

Permaculture Cairns Inc. Established July, 2007

Web site: www.permaculturecairns.org.au

Permaculture Cairns News

Empowering communities with sustainable solutions

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



Care of the Earth, Care of

People. Share the excess

APRIL Public Info Meeting

Tuesday 15th 6:30pm for 7pm 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.

The Guest Speaker for the meeting will be

Steve Zeiger of Greenbelt

Greenbelt is a new company in the area making organic fertiliser.

Steve will provide use with information of where and how the organic fertiliser is made, what goes into it and the benefits gained by using it.

Following is a short note from their website: www.greenbelt.com.au

“Using Greenbelt Fertiliser can assist growers to re-balance and rejuvenate the soil. Our product replaces many of the nutrients that have been stripped away from the soil due to using chemical fertilisers over many years. In the longer term, growers will enjoy strong yields while spending less on traditional fertilisers to fertilise crops and gardens. “

Permaculture Principle No. 4

Apply self-regulation and accept feedback

“The sins of the fathers are visited on the children unto the seventh generation”

We need to discourage inappropriate activity to ensure that systems can continue to function well. The icon of the whole earth is the largest scale example we have of a self-regulating “organism” which is subject to feed back controls, like global warming. The proverb above reminds us that negative feedback is often slow to emerge.

STOP PRESS !!!!!

**PCairns were successful in our SITA grant application.
Thanks to SITA this grant will allow us to present nine
workshops this year starting 17th May with Recycling Organic
Waste – composting hot and cold, sheet composting and the
benefits of mulch.**

--o0o

An important message from the committee

Over the past two months we have been trialling an open method of running the meetings, but we have now decided to go back to the more structured system.

This will allow more information to be presented, allow time for news items and also to give the Guest Speakers sufficient time to make their presentations.

Time will be allowed for news items but we will need the details a week before the meeting so they can add to the Agenda. Please keep it concise so everyone has a chance to have their say.

A Time Keeper will ring a bell to indicate your time is almost up, so please, keep your message, short, focused and relevant.

OOOH and another thing, PLEASE JUST BRING FINGER FOOD for a light snack after the meeting. No more plates and utensils. This will allow all those good ladies and gents who volunteer to clean up after us to have more time to mingle and connect. If you can't bring food, please make a small donation towards the food.

And while I am at it, a great big thank you to those that help set up and pack down on the meeting nights. Help with the setting up of the chairs, tables, Urn and Projector is greatly appreciated. This allows us to enjoy the night as well. Thanks heaps. We couldn't/wouldn't do it without you.

Upcoming Workshops

Andrew McLennan presents: URBAN FARMING FOR NUTRIENT DENSE FOOD

Saturday 12th April 9am to 2pm

Subjects covered

1. Setting the scene – World food Security and Mineral loss.
2. What makes a healthy soil
3. Soil properties
4. Basic soil chemistry
5. Soil tests
6. Humus, humus inputs
7. Composting
8. Soil Food Web
9. brewing beneficial soil microbes at home
10. Soil fertility and mineral balance
11. Soil conditioners
12. Plant Brix reading and mineralisation

Cost \$65 includes morning tea and lunch.

Venue: Flexible Learning Centre
90 Clarke Street Manunda

Bookings essential contact Tegan McBride at email:
tegan@gardenoftegan.com.au

If you every wanted to grow nutrient rich food or know what goes on in the soil, then this workshop is for you. This is the workshop Permaculture Cairns has been trying to bring to its members and the general public for some time.

Tegan has taken on this job so let us take this advantage.

Can hardly wait myself. See you there.

Andy will be back in June – see details below

Urban Farming For Nutrient Dense Food

Saturday 28th June - 9am to 2pm

1. Small space growing systems.
2. Five easy steps to green thumb gardening using Greensmart pots.
3. Planning, planting and common individual plant needs.
4. Trees in small places.
5. Roof Gardens.
6. Vermi composting.
7. Plant stimulants.
8. Liquid fertilisers.
9. Foliar feeding.
10. Chemical free Gardening.
11. Building your own soil.

Workshops will be held in Cairns, venue to be advised at time of booking.

Cost \$65 Contact Tegan McBride at email: tegan@gardenoftegan.com.au

Biodynamics FNQ Workshops

Sun 4th May 2014 - 10am - 4.30 - HORN BURIAL DAY

Venue: John and Adam Collins farm at Kaban from 10am to 4.30. 709 Kaban Road, turn off Kennedy Hwy to Ravenshoe via Toumoulin 9km to Kaban Road, on right 3 km to red mailbox on right.

