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NEWSLETTER MARCH 2020

PRESIDENT'S MESSAGE.

Moving forward with Covid 19

Our BOGI committee has moved to cancel regular Tuesday meetings, including the AGM, until further notice. Generally, this will also apply to other BOGI gatherings for the time being.

Do practice good hygiene and wash hands with soap and water or alcohol based washes and avoid contact with others at this time.

That's the bad news. Now we need to garden better than ever to produce healthy food. We need to continue to contact other members via phone, email etc and exchange ideas and encourage each other. If we sit isolated in our little boxes then our minds will start to play fear games (and hoard toilet paper). We need to reach out in different ways to encourage, exchange ideas and seedlings and information and care for each other.

Initially we will continue to contact you with the Newsletter and What's On which will be spaced a fortnight apart. Now we need more short articles and photos in these, so please in your quieter times drag out a pencil and be part of a changing landscape.

Please discuss any ideas that may be developed to continue our gardening group in a different way in these changed circumstances. And watch this space. It will change.

Trevor Galletly

CLUB MEETING

In response to Covid -19
our club meetings will be
suspended



Covid 19 and Organic Gardening

Will Covid 19 end life for man on earth ? Probably not. However, as viruses and other disease causing organisms continue to mutate (as they do in nature) they will continue to challenge man's existence on earth. Wait, we have vaccines and drugs. Sorry, I'll put my money on the organisms and not man's ingenuity and science to win.

Good health in man that is able to resist and fight off diseases can only be achieved by consuming high quality dense nutritious foods. Generally, the density of our food is decreasing as we continue using modern farming methods. Organic growing and other natural farming methods strive to enhance soil microbial activity, increase nutrient availability, etc, and build plant and soil health. As a healthier soil is achieved, more nutritious produce will be produced and be available to improve our health.

I believe we are moving in the right direction (slowly). Have we as organic gardeners achieved the goal of producing highly nutritious food ? Interestingly, in so doing we will remove the need for chemicals and artificial fertilizers. Some alternate nutrient sources may be needed to supply soil nutrients.

A refractometer may be used to measure (Brix) the health of a plant. At high readings a healthy plant will be produced and the plant will not exhibit diseases and insects.

Wondering how your garden produce compares to highly nutritious and dense produce ?

Sign up for the coming workshop – or if sufficient interest a speaker may be arranged for a Tuesday meeting.

FEBRUARY MEETING CATCH UP

Guest Speaker – Jeff Hawker

Topic – Aquaponics

Aquaponics is a combination of fresh water aquaculture (fish farming) and hydroponics (growing plants without soil).

Fish water (including waste from fish food and fish poop) breaks down to form ammonium and ammonia (which is toxic to fish), so after adding a variety of bacterium, the water is safe to continue its journey around the system.

Jeff spoke about the systems he is using, including the designs of tank setups, as well as sprinkler and pump selection to improve his aquaponic system. He also spoke of the different systems and set ups available.

As to the fish varieties used in aquaponics, Jeff mentioned that perch was fine around our area, but down south in the cooler climates, trout was quite popular.

Some information from the internet:

Deep Water Culture (DWC)

In a deep water culture method, also known as the raft method or floating system, the nutrient-rich water is circulated through long canals at a depth of about 20 cm while rafts (usually polystyrene) float on top. Plants are supported within holes in the rafts by net pots. The plant roots hang down in the nutrient-rich, oxygenated water, where they absorb large amounts of oxygen and nutrients which contribute to rapid growth conditions. This method is the most common for large commercial aquaponics growing one specific crop (typically lettuce, salad leaves or basil) and having high stocking density of fish (up to 10 and 20 kg of fish per cubic meter of the fish tank). However, it can be adapted to a low stocking density of fish production. (Information from: <http://www.fao.org/3/CA2549EN/ca2549en.pdf>)

Grow Media Bed

The growing media in an aquaponics system is dominated by clay pebbles, as they are perfect for the root structure and they maximise surface area available for beneficial bacteria. Often perlite is used in growing channels in aquaponics systems (inside net pots) as it is a cheaper media. (Information from: <https://www.aquagardening.com.au/aquaponics-shop/growing-media/>)

Flood and Drain

A pump takes the water from the fish tank into the grow bed; it will pump enough water into the grow beds that almost all the grow media will be under water. You can set your own level of exactly how high this is. The water will then drain back into the fish tank with the help of a siphon.

