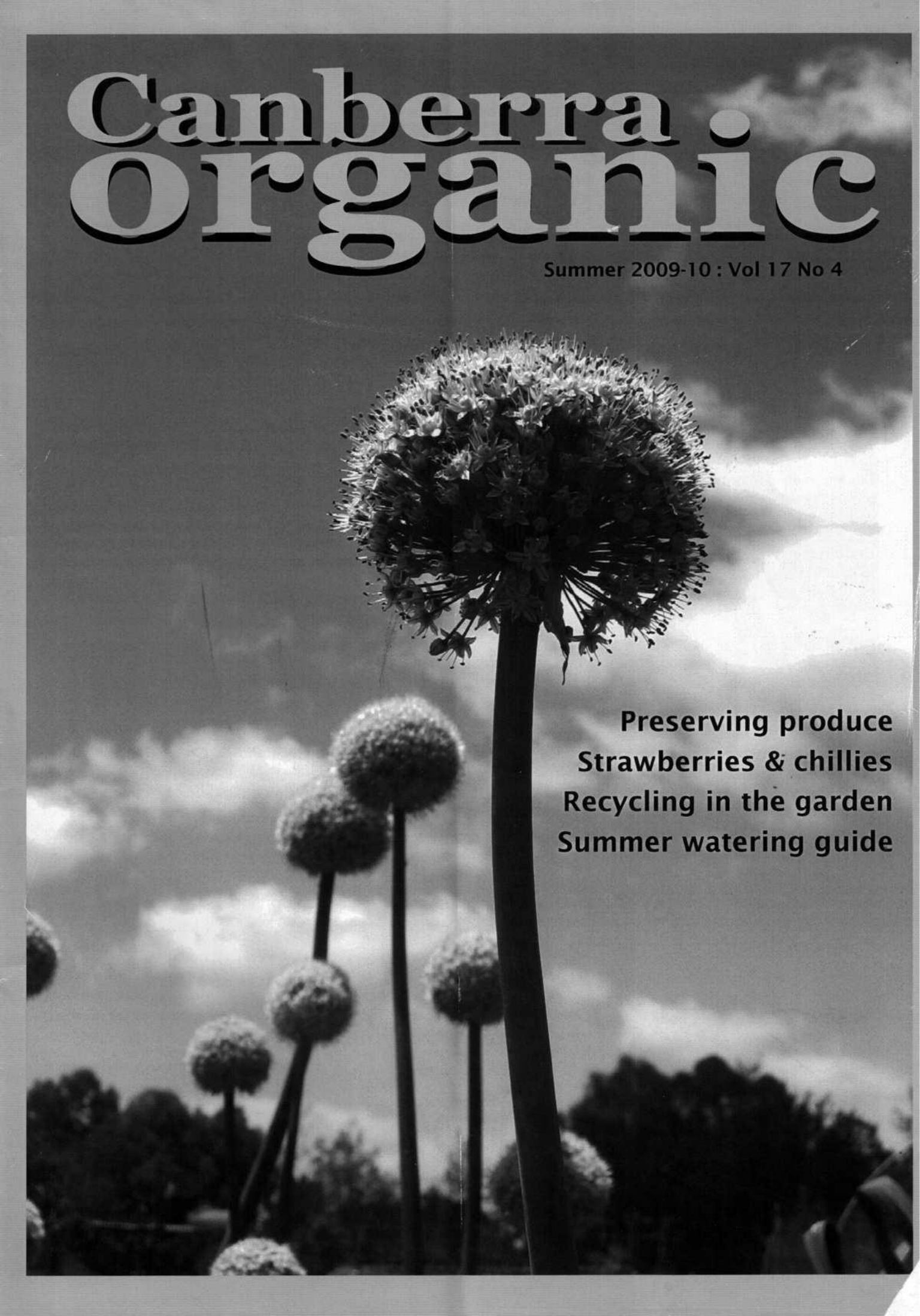


Canberra Organic

Summer 2009-10 : Vol 17 No 4

A black and white photograph of several globe thistles (Tephrosia speciosa) in bloom. The flowers are spherical and composed of many small, individual blossoms. They are on tall, slender stems. The background is a bright, cloudy sky, with some darker foliage visible at the bottom.

**Preserving produce
Strawberries & chillies
Recycling in the garden
Summer watering guide**



The **Canberra Organic Growers Society** is a non-profit organisation providing a forum for organic growers to exchange information and supporting the adoption of organic growing methods in the community.

COGS encourages the use of natural methods to improve our soils, promote sustainability and produce fresh, nutritious food.

For information about COGS and organic gardening, visit the COGS website www.cogs.asn.au

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MONTHLY MEETINGS

COGS meetings are held at 7:30pm on the fourth Tuesday of each month (except December and January) at the Majura Community Centre, Rosevear Place, Dickson.

Guest speakers, a produce and seed exchange and sales and the COGS library feature at each meeting. Visitors welcome.

MEMBERSHIP

COGS offers single, family, associate and overseas memberships for \$25 for one year (\$15 for concessions) or \$40 for two years (\$24 for concessions) for new members.

There is a membership application form in this magazine. Please contact the Membership Secretary or a COGS garden convenor for an information kit.

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COGS is run by a voluntary committee elected at the COGS AGM each March.

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President's report: Summer 2009

We had a good start to spring and consequently, the countryside around Canberra is looking magnificent - the best it has looked for years. The COGS gardens are looking equally good so we should have some excellent produce this year.

Temperatures in August and September were one to one and half degrees above average but close to average in October. Rainfall for August and September was close to average, but slightly below for October. Dam levels are just slightly higher than at the same time last year, so we can expect level three water restrictions to continue for some time.

Water restrictions

Plot holders are reminded that these restrictions must be strictly adhered to in all gardens. See the notice elsewhere in this issue which details when watering is allowed and the watering devices that can be used. Adrienne Fazekas' watering article in this issue also provides good advice on keeping your garden hydrated.

COGS activities

It's time to start thinking about what you are going to put into the COGS display at the Canberra Horticultural Society's Autumn show in February. This show is an excellent opportunity to publicise community gardens in general and COGS in particular.

The Cook garden will be open again in early February as part of the Australian Open Garden Scheme.

Last year these events generated a lot of interest amongst the general public and your support again this year would be appreciated.

COGS participated in Floriade for the first time, providing a series of eight talks on organic backyard gardening at the kitchen garden display. The talks were very well received.

Media attention

COGS gardens have recently received some good publicity in the *Canberra Times* with an article on the Kaleen garden opening, and another on community gardening in general. Cook gardeners also featured in an *ABC Stateline* segment airing on 6 November.

Help with research

There seems to be a growing interest in organic and community gardening. Dr Bethaney Turner, of the University of Canberra, is researching this issue and would like to interview plot holders about their experiences of community gardening (see the notice on page 9 or the COGS website blog for more information). This project may provide useful information for securing new gardens in the future and interested plot holders are urged to contact Bethaney.

New COGS gardens

COGS twelfth community organic garden, located at Kaleen High School, was opened by the ACT Minister for Environment, Climate Change and Water, Simon Corbell, on 23 October. This was in conjunction with the launch of *Trust Organic* fortnight to raise awareness of the new Australian Standard for Organic and Biodynamic Products. The Kaleen garden has proved very popular, with only one or two vacancies remaining.

Land suitable for a new garden at Dickson has become available. To enable the Committee to judge if there is sufficient interest amongst members to justify the cost and effort involved, anyone interested in becoming a plot holder in a Dickson garden should contact me as soon as possible.

Sad news

On a sombre note, we have been notified of the death of Lynette West. Many members who knew Lynette and attended her talks on biodynamics at COGS meeting will be saddened by her death. Please see Peter Cornhill's tribute in this issue.

COGS website

The new COGS website is proving to be very popular, particularly the blog. It is the perfect medium for keeping in touch with what is happening in COGS in between magazines. Please consider subscribing to the blog - you'll find instructions on the home page. If you subscribe, you don't even have to remember to look at the website regularly. Whenever a new blog is posted, you will be automatically notified.

The last COGS monthly meeting of the year will be the COGS Christmas party on 24 November. Come along for some great company and discussion.

I would like to thank everyone who contributed to COGS during the year and, on behalf of the Committee, I wish everyone a merry Christmas and a prosperous New Year and look forward to another successful year for COGS in 2010.

Keith

CANBERRA ORGANIC

Volume 17 Number 4 (Issue 67)

Canberra Organic is the quarterly publication of the Canberra Organic Growers Society Inc.

It celebrates organic gardening, local produce, sustainability and information and social exchange in the Canberra region.

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EDITORS

Angela Spencer & Monica van Wensveen

CONTRIBUTIONS

We welcome submissions, ideas and feedback.

Contributions preferred in Word, Publisher or text format, on disk, as attached files or as clean typed copy.

Images should be sent as attached (not embedded) files, on disk or as original photographs or slides.

There are four issues each year - Autumn (February), Winter (May), Spring (August) and Summer (November). Deadlines for copy and advertising are 15 January, 15 April, 15 July and 15 October, respectively.

Please send contributions to

editor@cogs.asn.au or
Canberra Organic
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ADVERTISING

Please contact Monica van Wensveen on 6255 4332 or email editor@cogs.asn.au.

Canberra Organic is a unique way to reach people in the Canberra region who have an interest in organics, gardening and the environment. Our circulation is around 550.

ADVERTISING RATES

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Size	1 Issue	4 Issues
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1/2 page	\$18 (\$15)	\$60 (\$50)
3/4 page	\$36 (\$30)	\$120 (\$100)
Full page	\$72 (\$60)	\$240 (\$200)

Articles in the magazine do not necessarily reflect the views of COGS. Products and services offered by advertisers are not specifically endorsed by COGS.

Editor's note

Food miles. Carbon footprint. Eco-friendly. Organic. These are positive concepts recognised by the environmentally-aware person. But clever marketing experts can misuse these to put a spin on products claiming to be "environmentally friendly". There's now a bigger range of products on the market that are gentler on the environment.—great! But many companies are cashing in on our desire to do the "right thing".

Being organic is trendy. Everything to do with recycling, DIY and being green is fashionable. However, the ideals of environmentalism may be lost amid the consumerism, with so-called "organic" products sometimes overpriced, not ethically produced or the best option for the environment.

Certainly we need to be better informed about environmental issues and more active and socially responsible in our protection of the earth's delicate ecosystem. In *An Inconvenient Truth*, Al Gore paints a dire picture of the state of the environment – he reminds us not to be complacent.

Protecting the environment is important, but maybe we should ignore the insidious marketing messages about what is "organic" or "eco-friendly" and work it out for ourselves, with research and common sense.

Yes there are many useful organic products out there. But we still need to drive our car to the shops and spend our hard-earned money. We still throw the packaging in the bin (albeit recycling bin) and we still need resources to recycle that packaging. If we don't need it in the first place and don't buy it at all, wouldn't that be better for the environment?

Surely it doesn't need to be that hard to save the planet? We tend to look towards scientific research, better technology and complex processes to create bigger and better "green" products. Couldn't the answer lie simply in modifying our lifestyle to consume less, go back to basics and live the "good life"?

Remember the misadventures of Tom and Barbara in that old BBC television show *The Good Life* – and their quest towards self-sufficiency in the heart of suburbia? In that vein, we could help the environment by reducing consumption, being environmentally-aware, growing our own organic fruit and vegies, mending items that are broken instead of replacing them, being happy with smaller but functional houses and basically focussing on the quality rather than the quantity in life.

