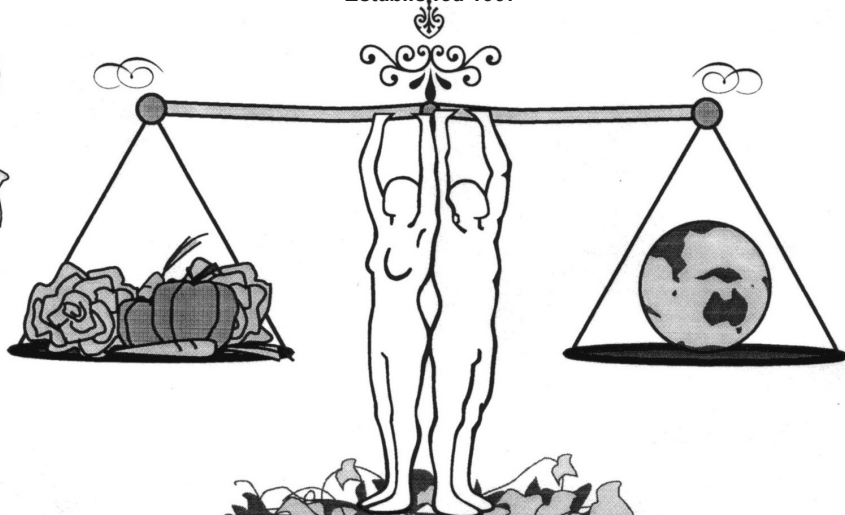


GOLD COAST ORGANIC GROWERS Inc.

Established 1997



NEWSLETTER

Volume 23 - MARCH 2019 Issue 3
GARDENING IN AUTUMN

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OUR NEXT MEETING: Thursday 18th APRIL 2019

Notice Board

1. **To promote organic sustainable food raising for home gardens and farms.**
2. **To foster research into improved methods of organic farming and gardening.**
3. **To provide information and support to all those interested in the various aspects of organic growing.**

Meetings Held:

3rd Thursday of the Month

The Meeting Place, Cnr Guineas Creek Rd and Coolgardie St, Elanora.

Doors open: 7:00 pm. **Begin at 7:30 pm**

Entry is \$2 members, \$5 visitors.

(No meeting in December)

Annual Membership Fees:

Single: \$20. Family: \$30.

To renew or start memberships please transfer funds directly into our bank account, send cheques (payable to GCOG) to Diane Kelly, or just pay at the door.

Name: Gold Coast Organic Growers

Bank: Suncorp

BSB: 484-799

Account: 0014-21651

Seed Bank:

Packets are \$2.00 each.

Members' Market Corner:

Please bring plants, books and produce you wish to sell or trade.

Raffle Table:

This relies on the kind generosity of members to donate items on the night. Tickets - \$1 each or 3 for \$2.

Library:

Books 50c, Videos, DVDs \$2, Soil Test Kit \$2. Available to members for 1 month.

Advertising: (Note 11 issues/year)

1/4 page: \$15 an issue, or \$145 per year,

1/2 page: \$25 an issue, or \$250 per year,

full page: \$40 an issue, or \$400 per year,

W: www.goldcoastorganicgrowers.org

Facebook: www.facebook.com/gcorganic

2018 –2019 Committee

President	Maria Roberson (07) 5598 6609
Vice President	Diane Kelly 0403 473 892
Treasurer	Diane Kelly 0403 473 892
Secretary	Cathie Hodge 0406 575 233 <i>cathie.hodge@gmail.com</i>
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Website Editor Social Media E.	Jorge Cantellano Stacey Panozzo, Dorothy Coe
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Guest Speaker Liaison	Leah Johnston, <i>leahbryan9@gmail.com</i> Emma Litchfield, Stacey Panozzo
Librarians	Evelyn Douglas
Seed Bank Seed Assistants	Lyn Mansfield Maggie Golightly Bill Smart
Supper Co-ordinator	Paul Roberson, Deb Phillips, Bev Geraghty
Veggie Swap Co-ordinator	Dorothy Coe

Newsletter Contributions are welcome. Send in a photo of what's going on in your patch. **Deadline for contributions is one week before the meeting.** Send your content to Jorge C. at: jcantellanoc@gmail.com

Notice Board

Membership Renewals

NEW: You can now pay your membership fee directly into the GCOG bank account.

Name: Gold Coast Organic Growers
Bank: Suncorp
BSB: 484-799
Account: 0014-21651

Remember to put your Name and Membership Number in the comment field.

Note the number in brackets after your name is your membership number - you will need to quote this number in the comment field, if you pay via online banking.