Sun 15th June 2014 - 10.30 - 4.30 MORE ON SOILS

Some revision of last workshop and going further into how to work with your soil test.
Adam Collins Venue: Patrick English Hall, Malanda Showground

EARTHSHIP AUSTRALIA UPDATE

Australia's first tropical earthship build
19th July – 1 August 2014

The Venue: Ghost Gum Farm near Rossville in FNQ
For more information contact:- Scott White, Ghost Gum Farm Manager
07 4015 2339 scott@ghostgumfarm.com.au
<http://www.ghostgumfarm.com.au>

Check out the videos on this site and Mike Reynold's web site
www.earthship.com

Events & News Items

JCU Sustainability Symposium and Fair



Challenging consumerism: The War on Waste

Cairns Sustainability Fair

In Cairns, you'll have the opportunity to get involved with practical, hands on workshops presented by The Junk Wave, a recycled craft business that uses household waste to create amazing hand crafted goods, or relax in a guided meditation session with Diamond Way Buddhism.

The fair will also feature clothes mending lessons, The Saltwater Creek Basketry Group, home-made wraps, chai, iced tea and more! There will be roving entertainment from Plasticus Fantasticus, and live acoustic musician Tamlyn Magee; fresh local food and refreshments, and something for the kids!

Sustainability Fair & Soapbox Stage

10.00am – 3.00pm

Cairns Institute grounds

The Sustainability Fair will provide an opportunity to learn about the Far North's diverse range of sustainability-focused community projects, organisations and businesses, while being entertained by local performers and artists. The Cairns Regional Council will be on hand to answer any questions you may have about our region's waste system, and be sure to check out the Soapbox Stage blackboard to find out what's happening on the day!

Featuring recycled products, a 'Clothes-and-Stuff Swap' and workshops from The Saltwater Creek Basketry Group, local clothes mending and more! There will be roving entertainment from Plasticus Fantasticus, and live acoustic musician Tamlyn Magee, fresh local food and refreshments and something for the kids! Get creative, meet inspiring people and have fun.

Welcome to Country and Opening Address

10.00am – 10.30am

Cairns Institute lecture theatre

The symposium officially opens at 10am, with ABC Radio Far North presenters Kier Shorey and Richard Dinnen hosting the day's proceedings. In the opening address JCU's Vice-Chancellor Professor Sandra Harding will provide an update of JCU's sustainability agenda and achievements along with a background on the overarching consequences of consumerism and waste for the tropics. A Welcome to Country will be performed by traditional owner Jeanette Singleton of the Yirrganydji (Irukandji) People.

Keynote Address

Prof Kim Humphery

10.30am – 11.15am

Cairns Institute lecture theatre

The White Good in the Tropics: Place, Practice and 'Consumer Culture'

Does the concept of 'consumer culture' really explain all that much about our consumer-oriented way of life? Is this culture as ubiquitous as is often assumed, and is it the same everywhere? In this talk Professor Kim Humphery will look at some alternative ways of thinking about why we consume – and overconsume. He will suggest that consumption is intimately connected with the material realities of where we live and with the everyday conventions and routines that we all tend to share. Kim will also suggest that thinking beyond the notion of a dominating consumer culture allows us to envisage different paths to achieving sustainable forms of consumption.

JCU perspectives

Dr. Hongbo Liu, Dr. Maxine Newlands &

Dr. Breda McCarthy

11.15am – 12.30pm

Cairns Institute lecture theatre

From the Occupy movement to the 2020 Chinese consumer: A glimpse of JCU's latest research

The JCU research agenda has embedded tropical sustainability in many disciplines, and this is your chance to engage with a diverse set of views on consumerism in our region and globally. Economist Dr. Hongbo Liu will look at the effects of rising consumerism in China, our most important regional trade partner. Dr. Maxine Newlands will explore why issues of sustainability and resilience are at the forefront of social movements such as Occupy and 'Get up!'. Marketing expert Dr. Breda McCarthy (video-linked from Townsville) will present a profile of sustainable food systems in Northern Queensland to draw some conclusions as to how sustainable food systems can expand and become more stable in the future.

Lunch

12.30pm – 1.30pm

Cairns Institute grounds

Enjoy delicious healthy wraps, chai and iced tea made by our fantastic student clubs (The Permaculture Society, The Sustainability Club, & JCU Cairns Bicycle Users Group). All proceeds will go towards supporting the ongoing success of these student-driven groups. The Student Association's 'Soup Kitchen' will also provide an affordable and delicious alternative.

Panel discussion

1.30pm – 2.30pm

Cairns Institute lecture theatre

Professor Kim Humphery, Dr. Maxine Newlands and Professor Stewart Lockie will interactively discuss an increasingly pressing and crucial question:

How can we move from a critique of consumerism to action, in time to save the tropics and ourselves?

There are now almost as many registered cars in Australia as there are people. In 2013, we were awarded the shameful title of worst carbon emitter per capita among major western nations. This session will examine how our nation's obsession with 'stuff', when combined with population growth, rising incomes, and climate change, will impact on the future of our environment and our communities. Professor Jeff Sayer of the Development Practice Program at JCU will moderate the discussion.