This doesn't mean you should picket your friendly local organic shop. It's good they exist. It's just important to consider the environmental pedigree or authenticity of products before we buy them – that's if we even need them in the first place!

The Summer issue of *Canberra Organic* is jam-packed with ideas to help you live the "good life", so enjoy! And remember, your stories, comments, artwork and photos are most welcome, so please send them in to editor@cogs.asn.au. We love to hear about your gardening exploits.

Happy Gardening!

Angela

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Contributors to this issue

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Photos

Keith Colls, Adrienne Fazekas, John Grubb, Wayde Margetts, Alan Robertson, Angela Spencer, Monica van Wensveen.

Articles and photos by Monica van Wensveen unless otherwise stated



Cover photos

Front cover

Onions going elegantly to seed (Monica)

Back cover

Climbing beans, a ravishing bowl of chillies and peeping radishes (Monica)

This page

Pak Choy (Angela)

**This issue of Canberra Organic is printed on recycled paper
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In the news

Scottish survey

BBC News report the start of Scotland's second earthworm census, being carried out by researchers in Dundee and Aberdeen. They plan to compare results to those from a similar study in 1991 to try to understand how climate change (and other factors) is affecting earthworm numbers. Of particular interest to the researchers are the roles earthworms play in creating natural drainage channels, providing compost for soil and potentially preventing some natural disasters.

Booster broccoli

'Booster broccoli' is the first of a range of 'all natural super vegetables', bred from strains naturally high in vitamins and antioxidants. Researchers hope these vegies will reduce risks of heart and degenerative diseases and cancers and diabetes. According to The Age, health experts say that this approach fails to address the underlying problem of poor eating habits. On the other hand, plant scientists say the current focus is on bolstering foods naturally. Says Rod Jones of Victoria's DPI "More than 90% of Australians don't eat the recommended servings of fruit and vegetables. Our angle is to make the vegetables people do eat as healthy as possible, so they are getting more from the little they are eating."

Dust storms here to stay?

An intense dust storm swept across the east coast of Australia in late September, the incredible orange haze causing health concerns and traffic chaos in the ACT and parts of NSW and Queensland. The dust storm started in the drought affected areas of western NSW, with huge gusts of wind pushing it east. According to ABC News, environmental experts say that such events are likely to become more prevalent under predicted changes in climate. They suggest that improving land management practices to maintain ground cover and organic matter is an important way to counter the impact of increased dust storm frequency.

Pesticides and Parkinsons

A new British study claims that gardeners and farmers who use pesticides as part of their jobs are three times as likely to develop Parkinson's disease, reports the Daily Telegraph. The chemicals in pesticides have been shown to alter signals in the brain, increasing the likelihood of developing the degenerative disease.

Message in a bottle

Sting (aka Gordon Sumner) has recently released an organic red wine from his Tuscan estate, according to BBC News. The singer's original plans for the estate were to grow enough to feed his family, using traditional farming practices that would benefit rather than deplete the land. The wine and other organic products such as honey, olive oil and vegetables are sold on the property.

Top tips for SUMMER

❶ Don't be a drip

With another hot summer on the way, it's time to tune up your watering system. Check your taps for leaks and replace any questionable washers and fittings. Be aware of the moisture in your soil and water when you need to, not because it's your allotted day. Install an aerator or a flow regulator to reduce water wastage. Apply mulch and continue to build up organic matter in your soil. If you haven't already, think about installing a simple drip irrigation system. Check out www.thinkwater.act.gov.au for more ideas.



❷ Create a summer scarecrow

Scarecrows are easy to make, fun for kids and a great recycling activity. Key features are two strong sticks - one for the body and one for the arms - nailed together or bound by old stockings. Dress in old clothes, gloves and a hat, or evening wear for a formal garden occasion. Stuff with straw, fabric or newspaper and use stockings, pillow cases or netting for a face. Oh, and don't expect them to scare any crows!

❸ Holiday harvesting

If you're going away over the summer break, make a deal with your neighbours or other plot holders to look after each other's gardens. Not only will watering help your vegies survive the hot holiday months, but regular harvesting of crops like cucumbers, zucchinis and beans will help keep your plants healthy and productive for longer.

"Summertime, and the living is easy."

George Gershwin
(who clearly never gardened in a drought)

Weather and water watch

Here's what's ahead in terms of rainfall and temperature for our sizzling summer, courtesy of the Bureau of Meteorology's long term statistics for the ACT region.

TEMPERATURE	December	January	February
Canberra airport	max 26.1	max 27.9	max 27.1
	min 11.3	min 13.1	min 13.1

RAINFALL	December	January	February
Canberra airport	52.5 mm	59.3 mm	56.1 mm
	5.8 rain days	5.7 rain days	5.1 rain days

(Rain days are days with more than 1 mm rain; temperatures are degrees Celsius)

Seasonal forecast: October to December

- The rainfall outlook for the ACT region is for neither wetter nor drier conditions than the long term figures for this period.
- The temperature outlook strongly favours higher daily maximums (around 75% likelihood for the ACT region) and higher nightly minimums, although with a lower odds (around 55%).

For more weather info, visit the Bureau of Meteorology's ACT website: www.bom.gov.au/weather/act

Water use and restrictions

- At 16 November, Canberra's dams were 54.2% full.
- Stage 3 water restrictions are currently in place across the ACT. The daily water target is currently 120 ML - watch the road signs on Canberra's main roads for any changes, or visit ActewAGL's water networks website: www.actewagl.com.au/water/networks

Organic milk is the cream of the crop: UK study

A recent study at UK's Newcastle University suggests that organic farmers who let their cows graze as nature intended are producing better quality milk.

The study found that grazing cows on organic farms in the UK produce milk which contains significantly higher beneficial fatty acids, antioxidants and vitamins than their conventional 'high input' counterparts.

During the summer months, one of the beneficial fats in particular – conjugated linoleic acid, or CLA9 – was found to be 60% higher.

'We have known for some time that what cows are fed has a big influence on milk quality,' explained Gillian Butler who led the study. 'What is different about this research is it clearly shows that on organic farms, letting cows graze naturally, using forage-based diet, is the most important reason for the differences in the composition between organic and conventional milk.'

'We've shown that significant seasonal differences exist, with nutritionally desirable fatty acids and antioxidants being highest during the summer, when the cows are eating fresh grass and clover.'

'As a result, our future research is focusing on how to improve the nutritional composition of milk during the winter, when cows are kept indoors and fed mainly on conserved forage.'

Gordon Tweddle, of Acorn Dairy in County Durham, is a local supplier of organic milk. 'We have believed for some time that organic milk is better for us and our customers tell us it tastes better,' he said. 'It is satisfying to have the scientific explanation as to why it is also nutritionally better.'

This current research confirms previous studies in the UK, which reported higher concentrations of omega 3 fatty acids in milk from organic production systems than conventional ones.

The study involved 25 farms across the UK, with scientists comparing three different farming systems: conventional high input, organically certified, and non-organic sustainable (low-input).

Source: Newcastle University press release May 2009.

Around the COGS Gardens

Charnwood

The combination of warmer weather and rain in October has motivated the Charnwood gardeners to burst into action, madly weeding, preparing garden beds, planting summer crops and waiting with bated breath for the warm weather proper.

As we warmly welcome our new convenor, Damian Welsh, we also sincerely thank outgoing convenor (and inaugural convenor of the Kaleen garden), John Grubb, for all his efforts and friendship at the garden. Thanks also to Frank for his Treasurer-ly duties and hello to our new Treasurer, Steve.

Our working bees are buzzing, trying to keep up with maintaining the common areas, and hopefully our efforts will be rewarded with a bountiful summer harvest and many evening BBQs.

Our garden plots are almost fully occupied. Anyone interested in joining us at Charnwood should contact our Garden Lord, Damian.

Angela Spencer

Cook

Since the last report, the Cook garden has welcomed four new plot holders and farewelled two gardeners. Welcome to Neil, Glynnis, Hazel and Mariette.

September's Annual General Meeting saw John Bennett hand over the convenor role to me after two fine years of convening. John was thanked for his efforts and the calm manner in which he went about the job. He can now focus on just one plot. A new garden committee was formed with some familiar faces.

In October, we were joined for our monthly barbeque by members of the Canberra Slow Food group. A tour of the garden; the sharing of food, seeds and seed catalogues; a pleasant sunny afternoon with large, dark clouds about; the sound of thunder; a taste of weed pie, local Scottish beef, Indian chickpea flour sweets and a lemon aperitif made for a fabulous meeting. The temperature dropped drastically and it began to rain. We were presented with a Slow Food apron as thanks and left with a generous collection of seed catalogues and seeds. Both Slow Food folk and Cook gardeners enjoyed the afternoon in the pleasant surrounds of our productive garden.

We will get the opportunity to share our garden again on February 13 and 14 when we are once again part of the Open Garden Scheme. All the industrious work of Spring will be visible then (conditions permitting) in the form of abundant summer crops.

Wayde Margetts



Top: Yummy Slow Food group fare at Cook

Below: Cotter gardeners busy at the AGM

Cotter

The Cotter garden's Annual General Meeting was held on September 19, accompanied by tea and cake. Trevor and Roz Bruhn handed the books over to Patricia Georgee and Richard Horobin. Following the meeting, we all joined in on the clean-up task.

Richard Horobin

Kaleen

The new Kaleen garden is now open and functioning with many eager new COGS plot holders. Headed up by the enthusiastic convenor, John Grubb, the Kaleen garden is sure to flourish. Please see our article on page 14 for more information about the opening.

Mitchell

The Mitchell garden is revving into action and the September rains have given us cause for both hope (soil moisture!) and despair (weeds!).

We held our annual garden meeting in arctic conditions at the end of September (I think we were even sleeted on). To ease the load on our hardworking convenor, many of the jobs that keep the garden running smoothly (monitoring water use, mowing communal areas, organising monthly meetings, keeping an eye on the plumbing etc) were taken on by individual gardeners.

Our garden plots are all taken, but there is still space for keen gardeners. *Monica van Wensveen*

Oaks Estate

Spring has sprung at Oaks Estate, and gardens that have been neglected over winter are beginning to show signs of life.

Late winter crops such as broad beans, onions, garlic, silverbeet as well as a range of herbs such as parsley, sage and coriander have survived the dry and cold winter. New plantings of lettuce, potato and capsicum are in, with the promise of summers harvest.

Coriander has been a particular winner this winter, after last summer's coriander ran to seed, providing both seeds (which are a fantastic addition to curries, casseroles, soups and salads) and a dense carpet of fragrant greenery, a perfect addition to a spicy Laos salad, Larb, which can be enjoyed year round with a little preserving know-how. (*See Gail's recipe for Larb on page 25 - Ed*).

Observant viewers of *RPA* may have noticed footage of the Oaks Estate garden in a recent episode. I guess this makes us famous!

Numbers in the garden have grown considerably over the last year, however a number of excellent plots have become available. Please contact me if you would like a plot.