Membership Renewals

Overdue: Marion Symons (155), Denise Goodwin (335), Winny Hu Shouhe (414), Danielle Bowe (426), Barry O'Rourke (185), Penny Jameson (201), Roger & Pauline Behrendorff (232), Bill Smart (386)

March: Angela Anderson (323), Lana Beloff (363), Maggie Golightly (365), Rachael Lebeter (367), Beverley Geraghty (404), Elizabeth Grippo (405), Stacey Panozzo (420), Julie Abraham (421), Rebecca Bowen (422), Christine Yeomans (433), Emma Litchfield (434), Daniel Tucker (435)

April: Gai Morrow (309), Kerstein Trueman (346), Sue Beckinsale (373), Nancy Hageman (388), Elizabeth Hughes (389), Deborah Phillips (408), Celia Forrest (431)

Latest newsletter can be downloaded from the site at goldcoastorganicgrowers.org

Thanks to Contributors this month:

Diane Kelly, Melanie Strang, Leah Johnston, Jorge Cantellano.

Upcoming Guest Speakers

Our April guest speaker is Peter Davenport, he will speak about keeping native bees and show us how to split a hive. May and beyond TBC.

We are currently seeking Guest Speakers for throughout 2019. If you have an idea for a potential speaker, or a topic that you think would interest our members, please contact Leah Johnston at leahbryan9@gmail.com

View our Newsletters On-Line or Collect at our Meetings:

We are encouraging our members to read our monthly newsletters either on our website - www.goldcoastorganicgrowers.org.au/ (and then select "newsletters"); on our Club Members' Facebook page; [Gold Coast Organic Growers Members](#) or by collecting their printed copies at our Club meetings. Enjoy the [coloured editions on-line](#).

Workshops

Gardening Lunch – all welcome

We meet monthly for lunch and have a chat. 11 a.m. to 2 p.m. – at a trendy café somewhere (any recommendation welcomed) If you would like to know when the next lunch is on email Lyn Mansfield Lynmansfield14@bigpond.com
Mobile – 0409 645 888

Next lunch – 22nd March, 2019 at 11 a.m. to 2 pm.
Café Gold Coast – Shop 12, 300 Marine Pde, Labrado

EdibleScapes

working bee/workshop 2nd Saturday of each month - 8:30am
[Edible Landscape gardens Project.](http://ediblescapes.org/)
<http://ediblescapes.org/>

LIKE A GARDEN THAT LOOKS AFTER ITSELF?

Drought can be a gardener's worst nightmare. In 2006 Alan Singleton, a keen organic gardener, had no way of sustaining his crops through the severe water restrictions. Alan set about refining the wick garden system he had come across.

In 2011 he went full time building what are now known as Watersaver Gardens. Besides cutting water use by 80% other advantages include significant reduction in weeding and no regular watering even in hot conditions.

The science behind the Watersaver Gardens is the wicking system - capillary action sees water drawn up through the soil by plants only as required, meaning the plant is never over-watered or not watered enough. Great for those without a green thumb. The reservoir only needs checking every four weeks - great if you're going on holidays. With intermittent rain they can go six months without needing watering. All kinds of herbs and vegetables can be grown in the gardens. Not watering from the top reduces mould and rust that attacks the wet leaves.



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Phone Alan for a chat on **0424 996 540**

Established Watersaver Gardens on display at 20 Jennings Street, South Toowoomba



WATERSAVER GARDENS

Made in Toowoomba

Hints for “All Things Gardening”: by: Diane Kelly

With the start of autumn, it’s time to head back to the vegie patch

Spring Onions:

Spring onions like light, well-drained, fertile soil in a sunny position. Add some lime if the soil is acidic, as well as fertiliser and organic matter prior to sowing. As they are shallow-rooted it is important to keep the area weed-free and the plants well-watered.



Spring onions can be sown at any time of year. Sow the seed where the plants are to grow and then thin out as required. Repeat-sow at three-week intervals for a continuous supply. Harvest is 8-12 weeks from planting.

Note: If you happen to buy a bunch of spring onions from the shop, cut off the white ends with the roots and plant them out. They will keep growing leaves for several months – you won’t have the white bases to eat, but you will still get that lovely, light onion flavour.

Rosemary – an asset in the vegie garden:

Cabbages, carrots and turnips can be protected from attack by root flies by growing rosemary nearby. The scent of the herb is claimed to confuse the female flies as they hunt for places to lay their eggs. The troublesome carrot fly, in particular, detests the scent of rosemary.

Pomegranates – using the fruit:

Pomegranate kernels are used in Middle Eastern and sometimes Indian cookery, as a

garnish and in salads or desserts, and the jelly-like pulp of the fruit can be eaten or juiced. Pick the fruits when they are an orange-brown colour. They will split if they are left on the tree too long.

Nasturtiums – bright and beautiful:

Cabbage white butterflies like to breed on nasturtiums, making these plants as useful in the garden as they are attractive. Plant them in the vegetable patch near your brassica plot, where they should entice the butterflies to lay their eggs away from the vegies.



Sweet Peas – celebrate St Patrick’s day – March 17th:

Sweet pea seeds may germinate more easily if left to absorb moisture overnight. Place them between two layers of damp tissue or blotting paper in a plastic container. By the morning they should have doubled in size. Discard any seeds that have not swollen, and plant the others immediately.

Pinching out time: Trailing varieties of marrows, pumpkins, squashes and zucchini can grow so large they are unsuitable for smaller gardens. If you wish to grow these in a limited space, pinch out the tips of the main shoots when they are 60 cm long. When further side-shoots grow to 60 cm, pinch them out in the same way.