Community-based responses

Ken Bellamy, Brett Pritchard &

Warren Jonsson

2.30pm – 3.30pm

Cairns Institute lecture theatre

Practical solutions to a waste crisis

The complexities of waste management require both large-scale management systems and individual responses. In a video-link from Townsville, biotech business owner Ken Bellamy and permaculture expert Brett Pritchard will discuss the current waste issue and offer practical solutions suitable for the tropics. Ken will share his experience in implementing very effective centralized waste management systems in Malaysia, while Brett will talk about his work with 'closing the cycle' on food and green waste to create high-value products that enhance food production. Local farmer and business owner Warren Jonsson will discuss responsible consumerism and the importance of avoiding the supermarket duopoly to refocus on supporting local businesses

Simplicity, or Else!

Mark A. Burch & Linda Cockburn

3.30pm – 4.30pm

Cairns Institute lecture theatre

Simplicity, or else!

There is now abundant evidence that our society's consumer culture is no longer economically or ecologically sustainable. Authors Mark A. Burch and Linda Cockburn will look at the dire consequences of continuing down the path of rampant-consumerism, and provide some alternatives. In a video address from Canada, Mark will tackle the question of how we can negotiate a shift towards simplicity, preserve the human experiment from impending extinction, and if possible, fashion a new culture that conserves our most cherished values. He will share his search for the possibility of a good life for everyone, within the limits of what the Earth can sustainably provide. Linda will discuss the barriers that prevent people from changing their lifestyles as well as her own experience in creating lasting personal epiphanies that drive change. Her talk will be video-linked from the University of Tasmania in Hobart.

Complimentary drinks, book-signing,
and entertainment

5.00pm – 6.00pm

Cairns Institute foyer

Enjoy a drink, live acoustic music, art and more before Kim Humphery's public lecture. A chance to discuss the day's proceedings, meet likeminded folk and have Kim sign a copy of his book, *Excess: Anti-Consumerism in the West*.

Living the Good Life (Linda Cockburn) and *The Hidden Door* (Mark A. Burch) will also be available for purchase.

Public lecture with Prof Kim Humphery

6.00pm – 7.00pm

Cairns Institute lecture theatre

Overflow venue Crowther theatre A3.3

Can We Buy a Better World? Ethical Consumption and Sustainability

Over the past three decades 'ethical consumption' has emerged as an increasingly prominent alternative to conventional shopping. The field of ethical consumption has morphed from being a small political movement into a global network of organisations and a retailing and production sector; while the call to buy ethical goods and services (which can variously mean sustainable, fair trade, local or humane) has begun to make at least some inroads into how we actually consume. Nevertheless debate rages on just how useful ethical consumption is as an alternative. Kim Humphery will engage with this debate, explore the relationship between ethical and sustainable consumption, and identify some of the challenges we face in consuming differently.

Please register early to secure a seat in the Cairns Institute lecture theatre.

Overflow seating will be provided in the Crowther Theatre A3.3, with the lecture video-linked to this room.

To register, go to:

alumni.jcu.edu.au/2014SusSympFair

In seeking a brighter future for people in the tropics worldwide, JCU will work to ensure that our actions today do not limit the range of social, cultural, environmental and economic options of future generations. Through our scholarship and practices, JCU seeks to meet the challenges that affect the tropics, and in doing so, materially contribute to sustainable development, world-wide.

Reports on the fifth IPCC report – (From The Conversation)

Global warming is “unequivocal”, according to the [fifth IPCC report](#) which, after six years in preparation, delivers a detailed picture of the science behind climate change. In the strongest language yet deployed in the fight against increasing temperatures, the report concluded that the 30 years until 2012 were probably the warmest in 1,400 years, driven by “unprecedented” levels of greenhouse gases – these are now at levels not seen for 80,000 years.

The conclusion of hundreds of authors is that it is “extremely likely” that human activity has been the “dominant cause” of the rising temperatures witnessed during the 20th century. The report is from the IPCC [Working Group I](#), which examines the physical basis of climate change. Introducing the report's [Summary for Policymakers](#), which will be read by governments and form the basis of policy worldwide, co-chair Dr Thomas Stocker said “the human influence on the climate system is clear”.

“This is an assessment of a string of assessments, and we have confirmed again that warming in the climate system is unequivocal, a conclusion re-confirmed since the last report with the help of new evidence from the atmosphere, oceans, ice and land,” he said.

Michel Jarraud, Secretary-General of the [World Meteorological Organization](#), one of the founding organisations of the IPCC, said the report will be essential for forming the basis of the international UN climate agreement in 2015. “This should come as yet another wake up call that our activities have an impact on the world,” he said.

Temperatures between 2001-2010 were the highest on record, a decade that saw more records than ever broken. “It would have been even higher were it not for the role of the deep oceans in absorbing heat,” he added. “But this does not mean that the oceans will save us from global warming.”