Gail Bennell

O'Connor Garden

I'm a new plot holder at O'Connor and I've been allocated a half plot, about 4m x 5m, built on what was originally a tennis court. Most of the plot has spent the winter under straw, except for some raspberry canes (courtesy of the previous tenant). Some weeding and excavations have revealed a mixed bag of soil - some quite good soil and some parts where the original tennis court is still in evidence, so I'll need to devote some efforts to soil improvement.

I've noticed that popular vegetables at O'Connor are broad beans-everyone seems to have a healthy stand of these in flower - and that old stand-by, silver beet. One gardener is establishing an asparagus bed. One plot

(which makes the garden look like we are preparing for a major battle) has potatoes in trenches. The recent rain has encouraged weed and plant growth, but at least we have been able to pull out the weeds!

Alan is trialling a wicking bed, which he found described in a gardening publication. Building it has involved excavation, lining with black plastic and insertion of a system enabling water to be made available to plants from below, and replacement of the soil. Hopefully, there will be less water loss from evaporation. The bed is now finished awaiting warmer weather and tomatoes and we're awaiting the results of this experiment with great interest.

Rachel Parsons

New COGS garden at Dickson

The Committee is considering the establishment of a new COGS garden in Dickson on suitable land that has just become available.

We need to be sure there is sufficient interest in such a garden before we go to the expense and effort of establishing it. If you are interested in becoming a plot holder in a Dickson garden, please register your interest by contacting Keith Colls on 6161 4931 or email president@cogs.asn.au.

Community garden research - your help needed!

Dear Community Gardeners,

My name is Bethaney Turner and I am a lecturer in the Faculty of Arts and Design at the University of Canberra and I am interested in hearing about your experiences of community gardening.

I would like to explore a range of issues, from how and why you have taken on a growing plot to what you grow and how you use it. More broadly, this research explores the relationships between participation in community gardens in Canberra and issues of urban health, social inclusion and active civic participation.

If you would like further information and/or you would like to participate, please phone, email or write to me and we can arrange a suitable date, time and venue for an interview.

Dr Bethaney Turner

Convenor of the BA in International Studies,
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Summer harvest: STRAWBERRIES

“Doubtless God could have made a better berry, but doubtless God never did” - the wise words of sixteenth century gourmand William Butler. And who can argue? Strawberries are delicious, nutritious and easy to grow if you follow a few easy rules.

First, some fruity facts:

- They're not berries at all! Botanically, berries have internal seeds, whereas strawberries carry theirs (usually about 200 per fruit) on the outside.
- The scientific family of strawberries is *Fragaria*, which means fragrant in Latin. *Fragaria* is the rose family which includes apples and plums.
- Strawberries are packed with vitamin C, are a good source of folic acid and potassium and are very low in calories. Apparently, fresh juice has a cooling effect on people with fevers.



Site and soil

Strawberries prefer full sun to grow well and to ripen the fruit. They like a well drained, slightly acidic soil that has been enriched with plenty of compost and well rotted animal manure. Regular application of liquid fertiliser (eg seaweed fertiliser or compost tea) will also encourage production.

Planting

Strawberries need plenty of space to grow. Suggested spacing is in rows about 75 cm apart, with about 30 cm between plants. Plant with the crown at soil level and water in well.

In our climate, it's common to plant strawberries in autumn, for a first crop in late spring. Try planting a mix of different varieties to enable harvesting from spring to autumn. Red Gauntlet is a popular and productive starting point.

If planting directly into garden beds, raise the beds to allow good drainage. Strawberries also grow very well in planter boxes, barrels, hanging baskets and pots, making them ideal for small gardens, decks or verandahs.

Cultivating

Strawberries are shallow-rooted, so will need frequent

watering in hot conditions, particularly if they are in pots (especially terracotta pots).

To keep fruit and leaves clean and dry, put straw around the base of each plant. This will also help keep weeds under control and hold soil moisture. Remove any diseased fruit or leaves as soon as you see them.

Strawberry plants will send out runners during the growing season (interestingly, the Anglo-Saxon word *strawberige* apparently means 'inclined to stray'). These can either be pinched off to conserve the plant's energy for fruit production, or be used to propagate new plants for the next season. Peg them down while they're still attached and once they've formed roots, gently separate and transplant.

Harvesting

Pick fruit as soon as it's ripe to prevent it rotting on the plant, and to beat the birds. It's best to harvest in dry weather. Be gentle when harvesting to avoid bruising and make sure you keep the stalk with the fruit.

After harvest, cut back old leaves to allow sun to reach the centre of the plant, and remove the mulch or straw that was protecting the fruit. Feed and water to prepare the plant for the next season.

Problems

Birds and slugs are a strawberry's main pests. For the former, it may be necessary to cover plants with a net or cloche when they start to ripen. An old-fashioned slug hunt is the best remedy for the latter.

The most important rule for preventing disease in strawberries is to start with certified virus-free plants or runners. Expect plants to remain healthy and productive for three years. Replace plants after that in a new location, to ensure that soil based diseases are not transferred to new plants. Some gardeners suggest a three year rotation, with a new row planted, and a row left fallow each year.

Choosing and using

Choose fruit that is brightly coloured and glossy, that smells good, that has no soft or white spots and that has its green stems still attached.

Eat strawberries as soon as you can - this isn't usually too difficult!. You can refrigerate them, but only for a couple of days. Wash fruit just before eating (with the stem caps on), not before storing.

If you have the will power not to eat them *au naturel*, try them in jam, coulis, tarts, cakes, daiquiris, or with ice cream, cream, yoghurt, champagne or chocolate - or all of the above.

References and further reading

- Botanica's Organic Gardening (Judyth McLeod)
- From A la Carte to Zucchini (Anthony Barker)
- The Canberra Gardener (Hort Society of Canberra)
- BBC Gardening Guides: www.bbc.co.uk/gardening

Summer planting: CHILLIES

Chillies are the fiery cousins of the capsicum family. There are dozens of varieties, each with a unique character and flavour. Colour isn't a good indicator of heat - size is more reliable, and in general, smaller chillies pack a bigger punch.

The heat in chillies comes from the chemical capsaicin, which is concentrated in the seeds and inner membranes. The hottest chilli in the world is the Naga Jolokia chilli (loosely, the name likens the 'bite' to that of a King Cobra snake). On the Scoville scale (yes, there is a scale to measure chilli heat), Tabasco sauce rates at 2500-5000 Scoville units, Habaneros score 100,000-350,000 and Naga Jolokias clock in at 1,040,000. Wildlife experts in regions of India are even experimenting with this chilli (smeared on fences and as an integral ingredient in smoke bombs) as a way to prevent wild elephants from destroying homes and crops.

Chillies are said to be anti-bacterial, to speed up metabolism and to cause the brain to release endorphins, giving you a natural sense of well-being.

A friend who is a longstanding chilli-growing aficionado has tried many varieties, but favours Jalapenos and Thai Birds Eyes. The hottest he's grown in Canberra are Habaneros. His tips are to avoid frost and don't overwater.

Site and soil

Chillies like hot, sunny positions and well-drained soils with lots of organic matter. A moderately fertile soil is good, but be careful not to apply too much rich manure as it will result in lots of foliage, but not many fruit.

They grow well in pots or containers, as these can be moved to protected spots in the garden or around the house in case of an unexpected cold snap.

Planting

Plant your chillies after the last frost and once the soil temperature has reached at least 20 degrees - so don't plant them too early. And bear in mind that they take three months to mature in good conditions, so don't plant them too late.

If you're growing from seed, sow them at a depth of about three times the diameter of the seed. Germination rate tends to be fairly high and seedlings will appear in about a week. They can be safely moved from when they reach around 10 cm in height.

Growing

Chillies are thirsty plants and if the soil dries out, their growth will be affected. Even watering, but not overwatering, is the key.

The first flowers will appear when the plants are quite small. At this stage, the plants benefit from a weekly or fortnightly dose of fertiliser. Once they've started flowering, the plants will continuously produce fruit while the weather stays warm.

Harvesting

Most varieties will start green, then change colour and mature in heat and flavour as they ripen. However, you can

harvest the fruit as soon as they reach a good size, no matter what the colour is. Use scissors or a sharp knife.

Problems

Irregular watering can lead to blossom end rot. Chillies grown in sandy soil or soil without sufficient organic matter can attract root nematodes. Fruit set may be poor if there are high temperatures during flowering - this will correct itself once kinder weather arrives.



Fruit fly can be a problem in warmer areas and possums and birds can be a problem just about anywhere. It may be necessary to cover or bag your plants.

Choosing and using

Fresh chillies tend to lose their flavour quickly, so if you're not using them immediately, keep them in the fridge. Chillies freeze well - just wash, dry and freeze whole - and can easily be dried by hanging them by their stalks in a well-ventilated area.

They are fabulous in salsas, oils, chutneys, curries and stir fries. Strange as this sounds, the best hot chocolate I ever tasted was a Mexican blend, flavoured with chillies and cinnamon.

Many amongst us know from experience not to get chilli juice anywhere near eyes or mouth! Wash your hands thoroughly after handling or wear kitchen gloves if you're really sensitive.

To reduce the heat factor of fresh chillies, try soaking them in cold salted water for an hour or so. If you get caught with a too-hot mouthful, milk or yoghurt will help.

References and further reading

- Organic Vegetable Growing (Annette McFarlane)
- From A la Carte to Zucchini (Anthony Barker)
- Gardenate website www.gardenate.com/plant/chilli
- World Vegetarian Classics (Celia Brooks Brown)

Waste not, want not: Recycling in the garden

The environmental ideal of minimising human impact on the earth is an important part of organic gardening. Re-using and recycling unwanted household items and waste in the garden fits in fundamentally with the spirit of this idea, both to reduce our impact on the earth, to reduce the amount of landfill, to garden without chemicals and to save money, all of which are worthwhile.

The most obvious example of recycling in the garden is composting. What could be a more perfect way to reuse and recycle? Compost can be made with a myriad of materials, including grass clippings, fallen leaves, garden waste, old newspaper, kitchen scraps, vacuum cleaner dust, hair, old doormats and more – which would all go into landfill instead of providing rich nutrients for our garden soil.

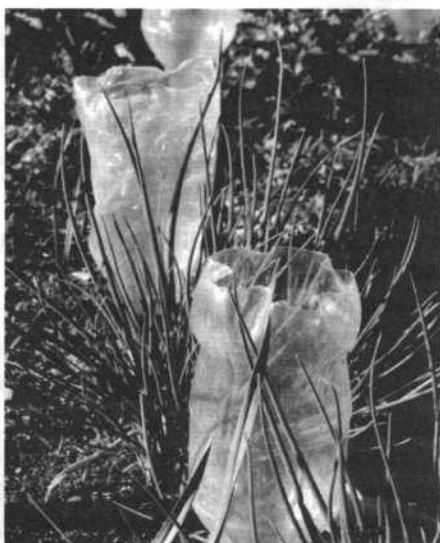
To help keep the recycling ideal alive (and to save money at the same time!), here's a bunch of low-cost garden tips and recycling ideas to inspire you...

● Empty strawberry punnets work well as seedling trays, while also acting as an effective mini greenhouse. A bonus – they have ready-made drainage holes in the bottom!

● Put seeds in toilet paper rolls and then plant them straight into the soil as biodegradable seedling tubes. You could also try sticking them into the ground and then planting bean seeds to stop those wascally earwigs from nibbling at the bean plant bases.