If You Only Do One Thing this Month – Grow Some Beans

by: Diane Kelly

Digging out (no pun intended) my gardening books recently, I realized what a wonderfully wide range of beans there are. There are the green beans that we are all familiar with, but then there are broad beans, hyacinth beans, lima beans, mung beans, rice beans, scarlet runner beans, snake beans and winged beans – and many more. But they are all quite easy to grow; they contribute nitrogen to your garden soil; many of them have beautiful flowers; and you can eat the flowers and leaves of a number of types – as well as the actual beans.



Picture: *Edible runner beans flowers.*

Beans are believed to have been cultivated in Mexico back as far as 4000 BC, but seem to have originated from the temperate regions of South America. The Incas of Peru are believed to have been the domesticators of beans. Beans fall into two types – ones that are eaten green when the pods are tender (e.g. French), or those that are eaten dried (Kidney, Navy, Pinto etc). Within French beans, there are dwarf or climbing varieties. In sub-tropical areas, beans can be grown from March to October. Warm soil temperatures are required for germination, and beans prefer a pH of 6.5-7 – outside of this range, the plants will experience stunting and yellowing of their leaves. Remember not to have excessive nitrogen where you are grow-

ing your beans because it promotes leaf growth at the expense of flowers and pod formation, and also makes the plants more susceptible to pests and disease.



Beans should be grown by adding the seeds directly to the soil – they do not cope well with transplanting. Because the seeds are usually quite large and easy to handle, all you need to do is push the seeds into damp soil with your index finger down to the first knuckle (about 2cm). Dwarf varieties of green beans (Redlands Beauty and Redlands Greenleaf are recommended as they are heat-tolerant and disease resistant) should be planted 15-20 cm apart, with 45-60 cm between rows. For climbing types, you will need to construct a supporting structure (a tepee works well, or you can plant the seeds either side of a fence for maximum production. Water the seeds in – you won't need to water again until the plants begin to emerge from the soil – usually within a few days. But remember not to over-water before germination, otherwise the seeds will rot.

Your beans should start to bear about 8 weeks after planting, and it's a good idea to plant seeds at 3-4 week intervals to provide a continuous harvest. The pods should be ready to harvest 2-3 weeks after flowering – harvesting regularly is recommended as the pods develop very quickly, and can become tough and stringy as they mature. So that

you don't accidentally pull the whole plant out when harvesting the pods, hold the stem steady with one hand and then pull the pods downwards with the other hand. When harvesting dried beans, leave the pods on the plant until they are mature, dried and ready to split.

Bean flies are a major pest of beans – they wait patiently until germination occurs, and then lay their eggs in the leaves and stems. (Snake beans tend to be more resistant to bean fly than most other types.) To solve the problem, move your bean crops to a new area of the garden each time you plant. You can hill up around the stems of the plants to protect them, or drape some very fine netting over the plants to keep the flies at bay.

So once you've grown your beans, how do you enjoy them? Recipes for green beans range from a simple "when lightly cooked and refreshed in cold water, dress the beans with oil, lemon juice, salt and garlic", to making a Salad Nicoise, or sautéing them with spring vegetables and herbs – leeks, garlic, peas, endive, chervil, chives, lemon and mint. And there is no limit to the use of dried beans in stews, soups and winter casseroles.



Chicken & green bean casserole

And to end our look at beans, a story from "The Seed Savers' Handbook" about zebra beans. A lady who lives near Newcastle has saved and grown zebra beans for forty years says "My father-in-law got them in Bellingen (NSW) from a lady who had them from an old man who brought them himself from Germany years ago"

Beans – worth saving; worth growing; and definitely worth a go this month !!



Simple bean casserole – Yum!

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Hugelkultur Gardens: Conserve, Regenerate, Sustain

By Melanie Strang

Hugelkultur is a German word meaning mound/hill culture. This highly effective gardening method has been practiced for hundreds of years.

Inspired by the natural process of decomposition that occurs on the forest floor and the need to easily, economically and ecologically dispose of garden waste, hugelkultur involves building a pyramid shaped 'hillock' with woody garden waste, green waste, leaves and grass clippings. This mound is then covered with compost/soil and mulch.

The mounds are usually at least 90 cm in height and width and can be made as long as required. The mound is often left for several months to 'settle' or seeds can be scattered at the completion of construction and watered in.

The decomposing logs and branches act like a wick/sponge, capturing and storing water for ongoing future use by the crops planted above. The decaying matter also creates an 'ecosphere' to promote a healthy soil web of microbes, fungi, insects and worms. The lifespan of the hugel mound will vary depending on the type of wood used but may last up to six years before needing to be rebuilt. Some experts say the results can positively impact the soil for 15-20 years.