At the stage the siphon is working, the pump still pumps water in the growbeds. But the rate at which the water gets removed is faster than the rate the water gets pumped in. This, way the level of the water will go up and down. (Information from: <https://www.howtoaquaponic.com/designs/flood-and-drain-aquaponics/>)

Bundaberg Hydroponics and Aquaponics

- Hydroponics equipment supplier in Bundaberg South, Queensland
- **Address:** Shop 4/46 Maryborough St, Bundaberg South QLD 4670
- **Phone:** 0407 542 767
- Open Tuesday to Friday 10 am – 4pm Saturday 9am -12 pm

Interesting websites:

Aquaponic venture described as 'growing two crops on one drop of water

<https://www.abc.net.au/news/rural/2019-04-24/aquaponic-system-supplies-local-hotel-with-fish-and-fresh-vegies/11033456>

What is Aquaponics and How Does it Work?

<https://www.permaculturenews.org/2016/05/30/what-is-aquaponics-and-how-does-it-work/>

An informative array of information on aquaponics can also be found on YouTube.

Hopefully, a workshop can be organised later in the year to see the operation and set up of this system.

After the Meeting we were served a beautiful Cranberry Hibiscus Tea as well as a Lemongrass and Ginger tea. Thank you to Julie for providing these teas made from home grown ingredients.

We had a full house for the February meeting and welcomed lots of new members and visitors.

Please welcome the following people in to our club and share as much knowledge with them, and I'm sure they have a great deal of knowledge to share with us also.

****Lenzie Duffy ** Sarah and Joseph Park ** Mike and Rose Apap****

**** Daniel and David Jacques ** Linda Cameron ** Valda Wright****

From the Editor....

RESILIENCE! That is the word sitting in my mind as I write today. Amidst the changes we face with uncertain times upon us in almost every aspect of our lives, we have no option but to become resilient and learn to roll with whatever is thrown our way next. As gardeners, I feel we already have 'one up' on mainstream society in being able to fend for ourselves, and as a CLUB of gardeners, we essentially have super powers in that we can share seeds, food, information, and be out enjoying the sunshine tending to our gardens and getting our daily exercise while doing so.

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Obviously the theme for the newsletter this month revolves heavily around how to survive our current worldly issues but leaves you with some practical solutions, rather than fear.

Look after yourselves, your family, your neighbours.

Cathy

HOME MADE REMEDIES

Four Thieves Tonic

This recipe centres around herbs that have been known for their antibacterial, antiviral, antiseptic and antifungal properties for centuries. The most famous mention of these herbs in this specific combination was by four thieves during the Bubonic Plague.

According to legend, four thieves, one of whom was an herbalist, robbed the homes of many who had died of the plague. They were eventually caught and brought to trial. One version of the story recounts that they were sentenced to bury the dead but would be set free if they survived. Another version tells that they were released in return for the recipe for the tonic that they credited with protecting them from the plague.

Either way, the thieves survived, as did the legend and the recipe for their herbal vinegar. Though we hopefully won't ever need this remedy for anything as serious as the plague, it still serves as a valuable remedy against many illnesses and is a powerful disinfectant and bug spray.

Vinegar of the Four Thieves Ingredients:

Ingredients

- 2Tbsp Thyme (Dried)
- 2Tbsp Rosemary (Dried)
- 2Tbsp Sage (Dried)
- 2Tbsp Lavender (Dried)
- 2Tbsp Mint (Dried)
- 4-8 Cloves Minced Garlic (optional)
- One 32-ounce bottle of organic Apple Cider Vinegar with "The Mother"

How to Make The Vinegar of The Four Thieves:

1. Put all the dried herbs and garlic (if using) into a large glass jar (I used half gallon)
2. Pour the Vinegar over the herbs and garlic and seal tightly. The vinegar is strong enough to corrode some metal lids, so in this case, consider putting plastic wrap or a plastic bag on top and then putting the lid on.
3. Leave in a cool, dark, place for 6-8 weeks (for health tonic recipe) shaking daily if possible.
4. After 6-8 weeks, strain the herbs out using a small strainer and store tonic in smaller jars for easy use.