● Cut plastic drink or water bottles in half with a knife and place them upside down over newly planted seedlings to protect them from bugs and act as mini greenhouses.

● Fill washed yoghurt containers with beer to make your own snail traps, then sink them into the ground in your vegie beds.



● Egg cartons are ideal seedling trays or you can compost them.

● Don't throw away pantihose – they make excellent plant ties or tree supports as they don't damage the plants. You can even use them to store bulbs in between seasons. Put them over the top of your gumboots to deter spiders or put bits of soap into them and tie to the garden tap to wash grubby hands.

● Cut up ice cream container lids to use as plant markers. Or keep the icecream container intact and store seed packets inside. Paddlepop sticks are also great plant markers.

● Recycle paper by shredding it and using it as mulch or putting it in the compost.

● Don't throw away bamboo roll-up blinds – they are ideal as DIY awning or shade for vegies during the summer months.

● Instead of taking your old ladders or chairs to the tip, why not suspend them over your vegie beds and hang baskets off them or use them as plant supports.

● Tie up scratched or unwanted CDs with fishing line and suspend them over the garden to deter birds.

● Turn an old wheelie bin into a worm farm – just install a tap on it.

● Drill holes in the bottom of tin cans and use as planters.

● Tea leaves and coffee grounds can be diluted with water and poured straight onto garden or into compost heap as an effective soil conditioner.

● Keep egg shells to crush and sprinkle around plants to deter snails.

● Make use of the last drops of milk in the bottle – fill the container with water and pour into a spray bottle, then use as an anti-fungal spray on vegies prone to mildew, such as zucchini.

● Old sheets can be used as shade cloth or unwanted sheer curtains can be reinvented as bird netting.

● Plant potatoes in old rubber tyres. Please note there has been some discussion about possible chemical leaching from old tyres, so do your research first. Start by placing two tyres on top of each other and fill with soil and potatoes. As the potatoes grow, cover with more soil and tyres. When ready to harvest, tip the pile over and pick the potatoes out.

● Effective compost bays can be created using old pallets and wooden crates.

Recession-busting gardening

Gardening does not need to be an expensive hobby and can help you save money on your food bill. Organic gardening is even better as organically-grown fruit and vegetables are more expensive to buy at the supermarket. Here are some ways to save even more money in the garden:



● Obvious but true – growing from seed instead of buying ready-made seedlings can save you loads of money. It requires a bit more planning, but is a lot cheaper. Buy seed packets from the discount shop or cheaper still, save your own seed (see the Seed Saver's Network website for more information – www.seedsavers.net.au) so you have free seed for next season.

● Take cuttings of your favourite plants, or your friends' plants – these cost nothing! Put a pair of secateurs in your pocket on your daily walk (but do ask first before you hack into someone's front garden!) to procure some free plants.

● Give potted plants or herbs as gifts. Rather than buying expensive birthday or Christmas presents, why not pot up a bunch of herbs or flowers to give to a friend, with the note "If friends were flowers, I'd pick you" attached.



● Dip cuttings in a bit of honey before potting them to help them strike quickly instead of buying rooting powder.

● Find long sticks and twigs around your backyard and construct tepee-style supports for beans and peas.

● DIY "weed soup" fertiliser – pull out some weeds and put them in a bucket, pour some hot water over them and stir, strain off liquid when cool and use the liquid as fertiliser. Even better – leave them for a couple of weeks in a covered bucket or old plastic bin – a bit stinky but fabulous for the garden!

● Kill weeds with boiling water – simple and free! This works particularly well on path weeds.

● Make your own garlic-based pest spray to deter caterpillars, snails and insects. Chop 3 garlic cloves and mix with 6 tablespoons of vegetable oil. Place 6 tablespoons of liquid soap, pure grated soap or soap flakes in a separate container – pour 600ml of water over the mixture and stir until dissolved. Tip it all into food processor with garlic and oil and pulse. Keep the mixture in a jar in fridge. Add 1 tablespoon to every litre of water for a spray. You can add cayenne pepper to the recipe to create an even more noxious spray.

● Sprinkle sawdust or crushed eggshells around seedlings to protect them from snails and slugs.

● Clean your hands with some sugar and olive oil rubbed into your palms.

● Instead of buying packets of seed with seed tape, try making your own so you get more seeds for your money. Seed tape planting is useful for small seeds such as carrots and onions as it helps with spacing.

How to make your own seed tape

● Grab a roll of cheap, unbleached and unscented toilet paper and unroll it onto a table.

● Cut the toilet paper into short strips.

● Make a paste with flour and water and dab it onto the toilet paper every 20cm with a cotton bud.

● Place a seed on each dab of paste.

● Wait for the paste to dry and then fold the seed tape, starting with the long edge of each strip. Then fold a third of the paper over the seeds, followed by the last third to cover the seeds.

● Dampen the toilet paper lightly and mist with water to secure the seeds.

● Carefully carry the strips out to the garden. Make some shallow furrows in the soil and lie the strips down. Mist with a spray bottle and cover with soil.

● Your seeds will now grow in straight, spaced rows!

Angela Spencer

New soil: The opening of the Kaleen Garden

The newest community garden in the COGS stable is at Kaleen. The garden was officially opened in October. One of the new plot holders, Pat Dessi, has penned a few words about the goings-on at Kaleen so far...

The suburb of Kaleen in east Belconnen is one of Canberra's largest, by population and by area. News of the establishment of a Kaleen chapter of COGS immediately set many a cog whirring in the minds of its community-minded residents. The temporary convenor, Keith Colls, even had to turn eager participants away as the plots were already taken.

In fact, the horticultural eagerness of Kaleen is a little surprising - this isn't Gungahlin, where house blocks barely allow for a potted plant. Kaleen is good old 1970s Canberra, before the McMansion swallowed the garden, and house prices swallowed commoner's wallets. Most of the Kaleen COGS gardeners have plenty to do in their home vegie patches and an impartial observer might think it a bit odd that they're out for more...a surreptitious land grab or something more??

The Kaleen garden is on a patch of land on the grounds of Kaleen High School, which has kindly provided it for organic gardening. The garden sits next to the school's own gardens that have been running for many years, complete with some placid goats and crowing roosters. It's pleasantly sited, with a view across the suburb, a small stand of pines beyond the fence line, active bird (and ant) life and all in all, a relaxing place to be... if you can ignore the couch grass, which is well on the way to becoming an endangered species.

Since August and winter's final blast, much has happened. The water pipes are in. Plots have been marked out and distributed. A rotary hoe kindly lent out by a member has helped till the soil, now mulched and sown in most plots. In communal areas, weeds have been controlled, stones cleared, paths made. A shed is in place, thanks to the generous efforts of another member who, with a few helpers, brought it across from a demolition site, along with concrete pavers. There's a donated barbecue that's been used twice during the frequent working bees. There are also literally some working bees - two hives are in place, maintained by our convenor, John Grubb. In a world of "show me the money", the Kaleen COGS group would much rather John "show us the honey", or at least let us have a taste when there is some!

The garden was officially opened in a small ceremony, attended by those gardeners who could make it on a grey Friday morning, and Simon Corbell, in his capacity as ACT Minister for Environment, Climate Change and Water.

Thanks to everyone who has gotten the project off to such a good start, especially Keith, Adrienne, John, Melissa (& boys), Jim and Robyn and Kire and his trusty truck. And all of the remaining 24 gardeners who have signed up.

But back to our question - what is motivating the Kaleen COGS group? In a kind of "gardeners anonymous" confession session, your correspondent jotted these responses:

Robyn: "to have a different environment to grow tomatoes - at my home garden, my tomatoes end up with tomato wilt."

Seamus:- "I live in a flat and am keen to grow vegies".

Melissa: - "to get my backyard back"!

Ken and Leanne: - "we have too small a garden at home (plus Ken loves digging)".

John: - "Kaleen's closer to home than my (current) Charnwood plots"!

Pat: - "one can never have enough tomatoes".

All mad keen gardeners! Quiet conversations already occur, people plotting over their neighbours' plots and likely yields and gardening techniques. It's a competitive, but generous group, with everyone willing to chip in when required.

To scotch the notion that the Kaleen group are parochial green thumbs, we currently have a member in Peru (looking for archaic Inca potatoes perhaps?), another in Italy (nonna's special San Marzanos?) and one on army reserve manoeuvres - a new Bush Tucker man? Time will tell.

Keep an eye out for how the gardens flourish. According to the internet (which never lies), Kaleen is a Polish girl's name after a flower, whereas the officially gazetted name is "from the Wiradhuri tribe of the central-west of New South Wales, meaning 'water'". With a bit of one and a bit of the other, Kaleen is well on the way to becoming a proud tooth in the COG.

Pat Dessi



Kaleen plot holders at their first barbecue, with a view of the garden

Constructing a wicking bed at O'Connor

The very high water usage at my community garden over the last summer was uppermost in my mind as I came across a section on wicking beds in Mary Horsfall's newly-published gardening guide*. Wicking beds operate by watering from the bottom and rely on the water being wicked up into the roots of the plants, thus reducing losses by seepage and evaporation.

My plot at the COGS O'Connor garden is built on a former clay tennis court that was specifically designed and constructed to drain surface water quickly. This structure results in much of the water applied to plants through watering or rainfall being lost to drainage.

My plot consists of five 200mm high raised beds, 5 metres by 1.2 metres, filled with improved and imported soil. From garden-wide figures, it looks like each of those beds absorbed over 5,000 litres of tap water over the last hot, dry Summer.

To retro-fit a wicking bed to one of my existing beds, I dug out 200 mm of soil to the original ground level, then excavated the clay of the tennis court to a depth of 100mm. I levelled and smoothed this surface and laid down some scrap plastic sheeting to protect the liner from punctures. I drilled some holes in the timber edging at ground level (100mm up from the bottom) for drainage then fitted two layers of heavy duty (200mm) builder's black plastic, draped up the sides and with holes cut to match the drainage holes.

A length of 65mm slotted drainage pipe was run along the full length of the bed and attached at one end to a short, vertical section of 90mm stormwater pipe which will act as the water filling and inspection point. The drainage pipe was covered with a strip of fine weed mat, then the bed was filled with a 100mm layer of coarse, washed sand. The sand was levelled (a critical issue) and covered with fine weed mat before the soil was returned to the bed.

Once plants are established (this year it will be tomatoes by rotation) through top watering, with any water not taken up by the seedlings held by the liner, and the bed heavily mulched, all watering will done from the bottom up.

This is expected to result in significant savings in water usage and, if this appears to be the case, the other four beds will be converted to wicking beds in future years.

The conversion to a wicking bed has a labour cost, about six hours at pensioner pace, an economic cost, around \$65, and an environmental cost in the use of plastics, but it is expected that these costs will be justified by the water savings. The use of wicking bed technology may also be of value in gardens where root intrusion from nearby

trees is using water and hampering plant growth.

Alan Robertson

* Fabulous Food from Every Small Garden, Mary Horsfall, CSIRO Publishing Gardening Guides 2009

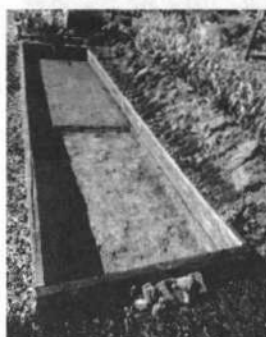
Alan's wicking bed project step-by-step



The original 1.2m x 5m bed with soil from adjoining path



Taking out 200mm of soil



Taking out 100mm of clay



Scrap plastic laid in



Drain holes drilled at 100mm



Double layer of heavy duty plastic



Laying in 100mm of washed sand



Nearly completed garden bed with weed mat exposed

How much water do you use in your COGS garden plot?