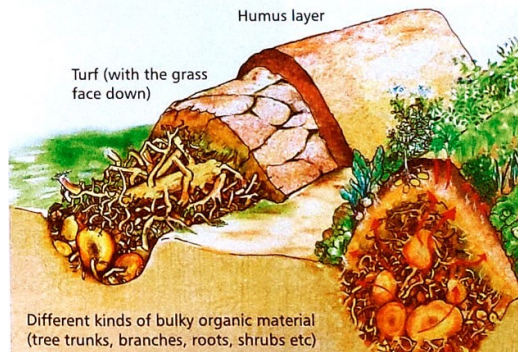
Positives	Negatives	Interesting
Saves time and money disposing of green waste and instead it is utilised to build nutrient rich growing soil.	A significant amount of space is needed so a small urban backyard may not be suitable.	It may be possible to build your hügelkultur bed on a friend's property, in your local community garden or even on the curb.
Low maintenance : it's possible to never water or fertilise your hugelkultur just build it before the rainy season and let nature take care of the rest. The woody matter also helps to keep nutrient excess from passing into ground water.	In an urban environment it may be tricky to find appropriate semi- decaying logs. The wood used in the hügelkultur also needs to be carefully considered and researched. Camphor Laurel, Oleander and some wattles are toxic and should not be used. Hardwoods will also take a lot longer to break down and are often not suitable in urban areas.	Buy, swap sell and gumtree often have free 'firewood' on offer. Some hügelkultur gardeners also report great results with fresh cut wood though it takes longer. The process can also be accelerated by adding compost and manure etc.
Hugelkultur has been successfully implemented on arid, rocky, infertile and compacted land often not considered viable for agricultural use.	In dry areas there's often less woody material available and cutting down trees just to do hugelkultur could be counter-productive if not managed sustainably.	In arid areas hugelkultur soil/ gardens could be used to gradually plant more trees over time.
The no-dig raised hugelkultur bed is easier to access and surface area is maximised for growing a larger volume of plants.	Hugelkultur beds require flat or gently sloping land. If built on contour in a swale or on a steep slope a significant rain event could lift and push the logs creating further problems downhill.	Hugelkultur can also be constructed in a contained raised bed preventing this problem from occurring.

<p>In the first few years the composting process will slightly warm your soil creating a microclimate that will give you a longer growing season.</p>	<p>In the first few years the wood will be high in carbon and will consume nitrogen as it decomposes. This could lock up the nitrogen and take it away from your veggies especially if it's fresh wood. To compensate add green waste between the layers.</p>	<p>In the first year it's recommended to grow cover crops such as pumpkins, zucchini, cucumbers, cabbages, sweet corn, celery or potatoes. These can then be chopped and dropped back onto the mound returning more nutrients to the soil.</p>
<p>As the wood shrinks it creates air pockets and is more or less 'self-tilling.' This brings oxygen into the soil encouraging the growth of good bacteria and minimal disturbance of the soil.</p>	<p>Some people are concerned about the possibility of termites being attracted to the decaying wood. With this in mind it's advisable to position your hügelkultur a safe distance from your house.</p>	<p>Flavour: healthy nutrient and microbe rich soil creates better tasting fruit and vegetables that are also better for your health.</p>

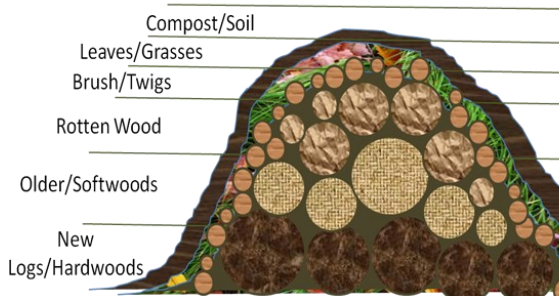
Hugelkultur: Top Takeaways

1. It's free - Hugelkultur gardens can be made by gathering organic materials from your environment, using seeds from organic fruit and veg and letting nature take care of the rest.
2. Rarely need to water - The wood acts like a wick/sponge holding rainwater for release as needed.
3. Builds top quality nutrient rich soil – The decomposing wood and organic matter continues to feed and improve soil quality for up to 20 years.
4. Good for our planet – instead of green waste being trucked to landfill and creating methane gas, being burnt off or being chipped which creates fuel and labour costs, the wood is used to regenerate and build high quality soil.
5. Hill increases surface area – hugelkultur is a great use of space and allows for the growth of a greater volume and variety of plants.
6. Better for your back – once it is constructed there is little need to bend down – fruit and veg can be harvested from the sides and top.
7. Successfully used in arid/drought areas – Hugelkultur gardens can provide much needed relief for people living in drought-stricken areas.
8. Flavour – Healthy soil = Healthy plants = Better Flavour!
9. Some wood is highly toxic – take care to correctly identify the wood you are using and do your research. In general wood

10. Longer growing season – the decomposition process keeps the microbes active and the soil slightly warmer extending the growing season.



