

Permaculture Cairns Inc. Established July, 2007

Web site: www.permaculturecairns.org.au



Care of the Earth, Care of

People. Share the excess

Permaculture Cairns News

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS

Care for the Earth, Care for people, Share the excess

PLEASE NOTE: EARLIER START TIME – 6PM FOR A 6.30PM START !!!!!!!!!!!!!!!

November Public Info Meeting

Tuesday 18th 6pm for 6.30pm start

Flexible Learning Centre, 90 Clarke Street, Manunda

Clarke Street comes off Hoare on the Salvos Corner.

Members please bring a plate of finger food to share, and a friend.

AGENDA: Welcome, Notices of Events

Permaculture Principle 11 a practical explanation

Guest speaker: Frank the Herb man from Rustys on Herbs in the Tropics

Plant of the Month: Moringa olifera, AKA Miracle, Horseradish & Drumstick Tree

Movie that matters

Cuppa & nibbles & networking

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IMPORTANT News from the Management Committee

**Permaculture Cairns Inc. 2014 Annual General Meeting
9th December 2014 At 6.30pm At Flexible Learning Centre**

Nomination and Proxy Forms are at the end of Newsletter. If making a Nomination, please return the signed form to a Committee Member before 25th November 2014.

Remember to be able to vote or to nominate you must be a Financial Member of Permaculture Cairns Inc. Please check if you are a paid up member for 2014 or 2015 -

Steve Bailey, Sue Barclay, Niki Biro, Cate & Damon Blanchard. Peter Brown, Wim De Jong, Margaret Edwards, Lisa Edwards. Barbara Ford, Joanne Gunzberg, Lois Hays, Geoff & Riah Holland, Michael Hyde, Lea & Cameron Kettle, Samantha Kidston, Carol Laing 2015, Emma Lodge, Tegan McBride, Jenny McGrath, Ulla Melchiorson, Belinda Moore, Judy Noller, Michael Oster, Deborah Pergolotti, Craig & Bernadette Phillipson, Clare Richards, Paul Robins, Karen Schmidt, Peter Spooner, Ray Tan, Zane Wells, Bruce Zell 2015, John Adams, Bernard Holden, Matthew Hughes & Charlene Phillips, Lars Schneider, Terina Sylvester, Mark Aitken & Jacinda Rose, Geraldine Bray and family, Mary Ettling 2015, Christine McIntosh, Marie & David Bray 2015.

And if you join now your Membership will continue until the end of 2015.

Come join in and meet some wonderful people.

Membership form at end of Newsletter and you can pay online.

Editor comment: Yes 23 pages but there are some photos which take up space. Carol

PERMACULTURE PRINCIPLE NO 11

Use edges and value the marginal

“Don’t think you are on the right track just because it’s a well-beaten path”



The interface between things is where the most interesting events take place. These are often the most valuable, diverse and productive elements in the system. The icon of the sun coming over the horizon with a river in the foreground shows us a world composed of edges. The proverb reminds us that the most popular approach is not necessarily the best.

DATE CLAIMER !!!!!!!

EXPRESSIONS OF INTEREST SORT
for people interested in presenting or attending

Introduction To Permaculture a Two Day Intensive Workshop
Saturday 14th & Sunday 15TH MARCH 2015

At The Flexible Learning Centre, Cairns
Please email your interest: info@permaculturecairns.org.au

CARPOOLING

Who is interested in forming carpool for Events, Meetings and Workshops in the following areas:- Northern beaches, Kuranda and South of Cairns

Email: info@permaculturecairns.org.au

Workshop reports

Tropical Fruit and Vegetable Cooking Workshop
Hill Top Farm on 1st & 2nd November near Cooktown

I haven't been to Cooktown for approx 15 years, so was surprised to see how the town area had expanded.

Wendy's farm is 15 minutes drive from Cooktown on Endeavour River Road and it was an inspiration, 25 acres of well fenced(electric) well grassed land. The cows looked very content and Markus the Drafhorse as well. Wendy has had a dam built on the property, which provided us with a lovely cool swim on a hot day. The geese and ducks were contained within a feather type electric fence, and there were four baby geese amongst the flock. Wendy is also offering a farm stay experience, with very comfortable accommodation

The farm is growing lots of Bananas, Papaya and many other varieties of fruit trees. There is a market garden covered with shade cloth growing tomatoes and greens and some green manure crops of mung

and lab lab beans. Wendy has a kitchen garden with a small pond near the overflow of the water tank, where she is growing Kang Kong, Lebanese Cress and the overflow from the pond waters the Taros.

The workshop: - People came from Cow Bay, Helenvale, Auroville and Cooktown to learn more about using the food we grow in our gardens. Jodie was the cook with many years of professional experience in the kitchen. Jodie along with Wendy had been experimenting with many dishes over the previous few weeks, so we had some great food over the weekend.

Jodie made delicious Mango scones, with Banana or Rosella Jam and Cream to start us off, And over the weekend we made the following delicious dishes: Jak fruit seed baby burgers, Mini quiches with perennial tropical greens, Okinawa fritters, Green Paw Paw Coleslaw, Tropical fruit platter, Beef and Brazilian spinach Dim Sims, Cheese and tropical green parcels, Lab Lab bean rice, Tropical greens salad with Sweet leaf, Okinawa spinach, Sambung, Paw Paw and Mango with Citrus Dressing, Star Apple Ice Cream with Kaffir Lime Syrup, Jak fruit, Coconut and White Chocolate Muffins. Cassava Pizza bases with tropical veg toppings, and Cassava and Jak fruit biscuits, and deep fried Tropical greens in a tempura batter.

We invited a family with three children to share the last meal and the children loved it all, so did we, there weren't any leftovers. And we all learned new ways to use the fruit and vegetables growing in our tropical gardens. Editor, Carol Laing

Previous to this workshop Clare Richards and myself held the second Intro to Tropical Veg and Cooking Tropical Veg Workshop. This was the last one under the SITA grant.

Here is one of Clare's Recipes that I made at home the following week.
Sop Sop it's called and it is delicious.

2 sweet potato or other root veg (taro/cocoyam/cassava) chopped into bite sized chunks

1 can Coconut milk and 1 half can coconut cream

1 pandan leaf and 2 lemon grass roots crushed

Bunch of Brazilian Spinach

Cook till root veg is soft.