Uses for Four Thieves Herbal Vinegar:

As I mentioned before, this vinegar makes a very effective (though strong smelling!) insect repellent. If you make it to this strength, just put ¼ cup of the vinegar in an 8-ounce spray bottle and fill the rest with water. Spray on skin, clothes, etc. when in heavily insect infested areas. We store in the fridge to minimize the vinegar smell and make more refreshing.

In cases of illness, the Vinegar of the Four Thieves is very helpful in quick recovery. Adults can take 1 Tablespoon several times a day (dilute in water!!) and kids can take 1 Teaspoon several times a day (well diluted in water / herbal tea).

When a family member is sick, diluting this with 1 part water and putting in a

Make a potent disinfectant that can be used on surfaces or sprayed in the air

I've had some people report really good success using this vinegar as a soak or topical spray for foot or nail fungus.

Diluted and used on the scalp, this remedy is also said to be effective against dandruff. This vinegar makes an effective natural disinfectant spray for use in house cleaning

The Vinegar of the Four Thieves smells awful and tastes almost as bad, but it is very effective against a variety of ailments! Plus, it's healthier and cheaper than antibiotics

Cleaner

The simplest is Vinegar. Dilute with water, or use straight. It was the disinfectant of choice for us & the Bundaberg City Council Health Department during our time as festival foodies. We have only used Vinegar & hot water for all cleaning in our home, floors, benches, door handles etc. Very cost effective too as many other alternative items are not purchased or needed.

If you have bi carb soda, lemons, vinegar & hot water, you can clean up most things.

Hand Sanitiser

Recipe:

2 cakes of Sunlight pure soap - grated

1 lt of water in pot - heat

Eucalyptus oil - you choose how much you put in from 1 dessertspoon upwards. I use a good slosh. A little goes a long way.

Method:

Grate soap, heat water, add them together, stir till all soap flakes have dissolved totally. Turn off the heat.

Get a 10 lt bucket, pour the hot mix in, top up bucket with hot water from the tap. Stir to mix well. Add about a capful of Eucalyptus oil to the mix, stir well. Lid on.

Leave it overnight to cool, it will get thicker & gluggy.

Next day get into it with your hand, your whisk, whatever you need to loosen it up, pour into many bottles, cap and store, you now have about 6 months supply of hand pump soap and body wash soap to use at every tap in the house, with the Eucalyptus oil you now have an anti bacterial disinfectant with every use. For very few dollars outlaid.

We co exist with germs, they are a part of our life, our immune system & they, co habit our bodies. To go overboard with chemical sanitisers would not be good for us long term. We would be better off if we continued to garden in the dirt, in the sunshine & continue to grow copious amounts of good, organic, greens, fruits, veg & herbs that we utilise in every meal of every day.

Have faith & don't let the media consume your common sense.

Cheers from Pam Burgess

WHAT'S IN SEASON THIS MONTH AS THE SOIL COOLS DOWN

If you have a garden that's ready to plant in to now is the time for;

Herbs such as Basil, Coriander, Dill, Nasturtium, Eggplant, Sunflowers, Zucchini, Silverbeet, Potato, all sorts of Beans, Pumpkin, Spinach,

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If you can plant in to seedling trays then now is the time for

Capsicum, Chillies, Tomatoes, Cabbage, Peas, Brussel Sprouts

And if you have space on the kitchen bench or in a sheltered location why not try some

Microgreens or Sprouts such as Pea Shoots, Wheatgrass, Red Amaranth, Cress, Kohlrabi, Chard, White Scallion, Sunflower, Broccoli, Cilantro, Mustard, Mung Beans, Alfalfa Sprouts

Sprouting is a great way to grow some of your food supply, eat your greens and very fast time to harvest.

UPCOMING WORKSHOPS AND EVENTS

PLEASE NOTE ALL WORKSHOPS ARE CURRENTLY ON HOLD.