How much water are you using as you water your plot. Does your hand held hose use 500, 1000 or perhaps even 1500 litres per hour. How much does your dripper system use? 500?, 1000?, No idea?

It seems many COGS gardeners have no idea of how much water they are actually using. Also some gardeners still appear to be unaware that the water used in the community gardens is neither free nor unlimited. Simply adhering to the ACTEW restrictions does not ensure reasonable water use or good watering practices.



Why do I need to know how much water I use?

Each of the community gardens has an annual water allowance. This allowance is currently 54 kl (54,000 litres) per 100 sq metres of paid for plots. This means if you have a 100 sq metre plot you can use up to 54,000 litres during the gardening year. For a 40 sq m plot your allowance is 21 600 litres. If you use a water wand which typically delivers 1400 litres per hour, you will be able to water your 40 sq m plot for a total of fifteen and a half hours during the year. This means about half an hour a week for the growing season. Using a dripper system delivering 500 litres per hour would enable you to water for about one and a half hours per week during the growing season.

Why does COGS have a water allowance?

The water allowance is designed to encourage responsible water use in the gardens and to ensure COGS can pay its bills. The water allowance provides an upper limit on the amount of water COGS will pay for from the plot fees. The water used in the community gardens has become the major annual expense of COGS and this year 90% of your plot fees will be used to pay water bills. The committee estimates the water bills for the 2009 - 2010 gardening year will be over \$15,000. Gardens which exceed their allowance are required to pay for their excess use from their own funds. This allowance is set each August at a meeting of the committee and all the garden convenors and is based on records of water use in the gardens over the last eight



years. It has been 54 kl for the last four years. Most of the gardens have managed to remain within their water allowance each year.

How to measure your water use

Hand held hoses

You will need a container of known size and a watch with a second hand or a stopwatch. A nine litre plastic bucket is a convenient size.

Using the trigger nozzle or wand you would normally water with, turn the tap on as much as you usually would. Time how long it takes to fill your container in seconds. For the various nozzles I've tested it's taken between 20 and 70 seconds to fill a 9 litre bucket. Once you have measured the time, calculate the delivery rate as follows:

$$\frac{\text{Volume (litres)} \times 60 \times 60}{\text{Time (seconds)}} = \text{Delivery rate (litres/hr)}$$

For example, if it takes you 25 seconds to fill your 9 litre bucket the hourly rate of use would be:

$$\frac{9 \times 60 \times 60}{25} = 1296 \text{ litres/hour}$$

Drippers

Most drippers deliver 2 litres/hr so you can simply count your drippers and multiply by 2 to get the total litres per hour for the whole system. If you





use the brown inline drippers and it's too difficult to count the individual drippers, just measure the dripper spacing and the total length you have used. A typical dripper installation in a 50 sqm plot (5m x 10m) might consist of 15 5m lengths running across the plot. If the drippers are spaced at 30 cm (0.3 metres) then you would have:

$$\frac{15 \times 5}{0.3} = 250 \text{ drippers}$$

and the system would deliver 500 litres/hour.

If you don't know what size your drippers are, you can measure their output by putting a container (1 or 2 litre ice cream is useful) under one dripper for 15, 30 or 60 minutes and measuring the volume of water dripped into the container. From this you can calculate the volume in litres per hour.

Some drippers are far more dependent on water pressure than others and it is worth checking if your dripper system's output changes much if you turn the tap full on. In my experience the small inline drippers, 4 or 6mm pipe, can become sprinkler-like when turned up, resulting in unexpectedly high water use.

Oozing hoses

Water use measurements are impossible for these without using a flowmeter. The more you turn the tap on the more water oozes and sprays out.



Ten ways to get the most benefit from your water allowance

1. Water the soil not the plants - water is absorbed by a plant's roots not by its leaves. Plant foliage does not benefit from being watered except after dust storms! Water applied to leaves will simply evaporate and be lost from your garden. Wet foliage is also more vulnerable to attack by fungal diseases. Fungal spores can be splashed from plant to plant by overhead watering thus spreading diseases.

2. Don't water more often than necessary - always check the soil moisture before deciding to water. Even if the surface looks dry, the soil may be quite moist a centimetre or two below the surface. Don't water just because it's an odd or even day and you are allowed to, or because you haven't for a couple of days.

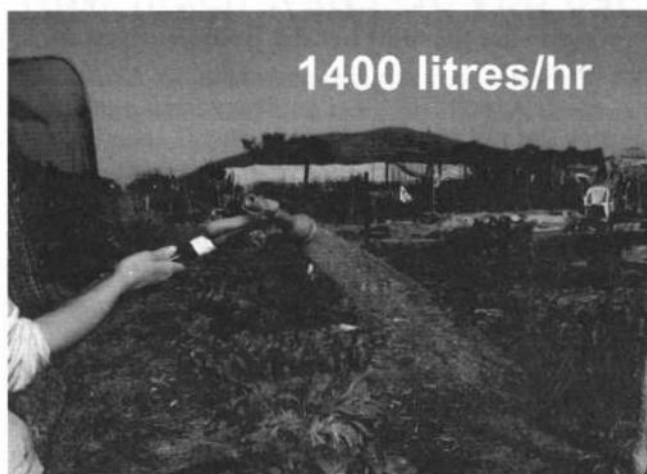
3. Encourage deeper rooted plants - less frequent deep watering is more beneficial than frequent shallow watering. You can encourage your plants to develop deep roots by letting the surface soil dry out between waterings. Frequent shallow watering encourages roots to remain very near the surface and the plants are then very vulnerable if the surface soil dries out.

4. Don't apply water faster than the soil can absorb it - there is a limit to how fast water can penetrate into the soil. If water pools on the surface as you water then you are applying the water too quickly and some of it is likely to run off or evaporate and be wasted. It is also illegal under the current ACTEW restrictions to water to the point of runoff or pooling.

Most water wands and non adjustable trigger nozzles deliver water far too quickly for garden soil to absorb. These nozzles were designed to save time, and therefore money, in the nursery industry where large numbers of potted plants need to be regularly watered.

5. Learn the water requirements of your particular plants - not all plants need the same amount of water. Don't automatically water everything just because you have a hose in your hand. Newly transplanted seedlings may need frequent watering until they have established good root systems, while well established, deep rooted perennials such as asparagus and rhubarb may only need watering every week or so. Check what happens if you don't water for four or five days?

Group plants according to their water needs to avoid unnecessarily watering neighbouring plants. Some plants, such as onions and garlic, benefit from a period of dryness prior to harvest, which improves their storing qualities.



6. Mulch, mulch and more mulch - to retain soil moisture, reduce evaporation, encourage earthworms, reduce erosion and suppress thirsty weeds. In summer you should have at least 50mm of mulch.

Watering can be problematic in well mulched garden. The most effective method is a dripper system installed under the mulch. If you are using a hose and nozzle either move the mulch aside and water the soil or sink pots through the mulch and into the ground beside your plants and fill these with water. Spraying water over the top of mulch provides very little benefit to your plants. Applying so much water that it penetrates a thick mulch is simply wasteful. Most of the water trapped in the mulch will evaporate.

7. Constantly improve your soil's structure and organic matter content - this will increase the water holding capacity of your soil and allow you to water less often. A well structured soil acts like a sponge. Soil structure can be improved by mulching, encouraging earthworms, minimal digging, avoiding walking on and compacting wet soil, and adding organic matter. Organic matter can be added as green manure, animal manures, compost or any plant residues or weeds simply laid on the soil surface - the earthworms will incorporate these for you.

8 Monitor rainfall and the weather forecast - keep track of how much rainfall we have. Many of the gardens have rain gauges and daily rainfall figures are published in the Canberra Times and on the Bureau of Meteorology's website. After 15 or 20mm of rain you probably don't need to water for a week or more. Also delay watering if rain is forecast.

Try to reduce run-off during heavy rain by planting along the contours and building swales to slow surface water flows and give any rainwater time to penetrate.

9. Use the most effective delivery system - under the current Stage 3 water restrictions there are three allowable ways to water: watering cans or buckets, hand held hoses with trigger nozzles, and drippers or oozing hoses. No single one of these will most effectively water all your plants.

Established plants are best watered using drippers to ensure deep watering, while newly transplanted seedlings can be adequately watered in using a watering can. If you mainly use drippers make sure you can turn off sections in areas that are temporarily unplanted. Also remember that lots of drippers use lots of water.

10. Don't plant more than you can harvest and don't aim for the biggest plants - 3 metre tall sweetcorn or 1 metre tall capsicum plants may look impressive but it takes excessive amounts of water to produce them and the crop you harvest will probably be no larger than that from more moderately sized plants. Many plants will in fact fruit earlier and more prolifically if they suffer some water stress prior to flowering. Adequate water must, of course, be available during fruit development.



Consider how much produce you are likely to use before planting, as watering plants you don't later harvest is very wasteful. Will you really be able to keep up with three zucchini plants and what are your plans for the twelve cauliflowers which will all be ready during the same month?

Finally, don't waste water on veggies you don't really like to eat.

Thanks to Shiona, Anna and Kai who held hoses, stopwatches and buckets on a cold October day, and to the many Cook gardeners who have recently filled buckets and posed for photos.

Adrienne Fazekas

Backing beneficials

As we carry out our gardening tasks, we are often unaware of the great deal of work being done by our allies in the garden, the hoard of beneficial insects that play such an important role in natural pest control. There is a huge array of beneficials, including hover flies, lacewings, parasitic wasps and predatory wasps, ladybirds, predatory mites, spiders, ground beetles and the list goes on! Many have fascinating life cycles, particularly the parasitic wasps.

One parasitic wasp, *Trissolus basalis*, lays its eggs in the sulphur yellow eggs of the green vegetable bug. This wasp is black and very tiny, only about 1mm long. It was introduced to Australia back in the 1930s, specifically to control this pest. However it probably cannot control bug numbers on its own, so it would be wise to also use other control methods for the veggie bug, such as the "squish 'em" approach as summer comes on.

Other parasitic wasps lay their eggs inside the larvae of common garden pests. The larvae of the wasps feed inside the host, but do not actually kill the host until they burst out, at which stage they pupate on the collapsed skin of the now dead host (rather gruesome isn't it). One, the *Cotesia glomerata*, is a parasite for the Cabbage White Butterfly.

A third type of parasitism occurs with the aphidine parasitic wasp which attacks aphids. In this case the wasp passes its entire larval and pupal stages inside the host body and bursts out as an adult.

Many wasps are predatory of course. Two predatory wasps are the paper wasps, which build their nests out of chewed wood "paper", often under the eaves of houses, and the mud wasps, with their familiar mud nests on the walls of buildings. Both will eat caterpillars and spiders. The paper wasp will also eat the pear and cherry slug. If you find these nests around your home don't destroy them just to tidy up, or you will lose valuable allies in the garden!