Delicious – but there is more – I added leftover chicken on top to heat up and some fresh picked beans and fresh Australian asparagus tips to heat up as well. A meal in one pot. Give it a try. Carol Laing

Permaculture Events in 2015

12th Australasian Permaculture Convergence (March 2015, Tasmania, Australia)

What: 12th Australasian Permaculture Convergence

Where: Northwest Environment Centre, Penguin, Tasmania, Australia

When: Monday, 9 March 2015 at 6:00pm — Thursday, 12 March 2015 at 10:00pm (AEDT)

Have questions about 12th Australasian Permaculture Convergence? [Contact Northwest Environment Centre](#)

HILL TOP FARM WORKSHOPS – COOKTOWN

GETTING TO THE HEART OF PERMACULTURE DESIGN

20 – 24 MARCH 2015

For more info check out the web site: <http://hilltopfarm.wix.com>

News Items



The Hon Ian Macfarlane MP

Minister for Industry

. Further measures to cut red tape – accepting trusted international standards

14 October 2014

Joint media release from the Hon. Tony Abbott MP, Prime Minister; and the Hon. Josh Frydenberg MP, Parliamentary Secretary to the Prime Minister

As part of the Industry Innovation and Competitiveness Agenda, the Government will examine opportunities for greater acceptance of international standards and risk assessments.

This is an important part of the Government's plan to cut red tape and foster a lower cost, business friendly environment with less regulation.

Businesses often have to undertake a regulatory approvals process to use or sell products in Australia that duplicates a process that has already occurred in other developed countries. This adds to costs and provides little or no additional protection.

The Government will adopt a new principle that if a system, service or product has been approved under a trusted international standard or risk assessment, then our regulators should not impose any additional requirements for approval in Australia, unless it can be demonstrated that there is a good reason to do so.

This will remove regulatory duplication, reduce costs and delays for businesses and consumers, increase the supply of products into the Australian market and allow regulatory authorities to focus on higher priorities.

As an important first step, the Government will enable Australian manufacturers of medical devices the option of using European Union certification in place of TGA certification. This will place Australian manufacturers on the same footing as overseas competitors.

The Government will also require the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) to increase its acceptance of international risk assessments of industrial chemicals made by reputable international regulatory authorities such as the European Union regulator.

To ensure a thorough review of all regulations, ministers will write to regulators in their portfolio and work with stakeholder groups to develop criteria for assessing opportunities for the acceptance or adoption of trusted standards and assessments. Examples of unnecessary divergence from international standards can be submitted at the cuttingredtape.gov.au website.

Any changes will be subject to the Government's regulation impact statement processes and progress will be reported at the twice yearly repeal days and in the annual deregulation report. These reforms build on the Government's \$700 million cut to red and green tape since coming to office including the removal of around 10,000 pieces of unnecessary legislation and regulations.

Editorial comment: *This is concerning as it could mean that those pesticides approved for use on edible crops by the EPA in the USA will soon be automatically approved for use in Australia, eg the USA has just approved the use of 24d plus Roundup for spraying on food crops.*

Do we want this to happen here in Australia!!!! See news release below. And remember to read the labels on food you are going to eat, if it has Corn syrup, Soy products or Canola oil and it comes from the USA then it is almost certain it has been Genetically Modified.

Australia shouldn't sacrifice food safety standards for free trade

Ten years on from the Australia-US Free Trade Agreement, Australia is entering another round of negotiations towards the new and controversial Trans-Pacific Partnership. In this [Free Trade Scorecard](#) series, we review Australian trade policy over the years and look at where we stand today on the brink of a number of significant new trade deals.

A combination of dumb luck, geographical isolation and a zealous stance on quarantine has kept Australia relatively free of the many pests and diseases that can be spread by international agricultural trade. As a result, it has been spared many of the health threats and extra farming costs – not to mention irreversible damage to native wildlife – that come with the arrival of these pests, or with changes to food safety.

Strict food safety standards are often seen as market protectionism or barriers to trade, rather than what they also are: important [protection measures](#) for the consumers who will eat the food. Yet within the current round of [trade negotiations](#) it is likely that the United States will continue to put pressure on Australia to water down its regulations.

While Australia's current regulations are not perfect, it is important that any discussions about reforming them are conducted with an eye first and foremost on the health and safety of Australians, and are not unduly influenced by trade concerns.

Australia's clean reputation

More than 70% of Australian agricultural income is from exports. Consequently, our exports must meet importing countries' expectation of being "free" of pests and residues – meaning that no living pests (plant, animal, or disease-causing microbes) are found in the product, and that any chemical residues are within [agreed international limits](#).

Australia has an excellent [international reputation](#) for clean and green production. Because we are free of many trade-hampering pests, and because we specialise in low-input, low-output production systems, this freedom has allowed Australia's process for regulating chemical use in agriculture, veterinary products and humans, to differ from many other countries.

In many cases, this has raised the costs an individual farmer faces when using chemicals, and given them [fewer choices for how to manage crops and livestock](#). But for some industries this combination of costs and choices has slowed the rate at which pests develop resistance to chemicals, and as a result total production costs are lower than their international competitors. It has also helped those same farmers meet international safety standards and maintained the pristine reputation of their products.

One Australian tactic has been to use [separate antibiotics for humans and animals](#). Countries that do not do this, such as the United States, can suffer much higher rates of drug failure.

Australia's relative pest- and disease-free status gives its exporters a significant market advantage, and allows them to demand a price premium amid increasing public awareness about food safety. For example, in 2004 and 2005 Australia dominated the lucrative Japanese market for beef and veal when Japan halted US imports in response to the [BSE outbreak](#).

As food can be contaminated anywhere from paddock to plate, each stage of the process needs to be monitored. Although consumers' preference for safe food may not always translate to higher prices, their refusal to buy food identified as potentially unsafe can be immediate and catastrophic for any exporting country that is identified ([even incorrectly](#)) as a source.

Watering down regulations?

Australia has a clear interest in maintaining the integrity of its regulations for plant and animal health and food safety. But its more stringent regulations have long been in the sights of our trading partners, who would prefer that our high standards be "harmonised" with their less stringent ones, to "facilitate trade".

With Australia now embarking on increased economic integration with the US through the [Trans-Pacific Partnership](#) negotiations, the question of Australia's stringent food safety standards will no doubt be a key topic of discussion.

The United States has often argued that, in the absence of international standards of chemical use, [American standards](#) should be used. In 2007, this approach led Canada to lower its standards [to match US settings](#).