WE ARE WORKING ON OTHER WAYS OF CONNECTING.

We heard the basics at our January meeting but Malcolm and Marlene are now going to show us how to build a self-watering wicking bed from start to finish. This system apparently uses less water than a conventional wicking bed, makes greater use of nutrients and is ideal for home-gardeners. This will be a fascinating and informative workshop and a workshop not to be missed.

What: How to build a self-watering wicking bed.

When: CANCELLED TILL FURTHER NOTICE

What: Build your own pallet park bench from recyclable materials - with Dave Jacques

When: CANCELLED TILL FURTHER NOTICE

What: Up cycled Cement Draped Towel Pot Plant Feature, how to make

When: CANCELLED TILL FURTHER NOTICE

What: Build your own small Solar Dehydrator with Peter Burgess

When: CANCELLED TILL FURTHER NOTICE

Any garden visits - field trips - plant based workshops that you are willing to host & present, PLEASE get in contact with Pam to put them together...it's your club, new members are thirsty for the knowledge that the longer standing members have...please share it.

Pamela Burgess – Workshop Coordinator

WORKSHOP REPORT

-Report on the GREENS, GREENS, GREENS workshop held in February By
Pamela Burgess

We had a very interesting day, it started with the first group coping some soft drizzle from threatening clouds. It was very welcome, but the mozzies were definitely NOT welcome. We tasted our way around the garden, firstly collecting for any & all who wanted to fill their fridge with life giving, summer shade loving, perennial green food. That done, we did round number 2 with a bucket each, the intention was to pluck any young seedlings or volunteers that were excess to our needs in the garden. ON the CONDITION that they be planted in a similar environment---i.e.: IN the SHADE, preferably with a soft soil & lots of mulch & rotting organic matter, oh, and manures, naturally. As these plants are all seasonal self sown or perennials, the idea of allowing a shady spot in the garden to "go hog wild" is a great idea if you want the health and vitality, convenience & money saving that goes along with it. We call it a food forest. Not only does it look great but it tastes great & is great for our bodies. We followed that session with a scrumptious lunch of shared victuals. A casual question resulted in a very, very interesting conversation about the business that Malcolm & Marlene are in. Thankfully these wonderful people like us too so we will see them as new members soon we hope. As lunch time rolled around, Sarah & Joseph arrived, just in time for a feed & chat, then group one left & we started on the second round of the garden, however this time the clouds dumped on us, it was umbrella time. Guess what else likes umbrellas??? Mozzies, that's what! We got hammered! So we cut short the garden walks & retired inside for theory & discussions instead. All in all a lovely day was had by all.

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WHAT'S HAPPENING IN OUR COMMUNITY!

News from The Botanical Gardens

While many things in our region have been cancelled, walking through the Botanical Gardens has not.

Chinese Gardens

- Crepe myrtles, *Lagerstroemia archeriana*, have beautiful ruffled petals with a crepe like texture. With their stunning pinky mauve flowers they make a great feature tree.
- Frangipani's can be found just over the bridge. Interestingly frangipanis are most fragrant at night to attract moths to pollinate them. However the plants trick the moths as they don't produce nectar, but the frangipanis are pollinated as the moths scramble from flower to flower in search of the nectar!
- Look for a low spreading shrub with purple flowers just over the bridge on the right hand side. Thyme-honey myrtle, *Melaleuca thymifolia*, is named for the similar leaf shape to thyme.
- Native lasiandra, *Melastoma affine*, or blue tongue is named for the sweet blue black fruits that stain your mouth, these will appear shortly after the mauve purple flowers disappear.

Throughout the Gardens

- Colville's Glory, *Colvillea racemosa* has stunning orange flowers, there are specimens at the children's playground with an accompanying temporary sign and up near Fairymead House near the road.
- Our floral emblem the Golden Penda *Xanthostemon chrysanthus* is producing masses of golden yellow flowers, while *Xanthostemon verticillatus* or the Bloomfield Penda is so named for coming from the Bloomfield area in North east Queensland. Its unusual in that it grows in the rocky river beds giving it the technical name of a 'rheophyte', that is, a plant that lives in flowing water. Look for its showy creamy white flowers.