Time Stacking with Hugelkultur



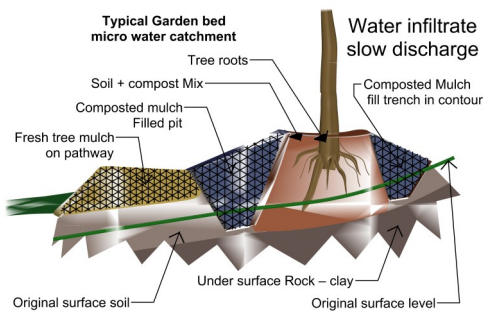
Celebrating “Women’s Week 2019” and Having Fun!

by Diane Kelly

As you may know, March 2-10 this year was Queensland Women’s Week. Each year Queensland – and indeed countries across the world – recognises and celebrates the achievements of women and girls.

So it was very fitting - and generous - of EdibleScapes (who are establishing an edible landscape gardens at Country Paradise Park-land in Nerang) to invite several of our Club members and other ladies to “select a fruit tree to grow in a permanent, edible garden as a women’s legacy”.

Jorge Cantellano (who is the person making “EdibleScapes” happen) invited us to choose a sub-tropical tree from the Daley’s catalogue. When we met last Saturday morning at Nerang, not only were the trees there ready to plant, but Jorge had already prepared a number of plots for us. The plots were dug and then filled with composted mulch, and then soil, and then compost – it was all very friable and ready to use.



There were nine trees provided, and so we could choose between:

A Dwarf Mulberry tree; a Peanut Butter tree; a black Grumichama tree; an Acerola tree (Florida Sweet); a pomegranate; a Dwarf mandarin (Emperor); a Wampee tree; a Carambola (star fruit) tree and a Tahitian Lime tree.

Thanks for showing us
how it’s done, Maria



So with quite a bit of discussion and fun, the trees were planted, and then we were invited to the picnic area to share in morning tea. A highlight of the morning tea was the delivery by one of the EdibleScapes members of a basket of pumpkin scones (beautifully light) – and the pumpkin had been grown on the vines in the EdibleScapes garden!

Thank you, Jorge, and here is a pictorial summary of an enjoyable morning:



The plots were all ready to plant into.

In goes the Tahitian Lime!



Our reward !!



Panozzo girls' agroecologist seeds



EdibleScapes two herb spirals – one culinary and one medicinal – planted according to their sunlight requirements.



The "tired but happy" group

🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋
 🦋 Congratulations to GCOG member, 🦋
 🦋 Stacey Panozzo, who won an award in 🦋
 🦋 the Gold Coast Women of the Year 🦋
 🦋 awards announced on March 8 🦋
 🦋 (International Women's Day). 🦋
 🦋
 🦋 Stacey was recognised in the category 🦋
 🦋 of Wellness Warrior for promoting 🦋
 🦋 growing your own food through the 🦋
 🦋 Botanical Bazaar green living festival 🦋
 🦋 which she runs. Well done Stacey! 🦋
 🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋🦋

How Does Your Garden Grow? With Melanie Strang

By Leah Johnston

Our members at GCOG come from all different gardening backgrounds, with varying knowledge and experience and different types of gardens at home. We have members gardening on large properties, some on acreage, others in house blocks and apartments and some who garden at a community garden. This month I enjoyed visiting Melanie Strang's balcony garden at her apartment in Coolangatta as well as the community garden she is part of.

"My favourite thing to grow is aromatic, culinary herbs. Herbs take a dish to the next level and are full of essential vitamins and minerals. I use rosemary, coriander, basil, mint and lemon grass regularly, so I grow them at home so they are always on hand. I also make room for blueberries and greens such as Kale, lettuce, rocket, English spinach and perennial spinach. I do most of my gardening at home during the evening when it's cooler. So that I can grow year round on the balcony I put up 50 per cent white shade cloth to protect my plants from the hottest summer sun," Mel shares.

Of course not everything can be grown in a smaller space (ie space hogs like pumpkin and melon), so Mel was grateful to find the Southern Beaches Community Garden two years ago.

"I recently transformed my plot into a hugelkultur (hill culture) garden and sprinkled pumpkin seeds over it at the completion of construction. I have also just constructed a driftwood teepee and plan to grow red dragonfruit over it. For the first couple of years I plan to keep growing cover crops such as pumpkins, cucumbers and watermelons over my hugelkultur garden. Down the track I am thinking of growing delicious perennials such as asparagus on half the plot and seasonal veg on the other half (especially beetroot and carrots)," Mel tells me.

Mel recently ran a workshop on hugelkultur gardening for U3A and has shared an article

about its benefits with us, see page 8 of this issue.

At the Southern Beaches Community Garden (located behind Tugun Community Hall) gardeners have their own plots or half plots and mostly grow seasonal veggies. There is also a food forest, a communal garden and vertical communal gardens. A six bay compost system is used to make compost for everyone to share and volunteers regularly collect trailer loads of horse manure to add to it. Several lawn mowing businesses also drop off grass clippings which are used in the compost system or as mulch.

Mel also enjoys the social aspect of gardening in a community space - sharing gardening ideas and learning from other members. She was invited to come along to GCOG by Deb and Fran who also have plots at the community gardens.