The United States is currently grappling with the issue of updating its [food standards](#), and is struggling to balance the need for public safety with private costs. So far, the goal of [minimising private costs seems to be winning](#).

Bringing chemical and food standards into line with the United States is clearly in America's interest. But there is little evidence that harmonising Australia's more stringent standards with America's less stringent ones would benefit Australia, either economically or socially.

Meanwhile, Australia is in the midst of a [drive to reduce red tape](#), while also pledging to subsidise access to [farming and veterinary chemicals](#), and to review its food safety settings, both [domestically](#) and [overseas](#).

It is true that higher regulatory standards can often cost more. But the economic and social consequences of leaving Australians open to new and unknown food safety risks are likely to be much worse.

This article draws on research prepared for the 2014 Workshop "Ten Years since the Australia-US Free Trade Agreement: Where to for Australia's Trade Policy?", sponsored by the Academy of the Social Sciences in Australia and Faculty of Arts and Social Sciences, UNSW Australia.

Taking Sheet Mulching a step further - HugelKulture

When you walk out into the forest, one of the first things you will notice is that the ground is soft, loaded with organic material and generally moist even in the driest part of summer. The reason for these conditions is the effect of leaf litter and rotting logs collecting over the years on the surface of the soil.

We replicate these conditions when we make a raised bed with sheet mulching. We put down a layer of cardboard, then cover that with some good garden soil or compost, then a layer of leaves, then perhaps some spoiled hay or straw and finally some wood chips or other mulch. Within a month or two, this bed is ready to be planted and provides many growing seasons of fertility.

Hugelkultur, a German word that means "Hill Culture", expands on this idea by including a mound of wood from fallen trees into the mix. By placing the wood down first and then covering it with sheet mulching, you end up with a very dense pile of organic matter that will continue to break down for years to come. This mimics the natural succession that occurs in a forest, where trees fall and nobody cleans them up. As they begin to rot, they act as a sponge, holding water and releasing nutrients and organic matter to the top layer of the forest.

I started a hugelkultur bed in July of 2010, choosing to build it in the shape of a mandala. The first thing I did was go out into the woods and find as many downed and partially rotted logs as I could and brought them back up. In all, I brought 4 or 5 pickup truck loads. These I laid straight on the ground and arranged them into the pattern I wanted for my bed.

Once I had the bed exactly the way I wanted it, it was time to add in the layers. I went back out into the woods and found areas of rich soil and fully rotted material and brought them back up, packing them between the logs and filling as many crevices as possible. Following that, I harvested out of my pasture several loads of freshly cut grass clippings and covered the bed with a generous layer.

The nice thing about burying logs like this is that they will release fertility over a long span of time. The downside, however, is that during the initial "breaking down" period, the wood gobbles up any available nitrogen around it. The solution to this problem, then, is to spend the first little while growing only plants that have minimal nitrogen requirements, like potatoes, onions, other root crops and legumes.

Legumes in particular are very useful for getting a hugelkultur bed started, as they will take nitrogen from the air and "fix" it into the soil in a form that is available to plants. This will drastically speed up the process of getting the bed ready for your real crops.

While waiting for my bed to get past the initial phase of settling down, I started a tray of cowpeas inoculated with the appropriate rhizobium inoculant. By the time they were up and growing, my bed was ready to receive the transplants. I grew these all over the bed for the remainder of that season. By fall, I was ready to put some herbs and onions in the bed.



Once springtime came, the bed sprang to life with our planted daylilies, garlic, cilantro, spinach, rainlilies and daffodils, basil, comfrey, oregano and many other plants too numerous to list.

We found that as the wood decays, pockets in the bed open up. Continuing to fill these holes with compost and organic matter is a maintenance chore, but I expect that in time the bed will be completely settled and will not need this kind of ongoing work. By reaching in and feeling around, it is very clear that the logs are rotting quite nicely.

For watering, we have an overhead sprinkler that we set in the middle of the bed. Owing to the circular shape of this bed, we can water the entire thing at once.

Our farm in East Texas has mostly acidic sandy soil, devoid of life and organic matter, so building up the soil through sheet mulching is the only way we can effectively garden here. Hugelkultur is a technique that is showing a lot of promise.

My expectation is that with each growing season this bed will continue to improve, sinking down as the logs continue to decay and getting richer and richer with fluffy humus and beneficial soil bacteria.

[More articles and Videos on this subject at](http://allthingsplants.com/ideas/view/dave/1397/)
<http://allthingsplants.com/ideas/view/dave/1397/>

The next two articles are from <http://permacluturenews.org> Newsletter which
you can subscribe to for masses and masses of information.

BOOK REVIEW

Mycelium Running: How Fungi Can Help Save the World

When research biologist Paul Stamets suggests [fungi can help save the world](#), he is absolutely serious. In fact, he contends they can rescue it in several different ways. There are the medicines to be derived from fungi, probably more than we can yet imagine. Fungi for insect pest control. Fungi can absorb and often digest toxins

from their environments — toxins as diverse as heavy metals, PCBs, oil spills, and radioactivity. Fungal partnerships can revolutionize our farming methods. And we can heal the ecosystems of damaged forest lands by introducing selected fungal species into those environments. Paul Stamets is one of the visionaries of our time. He is revolutionizing the ways we look at fungi.

This book starts by teaching the basics of mycology. Mycelium are fungal threads that form a network, usually underground. Mushrooms are just their fruiting bodies. Mycelium are so tiny that one cubic inch of soil can contain enough to stretch for 8 miles. But mycelial networks can cover as much as thousands of acres, making certain varieties of fungi the largest organisms in the world, as well as some of the oldest. Fungi build soil by breaking down organic matter, and even cracking apart rocks. Besides that, fungal mycelium enter into symbiotic relationships with trees and other green plants, helping them get water and nutrients from the wider environment by surrounding and even penetrating the roots.

Paul Stamets believes mycelium are information-sharing membranes in their environments. He says they are aware, react to change, have the long term health of their host environment in mind, and devise diverse enzymatic and chemical responses to challenges. He cites research to back up these claims. In other words, he is telling us fungi are intelligent, sentient organisms. Because they regulate the flow of nutrients through the food chain, we can use them to bioengineer ecosystems.

