We have now made it to the 3rd issue and will be staying with quarterly issues for the time being as everyone is too busy with ‘doing’ it to write about it. Longer term we hope to get this out more regularly. This issue is still packed with info and ideas that you can pass along to friends, family, neighbours and colleagues.

As always all contributions, ideas for improvements and feedback are welcome.

If you want to be put on our mailing list and receive this newsletter digitally, please contact Celeste (see details on the back-page).

WHAT’S HAPPENING IN THE GARDEN?

The dry months are upon us and still more to come before we can expect any real rain. A warmer than usual winter has meant some annuals such as basil haven’t died off the way they normally do. However the warmth also means that those more fragile annuals such as rocket, dill and coriander are going to seed. Other annuals such as lettuce are in full production, and bananas have been flowering so expect plenty around Xmas.

At the Mackay Wine and Food Festival in July we had a successful stall in combination with Shine’s food van, both using our own produce.

We have finally taken delivery of our new trailer, purchased through a successful grant application to the Queensland Government Gambling Community Benefit Fund: it has already had plenty of use.

There was even a visit from Costa (Gardening Australia) who was in the area. (See next page).

Visitor numbers to the garden continue to grow. On the 18th and 19th September, facilitated by Kellie George, we hosted the Adult Migrant English Language Group from TAFE for a pizza social. The aim was to socialize in English, learn about the gardens, and use some of the produce on the pizzas. This cultural exchange also enabled us to learn new names and new uses for some of the plants. A win-win for everyone!

For further information on booking/using the pizza oven facility, there will be some details on our web-site shortly -in the meantime please contact Chris on 0421548025 for details, or christopher.dunn.oz@gmail.com

Upcoming Events

<table>
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<th>Event</th>
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<td>Wintermoon in October</td>
<td>October 5-7</td>
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<td>Introduction to Composting</td>
<td>November 16</td>
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<tr>
<td>Basic Home Food Gardening</td>
<td>November 23</td>
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<tr>
<td>Annual General Meeting</td>
<td>November 14</td>
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So bring your friends, see the changes and be inspired, by what you too could create in a small green space.

Opening Times:

Every Thursday & Friday 9.00-2.30pm
Saturday 9.00-1.00pm

See the back page for details on how to find us.

www.permaculturemackay.org
COSTA

On the 8th of September, we were invited to the launch of Sarina Landcare Native Community Garden which was officially opened by Costa from the ABC’s Gardening Australia program. The day was very well attended with Costa’s talks very much leaning towards the importance of our communities to address the food crisis which we are in. He continually referred to the fact that if the trucks stop coming to Mackay, (for whatever and numerous reasons) it will only take 3 days for the food to run out and for our community to fall into disarray. We had the fortunate opportunity to have a visit to our garden in Mackay from Costa where he was amazed at the effort, design, and diversity of what he referred to as an essential asset to every community. Watch this space for when we get Costa back to the Mackay Community Garden!

COMPOSTING, BASIC HOME FOOD GARDENING & INTRODUCTION TO PERMACULTURE WORKSHOPS

The composting and gardening workshops continue to be a success with others held in mid-August attracting xx participants. The last ones for 2013 are scheduled for November, with more planned for 2014. There will also be more Permaculture Workshops planned for 2014

Composting Workshop
Where: Mackay Community Garden
When: Nov 16 2013
Time: 9am-12.00pm
Cost: FREE
For further details contact: Fiona Paterson at Mackay Regional Council on 07 4968 4402 or email fiona.paterson@mackay.qld.gov.au

Basic Home Food Gardening Workshop
Where: Mackay Community Garden
When: Nov 23 2013
Time: 9am-12.00pm

AGM NOVEMBER 14 2013

We would like as big a turn-out of members as possible for the AGM. There are several reasons for this. Legally we are required to have this meeting and members of the current Management Committee are required to step down and a new Committee elected. In addition our President will be moving to Brisbane at year-end and cannot be re-elected, and the selection of another President that will guide the organization into 2014 is important. But more importantly we seem to have finally achieved a critical mass for growth, with participation in workshops and other events with the broader community growing. The AGM is our chance to better define our future direction, to ensure we continue to grow and evolve with the times. The support of Council in endeavours such as the Composting Workshops and the gardening with schools cannot be underestimated in helping us reach the mainstream and ensuring the organization’s sustainability into the future. How can we best capitalize on this? So make sure your voice is heard and that your vote counts.

Where: 20 Coakley Court, Erakala
When: November 14 2013
Time: 7pm –9pm
Bring a plate to share.

‘It is not the strongest of species that survive nor the most intelligent, but the one most responsive to change’

Charles Darwin

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**Turmeric**

Not a recipe as such but more uses for that other glut item that loves the Mackay climate. Apart from the well known anti-oxidant and anti-inflammatory properties, there is also evidence that turmeric is helpful in warding off cancer and dementia, helps liver function and MORE (you can Google it too). It can also be used as a dye (e.g. clothes and Easter Eggs, skin – e.g. henna type use). But how to eat it if curry type recipes every day aren’t your thing. There are many Middle Eastern, Moroccan and Asian recipes that use turmeric that are not ‘curries.’ Try it as a tea (add ginger and honey to taste). There is also ‘Sfoof’ a Lebanese semolina-turmeric cake. (Google it!)