One of the questions raised since the previous report in 2007 was the so-called “hiatus” in global warming that was not predicted by models. Having led the delegation of scientists and government representatives that thrashed out the final wording, Dr Stocker explained it was an emerging scientific question that had been looked

at very carefully. He said that while too few measurements were available in the deep ocean, a large amount of the recent “pause” in global warming was due to natural variability, including: a series of recent volcanic eruptions, natural Pacific cooling cycle, and absorption of heat in the deep oceans.

He added: “At current levels we are facing rates of warming higher than those assessed in the report’s lowest emissions scenarios. But this is dependent on our carbon emissions each year, so humankind has a choice on which emissions path they will follow.” Other findings highlighted in the report are that global sea level rise will very likely exceed that recorded between 1971-2010, fuelled by the loss of glaciers and Arctic sea ice. Oceans will continue to absorb CO₂ which will increase acidification. Perhaps most worrying is that most aspects of climate change – fuelled by [already committed](#) historical, present, and future emissions – will persist for centuries, even if CO₂ emissions are stopped.

Look what big business is up to in USA

Remember the West Virginia chemical spill? The one that left hundreds of thousands of people without water for more than a week in January because the water supply was contaminated? **Well, if the Chemicals in Commerce Act proposed in the House of Representatives were to become law, it would rubber-stamp that very chemical as safe.**

Chemical industry lobbyists are shopping the bill around Congress, but EWG has an opportunity stop it right now. This proposed legislation is so reprehensible that more than 42,000 people have already contacted their representatives to oppose CICA - we know you're standing with us.

This bill is so pro-industry that around the office we've taken to calling it the "More Chemicals in Commerce Act." In its scheme to identify what substances are safe, it simply divides the chemical world into two categories - high and low priority - and it doesn't require companies to provide even a minimum set of safety information to the Environmental Protection Agency. Once a chemical is designated a low priority, the EPA would consider it safe.

Consumers like you need real toxics regulation reform right now. And EWG is determined to make sure you get it. But we're fighting against the well-funded chemical lobby. Can you give us a hand today? From: Environmental Working Group a US not for profit organisation centered on all things to do with the enviroment. They have a very informative web site.

CSIRO – NEWS RELEASE

DIGITAL TOOLS HOLD PROMISE TO CUT HEALTH BILLS

Robots on hospital wards, smart apps on mobile devices and home-monitoring systems will transform our health system a report released by CSIRO has revealed. The report *A Digitally-enabled Health System* looks at how the Australian health system can reduce costs and deliver quality care.

"We know Australia's health system faces significant challenges including rising costs, an ageing population, a rise in chronic diseases and fewer rural health workers," CSIRO Health Services research leader Dr Sarah Dods said. "We need to look at new ways to make the health system work smarter. Digital technologies promise that."

Some of the technology identified in the report includes telepresence robots taking rural health workers on city ward rounds, wireless ID wristbands monitoring patients in real time, mobile health apps assisting with at-home rehab and smart software that knows what patients will be turning up to emergency departments, 6-12 months in advance.

"Medical technology for diagnostics and treatment has improved in leaps and bounds, but many health services are still stuck on paper," Dr Dods said. "People expect the health system to keep up and we're seeing some exciting emerging technologies that will make a big difference over coming years.

"For example hospitals are the single costliest element in Australia's health system, taking up to 40 per cent of health expenditure, and they are complex to run. But once its information moves off paper, a hospital's complexity can be easily managed by digital technology."

Big Data analytics and decision support tools will be a major driver in tomorrow's digital hospital, helping staff move from reactive to proactive planning to minimise wait times, improve bed availability, and forecast likely discharge times - all of which make for a far less stressful experience for patients and staff alike.

"Digital technologies can help close the healthcare gap in remote communities with the availability of broadband services," Dr Dods said. "We are seeing telehealth, wearable devices and telepresence technologies playing a bigger role in managing chronic disease at home, automated disease diagnosis and remote training and guidance for rural health workers,"

Dr Sarah Dods will present the report 'A Digitally-enabled Health System' at the Healthcare efficiency through Technology conference in Sydney today as part of Australian Healthcare Week 25-27th March.

The report can be downloaded [HERE](#)

Keeping drug-resistant superbugs off the table

Lynnette Hoffman - from Ecos magazine published by CSIRO – check it out online.

It's little wonder that Professor Lindsay Grayson has become a fierce advocate for legislative change to stop antibiotic-resistant superbugs from making their way into our food supply.

Compared with just a few years ago, the director of infectious diseases and microbiology at Melbourne's Austin Health is already seeing stark differences in patients' responses to treatments.