It has been estimated that three fourths of our medicines come from nature originally. Fungi, Paul Stamets claims, show incredible promise as sources of future pharmaceuticals. Many kinds of fungal mycelium compete with bacteria and viruses in the soil, and in doing that, they secrete a variety of chemical substances that kill those microorganisms. So fungi could protect us from microbial infections in three ways: as antibiotics, by increasing our immunity to fight diseases, and by constructing mycelial mats to filter disease contaminated water. He says, "Preliminary studies on mushrooms have revealed novel antibiotics, anti-cancer chemotherapeutic agents, immunomodulators, and a slew of other active constituents." Stamets himself has discovered and patented fungal extracts effective in protecting human blood cells against pox viruses. This particular fungi that kills pox viruses lives only in the old growth forests of the Pacific Northwest, as do many other fungal species in that wet climate. He reminds us that these have been logged to the point where only 5% of the old growth are left standing, and who knows what other medicines have been, or still could be lost by this practice. He also discusses the effectiveness some fungal species have shown against the HIV virus, so research is actively continuing on that front.

This book contains information on using selected mycelium as "mycopesticides" to control certain insects, such as ants, termites, or beetle blights in forests, with negligible damage to other species or the environment. And these mycelium will continue to grow and offer long term protection.

Mycoremediation is the name Paul Stamets gives to the "use of fungi to degrade or remove toxins from the environment" by using mycelial mats. Fungi can be used to clean up mercury, polychlorobiphenols (PCBs), fertilizers, munitions, dyes, estrogen-based pharmaceuticals, neurotoxins — including DDT — dioxins, and stored nerve gas. Fungi can also break down oil spills, although several patents on some species are stopping the use of them for clean-ups, he tells us. Mycoremediation apparently takes quite a bit of skill in choosing the best fungi for a given situation, considering both beneficial and hostile competitive microbes in the environment. Also in some cases, these toxin-absorbing mushrooms need to be harvested and taken to toxic waste sites to be stored, incinerated, or otherwise recycled, he advises.

This book advocates no-till farming, because tilling breaks up mycelial mats, which then lets the soil erode. No-till farming also disrupts wildlife less, uses less energy and fertilizer, and releases less carbon dioxide into the atmosphere. He tells us that polysaccharides secreted by mycelium bind soils from erosion. And many temperate fungal species produce glycoproteins to protect mycelium from freezing with the added benefit that

they protect green plants during extreme cold. Mycelium decomposing organic matter also raises soil temperatures. So by encouraging mycelium formation, farmers can build soils while creating mycofiltration membranes to trap farm pollutants, such as water run-off contaminated with manure. *Mycelium Running* has a large section of detailed information on farming and gardening with mycelium.

Paul Stamets explains the principles of mycoforestry, which preserves native forests, recovers and recycles debris, enhances replanted trees, and strengthens sustainability of ecosystems. He describes methods of introducing certain species of fungi into recently logged or burned areas to aid in forest recovery, using native fungal species and matching them to the trees they usually partner with. When the mycelium eventually put up mushrooms to reproduce, those are eaten by birds and other animals, who further fertilize the soils and drop seeds from other plant species there, so the new ecosystem develops quickly.

The last approximately one third of this book is devoted to detailed information on many individual fungal species, their natural habitats, methods of cultivation, how to harvest and cook them if they aren't poisonous, their possible medicinal properties, and their potential for mycorestoration of ecosystems.

Paul Stamets has received many awards from environmental organizations for his research on fungi and repairing damaged ecosystems. He has written numerous articles and academic papers on medicinal, culinary, and psychoactive mushrooms, and several books on mushroom cultivation.

Mycelium Running is a beautiful book with color photos and illustrations on almost every page. This is *the* book to read if you are interested in using mushrooms medicinally, ridding environments of toxic chemicals, recovering damaged forests, or practicing sustainable agriculture, particularly permaculture.

Editors Comment: I have this book in my library and I could hardly put it down once I started to read. Absolutely amazing, he really knows his stuff.

PLANTS THAT ATTRACT BENEFICIAL INSECTS

Posted October 4, 2014 by [Fred Hoffman](#) & filed under [Animal Forage](#), [Insects](#), [Medicinal Plants](#), [Plant Systems](#).
by [Fred Hoffman](#)

Nature wants to make your job as a gardener as easy as possible; but you have to help. So, let's talk about putting in plants that attract the "good bugs", the crawling and flying creatures whose diet includes pests that are ravaging your garden plants. These beneficial predatory insects do not live on aphid steaks alone. They need other natural sources of food and shelter for their entire life cycle before they call your backyard a permanent home. What are these "Welcome Mat" plants and the beneficial insects they attract?

Here is a list of those good bugs and the plants that they like to visit for shelter and as another source of food for their diet, the sugar from flowers. For some beneficials, especially syrphid flies, this nectar is necessary in order to mature their eggs. Intersperse these plants among the "problem pest areas" in your yard to attract the garden good guys.

Lacewings (*Chrysopa spp.*)



Individual white eggs are found laid on the ends of inch-long stiff threads.



Beautiful, little (3/4") green or brown insects with large lacy wings.

It is the larvae (which look like little alligators) that destroy most of the pests. They are sometimes called aphid lions for their habit of dining on aphids. They also feed on mites, other small insects and insect eggs. On spring and summer evenings, lacewings can sometimes be seen clinging to porch lights and screens or windows.



Green lacewing larva

Plants that attract lacewings:

- *Achillea filipendulina* — Fern-leaf yarrow
- *Anethum graveolens* — Dill
- *Angelica gigas* — Angelica
- *Anthemis tinctoria* — Golden marguerite
- *Atriplex canescens* — Four-wing saltbush

- *Callirhoe involucrata* — Purple poppy mallow
- *Carum carvi* — Caraway
- *Coriandrum sativum* — Coriander
- *Cosmos bipinnatus* — Cosmos white sensation
- *Daucus carota* — Queen Anne's lace
- *Foeniculum vulgare* – Fennel
- *Helianthus maximiliani* — Prairie sunflower
- *Tanacetum vulgare* — Tansy
- *Taraxacum officinale* — Dandelion

Ladybugs

Easily recognized when they are adults by most gardeners. However, the young larvae, black with orange markings, eat more pests than the adults, and they can't fly. Yellowish eggs are laid in clusters usually on the undersides of leaves.