"I have always loved being in the garden and both sets of grandparents had extensive gardens. I began gardening myself 20 years ago and took time off to study organic gardening and permaculture about eight years ago, also doing the Advanced Permaculture Course with David Holgrem. I've also been part of bush regeneration programs and worked as a landscape gardener," Mel said.

Like GCOG President, Maria Roberson, Mel has worked as a Kitchen Garden Teacher. "I have taught in primary and secondary schools in remote communities and love food and love to cook so working as a Kitchen Garden Teacher in the Noosa area was the ultimate role for me," Mel said.

Mel's best advice for other gardeners is to feed your soil a varied diet: "A variety of manures (cow manure is primo), worm castings, garden worms, compost/manure tea full of aerobic microbes (microbe brewer works a treat), green manures such as comfrey/food scraps, seasoil/fish emulsion and essential minerals. Mulch and moisture are also important for keeping the microorganisms in the soil alive and thriving so try to keep your garden watered regularly and mulched all year round. Lemongrass and comfrey grown together as a border to your gardens is also a

great way to grow your green manure (comfrey) and mulch (lemongrass) to chop and drop as needed.”

Mel has just implemented a ‘Hump Day, Help In The Garden’ at the community gardens. The first one, held last Wednesday, was a great success with like-minded gardeners coming together to work in the gardens, socialise and enjoy a drink and a bite to eat. Well done Mel, I love your passion and enthusiasm for gardening and thank you for showing me your balcony garden and the tour of the community gardens.

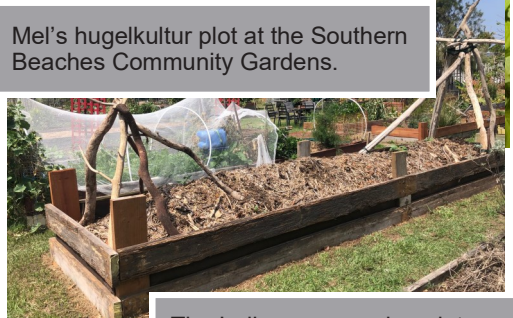
I would love to visit more of our member’s gardens! If you would like to share some of your gardening tips with fellow GCOG members in a future issue please contact me via leahbryan9@gmail.com or text 0428 028 042.



Mel with her kids Zaydo and Asha.



Mel is experimenting with these broccoli boxes, lined with organic eco weedmat, and raised up on bricks to allow drainage.



Mel's hugelkultur plot at the Southern Beaches Community Gardens.



The Indigenous garden plot.



Last year Mel had a bumper broccoli and heirloom cherry tomato crop – she still has tomatoes in the freezer which she adds to pasta sauces and soups.

“Starting a Garden”: Slides lent from Preston B. Montague HS 432-590 Lecture 010



Starting a Garden

Big Lessons
Small Steps

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Your Site:

1. Observe
2. Take Inventory
3. Analyze Data

Sun and Shade



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www.caretonapartments.com

Water Behavior



Microclimates



www.backyardgardener.com



SparkyThePuggle.blogspot.com

Existing Resources



Soil Check

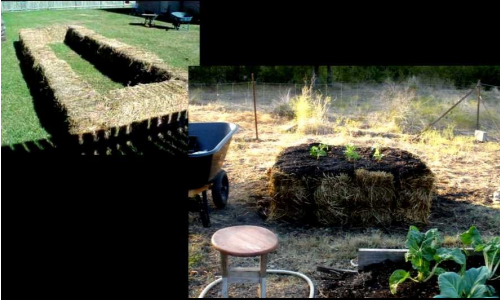


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A. Garden Bones



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Timber Containers



Log Containers



Bamboo containers



Tire Containers



Community Vermicomposting

by Jorge Cantellano

Community Vermicomposting

April will be an exciting month for EdibleScapes. We are planning on adding a vermicompost operation to the community composting site. This forward planning will ensure delivery of our first vermicast products by August at the Botanical Bazaar.

The cultivation of earthworms in organic wastes has been termed *vermiculture*, and *vermicomposting*. **Vermiculture** is the culture of earthworms. **Vermicomposting** is the process by which worms are used to convert organic material (usually wastes) into humus-like material known as vermicompost. Our goal is to produce vermicompost, so we want to have maximum worm population density all the time.

VERMICULTURE AND VERMICOMPOST



PROCESSING

The following guidelines should be followed: (Insert from the best practice guidelines, Appendix P-AS_4454.)

(a) **Mixing and feedstock preparation:** A homogeneous mix of feedstock material is of paramount importance to ensure consistent processing throughout the organic material.

(b) **Dimensions:** A minimum bed depth of mature vermicast of 0.3 to 0.4 m is recommended. The size of such beds is flexible, but the width should allow the entire bed to be inspected easily. The amount of fresh material added to the surface should not result in anaerobic conditions and heat generation. An important principle to improve the efficiency of processing of organic wastes by earthworms is to add the material to the beds in thin layers of 2.5 – 5.0 cm at frequent intervals. Compost worms are big eaters. Under ideal conditions, they are able to consume in excess of their body weight each day, alt-

hough the general rule-of-thumb is ½ of their body weight per day.