There are so many insects, it is impossible to describe a fraction of them here, but if you see an insect and you wonder if it is a beneficial one, the following may help:

"As a general rule, fast moving grubs and related creatures are beneficial. They need to be fast as their prey, small slugs and insects, is mobile. Plant eaters, pests from our point of view, tend to be more "sluggish". (Joy Larkcom, "Vegetables From Small Gardens", p 93)

Try these six steps to encourage beneficials into the garden.

Stop using pesticides

Many pesticides kill beneficial insects as well as pests. Since pests tend to breed very fast, they will often come

back first. Remember: "Whenever we kill a beneficial insect we inherit its job. And as novices we are attempting to take on the task of an expert. Whenever we fail, the environment suffers." (Stuart Hill, *Acres Vol 1, No 7, p10* "Broad perspective on sustainable agriculture")

Only use organic sprays if you must

Many are not harmless, e.g. sulphur fungicide harms parasitic wasps and predatory mites, insecticide soap harms hover fly larvae.

Grow flowers to feed them

Flowers are a source of food for many pest controlling insects, particularly in their adult form. Many have short mouthparts, so simple open flowers or very small flowers are best. Among the favourites are flowers such as fennel, parsnip, parsley, daisies, dandelions, marigolds, sunflowers, thistle, and yarrow.

In a recent study, it was shown that the fennel flowers attract almost 500 different insects, of which 195 were partly predatory and 105 were parasitic.

Provide a nursery

It is essential to have some pests in your garden if you want the beneficial insects to come in as well. The idea is to control, not eradicate pests, so we need to tolerate a low number of them. There is no place for the "Rambo Syndrome" in an organic garden!

Therefore it can be useful to allow a small number of nursery plants in your garden. A "nursery" plant is one which supports pests with no ill effect. HDRA gives the example of the common nettle which supports the nettle aphid which however does not attack other garden plants. Nettles will therefore attract many beneficial insects, particularly ladybirds when they emerge from hibernation. The nettles can then be cut down in summer so the predators will move to garden plants. However don't let the nettles become a weed!

Provide safe cover

Ground dwelling insects do not like bare soil. Provide dark, cool moist conditions with ground covers, carpet, bits of bark etc.

Don't be too tidy

Leave cover for other insects, including some old plant material. HDRA suggest you don't cut back your herbaceous borders in autumn as the hollow stems are a favourite hibernation place.

Following these six steps will encourage beneficial insects to stay in your garden and help keep down the numbers of garden pests. As an added benefit, the increased insect life will also create a more interesting garden to be in.

Taken from an article by Michelle Johnson. The full article (with references) is available on the COGS website at www.cogs.asn.au/tips-and-techniques/beneficial-insects

Bubble, bubble, toil & trouble: Preserving the harvest

Is your zucchini plant taking over the garden? Do you have oodles of plums or masses of tomatoes? Mastering the art of preserving the harvest is a wonderful way to extend the life of your crops and keep your pantry well-stocked for winter. There's a renewed interest in preserving food, so why not jump on the bandwagon and try it this summer?

Anyone who has fond memories of watching their grandmothers pottering about in the kitchen pickling beetroot, making jam or concocting cordial will know that the delectable smells and delicious flavours that result from the process of preserving fruit and vegetables are something special.

Why bother will all those pans and jars and stirring? The passion for cooking and gardening. The fun and adventure of creating and testing recipes. The cathartism that comes with the processes of picking and preparing fruit, packing jars, stirring a pot. The whole cultural process and rich family traditions associated with bottling days, yellowed recipe books or the special memory of tasting Nanna's latest jam on a warm scone. The memories and hunger conjured up by the aroma of bubbling preserves in the kitchen, which are on a par with the smell of baking bread or freshly-brewed coffee.

Romantic notions aside, there are many practical reasons to preserve your excess summer harvest. To some extent, we have lost the art of growing our own food, let alone storing our surplus produce, as modern supermarkets and the manufacturing process have forced these skills to become obsolete. Making your own preserves can be intensely satisfying on a personal level.

Growing our own fruit and vegetables is good for the hip pocket but storing extra for a rainy day makes the whole gardening process even more financially rewarding. With escalating food prices, gardening could be considered more of a necessity than a hobby for many Australians. Preserving fruit and vegetables in jars is a thrifty way of extending your summer harvest over several months or into the next year. As the winter months encroach, it is comforting to see shelves and pantries full of bottled fruit, their colours and textures deliciously enticing. And a bottle or jar of something yummy makes a delectable, thoughtful Christmas gift!

Food waste is a huge environmental issue and preserving surplus crops ensures we're not contributing to this problem. The trouble with gardening is you always either grow just the right amount of fruit and vegetables to eat while in season, or not enough. Why

not eat what you can and "can" what you can't? Filling up the pantry or freezer with yummy jams, chutneys, pickles, sauces, cordials or bottled fruit a better option than throwing produce in the bin (even the compost bin)? You will be on the path to self-sufficiency and reducing your food miles at the same time – very trendy at the moment!



And of course there's the nutritional benefits of organically-grown fruit and vegetables that are also home-preserved.

Many of us like to know what we are eating. If we've grown it ourselves, we know it is free of preservatives and chemical sprays.

When you are preserving, freezing, or drying produce, fruit and vegies are at their peak in taste and quality.

Preserving and storing your extra fruit and vegetables by bottling, making jam, pickling, dehydrating or freezing just may be the solution to your summer produce surplus!

If only you could bottle it

One of the most cost-effective ways to store fruit and vegies is by bottling, which involves the sterilisation of preserving jars and sealing apparatus and works by eliminating anything that causes spoilage in food through heat processing. Basically all you need is a bottling kit, a sharp knife and a wooden spoon.

The most popular bottling technique is the **Fowlers Vacola** method and apparatus, however a large stockpot can also be used.

You need a **preserving pan** or large stockpot and a collection of suitable jars and lids. Fowler's preserving units are either electric or stovetop (non-electric), both of which have their respective strengths and weaknesses.

You'll also need a range of **jars and lids**. Traditional

preserving jars are still available (try homewares stores, op shops, ebay, or your grandmother's kitchen!) and will last for many years. You can also recycle old jars and lids – the main thing is to ensure they don't have any cracks or chips to prevent them from sealing properly, or mould or rust. Recycled jars with the pop-top style metal lids are perfect for jams and relishes, while the traditional Fowler's style of preserving jar, that come with special lids and matching clips and rubber ring seals, are more suited to bottle larger items.



You can bottle a wide range of fruits and vegetables, however **food with high acidity** is safer to preserve at home than low acid foods. Acidity is an important factor affecting the growth and survival of bacteria and other micro-organisms in food.

The amount of acid present and the food's ability to support the growth of food poisoning bacteria is measured by the pH of the food. If you have an older style preserving pan or instruction manual, it is important to familiarise yourself with modern food safety standards. One source of information on the various pH levels of fruit and vegetables is the CSIRO – see www.foodscience.afisc.csiro.au/smallsc.htm.

Most fruit is okay to preserve at home as it is full of natural acids, which help the preserving process. Some of the paler fruit, such as pears and figs, have lower acid levels and need the addition of lemon juice or citric acid. Stone fruits are ideal to preserve as it means you can enjoy them in the cooler months when they aren't in season. Prepare fruit for bottling by washing, **blanching and peeling**. Don't use fruit that is bruised, discoloured or mouldy as all ingredients should be in prime condition.

When you start your preserving session, ensure the kitchen is clean and organised. **Hygiene** is important so wash utensils, benches, tea towels and your hands well.

You now need to **sterilise the jars**. Check the jars, lids and seals and discard any with chips, cracks, mould, dents or rust. Sterilise the jars by washing them in hot, soapy water. Place them in a preserving pan or deep stockpot and cover with boiling water for 10 minutes. Pull them out with tongs and drain on a tea towel, before drying in a cool oven.

Immerse lids and clips in boiling water for a few seconds.

Alternatively, jars can be sterilised in the oven – place jars on a tray in a preheated oven at 160 for 10 minutes. Rubber seals need to be soaked in warm water for 15 minutes prior to bottling to make them pliable and thus maintain a good seal on the jar.

Preserving liquid is required, which is made from fruit juice, water or syrup, to cover the fruit in the jars. If the fruit is sweet enough, you can just use water. Or use a combination of water mixed with either white sugar, brown sugar, honey, golden syrup, glucose or corn syrup. To make a

syrup, dissolve sugar in boiling water – you may have to experiment with the sugar strength.

If you are preserving vegetables, the process is the same, except you will probably use a mixture of vinegar and spices to pickle the vegetables.

Pickles are best made from firm vegies such as green tomatoes, capsicum, onions, peas, carrots, cauliflower, beetroot, red cabbage, radish and cucumbers.

Half fill the jars with liquid and then **pack the fruit or vegetables** into jars. Place the cut surface of the fruit close to the centre of the jar and pack it in a spiral pattern. Use a packing stick or spatula to move the liquid around to expel any air



bubbles and then pour the rest of the liquid in over the fruit, leaving around 1cm at the top of the bottle. Attach lids, rubber seals and clips, depending on what type of jars you are using.

The jars then need to be **heat processed**, using your Fowler's unit or stockpot. Place the jars in the pan and pour enough cold water over the top to almost fill the thermometer well and cover each jar by at least 5cm of water. If you are using a stockpot, put a round cake rack or folded tea towel in the bottom of the pot to stop the jars having contact with the bottom of the pot. Put the lid on the pan and slowly bring it to 95, which will

take 45-60 minutes, then hold the temperature for another 45-60 minutes, depending on the size of the jars. The electric Fowler's units are filled with water and turned on for one hour.

When the required time is up, remove the jars with a jar lifter or tongs and place the jars on a cake rack. When the jars have cooled for at least 8 hours, remove the clips. Check the vacuum seal by ensuring the top of the lid is slightly concave. When completely cold, wipe the jars, label them (include a date) and store in a dark, cool cupboard. If you are using recycled jars, ensure the pop top bubbles on the lids are inverted.

If jars are processed and stored properly, they should keep for up to a year. You can also heat process using a microwave method, which is detailed in Isabel Webb's book, *Microwave Bottling*.

In a jam, ma'am?

Making jams, relishes and chutneys is one of the simplest, and arguably most pleasurable, methods of preserving. Many a CWA member will expound the virtues of a freshly-baked scone with homemade jam!

You can make jam out of almost any type of fruit – even tomatoes and bananas! As a general rule, you should add 500g of sugar to every 500g of prepared fruit and add the juice of 1 lemon and ¼ cup of water.

With jam, the high concentration of sugar and acid prevents bacteria and mould growing. Sugar, acid and pectin work together to create what is called "a good set". Getting jam to set is one of life triumphs!

You need a large pot and a wooden spoon and sterilised jars (as per previous instructions for bottling). Wash the fruit and remove the stems and stones. Simmer in water until the fruit is a bit mushy. Add and dissolve sugar, then boil rapidly until setting point is reached and stir occasionally. Some fruits – such as cherries, strawberries, rhubarb and pears – may need extra tartaric acid or lemon juice to help the jam set. Remove any scum from the surface and pour the jam into clean, warm and dry jars. Label them and store in a cool, dry place.

To ensure **setting point** is reached – use a sugar thermometer and boil the jam at a good rolling boil until it reaches 105 degrees. There's a couple of ways to test for set. You can do a flake test – dip a metal spoon into the jam and turn so the jam runs off the side – the drops should run together and fall in flat sheets. There's a wrinkle test – pour jam onto a cold saucer, push the jam with your finger and if it wrinkles, it is set. If setting point hasn't been reached, you can correct the set with a bit of pectin and reboil to setting point.