Plants that attract ladybugs:



Lady Bird larva

Achillea filipendulina — Fern-leaf yarrow

- *Achillea millefolium* – Common yarrow
- *Ajuga reptans* — Carpet bugleweed
- *Alyssum saxatilis* — Basket of Gold
- *Anethum graveolens* — Dill
- *Anthemis tinctoria* – Golden marguerite
- *Asclepias tuberosa* — Butterfly weed
- *Atriplex canescens* — Four-wing saltbush
- *Coriandrum sativum* — Coriander
- *Daucus carota* — Queen Anne's lace
- *Eriogonum fasciculatum* — CA Buckwheat
- *Foeniculum vulgare* — Fennel
- *Helianthus maximiliani* — Prairie sunflower
- *Penstemon strictus* — Rocky Mt. penstemon
- *Potentilla recta* 'warrenii' — Sulfur cinquefoil
- *Potentilla villosa* – Alpine cinquefoil
- *Tagetes tenuifolia* — Marigold "lemon gem"
- *Tanacetum vulgare* — Tansy
- *Taraxacum officinale* — Dandelion
- *Veronica spicata* — Spike speedwell
- *Vicia villosa* — Hairy vetch

Hoverflies

Also known as syrphid fly, predatory aphid fly or flower fly. Adults look like little bees that hover and dart quickly away. They don't sting! They lay eggs (white, oval, laid singly or in groups on leaves) which hatch into green, yellow, brown, orange, or white half-inch maggots that look like caterpillars.

They raise up on their hind legs to catch and feed on aphids, mealybugs and others.

Plants that attract hoverflies:

- *Achillea filipendulina* — Fern-leaf yarrow
- *Achillea millefolium* — Common yarrow
- *Ajuga reptans* — Carpet bugleweed
- *Allium tanguticum* — Lavender globe lily
- *Alyssum saxatilis* — Basket of Gold
- *Anethum graveolens* — Dill
-
- *Anthemis tinctoria* — Golden marguerite
- *Aster alpinus* — Dwarf alpine aster
- *Astrantia major* — Masterwort
- *Atriplex canescens* — Four-wing saltbush
- *Callirhoe involucrata* — Purple poppy mallow
- *Carum carvi* — Caraway
- *Chrysanthemum parthenium* — Feverfew
- *Coriandrum sativum* — Coriander
- *Cosmos bipinnatus* — Cosmos white sensation
- *Daucus carota* — Queen Anne's lace
- *Eriogonum fasciculatum* CA — Buckwheat
- *Foeniculum vulgare* — Fennel
- *Lavandula angustifolia* — English lavender
- *Limnanthes douglasii* — Poached egg plant
- *Limonium latifolium* — Statice
- *Linaria vulgaris* — Butter and eggs
- *Lobelia erinus* — Edging lobelia
- *Lobularia maritima* — Sweet alyssum white
- *Melissa officinalis* — Lemon balm
- *Mentha pulegium* — Pennyroyal
- *Mentha spicata* — Spearmint
- *Monarda fistulosa* — Wild bergamot
 - *Penstemon strictus* — Rocky Mt. penstemon
- *Petroselinum crispum* — Parsley



Hoverfly larva

- *Potentilla recta* 'warrenii' — Sulfur cinquefoil
- *Potentilla villosa* — Alpine cinquefoil
- *Rudbeckia fulgida* — Gloriosa daisy
- *Sedum kamtschaticum* — Orange stonecrop
- *Sedum spurium* — Stonecrops
- *Solidago virgaurea* — Peter Pan goldenrod
- *Stachys officinalis* — Wood betony
- *Tagetes tenuifolia* — Marigold "lemon gem"
- *Thymus serpyllum coccineus* — Crimson thyme
- *Veronica spicata* — Spike speedwell
- *Zinnia elegans* — Zinnia "liliput"



Rudbeckia

Parasitic mini-wasps

Parasites of a variety of insects. They do not sting! The stingers have been adapted to allow the females to lay their eggs in the bodies of insect pests. The eggs then hatch, and the young feed on the pests from the inside, killing them. After they have killed the pests, they leave hollow "mummies."

Braconid wasps (right)

These feed on moth, beetle and fly larvae, moth eggs, various insect pupae and adults.



If you see lots of white capsules on the backs of a caterpillar (below), these are the braconid cocoons. Leave the dying caterpillar alone!



Ichneumonid wasps - These control moth, butterfly, beetle and fly larvae and pupae.



Trichogramma wasps

These lay their eggs in the eggs of moths (hungry caterpillars-to-be), killing them and turning them black.

Plants that attract parasitic mini-wasps:

- *Achillea filipendulina* — Fern-leaf yarrow
- *Achillea millefolium* — Common yarrow
- *Allium tanguticum* — Lavender globe lily
- *Anethum graveolens* — Dill
- *Anthemis tinctoria*— Golden marguerite
- *Astrantia major* – Masterwort
- *Callirhoe involucrata* — Purple poppy mallow
- *Carum carvi* – Caraway
- *Coriandrum sativum* — Coriander
- *Cosmos bipinnatus* — Cosmos white sensation
- *Daucus carota* — Queen Anne's lace
- *Foeniculum vulgare* — Fennel
- *Limonium latifolium* — Statice
- *Linaria vulgaris* — Butter and eggs
- *Lobelia erinus* — Edging lobelia
- *Lobularia maritima* — Sweet alyssum – white
- *Melissa officinalis* — Lemon balm
- *Mentha pulegium* — Pennyroyal
- *Petroselinum crispum* — Parsley
- *Potentilla recta* 'warrenii' — Sulfur cinquefoil
- *Potentilla villosa* — Alpine cinquefoil
- *Sedum kamtschaticum* — Orange stonecrop
- *Tagetes tenuifolia* — Marigold – lemon gem
- *Tanacetum vulgare* — Tansy
- *Thymus serpyllum coccineus* — Crimson thyme
- *Zinnia elegans* — Zinnia – 'liliput'



Tachinid flies

Parasites of caterpillars (corn earworm, imported cabbage worm, cabbage loopers, cutworms, army worms), stink bugs, squash bug nymphs, beetle and fly larvae, some true bugs, and beetles. Adults are 1/3 to 1/2 inch long. White eggs are deposited on foliage or on the body of the host. Larvae are internal parasites, feeding within the body of the host, sucking its body fluids to the point that the pest dies.