Happy walking!

IN OTHER NEWS



How the humble dung beetle engineers better ecosystems in Australia

March 11, 2020 1.50pm AEDT (taken from -

https://theconversation.com/how-the-humble-dung-beetle-engineers-better-ecosystems-in-australia-101975?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20March%2012%202020%20-%201559614907&utm_content=Latest%20from%20The%20Conversation%20for%20March%2012%202020%20-%201559614907+CID_49ca59e5ceaabbfc173a899533b58451&utm_source=campaign_monitor&utm_term=How%20the%20humble%20dung%20beetle%20engineers%20better%20ecosystems%20in%20Australia

Dung beetles play an important role helping clear up all the dung left by other animals in an environment.

In Australia there are approximately 475 native species of dung beetle.

But there's a problem. Most of them are adapted to deal with marsupial dung. When British colonisers brought livestock down under, they introduced an entirely new type of dung that the native dung beetles were ill-equipped to handle.

Not touching *that* dung

Cattle dung is wet and bulky. It is very unlike marsupial dung – which is typically small, dry pellets – and so the native dung beetles largely left it alone. As a result, large deposits of cattle dung accumulated in the Australian agricultural landscape.

Besides fouling the land, the dung was an excellent breeding site for bush flies and other nuisance insects, as well as internal parasites that plague the digestive tracts of livestock.

So CSIRO embarked on an ambitious plan to introduce into Australia many dung beetles that were adapted to livestock dung. Starting in 1966, it imported and released 43 species of dung beetles over 25 years.

The beetles came from places such as South Africa, France, Spain and Turkey. The chosen beetles had similar climate requirements and were adapted to wild and domestic livestock, so they could live in Australia and process livestock dung.

The Dung Beetle Ecosystem Engineers (DBEE) project is expanding the range of dung beetles in Australia and analysing their performance for livestock producers

What do dung beetles do?

When people think of dung beetles, the popular image that comes to mind is that of an industrious beetle labouring to roll a large ball of dung across the landscape.

These little engineers are actually trying to find a suitable spot to situate the ball, on which they will lay an egg. Their offspring will have food and a safe place to grow up, and generate more dung beetles.

Most species of dung beetles actually tunnel beneath piles of dung and drag bits of it into subterranean chambers, where they then lay their eggs.

The larvae develop over the following weeks to months, eventually emerging as adults and crawling to the surface in search of a mate and another pile of dung to colonise.

The introduced dung beetles

Of the 43 species introduced to Australia by CSIRO, 23 have become established and many are having a positive impact.

The activities of dung beetles helped remove dung from pastures and with it, the breeding site for nuisance flies and internal parasites.

They also improved pasture fertility. They increased the permeability of pasture soils to rainwater which decreased runoff of rainwater laden with nutrients that can pollute waterways.

But it is not known just how widely each of the introduced species has spread. There might be geographical and seasonal gaps in dung beetle activity that could be filled by other species yet to be introduced to Australia.

Working with farming

Dung beetles have been around for tens of millions of years, but their ability to survive in modern agricultural environments may be jeopardised by some farming practices.

Tilling paddocks used in cropping and livestock rotation systems may destroy the developing dung beetle larvae.

Some deworming agents, used by livestock producers to control intestinal parasites, may pass through the livestock and out in their faeces, and might poison the dung beetles colonising the dung.

It should be possible to manage tillage and deworming to minimise harm to the dung beetles, and so maximise their positive impact on the land.

That's where [Dung Beetle Ecosystem Engineers](#) (DBEE) comes in.

In this project, a group of research institutions, producer groups, land management groups and dung beetle entrepreneurs are working together.

The project, now in its second year, is supported by Meat and Livestock Australia and funded by the Rural Research and Development for Profit Program of the Australian Department of Agriculture, Water and the Environment. Charles Sturt

University leads the project, with co-operators at CSIRO, University of Western Australia, University of New England, Mingenew-Irwin Group, Warren Catchment Council, Dung Beetle Solutions International, and LandCare Research NZ.