'Before we do prostate biopsies, we screen patients who've recently been travelling to high-risk countries, such as China, India and Southeast Asia, for superbugs,' Prof Grayson [told a senate inquiry last year](#). 'Increasingly we're finding that they're positive, so we need to give them an infusion of antibiotics to prevent infections because the tablets we would have given them three years ago will no longer work. 'In some regions, resistance rates for urinary tract infections also rose from 5 per cent to 20 per cent in a five-year period.'

Professor Grayson has described antibiotic-resistant superbugs as a ‘tsunami on the horizon.’ It’s not just hospital environments incubating these deadly pathogens. In northern China last year, [tests at two sewage treatment plants](#) turned up masses of proliferating ‘superbugs’ carrying a multi-drug resistant gene known to enable common bacteria – such as *E. coli*, *Salmonella spp.* and *Klebsiella pneumonia* – to survive even the strongest antibiotics. After the superbugs escape the water purification process, they can spread the resistance gene to otherwise benign bacteria in downstream soils, rivers and drinking water supplies [via DNA fragments called plasmids](#).

Elsewhere, in the Netherlands and other parts of Europe where antifungal sprays are commonly used on crops, fungal infections among leukemia patients and others with compromised immune systems [no longer respond to antifungal drugs](#).

Currently in Australia, regulations vary and are haphazardly enforced. In fact, selling products contaminated with antimicrobial-resistant (AMR) pathogens is technically not illegal. The [Australia New Zealand Food Standards Code](#) sets maximum limits for antibiotic residues in food, but individual state and territory agriculture departments control and monitor antibiotic use.

Food imports are randomly tested for residues at the border. Just how frequently a product is tested depends whether it is considered low or high risk – and can vary from 5 per cent to 100 per cent of the time, respectively, according to a spokesperson for the Department of Agriculture, Fisheries and Forestry.

DAFF also tests a small number of samples through the [Australian National Residue Survey](#). According to Food Standards Australia, the residue survey shows [less than 1 per cent of these samples exceed the Australian Standard for antibiotic residues](#).

A negative test result for antibiotics, however, is no guarantee a product is not contaminated with superbugs, as Prof. Grayson points out. For example, in Europe, some chickens are routinely fed ceftiofur, a third-generation cephalosporin closely related to an antibiotic used in humans. Producers simply stop administering the antibiotic two weeks prior to sale: the latter being the time when animals are tested.

‘There may not be any drug left, but [a chicken] can still have the consequences of its previous use [ie a cargo of antibiotic-resistant bacteria],’ Grayson explains.

‘They’re relying on the fact there’s no legislation that requires food be free of superbugs [rather than just the antibiotic itself].’

Professor Grayson, and others including Greens Senator Richard Di Natale, who pushed for last year’s senate inquiry into the lack of action on superbugs, argue that comprehensive legislation is essential. They are calling for a [‘One Health’ approach](#) with comprehensive monitoring to ensure drugs are being used as appropriately – and sparingly – as possible, in both humans and animals.

There are some indications that change is on the way, albeit slowly. In its 2013-14 budget, the previous federal government committed \$11.9 million over three years to develop a Australian National Antimicrobial Prevention and Containment strategy. Last month,

Professor John Turnidge was appointed to lead a national surveillance program focused on [human antimicrobial resistance](#).

‘Our sense is that Australian food production is much safer than overseas – the regulations are in place, they’re not policed as well as they should be, but in general people do the right thing,’ says Prof. Grayson.

‘[However] we need a program that allows for routine testing of Australian foods, so we don’t just think it’s safe, we can prove it’s safe.’

Dr Pat Mitchell, a Victorian farmer and Research and Innovation Manager at Australian Pork Limited, agrees.

‘Everyone should be subject to the same laws,’ she says. ‘If we’re playing the game, we’d just like to be on a level playing field. What’s the point of bringing in cheap food that’s going to constitute a food safety issue?’

In 2007 the World Health Organization released a list of ‘critically important antibiotics to human health’ and recommended against their use in food production. Some countries are following those guidelines better than others. So, while Denmark has banned the use of antibiotics as growth promoters (because some antibiotics have been traditionally used to improve animal growth and meat production), recent data from the pig industry found minimal change in overall volume of drugs used.

This is because producers are now ‘relabelling’ their use, according to Professor Grayson. ‘None of the major countries fully adhere to that list. There’s huge market pressure on price.’

Still, the Netherlands and Scandinavian countries are pushing ahead with integrated monitoring and management of antibiotic use in both humans and animals. Professor Turnidge and his colleagues are looking at this as a model for Australia.

‘It’s going to be three to five years before that occurs, because we need to build legislation and we need all the states and territories to sign up,’ he says. That consensus has proved challenging in the past. In 1999 an extensive report and recommendations known as JETACAR were developed – most of which were never implemented.

‘That essentially faded away, and a year ago [a senate inquiry looked at why](#), and now we’re back where we were in 2000,’ Professor Turnidge says.