Plants that attract tachinid flies:

- *Anthemis tinctoria* — Golden marguerite
- *Eriogonum fasciculatum* CA — Buckwheat
- *Melissa officinalis* — Lemon balm
- *Mentha pulegium* — Pennyroyal
- *Petroselinum crispum* — Parsley
- *Phacelia tanacetifolia* — Phacelia
- *Tanacetum vulgare* — Tansy
- *Thymus serpyllum coccineus* — Crimson thyme



Minute pirate bugs (*Orius spp.*)



Tiny (1/20 inch long) bugs that feed on almost any small insect or mite, including thrips, aphids, mites, scales, whiteflies and soft-bodied arthropods, but are particularly attracted to thrips in spring.

Damsel bugs (*Nabis spp.*)

Feed on aphids, leafhoppers, plant bugs, and small caterpillars. They are usually dull brown and resemble other plant bugs that are pests. Their heads are usually longer and narrower than most plant feeding species (the better to eat with!).



Big eyed bugs (*Geocoris spp.*)

Small (1/4 inch long), grayish-beige, oval shaped) bugs with large eyes that feed on many small insects (e.g., leaf hoppers, spider mites), insect eggs, and mites, as both nymphs and adults. Eggs are football shaped, whitish-gray with red spots.

Plants that attract minute pirate bugs, damsel bugs and eyed bugs:

- *Carum carvi* – Caraway
- *Cosmos bipinnatus* — Cosmos “white sensation”
- *Foeniculum vulgare* — Fennel
- *Medicago sativa* — Alfalfa
- *Mentha spicata* — Spearmint
- *Solidago virgaurea* — Peter Pan goldenrod
- *Tagetes tenuifolia* – Marigold “lemon gem”



big

More Tips to Keep Beneficial Insects Working in Your Yard

- Use a wide variety of attractive plants. Plants that flower at different times of the year can provide beneficials with nectar and pollen when they need it.
- Plantings that are at least 4' by 4' (1.2m x 1.2m) of each variety work best at attracting beneficials.
- A bird bath or backyard water feature not only attracts birds (another predator of insects), but also attracts beneficials.
- Tolerate minor pest infestations. The beneficial insects will get the memo before you do. This will provide another food source for the beneficials and help keep them in your yard.
- More information about beneficial predatory insects: "*The Natural Enemies Handbook*", from the University of California Division of Agriculture and Natural Resources.

Editor's addition:

- [Don't use pesticides](#) — these kills beneficials too, which usually have a slower reproductive cycle than your pests, so the pests will quickly bounce back into a beneficial-insect-free environment....

An explanation of what the dates on food products mean.

Best before dates

Best before dates **do not** indicate the expiration date of a product - they give you an idea of how long the food will last before it loses quality. This means it is likely still perfectly fine to eat even after the best before date passes. This next bit is also important— according to the [Better Health website](#), "*Manufacturers usually choose a best before date well before the time when the food would be expected to deteriorate and spoil.*"

Products labelled with 'best before' dates can still legally be sold once the date has passed. These products may be tinned goods, sauces, veggie burgers and some dairy products.

Tip: The best thing to do is to use your sense of sight and smell to check if a food marked with a best before date is still okay to eat – if it looks and smells like you'd expect, it's still good to gobble and you shouldn't waste it by throwing it away.

Use by dates

Foods marked with a use-by date may become unsafe to eat after the date mark passes even if they look fine, so authorities state that foods passed their use-by dates should not be consumed. 'Use by' dates are used for public health and safety reasons and as a safety net for the food industry. When a 'use by' date has passed, the food product cannot legally be sold so grocers must send it to landfill.

Tip: One way to reduce the amount of products that end up in the bin is to purchase products that are closer to their 'use by' than others. In other words, don't fondle through the grocer's fridge to get the bottle of milk way at the back - simply buy a smaller bottle of milk with a shorter life on it and you could save a whole lot of milk from ending up in landfill. Or buy meat that is just about to go past its use by date and eat or freeze immediately (freeze up to 2-3 months).

- See more at: <http://sustainabletable.org.au/TableTalk/tabid/53/EntryId/148/So-you-know-reduce-food-waste-by-knowing-the-difference-between-Best-before-and-Use-by-Dates.aspx#sthash.jnMCBU28.dpuf>

ENVIRONMENTAL WORKING GROUP NEWS RELEASE 16/10/14

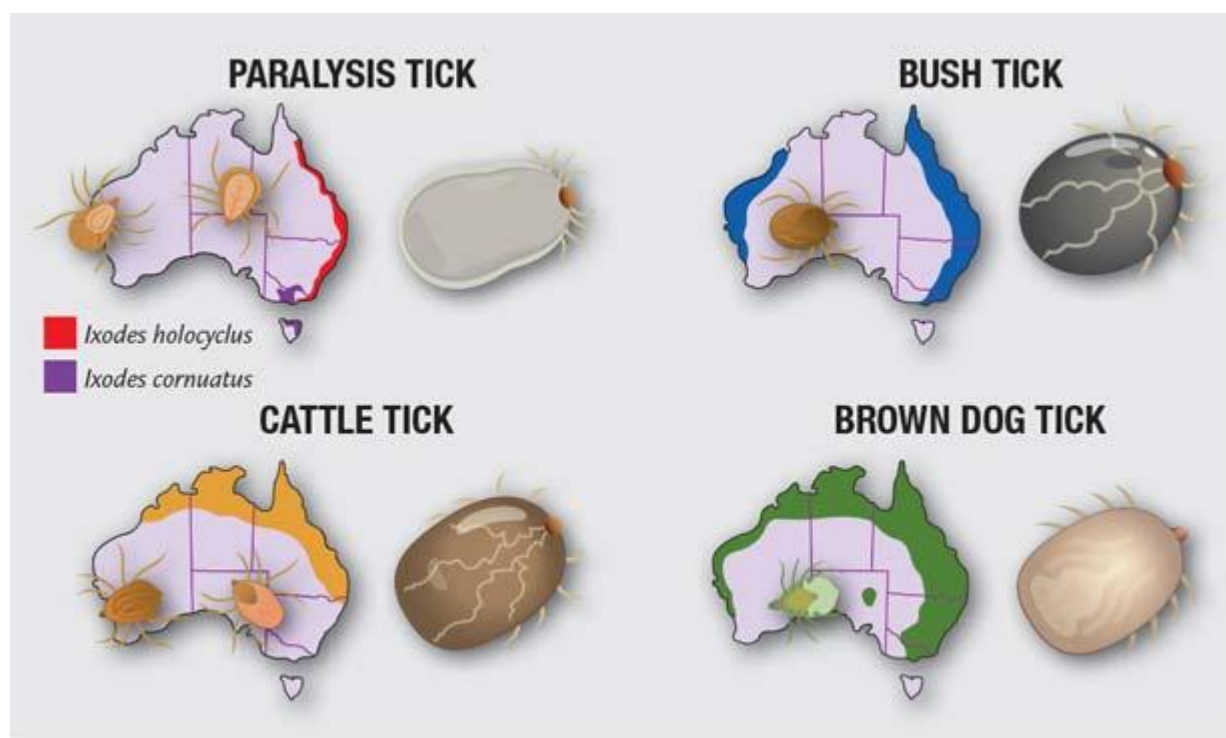
The Environmental Protection Agency JUST gave Dow Chemical Co. the green light to use a toxic combination of the herbicide 2,4-D and glyphosate, the active ingredient in Monsanto's Roundup, on **millions of acres of genetically engineered crops** across the United States.