Dung Beetle Ecosystem Engineers aims to:

1. understand the distribution of dung beetle species previously introduced to Australia, and predict their ultimate spread
2. evaluate new species of dung beetle for importation and release into Australia
3. estimate the economic impact of dung beetles on farming systems
4. develop a database of information on dung beetles in Australasia and educational materials for use by a range of users
5. work with farming and land management groups to engage landholders in detecting dung beetles and modifying agricultural practices to enhance the success of dung beetles.

At the end of the DBEE project, we will have a better understanding of the role of dung beetles as a farming tool, helping farmers choose agricultural practices that will improve their bottom line.

New dung beetle species will be ready to work for Australia and New Zealand, and a distribution network will enhance their spread to new geographic areas.

DBEE aims bring economic and ecological benefits to the agricultural sector and wider Australian and New Zealand community.

Porridge Bread – original recipe from Milkwood

<https://www.milkwood.net/2015/08/17/left-over-porridge-bread-other-porridge-ideas/>



- 2 tsps dried yeast
- 600g bread flour (4 cups)
- 1 cup left over porridge
- 500mls tepid water (approx)
- 2 tbsls olive oil
- 2 tsps salt

In a bowl, add your yeast, flour, olive oil and porridge. While mixing together, slowly add your water.

The exact amount of water is going to depend on how runny you make your porridge so water amount for this recipe is approximate, just go slow and judge it accordingly.

Once mixed together as a shaggy dough, cover and set aside for 20+ minutes or so, then add your salt.

This waiting period is called *autolyse* and by doing so you are allowing the dough to develop it's gluten- you'll see a difference in the dough when you come back to it, far more elastic.

Mix in your salt, either by hand kneading it or with a mixer if you use one. Then cover and let it rise for an hour or so.

Out on to a lightly floured bench for a quick fold and then back into the bowl, leaving it covered for another hour or so (depending how warm it is in your kitchen – you want the dough to have roughly doubled in size).

Back to the bench top, this where you divide and shape your dough. Shape it however you want though- bread rolls, pop it in a couple of tins for an easy sandwich loaf, or simply one big loaf for tearing apart at the end of the week.

Bake in a hot oven 220-230C for approximately 30-35 minutes with steam. This is a really easy tried and tested recipe, and great way to use up some uneaten porridge!

WHAT'S HAPPENING ONLINE!

More importantly than ever, while we are practicing social distancing, we must keep up our friendships and check in on other members that are prone to falling through the cracks. Another way we can 'virtually' keep in touch is via the club Facebook page <https://www.facebook.com/groups/717598841992819/> Elizabeth has suggested we can video our gardens and upload to the page. Elizabeth has shared her own garden with us to show us how easily it can be done. Be brave – we would love to see what's happening in your back yard!



BOGI SHOP

Products available are:

- Liquid Lime
- Liquid Kelp
- Liquid Fish
- Mineral Granules
- Microlife
- Organibor and
- Katex Organic Super Growth.

They are available for sale at our meetings, but please contact our secretary or president for further instruction on purchasing for now.

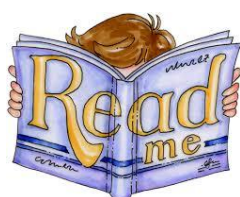


Have you checked out our Facebook page yet? It's a great way to connect and show what's happening in your garden, and see others tips and ideas too.

Search for **Bundaberg Organic Gardening Inc** and request to join the group online.

The library catalogue is maintained by our Librarian.

The catalogue can be found at <http://www.librarything.com/catalog/BOGardeners>. Each item's record includes a cover picture, title, author, publication date, the Dewey Decimal Classification and subject tags. There is also the facility to read and write reviews and to rate each item.



Deadline for April Newsletter

5pm Friday 17th April

We would love FEEDBACK from club members on anything and everything.

Tell us about your success and your failures in the garden and help others learn along the way.

Let us know about community events or what's up and coming in the area.

To include notices and details of Club activities email: newsletter.bundyorgard@gmail.com

Or ph Cathy 0403 430 969 or

Heidi 0410 561 314

Please send through articles at any time, if they miss one newsletter they will make the next.

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