Despite the setback, Professor Turnidge remains optimistic. ‘A lot of other things took precedence, such as concern over pandemics, but this time there’s an understanding that we can’t allow it to fade away again.’

CSIRO has been investigating alternatives to antibiotics, including new vaccines as well as agents to improve the effectiveness of existing vaccines, says [Dr John Lowenthal](#), a research leader at the CSIRO’s Biosecurity Flagship.

For example, researchers have been studying the use of [cytokines](#) – proteins naturally produced by the body’s immune system following infection – to protect against disease, reduce inflammation, and enhance effectiveness of vaccines. (Vaccines generally do not have

the problem of resistance because they enhance the body's natural defences, whereas an antibiotic operates separately from the body's normal defences.)

One particular cytokine known as [gamma interferon](#) has already been trialled in chickens, leading to better health, weight gains of up to 10 per cent, and increased protection from disease. However, Dr Lowenthal says it could be another decade before commercial products are readily available, as the regulatory process for approval is lengthy.

Such delays do not dampen the enthusiasm of some to keep pushing for change. 'I feel optimistic in the sense that, from a grass roots level, there's enormous support,' says Professor Grayson. 'What's maybe a bit frustrating is the very slow way that bureaucracy changes.'

Crisis becomes opportunity to cut back on pig-farm antibiotics

You don't have to tell Australian Pork Limited's Dr Pat Mitchell about the challenges of containing outbreaks among farm animals. When respiratory bugs broke out among the pigs on her fourth generation family farm seven years ago, the farm followed best practice protocol, selling its entire stock and scrubbing and disinfecting every last crevice of space.



Contented pigs: improving ventilation, hygiene, stocking rates and diet can help reduce disease rates in pigs, along

with vaccination and minimal use of antibiotics.

Credit: /CC BY-NC2.0)

Six months later, however, the infections returned. Not long after that, pig prices plummeted and feed prices rose. Losing money, the family closed the piggery and sold off all the pigs. During an ensuing two-year break, concern over the rise of antibiotic-resistant superbugs in the community escalated, prompting the family to minimise the use of antibiotics after re-establishing the farm.

They use vaccines where they can and have focused on improving farm management practices. That means things like targeting stocking rates, ventilation and hygiene, as well as techniques such as adding organic acids to the pigs' drinking water and feed to ensure the pH of the pigs' digestive systems inhibits the growth of harmful bacteria.

It's an approach that more Australian farmers and industry bodies are voluntarily making. In fact, Australian Pork Limited and the [Pork CRC](#) have funded more than 40 projects looking at ways to better monitor bacteria, reduce antibiotic use, and develop new diagnostics to better identify disease organisms and their mode of attack, enabling more effectively targeted prevention and treatment.

Other interesting articles from the ECOS magazine:-

Adapting to climate change: window of opportunity closing fast but options still open.
Chris Johnson

Reconnecting landscape: it's not just about planting trees. Angela Sanders

Flexible electronics to boot up new solar manufacturing industry? Scott Watkins

Safer water: helping a neighbour in need Michele Sabto

Turning human poo into biochar using the sun

We humans have to poop, and some 2.5 billion of us don't have the proper facilities to do so.

Think about what that means for a second: Beyond the commodes themselves, roughly a third of the planet's population lacks sanitation, leaving communities susceptible to disease and filth. As Jack Sim, the founder of the World Toilet Organization, told [me a couple years ago](#), a major part of the problem is that sanitation isn't a particularly glamorous cause, which has

limited its exposure and support. It's telling that more people globally have cell phones than have proper toilets.

"Why is a cell phone something someone will pay for when they won't pay for it in their house?" Karl Linden, a University of Colorado, Boulder environmental engineering professor, told me. "We need to think of sanitation as a business opportunity, and turn the toilet into a status symbol."

Linden's team of engineers hopes to do just that. With funding from the Bill and Melinda Gates Foundation's Reinvent the Toilet challenge, the team has developed a toilet that uses concentrated solar power to scorch and disinfect human waste, turning feces into a useful byproduct called biochar.

The goal is to build a self-contained block of toilets, similar to [Coca-Cola's community blocks](#), that can also provide clean water and power for phone charging—to essentially turn toilets into a community center.

More on this at <http://motherboard.vice.com>

Earthship Philippines Windship



Earthship Biotecture partnered together with the Earth Village and the people of Barrangay Batug to coordinate and build a wind proof structure to use as a prototype for rebuilding in the Philippines. This 10-day hit was the first of several phases of rebuilding the affected areas of the Philippines after Typhoon Haiyan.