Perhaps we need to put together a turmeric cook book!
Biochar, or charcoal from biomass, is a substance made from the incomplete combustion of biomass or organic materials. It is produced with wastes like rice hulls, wood chips, grass or leafy greens, and dried trunks or twigs, even coffee grounds or animal manures. Biochar is primarily important for soil regeneration and carbon sequestration. When added to the soil, it stays for thousands of years. A side benefit is that the creation of biochar releases a mixed gas that is flammable and can therefore be used to do work. Burning this gas makes the production of biochar very clean and prevents a lot of methane gas from adding to greenhouse gases. Biochar production can be added to or retrofitted into existing systems. Below is explained a method anyone can use to make biochar.

**WARNING:** Avoid breathing in biochar dust. The same reason it is good habitat in soil makes it dangerous lodged in our lungs where it becomes habitat for wild cells or cancer. One teaspoon of biochar has about one acre of surface area.

### Simple Cheap Energy Technologies

**Fire and Heat: Part 2**

By Gerard Worm

Biochar is a substance made from the incomplete combustion of biomass or organic materials. It is produced with wastes like rice hulls, wood chips, grass or leafy greens, and dried trunks or twigs, even coffee grounds or animal manures. Biochar is primarily important for soil regeneration and carbon sequestration. When added to the soil, it stays for thousands of years. A side benefit is that the creation of biochar releases a mixed gas that is flammable and can therefore be used to do work. Burning this gas makes the production of biochar very clean and prevents a lot of methane gas from adding to greenhouse gases. Biochar production can be added to or retrofitted into existing systems. Below is explained a method anyone can use to make biochar.

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### How to make biochar, and invigorate your soil

**Basic Biochar Production Method**

1. Get any fire tolerant metal container/s that can be filled with biomass and then closed off allowing only gas to escape. A clean empty paint tin or drum and clip on lid with a hole in it somewhere will do. Gas must be released or it will get dangerous. Gas release holes can be placed so that the escaping gas passes through flame which will burn off this flammable ‘dirty gas’, rather than release it to the atmosphere. (This gas can be used to power an engine if fed through a pipe).

2. Place the biomass filled chamber central in a large open fire so that the gas escaping from the hole/s is directed into the flames. Inside a 200L drum is even more efficient. It will start to release gas as the material begins to heat up.

3. Continue until it stops gassing off, remove from heat, seal biochar chamber hole with mud and let cool. Because the material has not been in contact with oxygen from the environment and is now sealed, oxidisation can not happen to the carbon in the product and we get char instead of just ash.

4. When cool, collect contents, grind to rough powder, inoculate (soak in worm juice or similar biologically active substance) and add to soil. Application rates seem to be about 100 grams of biochar per square meter for positive results. Up to 2kg/m². One great method to process the biochar is to put it in a pen with pigs. They will not only crush it up, it will also become inoculated with beneficial bugs/life in the process.

Any attempt to make a serious amount of biochar requires a more detailed understanding of pyrolysis and a more efficient production method than mentioned above.

1. The following example of a more efficient system is a gas fired gasifier/biochar maker, by Barry Batchelor of [www.biochar.net](http://www.biochar.net).

In this design, the gas is being piped back down to help fire the main chamber. Any attempt to make a serious amount of biochar requires a more detailed understanding of pyrolysis and a more efficient production method than mentioned above. Hope this
The Mackay Community Garden has been operating in its current form since 2005. The Mackay Community Garden (MCG) Inc. was established as a not-for-profit incorporated association to manage the activities of the garden. The garden offers a practical demonstration of sustainable food production in the tropics based on Permaculture Design principles that can be applied to all living situations. To make it possible Mackay Regional Council generously provides the land on a peppercorn lease.

Nurtured and maintained by volunteers; memberships contribute to its financial stability along with our stalls at various events and grants from a range of sources.

Our web-site contains lots of useful information such as how to make your own herb spiral and where to purchase rare fruit trees amongst many other things —please have a look!

Membership costs just $20 for individuals and $25 for families. Further details are on our web-site. If you don’t have access to a computer talk to Luke or Celeste about joining.

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**Co-ordinator**
Luke Mathews, 0439 395 730
permaculturemackay@bigpond.com

**Volunteer Co-ordinator and Secretary**
Celeste Philp, 0409 491 237 / 4954 1847
celeste63@mcs.net.au

**Treasurer**
Nicole White, 0448 003 857 / 4959 3310
nicole@bushcamp.net

**Newsletter Editor/Compiler**
Jennifer Parks, jennifer@opalops.com

www.permaculturemackay.org

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**Buy, Sell, Swap, Give-away**

- Plants, assorted fruit trees, call Shine Ph. 0415 429 241
- Community Garden nursery plants, call Celeste or Katrina to see what is available
- Mackay Local Food Buy, Swap and Sell (log onto Facebook to join this group)

If you are interested in help with a permaculture design and/or help with implementation for your property our qualified designers can help you. Please contact Luke.

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**So, where is Mackay Community Garden?**

Access is most comfortable from the Blue Water Trail. The car park near the fishing jetty at the end of Bridge Road is right next to the Garden. The vehicle access runs off Streeter Avenue, opposite the Base Hospital, into Sarah Street right beside the “Sirrom on Sarah” apartments.

www.permaculturemackay.org