The U.S. Department of Agriculture estimates that use of 2,4-D will *triple* by 2020, exposing communities near sprayed crops to EIGHT TIMES more chemicals than they are today. We need you to stand with us in the fight for toxics and chemical reform

ORGANIC TICK REPELLANT- <http://permaculturenews.org>

Posted October 2, 2014 by [Geoff Lawton](#) & filed under [Insects](#), [Livestock](#).

Late winter and early summer in the warm zones of Australia are deadly times of year for smaller farm animals, especially newborns, because of the deadly [paralysis tick](#). Young cows up to 4 months, sheep, goats, geese, cats and dogs can all die from the powerful neurotoxin of the paralysis tick. People can also suffer and be seriously effected if the ticks are not removed within a few hours.



There is no answer for complete protection, but we have found an organic method of repelling the ticks — an injection of '[oil of turpentine](#)' just under the skin — and we have been told from the regional farm vet that it works by confusing ticks' sense of smell. We know it works as we have not lost an animal to ticks since we started using it. We inject 5 ml for a new born calf after 72 hours, usually just under the skin of the neck. 3ml for a baby goat or sheep.

Note: 'oil of turpentine' (made from trees, usually pine) should not be confused with mineral turpentine, usually known as '[white spirit](#)', which is a petroleum-derived liquid that can be dangerous, and should not be used!

The animals are still considered organic and do not suffer from the treatment as long as the needle goes under the skin, between the flesh and the skin, so it is best to find an area of loose skin that can be lifted up so the needle can be carefully slipped under. If you inadvertently go into the flesh, the animal may develop an inflamed patch, but will recover.

This simple trick has saved many young lives.

TABLELANDS LETS - NOVEMBER CALENDAR

TABLELAND LETS - Relocalising all of Far North Queensland

EVERY THURSDAY 8 - 11am Orientation & Malanda Community Garden Gathering. Want to learn more about the proposed plan? Want to have access to a space to grow? Would like to donate some valuable time & be a part of a valuable community enterprise? Bookings currently essential. Contact Maria 0406971567 to arrange a date for orientation & obtain address details. This is a Malanda Community Garden event, everyone is welcome to participate.

TARZALI - Wednesday 5th 6.30 till 9.30pm. Trade Night and shared meal at Gavin's, 12 Hosie Road, Tarzali. Bring dinner to share - come and enjoy the longest running LETS event on the Tablelands! Event host: Gavin - 40965929.

MAREEBA - Saturday 8th 11am till 1pm Trade Day, 19 Kenneally Rd, Mareeba, children welcome. At 19 Kenneally Road from 9am to lunch. Bring a plate for lunch to share. BBQ will be on. Clothes swap. Event host: Coco - 40924396.

JULATTEN - Saturday 15th from 10am. 81 Sides Road. Car pooling encouraged for those travelling across the region. There will be green balloons on the highway marking the Road. Event host: Ann Maree - 40941304.

RAVENSHOE - Saturday 15th 12 till 2pm Trade afternoon -Youth Shed, Ravenshoe Community Centre, 3 Bolton Street following Community Gardens gathering - come and check it out. Bring something to trade, a table or blanket to display your wares and lunch to share. Event host: Kathy – 40977864.

KURANDA - Saturday 15th 10am -1pm, 7 Barrons Falls Road, Kuranda. Bring along a friend, something to trade, a table or blanket to display your wares. Car pooling/collection service encouraged for those coming across the region Event host: Blake Hudson – 0448938270.

MALANDA - Sunday 16th 2 till 4pm Trade Afternoons at Mary & Mathieu's place, bring a plate to share for lunch and something to trade. 7 Cleminson Close, Malanda. Event host: Mary - 0428424201 or mama1428@bigpond.com.

CASSOWARY COAST - Sunday 16th 11am-3pm Trade & Social Gathering - Kerry McAvoy's place, 276 Warrakin Rd, Mena Creek. Anyone who does not feel comfortable driving across a creek please contact Suari before hand to arrange a lift across. Bring lunch to share (christmas themed), swimmers, a towel, something to trade and a table or blanket to display your wares. Telstra mobiles do not work in this area. Kerry's landline is available on the LETS site or contact event host: Suari - 0403115261. Car pooling/collection service encouraged from the Tablelands and Cairns! (weather permitting ring Suari for confirmation).

CAIRNS - Tuesday 18th 6.30pm. LETS Trading is encouraged at Permaculture Cairns monthly meetings at the Flexible Learning Centre, 90 Clarke Street, Manunda. Cost for non-members to attend is \$5 for info session, supper and film etc. A Permaculture Cairns Event.

YUNGABURRA - Saturday 22nd 12 till 2pm. Trade at that retro cafe, Shop 2/20 Eacham Rd (in between Miss Megs and My Habitat). cafe drinks from the blackboard are available for 100% bartles. Bring \$ for lunch or cakes, a table or blanket to display your wares. Children most welcome. This event is directly after the Yungaburra Markets. Event host: Melitta - 40952340.

KEWARRA BEACH - Friday 28th 4.30 to 8.30pm. Pizza and Trade 15 Glenelg Close, bring a plate to share, something to trade and a smile Event host: Ilona – 40578897.

☆ DATE CLAIMER ☆

CHRISTMAS TRADE - all items 100% barter

Sunday 7th December 10am till 1pm Maud Kehoe Park Yungaburra

This event was a huge success last year.

Don't miss it this year, pencil it in now!