The design, known as the "Windship," has been modeled off of the Simple Survival Earthship model in order to create a wind resistant and resilient structure that is simplified. The idea is to simplify the structure so that it can be recreated locally with materials found in the nearby areas. Bottles, tires, cardboard, coconut lumber, bamboo and many other materials were donated and gathered by local villagers, organizations and schools. Cardboard insulation used for the roof – 5" to create R-Value of 15:



This first recon/build took two 1U Simple Survival models, faced them to each other and spanned concrete ribs across the two vaults for weather protection and structural support. Bamboo and corrugated plastic connected and covered the middle “avenue” between the building to allow for sunlight and protect against heavy rains and mild winds.

With our small crew, 40 international volunteers and 30 national/local volunteers we were able to train and complete the exterior structure and build what Michael Reynolds refers to as a “fortress”. This building will function as part of Brgy. Batug’s elementary school (which suffered heavy damage from the typhoon) as well as an evacuation shelter. This building will also serve to take care of basic human needs using the Earthship principles in its design.

KNOWLEDGE TRANSFER

The national/local volunteers worked on-site throughout the project, learning about the functionalities and technologies of Earthship through presentations, classes and Q&A given by our crew – namely Michael Reynolds, our foremen Phil Basehart and Rory Morlan. At the end of the build, the local volunteers (with the help of several translators) were able to present everything they learned step-by-step from each day of the project. Here, we were able to answer questions and better explain the “why’s” of the everyday tasks they worked on. The knowledge transfer aspect of this project may have been the most successful that the Earthship crew has experienced. Each project we do, we learn more about what it takes for the local participants to absorb the Earthship concepts in a way that encourages them to incorporate them into creating sustainable, providing and resilient structures for themselves.

Children in the local elementary school were able to see the construction of the project each day as the school had just reopened from the Typhoon in November. They were given classes by members of Earthship, Earth Village and non-profit One Block for Batug’s founder, Andrea Roa. Here they learned about recycling and creating resources from what is deemed as garbage. They took part in a bottle laying ceremony where they wrote letter to their future selves and put them into glass bottles.

They then laid them into the Windship's bottle wall to participate in the concept of building a wall from a piece of garbage



.....SECOND HIT – GET INVOLVED

We are in the process of raising money to help balance our budgeted costs of the first round and then will move forward with the second hit by the end of this year to complete the structure's finishes and to install the systems for the building.

Please email jeane@earthship.com if you are interested in participating.

To make a contribution or for more information about the project, go to our website:
www.earthship.com/philippines.

MORE LINKS ABOUT THIS PROJECT:

Windship Recap Video – by Mark Jaramillo:

<https://www.youtube.com/watch?v=DvCL-2z8BB4&list=UUMGoHTJH-ZjsKLfpWON8Q1g>

Windship Interview Series – by Jon Gosch:

<http://jongosch.com/the-philippines-by-windship-intro-to-interview-series/>

Earthship Philippines Facebook group:

www.facebook.com/groups/earthshipphilippines/

Awesome Hi-Res Shots of the Project – by Alessandro Turci and Federica Miglio

<https://www.flickr.com/photos/106514226@N07/sets/72157642636389375>

Community Agriculture initiative – Cairns

A social experiment to see how community agriculture can work/look in our region while we transition to a culture we want to be a part of. This is intended to be a pilot/prototype for a community village project: Vital Light Village. We are stepping into the new world consciously. Land tenure: this is a 5 year guaranteed lease and during the 5 years we will have enough capital to expand the project.....

If interested please contact Natalie Davenport at email: goldstarmassage@gmail.com.

Ongoing Date Clainers

LETS IN CAIRNS - T House 346 Sheridan Street - Saturday 26th April

Come to trade, share food & relax in the beautiful tropical gardens.
Massage and Healing Bodywork for Bartles available.
Can you offer goods or services on this day?
The more the merrier! So get inspired and creative and join in the trade!!
Tablelands traders welcome!

Tablelands LETS April Calendar

EVERY Thursday Chakra Meditation from 9am - 10am, beginning the 3rd of April at The Closet Hippy, Malanda and continuing for 8 weeks. Each week we will do a guided mediation as we work our way through the chakras of the body. Payment by donation of Bartles.

EVERY Sunday 4-7pm RealFood Trade at Petals in Tolga for 50% Bartles. 7403 Kennedy Highway, contact Sjoerd RealFood on 0488552671 for more info.

Saturday 12th 12 - 2pm Malanda Trade Afternoon at Mary & Mathieu's place, 7 Cleminson Close, Malanda. Directly after the Malanda Market. Bring a plate to share for lunch. Call Mary on 40966651.

Sunday 13th 1.30pm Trade at Walkamin School - shelter shed. All weather event. For more info, call Gloria on 0437645892 or email - gloria123au@hotmail.com

Tuesday 15th 6.30pm LETS Trading is encouraged at Permaculture Cairns 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. This is a Permaculture Cairns Event

Saturday 19th 10am - 1pm Kuranda Trade day IS BACK! Real Food trading for 100% Bartles at the Recharge Kuranda hub, situated at the Original Kuranda Market. Contact Sjeord for more details 0488552671.