(c) **Ingredients:** The optimum C:N ratio is approximately 20–25:1. Organic material high in available energy (low C:N) should be mixed with materials that are low in available energy (high C:N). This material should be uniformly mixed with the other ingredients. Size reduction of the various components of the feed mix assists in decomposition of the material and facilitates worm access. The resulting feed mix should be within a pH range of 5.5 to 8.5 and its electrical conductivity should not exceed 3 dS/m.

(d) **Moisture:** Optimum moisture levels vary between 80–90% in the active layer of the vermiculture system (where feedstock is supplied) and between 30–70% in the bed material.

(e) **Temperature:** Vermiculture systems operate best in a mesophilic bed temperature range of between 5 to 35°C, ideally 15 to 25°C.

(f) **Oxygen:** Worms require an aerobic environment of not less than 10% free oxygen in the active layer of the system.

(g) **Duration:** A minimum processing time of not less than six weeks is recommended to produce stabilized material. An additional maturation step of between 4 to 6 weeks may be required after removing the material from the system to achieve a greater level of maturity.

The Compost Worm: There are an estimated 1800 species of earthworm worldwide, some sources number more than 4000-5000 earthworm species. However, vermiculture/vermicomposting selects just 7 species, and the majority just focus on one. *Eisenia fetida* (Savigny) is commonly known as red Californian, compost worm, red wiggler or other local names.

Stocking density: Refers to the initial weight of worm biomass per unit area of bedding. For instance, if you started with 5kg of worms and put them in a bed with a surface area of 2m², then your initial stocking density would be 2.5 kg/m². The most common densities for vermicomposting are between 5 and 10 kg/m². Worm growers tend to stock at 5 kg/m² and split the beds when the density has doubled, assuming that the optimum densities for reproduction have by that point been surpassed.



Composting and vermicomposting: A combination of composting and vermicomposting has recently been considered as a way of achieving stabilized substrates. Composting enables sanitization of the waste and elimination of toxic compounds, and the subsequent vermicomposting reduces particle size and increases nutrient availability; in addition, earthworms inoculate the material resulting from the thermophilic phase of composting.

It should be noted that pasteurizing temperatures cannot be achieved during vermicomposting processing as worms are sensitive to thermophilic (hot) temperatures. Thus, raw ingredients used in vermiculture systems should be relatively free of plant pathogens and plant propagules unless pre- or post-pasteurization is performed. This can be achieved through a composting process. This is the way EdibleScapes will feed the worms with mature compost pre-produced by the hot (thermophilic) composting process.

Compost and Vermicompost maturity: Both composting and vermicomposting transform fresh organic wastes into useful products that are rich in available nutrients for plant growth. Subjectively, a mature compost should be dark brown or black, with a granular, spongy, or fibrous texture, and smell like mould or soil. A mature vermicompost should also be dark black, usually finely divided peat-like material with excellent structure, porosity, aeration, and drainage properties and high moisture-holding capacity.

Compost and Vermicompost systems may be an alternate, inexpensive way to avoid environmental problems and at the same time obtain a valuable organic fertilizer. Vermicomposting may have an important role in organic waste management, and it is possi-

ble to suggest that vermicomposting and composting are not necessarily mutually exclusive and could be used in sequence to take advantage of the unique and valuable feature of each.

For EdibleScapes, vermicompost will be a valuable plant and tree fertiliser. We anticipate that vermicast surplus will bring much needed funds which are vital toward the future operational cost of the public edible landscape gardens, community composting demonstration learning site and EdibleScapes programs.

EdibleScapes

April Working Bee

Community Vermicomposting

<https://www.facebook.com/events/1059529287573997>

Saturday, 13 April 2019 from 08:30-10:30

EdibleScapes Community Composting site
Country Paradise Parklands Entrance at 74
Billabirra Crescent, Nerang

All welcome

In the day after the "Schools Strike 4 Climate" protests. Young people are specially invited to help and chat. Youth in Agroecological urbanism: making the city for the next generations.

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FRUIT TREES

MARCH

Custard Apples: Fertilize trees – 20 gms of organic fertiliser per sq m to drip line. Harvest every 3 to 7 days. If mealy bug is a problem spray individual fruit with pest oil or wipe on metho and water (30% metho + 70% water).

Figs: Close to end of season.

Lychee: Less watering is required, but don't let the trees dry out. If Erinose mite appears, spray every 10 to 14 days with wettable sulphur from pinhead size new growth to fully open and hardened off.

Low Chill Stone Fruit: Water needs to taper off now as trees begin to defoliate.

Mango: If any anthracnose fungus is visible, spray with a copper based spray every 2 weeks, or with 25 mls leaf microbes and 5 grams wettable sulphur per 1 litre of water.

Passionfruit: The water can be tapered off. Harvest fallen fruit under vines every 3-4 days.

Pawpaw: Plant out new trees. Apply boron now. 1 teaspoon per mature tree. Spray leaf microbes (25 ml leaf microbes per 1 litre of water) if black spot is seen.

Persimmon: Main harvest time. Decline water needs. Apply a little super fine lime and gypsum – 50 gms per sq metre of each.