What to bring to Trade Events where not specified above: food & drinks for yourself or to share, or money and/or Barter at some venues, friends, Trading Record Sheet and pen, any goods you wish to trade, table/rug to display them upon is often useful, your own chair at some venues, promotional material of any services you are offering if applicable, \$20 to join LETS if you are not yet a member.

tablelandlets@gmail.com - 4096 6972 - tablelandlets.org - www.communityexchange.net.au

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Informative, useful and Interesting Websites:

<http://www.greenliving.com>: An Australian website for supplies for fermenting, cheese and yoghurt making, lids for bottles etc.

<http://www.culturesforhealth.com> A USA website with lots of info, recipes, free eBooks on fermenting foods and lots more. You can sign up for their weekly newsletter. “And therein lies the lure of fermentation. As Pollan writes in Cooked, its deliciousness is the by-product of decay, and decay is a fermenter's dream and a food regulator's nightmare. But the times they are a'changing: recent medical research has concluded that one of the problems with the Western diet is the absence from it of live-culture foods, while another study has linked the intake of certain probiotics found in some ferments to improved mental function and mood. We need more decay, it seems, not less. So pass the sauerkraut, please. I've heard it can even cure middle age.”

<http://care2.com/greenliving/>

This website has lots of interesting topics, food that is banned elsewhere but still available in the USA, good alternative recipes for making healthy food eg. ice cream and lots more.

<http://manybooks.net> A place that offers free downloads of books – check out “Farmers of forty Centuries” by FJ King written 1911 after or during a trip to China, Korea and Japan. This incredible book explains how these peoples have been growing food for centuries. Check to see if Bread from Stones is there, another interesting read.

<https://www.organicgardener.com.au> Lots of info and a great planting guide for the year.

<http://rfcarchives.org.au/index.htm> - Rare Fruits council of Australia – Fruit/Nut Trees and lots Recipes

Date to remember for November and December:

9th December – Permaculture Cairns AGM

PERMIE RESOURCES, & SERVICES

RESOURCES:

“Notes from the Workshops Booklet” All notes from the Permaculture Cairns Resilient Communities Workshops 2012 are now available for purchase at meetings and at Enviromart Australia on corner of Scott and Aumuller Street,

TOPICS COVERED: How to Grow your own Fabulous Organic Food, All about Earthworms, Growing Microgreens, All about Wicking beds, All about Aquaponics, Composting, Creating a raised garden bed, Tropical plants that grow all year round and recipes for cooking these, Drying and preserving excess fruit and vegetables, Balcony and patio gardening, How to use The Bokashi Bucket, Waste not want not – recycling organic waste, Poultry in the city, Vegetables for the small tropical farm or garden, and a Sprouting guide.

This is a MUST HAVE it's FULL OF LOCAL KNOWLEDGE about living in a environmentally friendly way and growing food sustainably in the tropics.

The booklet would make a great gift for anyone wanting to grow their own food in the tropics.

Edible Tropical Vegetable Plants: Tropical Vegetables and useful Plants available from Enviromart Australia on corner of Scott and Aumuller Street or phone Carol 0414900717

SERVICES

Do you need help to plan or build your garden???

Bruce Zell, Director of The Back Yard Revolution is a Permaculture Diploma Graduate, Licensed Structural Landscaper and has extensive experience in landscaping, food garden design and implementation, Project Management and more.

Contact Bruce for more details-

email: brucezell@gmail.com, www.backyardrevolution.com.au or Mob. 0404 9944 528

Nomination and Proxy forms for AGM on next page

PERMACULTURE CAIRNS Inc.- 2014 AGM – NOMINATION FORM

I hereby nominate Permaculture Cairns financial member _____

for the position of _____ in the election of office

bearers at the

Annual General Meeting of Permaculture Cairns to be held on 9th December 2014 (or at any adjournment of that meeting).

Name of nominee: _____

Signed by nominee: _____ Dated: _____ / _____ / 2014

Seconded by: _____

I hereby agree to accept nomination for the abovementioned position.

Signed: _____ Dated: _____ / _____ / 2014

If you wish to nominate a person for a position on the committee please complete and lodge with a Committee Member by the 25th November.

PERMACULTURE CAIRNS INC. – 2014 AGM -- APPOINTMENT OF PROXY FORM,

I hereby appoint _____ to vote on my behalf as my proxy at Permaculture Cairns Annual General Meeting (or any adjournment thereof) to be held on 9th December 2014. Should the first proxy referred to above be unable to attend the meeting, I appoint _____ as an alternate proxy.

I confirm that I am a financial member of Permaculture Cairns Inc. entitled as such to vote at the meeting. I also acknowledge that should I attend the meeting and vote in my own right, my proxy is automatically revoked.

Name: _____ Witness: _____

Signed: _____ Signed: _____

Dated: _____ / _____ / 2014

The proxy form is to allow you to vote, if you are a financial member and would like to vote but cannot be at the meeting.

The proxy form must be lodged with the Secretary before the beginning of the meeting.

Please note Memberships fees for 2014 are due and payable the 1st January 2014

Memberships form may be completed online on our web site and emailed to us from there. Our Bank account details are on the membership form so you can pay online, eazzee peeze.



Permaculture Cairns

Membership Form 2014

One year's membership fee - 1 Jan - 31 Dec:

☐ Household membership \$30 ☐ Renewing Member ☐

Individual membership \$20 ☐ New Member ☐

Name(s) of all applicant(s) & DOB if under 18yrs:

.....

.....

.....

Postal Address:

..... **Postcode:**

Phone(s):

Email:

Signature:

Payment may be made at Meetings, at Bank or Online Direct Deposit - Permaculture Cairns Account at Cairns Penny Bank in Grafton Street. BSB 704-966 Account No. 100009440 please include your Surname as reference.

Do you have skills that you would be willing to share that would be of help to Permaculture Cairns? If so please give details below-

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Permaculture Cairns Public Meetings - All Welcome Third Tuesday of month Feb to Nov (Second Tuesday Dec). Doors open 6.30pm, meeting starts at 7pm at: Flexible Learning Centre, 90-92 Clarke St. (off Hoare St), Manunda

Enquiries

President: Carol Laing workshops@permaculturecairns.org.au

Secretary: Tegan McBride: info@permaculturecairns.org.au

Treasurer: Jenny McGrath treasurer@permaculturecairns.org.au

Website: www.permaculturecairns.org.au