Ladle the jam into hot, sterilised jars. Seal and label. They have a shelf life of around 2 years.

Chutneys are prepared in a similar way. Chop vegies finely and simmer with onions, spices and vinegar and then pour into jars when it is reduced to a thick slodge. There's nothing finer than a yummy tomato chutney.

Don't forget sauces, syrups and cordials – there are lots of recipes out there! Experiment and enjoy.

All dried up

If you have a lot of fruit trees, you might like to dehydrate the excess fruit to make your own fruit leathers or dried fruit. You can do this by using a commercial food dehydrator, in the sun or in the oven.

The **dehydration method** is one of the healthiest forms of fruit preservation which works by slowly drying fruit by extracting all the moisture. This enables fruit to be stored without deteriorating.

Apples, pears, grapes, plums and figs are great choices for drying.

If you use the oven method of drying – arrange the cut fruit on oven trays over a low heat and leave the oven door ajar until the fruit is dried.

To dry fruit in the sun – you can make homemade **drying racks** with an old picture frame draped with cheesecloth, muslin or net stretched across and tacked to the sides. Place prepared fruit or vegies on trays and leave them in the sun to dry.

Dried fruit or vegies can be revived by rehydrating them in a small amount of water and then cooking in the usual way. Or you can consume them in their dried state – also delicious.

Sell her on the cellar

Years ago, people either preserved their produce in jars or stored it in the cellar. Some produce, such as root vegetables and herbs, are suited to being stored in a dark, cool, dry place, such as a cellar or garage.

Root crops can be stored in boxes, wooden crates or hessian bags and some can be left in the ground during winter and pulled to use.

To store garlic and onions, plait them and hang them up. Or you can peel garlic cloves, put them in a jar and cover with olive oil. With onions, pull them out of the ground and dry them on top of the ground for 10 days before storing.

Herbs are really easy to store. You can dry them using a dehydrator or hanging them upside down in bunches in a cool, dark space. Or you can dry small amounts in a paper bag (shake it occasionally and let leaves dry on



a rack for a few days before putting them in the bag). Herbs are dry when they crackle. You can store them in airtight jars.

The big freeze

An easy way to quickly store your excess fruit and vegies is to freeze them. A freezer can give you an all-year supply of vegetables, as most vegetables can be frozen. It's an ideal way to store beans, asparagus, eggplant, cauliflower, peas, broccoli, spinach, sweet corn and soft fruits. You can turn your freezer into a mini pantry and minimise food wastage.

However, it is not so good for vegetables that contain a lot of water and are usually eaten raw, like lettuce, tomatoes, celery, cucumber, onions, radish and zucchini. This is because the water expands during the freezing process and damages the cell structure, making them mushy when thawed.

Freezing works by dropping the temperature of food below freezing point and the water in the cells turns into ice crystals. The optimum temperature for freezing foods is between -15°C and -18°C – the temperature at which food poisoning bacteria stops growing.

Only use fresh, healthy, unbruised, young and tender fruits and vegies to freeze. While preparing for freezing, handle the produce as little as possible to avoid bruising. Ensure they are dry as excessive moisture can hasten decay.

Items you may need for storing and labelling frozen foods are sealable freezer bags, airtight freezer-proof containers, labels or masking tape, permanent freezer markers.

Many fruit and vegetables will require **blanching**, however some (such as capsicum) can be frozen in their raw state or just by removing the skin.

Most vegetables must be blanched before freezing. Blanching deactivates the enzymes found in vegetables

that makes them deteriorate, brightens their colour and preserves their nutritional value while frozen.

To blanch, chop vegies into small pieces, put them into a colander over a saucepan of water and bring to the boil. Plunge the vegies into the water and bring back to the boil. Cook for up to one minute. Lift the colander from the saucepan, drain the vegies well and plunge them into a bowl of iced water to stop the cooking process and retain the colour. When cool, drain again and arrange the vegies on kitchen paper. You can now freeze the vegies.

You may find that some fruit, such as berries, are easier to freeze separated on trays. Some fruit can be pureed and stored in ice-cube trays. Berries in particular can be frozen in syrup and stored in a plastic container.

You can also freeze herbs – chop them up and freeze in ice cube trays with a bit of water, bag up the frozen blocks – add a block or two to your soup or stew.

When you have packed the produce into bags or containers for freezing, ensure they are airtight and label with the date.

A last note

The main things to remember are to have fun, only use fresh and healthy fruit and vegies and maintain cleanliness and hygiene at all times during the preserving process.

See our Summer Surplus Recipes page for some great preserving and bottling ideas.

For an interesting cultural analysis of homemade jam in the 21st century, see <http://journal.media-culture.org.au/0612/06-houston.php>.

Angela Spencer

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Summer surplus recipes - don't waste the harvest!

Yummy Plum Jam

You need 1.25kg plums, 350ml water, 1kg preserving or granulated sugar

Halve and stone plums and cut into quarters. Put in preserving pan with water. Bring to the boil, reduce heat and simmer for 25 mins, stir occasionally, until plums are soft.

Add the sugar, stir until dissolves. Return to the boil and boil for 25-30 mins, until setting point is reached.

Remove pan from the heat and leave jam to settle for a few minutes. Ladle jam into sterilised jars.



Aunty Pam's Tomato Relish

Mix 450g chopped onions, 1.3kg chopped tomatoes and 1 tbsp salt together in a large saucepan and leave overnight.

Drain liquid in the morning. Add 2 cups of vinegar and boil for 10 minutes.

Add 1.5 cups sugar, 3 tablespoons of flour and 2 teaspoons each of mustard powder, curry powder and pepper (mixed with water to form a slurry).

Boil gently for at least an hour. Cool and bottle.



DIY Tomato Sauce

You need: 2.25kg tomatoes, 3 apples, 1 3/4 cups white vinegar, 250g onions, 1 tsp white pepper, 1/4 teaspoon cayenne pepper, 1 teaspoon ground cloves, small piece of fresh ginger, 1 tsp mixed spice, 4 cloves chopped garlic, 3 tbs salt, 2 cups sugar.

Peel and core apples. Cut up apples, tomatoes and onions and put in large stockpot with remaining ingredients.

Bring to the boil. Remove lid and boil for 1 hr. Stir frequently as sauce thickens.

Blend until smooth in a food processor. Carefully pour into hot bottles.



Basic Diced Tomatoes

Wash tomatoes and dry thoroughly. Cut into required

size, pulp or puree in blender or food processor.

Heat in saucepan to remove excess air. Allow to cool.

Pack evenly into sterilised bottle (after adding citric acid or lemon juice), leaving 12mm space.



Beetroot Dip

You need: a small number of beetroot, 3 tbs Greek yoghurt

Peel beetroot (it's a good idea to use gloves to avoid staining fingers!).

Put in pot with water and boil until soft. Drain and slice then finely grate in food processor.

Put in bowl and mix in yoghurt. Serve with warm Turkish bread or use as a spread. Yum!



Mustard Pickles

You need: 1kg beans, 3kg green tomatoes, 1kg onions, 500g cauliflower, 8 cups vinegar, 750g sugar, 2tsp cloves, 2 tsp whole allspice (tied in muslin bag), 4tbs flour, 2 tbs mustard, 1tbs turmeric, 1/2 tsp cayenne pepper.

String beans and cut into pieces. Chop tomatoes. Slice onions. Put in large bowl with cauliflower. Sprinkle with layer of salt. Leave overnight and drain off and discard liquid next day.

Bring vinegar and water to the boil, stir to dissolve. Add vegies and spice bag and boil until just cooked.

Mix flour, turmeric, mustard and cayenne to a smooth paste with vinegar. Add to pan, stir constantly until thickens. Boil further 5 mins and remove muslin bag. Bottle and seal.



Pickled Onions

You need: peeled onions, salt, 5 cups vinegar, 2 1/2 cups sugar, 1 tbs peppercorns, 1 tbs whole allspice, 1 tbs cloves, brine (1 cup salt per 5 cups water). Note: Use firm, small onions for this recipe.

Soak onions overnight in brine. Drain them and place of baking tray in oven set on low.

Combine sugar, vinegar, cloves, allspice and peppercorns in pan and bring to the boil. Boil for 3 minutes.

Place warm onions in jars and pour over vinegar. Seal then leave for 6-8 weeks before using



Basil Pesto

You need: 1 tsp sea salt, 2 garlic cloves, 2 cups fresh basil leaves, 2tbsp roasted pine nuts, 2 tbsp parmesan cheese, 200ml olive oil

Either using a mortar and pestle or a food processor, blend the sea salt and garlic.

Then gradually add the basil leaves, pine nuts and cheese.

When smooth, slowly add in the olive oil. Pour into an airtight jar.



Passionfruit butter

Gather 10 passionfruit, 4 eggs, 500g sugar and 125g butter.

Scoop out passionfruit pulp.

Place butter and sugar in double saucepan and melt.

Add passionfruit pulp and then add eggs. Stir until smooth and thick.

Bottle and seal. Store in fridge.



The Yummiest Ever Zucchini Pickle

You need: 1kg zucchini, 6 small onions, ¼ cup salt, 2 ½ cups white vinegar, ¼ cup sugar, 1 tsp celery seeds, mustard seeds and turmeric, ½ tsp mustard powder.

Wash and slice zucchini into thin slices. Peel and finely slice onions. Put zucchini and onions in a large bowl. Add salt and cover with water. Let it stand for 1 hour and drain.

Separately, combine other ingredients and mix. Bring to the boil. Pour mixture over zucchini and stand for 1 hour. Bring to the boil for 10 mins. Gently stir. Bottle and seal.

Serving suggestion: delicious with cheese on crackers!

Angela Spencer

A recipe for Larb (serves 2)

According to Wikipedia, larb is the national dish of Laos and is also popular in Thailand. It's a type of meat salad which is often made with meat such as chicken, beef, pork or fish, flavoured with fish sauce and lime.

The meat is minced and mixed with herbs and assorted vegetables and is served at room temperature accompanied by rice.

Grab all this:

2 bunches fresh coriander

2 sticks of lemon grass

4 kaffir lime leaves

12 rocket leaves

¼ red onion

2-4 cloves fresh garlic

1 tsp chilli (or more!)

400g coarsely minced lean meat (chicken breast or finely diced tofu)

Rice powder – dry toast sticky (glutinous) rice in a pan until brown, then crush to a coarse powder. Or dry bread crumbs.

2 tbsp fried garlic (from Asian grocer)

2 tbsp fried shallot (from Asian grocer)

½ tsp fish sauce (ask at Asian grocer for Vietnamese fish sauce)

Juice of 2 limes

Then: Fry mince in a teaspoon of water. Finely chop the first seven ingredients. Then combine all ingredients with cooked mince and serve.

With thanks to Gail Bennell for this recipe

The inaugural Canberra Organic gardening poetry competition

*Roses are red,
Gardens are green,
COGS poetry competition -
Oh, aren't you keen?*

At Canberra Organic, we believe there may be some budding poets lurking out there amongst the green foliage...

Why not improve on our paltry effort, put pen to paper and write a little something about what gardening means to you?

