving practical gardening experiences and learning through all levels of the school curriculum

<http://permaculture.org.au/2009/03/10/outdoor-classrooms-a-handbook-for-school-gardens/> or search the web for title

Material Suppliers



sourced from Gardenbeds Adelaide

Corrugated raised garden beds.

<http://www.gardenbeds-adelaide.com.au>

or search the web for raised garden beds



sourced from Corbis photos

Compost and soil

Jefferies soils

<http://www.jeffries.com.au/>

SA Composters

<http://www.homeimprovementpages.com.au/professional/12482>

Soils suitable for natives, raised garden beds, compost and mulch can be sourced from the above suppliers.



SGA Certified Gardens Centres South Australia

<http://www.sgaonline.org.au>



sourced from Norwood Industries

Norwood Industries – Victoria

<http://www.norwood.com.au/norwood/public/subltems.php?level1=Stock&level2=Stakes>

Large range of label stakes or search the web for Norwood.com

Malcolm Campbell

<http://greenfingers.com.au>

Plastic plant labels, 130 x 25mm white

Goble & Son ph 8351 7177

Bales of straw

Ecolateral

<http://www.ecolateralshop.com.au>

A shop that sells good books, worm farms etc.

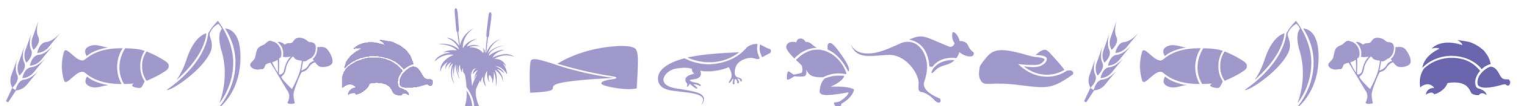
Organic Gardener Magazine

This magazine is good for articles, seed suppliers etc.

http://shop.bigpond.com/Product.asp?Action=Detail&CTID=25&SID=&ID=68635&SearchRef=1&s_kwcid=TC|4651|organic%20gardener%20magazine||S|4224722619&qclid=CPvnhuKs95sCFcEtpAodtHrp_w or search the web for the title.

Funding Sources

Typically grants come up four times a year. The application forms are about two pages in length. If you're unsuccessful the first time, make enquires about how to improve your application and simply try again in three months time. A \$500 grant can buy all your tools and equipment, such as gloves and tiny wheel barrows. It is more practical to start with the simple grants rather than the big ones.



Coles Community grants Program or search the web for - Coles and Landcare
http://svc018.wic008tv.server-web.com/funding_opportunity_details.asp?fo_id=6

Yates Landcare Australia Junior Landcare Grants Program
<http://www.yates.com.au/feature/landcare-australia---junior-landcare-grants-program/>

Australia Post Grants
http://www.auspost.com.au/GAC_File_Metafile/0,,3196_juniorlandcaregrantsapplicationform,00.doc

Woolworths Fresh Food Kids
<http://www.freshfoodkids.com.au/community/community-grants/apply/>

Stephanie Alexander Scheme
<http://www.healthyactive.gov.au/internet/healthyactive/publishing.nsf/Content/grants>

Australian Open Garden Scheme
<http://www.opengarden.org.au/grants.html>

Local Council Grants
Contact your local council to see if a grant is available

search the web for 'Environmental Grants' for more extensive options

Some labour and other resource suggestions

- local firemen have been able to help out some schools with labour
- parents are often able to help, particularly those in the building industry.
- Contractors, such as schools fencing contractors, may supply old pool fencing material etc
- community organisations such as Rotary
- volunteers from the slow food group
- horticultural students
- grounds people
- other staff
- volunteer adults

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