Strawberries: Plant out new runners. If you want to leave last year's plants, prune only.

Bananas: Give stools a high organic potassium fertilizer – 200 grams per stool (any organic fertilizer that has added sulphate of potash).

Citrus: If any fungal problems arise, spray with pest oil and leaf microbes. Add the pest oil + 15 ml per litre of the leaf microbes. This will also control the citrus leaf miner and scale.

Pruning Citrus: Citrus trees need little pruning. If over-crowded, thin out after fruiting. Don't thin oranges or grapefruit severely but mandarins can be shortened back to the second or third shoot down the branch. Lemon trees are taller and less compact so keep them to a size easier to handle. Old trees can be cut severely but will take a year or two to recover and bear.

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APRIL

Custard Apples: Peak harvest period. Harvest every 3 to 7 days. Watering can be tapered off. If you have not done your spraying for mealy bug, do it now. Spray individual fruit with pest oil or wipe on metho and water (30% metho & 70% water).

Figs: Taper off the water.

Lychee: Don't let trees dry out. Check for Erinose mite. Spray with wettable sulphur.

Low Chill Stone Fruit: Fertilise trees with a high organic potassium fertilizer, 50 gms per sq meter to the drip line of trees. Prune trees now – 1/3 to 1/4 of the tips can be taken off. Any inward or downward wood can be pruned.

Mango: Apply gypsum if soil pH is 6 or more. If below 6 pH, apply lime. 50 gms per sq meter of either. Continue with copper based spray for anthracnose or with 25 mls leaf microbes and 5 gms wettable sulphur per 1 litre of water.

Passion-fruit: Water can be tapered off. Harvest fallen fruit every 3-4 days.

Pawpaw: If you have not applied boron, apply now. 1 teaspoon per mature tree. 40% of annual fertiliser can be applied now to mature trees (20 grams per sq meter of a high organic potassium fertiliser).

Persimmon: Main harvest time. Declining water needs. Apply a little super-fine lime and gypsum, 20 gm of each per sq m.

Strawberries: Plants should be coming away well. A little organic potassium fertiliser can be applied now. Use fish emulsion or kelp spray regularly over plants to keep in good health. Add 20 mls molasses per litre of water + 10 mls leaf microbes.

Bananas: De-sucker plants, cutting at ground level. Cut out centre with a sharp downward motion around the circumference to the centre, forming a well. If they do not die, use 20mls of kero to the bottom of this well.

Citrus: If any scale and fungal problems still exist a further spray with pest oil and leaf microbes will be needed. Add the pest oil + 15 ml per litre of the leaf microbes. Early varieties can be picked this month.

VEGETABLES

MARCH:

Asian Greens, Beans (French), Beetroot, Broccoli, Cabbage, Capsicum, Carrot, Cauliflower, Celeriac, Celery, Chilli, Endive, Garlic, Kale, Kohlrabi, Leeks, Lettuce, Mustard Greens, Onions, Parsnip, Peas, Potato, Radish, Shallots, Silverbeet, Snow Peas, Sweet Potato, Tomato.

APRIL:

Asian Greens, Beans (French), Beetroot, Broccoli, Cabbage, Carrot, Cauliflower, Celeriac, Celery, Endive, Garlic, Kale, Kohlrabi, Leek, Lettuce, Mustard Greens, Onion, Parsnip, Peas, Potato, Radish, Shallots, Silverbeet, Snow Peas, Spinach, Sweet Potato, Tomato, Turnip.

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HERBS

MARCH

Annual: Borage, Calendula, Chamomile, Chervil, Coriander, Dill, Garlic, Italian parsley, Misome, Mizuna, Nasturtium, Rocket.

Perennials & Bi-Annuals: Catnip, Chives, Perennial Coriander, Fennel, Hyssop, Lavender, Lemon Balm, Marjoram, Mint, Mushroom Plant, Oregano, Parsley, Rosemary, Sage, Salad Burnet, Winter Tarragon, Thyme, Upland Cress, Winter Savoury.

APRIL

Annual: Borage, Calendula, Chamomile, Chervil, Coriander, Dill, Garlic, Italian parsley, Misome, Mizuna, Nasturtium, Rocket.

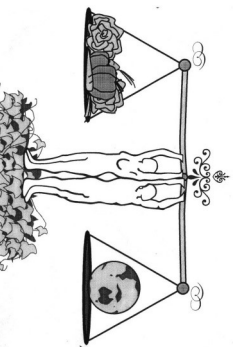
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Whilst every effort is made to publish accurate information the association (including Editor, Executive Officers and Committee) accepts no responsibility for statements made or opinions expressed in this newsletter.

If not claimed in 14 days, please return to:
GCOG, PO Box 210, Mudgeeraba Q 4213

*GOLD COAST ORGANIC
GROWERS Inc.*



NEWSLETTER

Meetings held:
3rd Thursday of the Month

Meeting place:
Cnr Guineas Creek Road
& Coolgardie Street
Elanora, Gold Coast

Next meeting:
Thursday 18th April 2019