Sunday 20th 11am-3pm Cassowary Coast Trade & Social Gathering - Johnstone River Community Gardens, Flying Fishpoint Rd, Innisfail. Bring a plate to share, something to cook on the BBQ if you wish, your own plate and eating utensils. Tea/Coffee by gold coin donation. Lunch will be at 12 noon. Trade starts 1pm. A child-friendly venue.. Car pooling/collection serviced encouraged from the Tablelands and Cairns! Weather permitting - ring Suari for confirmation 0403115261.

Thursday 24th 6 - 8pm Trade Evening at The Octupi Garden Sanctuary, 78 Grigg Street, Ravenshoe (the lil blue shop). LET'S gather to share some food, trade our services, skills and wares. Children welcome! Please bring a plate. Contact Hayley 0416528177 or hayleybuchanan8@hotmail.com

Saturday 26th 12-2pm Yungaburra Trade at that retro cafe, Shop 2/20 Eacham Rd (Next to Miss Megs/My Habitat). Drinks available for 100% Bartles. Children most welcome. This event is directly after the Yungaburra Markets. Contact Melitta on 0437216122.

Sunday 27th 8am start Sheila's Working Bee @ Wongabel Stables. Specific patches of garden plants to be either thinned out or removed altogether. Some loose branches to be stacked up and burnt. Sheet of Hardiplank to be cut into louver blades, smoothed, painted with undercoat, and fitted in windows. Child friendly. Bring sun protective clothing, gloves, garden spades, shared morning tea and lunch.. Contact Sheila on 4091 2070 .

Sunday 27th 11am-1pm Millaa Millaa Trade & Sausage Sizzle at Lion's Park, Main Street (undercover area, below playground). Bring a shared plate, something for the BBQ and drinks. Children and friends most welcome. Contact kate.martignier@gmail.com or 0429925246.

Sunday 27th 4 - 7pm Real Food Trade afternoon at PETALS - The old Rose Farm in Tolga, 7403 Kennedy Highway. Bring along goods to trade and a healthful plate to share. Contact Sjoerd for further info on 0488552671.

Monday 28th 8am start Real Food Working Bee @ Petals-The Old Rose Farm in Tolga, 7403 Kennedy Highway. Heavy duty work: cementing in metal posts for future cover, concrete flooring. Urgently needed improvements for Petals to enable the growing Real Food activities on the Tablelands. Pay is 15B/hour with shared lunch. Contact Sjoerd Real Food on 0488552671.

APRIL 15th - DEADLINE for MAY calendar. All details to Melitta - tablelandlets@gmail.com or 0437216122 To be included on the calendar, website, facebook and other promotions.

What to bring to Trade Events where not specified above: food & drinks for yourself or to share, or money and/or Bartles 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 if you don't yet have a LETS account.

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

Seed Savers up North

MAREEBA – Sunday 13TH April 10am to 4pm
At Noelle and Pieter Saraber's – 207 De Lacy Road, Dimbulah, carpooling from Lindy and Michaels, 17 Middlemass Street, Mareeba at 9am 40921116

CAIRNS – Sunday 27th April at Jo's 39a Clifton Road,
Clifton Beach, 40553053

COOKTOWN – Saturday – first of each month – David Cass 0439348425

JOHNSTON RIVER – Call Suari 0403 115 261

Seed Savers meetings are an opportunity to learn more about locally grown plants, swap planting material, ask questions, share with and learn from other gardeners, preserve traditional and locally-suited plants (especially seeds). This is an informal gathering of gardeners - everyone is welcome, including those new to the area and to growing food.

PERMIE RESOURCES, & SERVICES

RESOURCES:

“Notes from the Workshops” All notes from the Permaculture Cairns Resilient Communities Workshops are now available for purchase at the **For sale at the meeting and at Enviromart Australia in Aumuller Street,**

TOPICS COVERED: Growing your own Fabulous Organic Food, Earthworms, Microgreens, Wicking beds, 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, 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 - full of local knowledge. Would make a great present for anyone wanting to grow their own food.**

SERVICES:

Do you need help to plan the 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



Garden of Tegan – Readymade moveable gardens, suitable for patio or balcony. A wicking bed of herbs and vegetables that will be enjoyed all year.

Contact Tegan 0402 853 903

MORINGA TREES: - phone Carol 0414900717

Please note Memberships fees are now due payable for 2014

Memberships form may be completed online on our web site and emailed to us from there, payments may be made by direct credit to Permaculture Cairns, Cairns Penny Bank account -BSB 70-966 A/c 100009440 please use your Surname as reference.



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 president@permaculturecairns.org.au

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

Treasurer: Jenny McGrath treasurer@permaculturecairns.org.au

Website: www.permaculturecairns.org.au