

# Permaculture Cairns Newsletter

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS



**Care for the Earth, Care for people, Fair share the excess**

Permaculture Cairns Incorporated

Web Site: [www.permaculturecairns.org.au](http://www.permaculturecairns.org.au)

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## MARCH NEWSLETTER

### PERMACULTURE CAIRNS MEETING

Tuesday 21<sup>ST</sup> March 6pm for a 6.30 start

**ARC Disability Centre 92 Little Street Manunda**

Members free, but bring some nibbles for the cuppa break  
and a dollar for the raffle, which helps pay for the venue.

Non-members \$5

#### AGENDA

Welcome to new members and visitors

Upcoming workshops and events

Permaculture Principle Number 3, a practical explanation.

#### *Guest Speakers:*

Beth from **Community Foods** will explain how they provide the community of Cairns with a social shopping environment for minimally packaged, quality wholefoods and household consumables that are ethically and environmentally responsible.

Daryl Douglass from **The Alternative Technology Association (ATA)** will advise on living sustainably and give an update on using solar energy in our homes and community.

Plant of the Month, Book of the Month, Tool of the Month and if anyone has something to add please do so on the night.

**Meeting close and now time for a chat, a cuppa and a snack with like-minded people**

**All finished by 8.30pm.**

## *Permaculture Principle No. 3 - Obtain a Yield*

*“You can’t work on an empty stomach”*

Ensure that you are getting truly useful rewards as part of the work that you are doing.

The icon of this design principle, a vegetable with a bite out of it, shows us that there is an element of competition in obtaining a yield, whilst the proverb “You can’t work on an empty stomach” reminds us that we must get immediate rewards to sustain us.

### *Growing Food in March in The Wet Tropics*

*Still hot and steamy but being impatient to get started I planted some seedlings and gave them some shade. The lettuce, wom bok, parsley and celery are doing well. I also direct seeded bok choy and rocket a week or so ago and they are doing well with some shade.*

*Direct seeded Corn doesn’t need shade and is looking great. The delightful Ping Tung Long eggplant from last season is still putting out about 20 fruits every two weeks, amazing plant. And another amazing plant is the kale left over from last year.*

*I am still in the process of constructing another compost heap, have used some of last years and the plants react to all those nutrients in just a few days.*

*Now is a good time to start your seedlings, just about anything will grow here in the cool weather, although brussel sprouts probably will not. If it rains too much keep them undercover and pot them up to grow on until ready to plant out. Give them liquid fertiliser if potting up, so as to keep them growing, this is important.*

*Keep cool, out of that burning sun and keep growing food.*

*Cheers, Carol*



# RECYCLE KITCHEN WASTE

Saturday 8th April  
9am-12:30-pm  
Earlville

\$20

Learn how to Compost, Create your own worm farm,  
make Fertiliser and put less into landfill



Register E: [workshops@permaculturecairns.org.au](mailto:workshops@permaculturecairns.org.au) Ph: 0435 120 944

**PERMACULTURE CAIRNS**  
BUILDING RESILIENT COMMUNITIES WORKSHOPS

Sponsored by





# *Permaculture Cairns Workshop*

## *Grow Your Own Nutrient Dense Food*

Monday 20th March 9am to 1pm AND

Sunday 2<sup>nd</sup> April 9am to 1pm

Presenter: Carol Laing



### **In this workshop we will cover:**

pH test of your soil and a simple soil structure test of your soil

The importance of balancing minerals, increasing organic matter and microbes in the soil  
Composting: Various methods of creating compost- piles/heaps, home compost bin, and the Bokashi bin

Beneficial plants to grow for improving soil,

Why we need to re-mineralise the soil

The difference between lime, dolomite, and gypsum;

Tropical Perennial Vegetables.

*'Feed the soil not the plant' - a permaculture practice*

Pests and diseases will be almost non-existent because your nutrient rich plants are no longer attractive to insects.

All workshops will be conducted with Permaculture Ethics, Principles and Practices in mind.

**Workshops will be held on a permaculture property in the Cairns city area, where many tropical perennial, annual vegetables and fruits are grown. Numbers are limited.**

**COST: \$30 includes morning tea, workshop notes, seeds and a fertiliser sample**

**Interested? contact me Carol Laing at – [newsletter@permaculturecairns.org.au](mailto:newsletter@permaculturecairns.org.au)**

My experience: I owned and operated a plant nursery for 10 Years during which I completed a correspondence a Certificate course in Horticulture in 1983, a two weeks Permaculture Design Certificate Course 1992, Microbe Course and Chromatography Course with Mas Humas 2012, Elaine Ingham's online Microscope Course' 2013, Graeme Sait's 4 day Nutri tech Solutions, Certificate in Nutrition Farming 2014, and while attending National Biological Farming Conference 2016 I attended David Hardwick's Workshop on Soils. I also attended workshops on Soils with Terrain, Northern Resource Management and FNQ Biodynamics. I have an extensive library on many subjects, but mostly on how to grow food well using the microbes in the soil.

# Things You Can Try At Home

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## What You Can Do To Help Save The Reef

The Great Barrier Reef really is closer than you think. What you do at home, work and at school can affect the Reef.

Together, we can all make a difference by looking after the Reef and helping protect the animals and plants that call it home and the heritage and lifestyle that is important to us.