Entries can be emailed to us at editor@cogs.asn.au by **January 15, 2010**. Winning entries will 'crop' up in a future issue of *Canberra Organic*.

Book worms: What's new in the COGS library

For this issue of Canberra Organic, I'm focussing on two lovely new books that have been added to the COGS library. These will be available to borrow at the final COGS monthly meeting for the year.

And don't forget there are lots of other COGS library books that members are welcome to borrow!

The Greengrocer
by Leanne Kitchen,
2008, Murdoch Books, NSW.

This is a beautifully presented kitchen garden book, as opposed to a gardening book.

Lovely photos of fresh fruits and vegetables complement descriptions of the fresh produce, with detailed methods for storage and cooking.

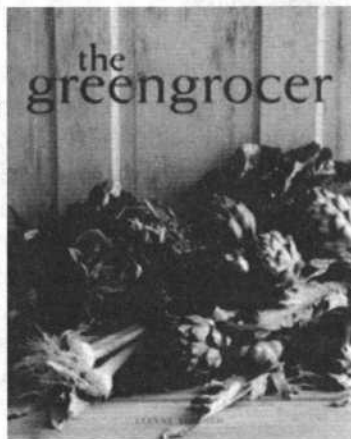
Then there are the recipes – mouth-watering ideas for using up all those plums, zucchinis and broad beans.

Fabulous Food From Every Small Garden
by Mary Horsfall, 2009, CSIRO Publishing, Vic.

This book shows how to grow food at home, even in the smallest of spaces.

Detailed instructions are given for growing plants from seed and improving your soil.

A practical book, it also offers solutions on incorporating food plants with other plants to create beautiful gardens in spaces such as balconies and flower beds.



Margaret Richardson
COGS librarian

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for each course)

Where: Canberra Environment &
Sustainability Resource Centre,
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Lennox Crossing, ACTON.

Cost: \$50

More information & contacts:
Email garden@ecoaction.com.au
Phone 6248 0885

REMINDER FOR SUMMER!

Don't just water the vegies!

Survive the heat with a hat, sunscreen
and a water bottle while gardening.

Avoid being outside in the middle of
the day if you can.

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COGS SUMMER PLANTING GUIDE

Mulch and compost

In summer it is a good idea to mulch your garden beds to help keep the soil cool and moist. One experiment showed that a 4cm layer of straw reduced evaporation by 73%. Be careful not to lay down a thick layer of sawdust or lawn clippings that can pack down to form an impenetrable barrier to water.

Soil with lots of compost contains all the nutrients your plants need for strong, healthy growth. In addition well composted soil retains water and act like a sponge to keep your plants moist through dry summer days.

Heat protection

On days of extreme temperature your plants may need to be physically protected from the heat. This can be achieved by covering plants with shade cloth secured on a frame eg weldmesh or irrigation pipe bent over to form a tunnel, with shade cloth secured by pegs).

Watering

Try not to water the leaves of plants that are susceptible to fungal diseases (eg tomatoes, cucumbers, pumpkins and zucchinis) and try to water individual plants thoroughly, rather than watering a whole area.



Always follow water restrictions and check soil moisture before watering - a rostered watering day doesn't mean you *must* water.

Weeds

Keep weeds down. They compete with your plants for food, water and sunlight. It is best to tackle them when they are small—before removing them becomes an exhausting exercise.

Pests

Pests can multiply over summer. Don't reach for the pesticides. Observe if there are natural predators present, remembering that there will be a delay between the appearance of the pest and the subsequent build-up of its predators.

If you must spray, use an environmentally benign spray. Read books such as Jackie French's *Natural Pest Control*.

Harvesting

Make sure you harvest your crop regularly - in most cases this will encourage your plants to continue cropping and you can enjoy your produce at its peak.

Remember to leave space in your vegie patch for those winter vegetables that prefer to be planted in late summer - early autumn. Brassicas and other winter crops need time to mature before the extreme cold of winter sets in.

	DEC	JAN	FEB
Bush beans	S	S	
Beetroot	S	S	S
Broccoli	ST	ST	T
Brussel sprouts	ST	ST	T
Cabbage	ST	ST	T
Carrots	S	S	S
Cauliflower	ST	ST	T
Celery	T	T	S
Chicory	S	S	S
Chinese cabbage	S	S	
Cucumber	ST	T	
Endive	S	S	S
Kohlrabi	ST	ST	T
Leeks	S	S	
Lettuce	ST	ST	ST
Marrows	T		
Parsnips	S	S	S
Potatoes	S	S	
Radish	S	S	S
Silverbeet	ST	ST	T
Squash	ST		
Swedes		S	S
Sweet corn	ST	T	
Tomatoes	T	T	
Turnips		S	S

S = seed sowing; T = transplanting

This table is a guide only - observe the seasonal weather patterns before deciding when to plant, as there will often be distinct differences in summer weather from one year to the next.

Planting times will vary for different varieties of the one vegetable eg December plantings of heading lettuce varieties should be successful; while February plantings should be the butterhead varieties.

Q&A @ COGS

Q "I can't seem to get carrot seeds to germinate, let alone growing a carrot that isn't forked. Help!"

A There are several reasons why carrot seeds may fail to germinate, including:

- the seed was planted too deeply
- the soil dried out during germination and the seed died
- the seed was stolen by ants

Sow carrot seed at a depth of 5 - 6 mm in damp soil, cover and firm down well to eliminate any air pockets. Carrots are relatively slow to germinate, taking 10 - 21 days. The soil must be kept moist at all times during the germination period. In Canberra, it is best to plant the whole crop in spring or early summer before it gets too hot. If the weather is warm and sunny, covering the seed bed with damp hessian, shade cloth or flat boards will help to keep the soil surface moist. Check regularly and remove the covers as soon as the first seedlings appear.

Carrot seedlings are very small when they first emerge and will often sit for days without growing much, particularly in cool weather. This makes them very vulnerable to attack by snails, slugs, slaters and earwigs. Whole rows of newly emerged carrots can simply vanish over night. You may think your carrots have failed to germinate but in fact they may have been eaten as soon as they did.

Some of the reasons carrots develop forked roots are:

- the soil is too shallow or rocky
- the soil is a heavy clay
- the soil contains excessive amounts of nitrogen from fresh animal manures
- very uneven soil moisture during the growing season

Ideally, carrots prefer a deep sandy loam to which well rotted compost has been added. Raised beds can be used to increase soil depth.

Q "My zucchini plants always get powdery mildew on them during the summer. How can I stop this?"

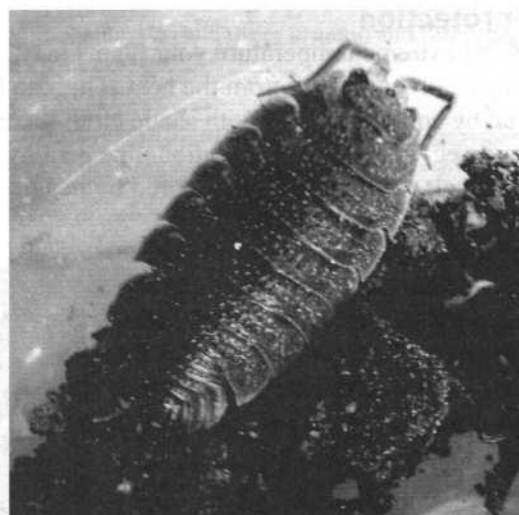
A Powdery mildews are a group of fungal diseases affecting many different species. For the mildews that affect cucurbits, Canberra's typical late summer weather, with hot, dry days and night-time dews, provides the ideal conditions. The fungal spores are spread by wind and have the ability to remain dormant until conditions suit. The white mildew spots appear first on the underside of the leaves and may not be noticed until they have spread to cover the upper leaf surfaces. At this stage the plants will stop growing vigorously although the fruit will continue to ripen.

Control measures which may help are:

- avoid overhead watering, particularly in the evening
- space plants to allow good air circulation
- plant resistant varieties
- remove infected plant debris from the site
- rotate crops

Many gardeners regard the late summer appearance of powdery mildew on their zucchinis and pumpkins as a fact of life. The pumpkins are usually ripening nicely and they are thoroughly sick of zucchinis by then.

Pest of the season: SLATERS



Slaters feed mainly on decaying organic matter and are important recyclers in the garden. However they may attack seedlings, young tender plants, ferns, soft fruits such as strawberries and plants already damaged by something else.

Slaters breathe by means of gills which must be kept moist, so they often hide during the day in damp places such as compost heaps or under rocks, timber or mulch. They are nocturnal feeders and feed by chewing. The damage caused is always on, or very near the ground.

Control methods include:

- keep mulch away from very young seedlings
- harden off seedlings before transplanting
- space plants to ensure good air circulation
- remove rubbish, timber, rocks and decaying vegetable matter to reduce hiding and breeding places
- use orange skins or hollowed out potatoes as slater traps. The slaters will shelter under these during the day and can be collected and destroyed.

COGS NOTICE BOARD

COGS monthly meetings

Come along at 7:30 pm on the fourth Tuesday of each month to the
MAJURA COMMUNITY CENTRE,
ROSEVEAR PLACE, DICKSON

Meetings feature an interesting speaker, good company and a huge range of COGS library books to borrow.

The next meeting will be in February - details will be placed on the COGS website.

Goodbye to Lynne West

It is with great sadness that I inform all COGS members of the passing of Lynne West after a battle of several months with cancer.

Lynne gave several talks to COGS meetings on the principles of Biodynamic gardening. She was a local leader of the Biodynamic movement and ran courses for a number of years. She had developed an introductory program and DVD for the course, and was working on an advanced program at the time of her death.

Her enthusiasm and energy in this field and her gentle ways will be greatly missed.

Peter Cornhill

ACTEW's Stage 3 water restrictions currently apply in all COGS gardens

Handheld hoses with trigger nozzles, drippers, watering cans or buckets can be used to water between the hours of 7-10 am or 7-10 pm on the odds and evens system.

No watering is allowed outside these hours.

Also note that drippers are allowed in COGS gardens, but gardeners need to present at all times while they are on.

Digging around the web

How green is your washing powder?

www.lanfaxlabs.com.au

This is the website of Lanfax Laboratories, which is an independent, commercial and research organisation with an interest in soil, water and waste water analysis. Of particular interest are the papers (under "publications") on the domestic use of grey water and their analysis of all the major brands of laundry powder in relation to soil health. Take a look!

Sustainable Gardening Australia

www.sgaonline.org.au

Sustainable Gardening Australia is a not-for-profit, non-government organisation aiming to protect the environment by promoting the benefits of sustainable horticulture. There's a variety of gardening articles, regional information, an email newsletter and forum.

Aussies Living Simply

www.aussieslivingsimply.com.au

Aussies Living Simply is an informative chat forum. The members are focussed on sustainability, permaculture, organic gardening, backyard livestock, simple living etc. Membership is free and the forum is lively. There's a seed and plant exchange and homemade food recipes. Author of *Easy Organic Gardening*, Lyn Bagnall, answers many questions on the forum.

Angela Spencer

Canberra farmers markets

Northside: Saturdays 8am - 11am
Capital Region Farmers Market
EPIC (entry near Shell service station)

Southside: Sundays 9am - noon
CIT Southside Campus
Entry via Ainsworth Street in Phillip

Don't forget to check the COGS website at www.cogs.asn.au for updates