You can do your bit to keep it great by doing these simple things:

### At home

- Recycle what you can - for example, plastics, paper, batteries and mobile phones
- Buy food and products with minimal or no packaging, or packaging that can be recycled
- Set up a worm farm and use the castings to fertilise your garden
- Compost fruit and vegetable scraps, shredded paper, grass clippings, leaves and cuttings (except noxious weeds and diseased cuttings), vacuum cleaner dust, used vegetable oil, tea leaves and bags, coffee grounds and egg shells
- Wash your car on the lawn, not on the driveway or road, to minimise detergent runoff into drains
- Operate your dishwasher and washing machine only when you have a full load
- Use environmentally-friendly cleaners and fertilisers
- Keep gutters, sinks and drains free of chemicals and rubbish as what washes down sinks and drains could end up on the Reef
- Minimise water runoff by planting trees, garden beds and ground cover around your home
- Use re-useable shopping bags rather than plastic bags
- Participate in community clean-up days
- Open windows and catch the breeze rather than using an air conditioner
- Clean filters in your air conditioner and dishwasher regularly so they run efficiently
- Install energy efficient lighting and appliances such as induction cook tops
- Donate quality second hand furniture, household items and clothing to charity organisations, rather than sending it to landfill
- Share these messages and your knowledge about the Great Barrier Reef with others.

### At work

- Encourage recycling in the office environment
- Only order the stationery you need
- Think about what documents you print and utilise electronic publishing
- Take your own coffee mug instead of using polystyrene cups
- Re-use office paper – use recycled paper and promote double sided printing and copying
- Reduce energy consumption by switching off lights when you are not in your office
- Turn your computer monitor off when not in use
- Have your air conditioner maintained regularly.
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## At school

- Encourage recycling and re-vegetation program
- Reduce plastic use in your school / conduct a waste audit
- Conserve and manage water and energy use in school buildings
- Hold a clean-up day at your school, park, creek, beach or oval
- Form an environmental committee in your school to try and make your school sustainable
- Join the Great Barrier Reef Marine Park Authority Reef Guardian Schools program (if your school is in the catchment region).
- Use the 'at home' messages at your school - get everyone involved.

## Out and about

- Take your rubbish home with you
- If you see rubbish, pick it up and recycle or dispose of it thoughtfully.

Got something of interest, send it to [newsletter@permaculturecairns.org.au](mailto:newsletter@permaculturecairns.org.au).

## Recipe of the month is from our last workshop

One of the recipes at the Cooking Tropical Veggies was a very simple Cooked Brown Rice with Herbs. We chopped up about 20 or so various herbs and then it was our choice to try them with the cooked brown rice. There were some great tastes, I particularly loved the liquorice flavored Mexican Tarragon. A great addition to a salad, and doesn't take long to do.

We cooked up Cassava and had with Ginger or Galangal Vinegar, flavourful and simple. Then there was the Tropical Spanakopita – a Filo pastry with Aibika, Ceylon spinach, Brazilian spinach with Fetta and Ricotta cheese, another delicious, nutrient rich easy recipe.

## What's on and What's Coming Up

JCU Community Garden Picnic - Sunday 19<sup>th</sup> March 2 – 5pm

Bring food to Share if you can. - All Welcome

Get together and meet new gardeners, eat yummy treats, check out our new greenhouse, help plant the garden's first fruit trees, and learn more about gardening & permaculture from our Garden Coordinator, Jay Jackson.

All visitors must wear enclosed shoes. BYO hat and long, sleeved shirt.

Register for the event here: <http://alumni.jcu.edu.au/JCUComGarden> For more information: [sustainability@jcu.edu.au](mailto:sustainability@jcu.edu.au) Location

## Kuranda-Sprouts Seedsavers

Sunday 19th of March 2017 10am – 4pm

Venue: Peter Brown's 64 William Smith Drive, Speewah,

## Cairns Seedsavers

Sunday 26 March 10am – 4pm

Venue: Catherine's place, 63 Nebbia Access Rd, Green Hill.

Directions: Turn off Bruce Warner Rd (main Yarrabah turnoff). Continue 8km and turn off to RIGHT past Middle Crk bridge to Nebbia Access Rd. At the v. end of road take grass driveway on left – parking in front of the large shed. PH: Jo 40553053 or Catherine 0434575587

WHAT TO BRING: Organically grown, non-hybrid seeds for our Seed Bank

A plate of food to share for lunch Your own chair, plate and cutlery Your spare seedlings, cuttings, plants and produce for the Share Table

10am -11am Meet'n'greet, general housekeeping, seed sorting and access to Seed Bank

11:00 – 12 Talk by Catherine about keeping goats and attaining self-sufficiency in dairy and meat Group discussion about ideas for growing produce on her recently acquired property.

12 - 12:30 Enjoy a shared lunch 12:30 – 1PM "Show and tell" of any other great ideas/inventions.

Tour of Catherine's property – please wear closed shoes.

As we will be beside a large unfenced dam, any children must be strictly supervised. See you there!

## Mareeba Seedsavers and Gardening Group

Sunday 2nd April 2017 10am – 4pm

Venue: Sarah Gibson 5 fairyland Rd

Myola- via Kuranda

For further information contact Lindy on 40921116

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## *Feast of the Senses, Innisfail*

23rd – 28th March 2017

[www.feastofthesenses.com.au](http://www.feastofthesenses.com.au)

## Banana Split World Record Attempt 2017



We are committing to the World Record attempt for the world's longest banana split as part of the 2017 Feast of the Senses Festival. We are in communication with the Guinness Book of Records and planning to create the world's longest

banana split. This is a record that has been held since 1988 by the town of Selinsgrove in Pennsylvania, USA.

We will require strong support from a variety of entities to achieve this. The current record is 4.77 miles long. Our aim will be to achieve 5 miles or 8 kms. That's 8,000 metres!! The logistics are impressive: Approximately 40,000 bananas, 2,000 litres of ice cream, topping and cream – lots of cream.... And the best news of all – nearly all the produce will be local produce!

**Feast of the Senses Food Trails** are always very popular with those who have previously enjoyed them. They are an excellent opportunity to visit places not usually open to the public. Each of these tours has a tour guide, who knows the region well and is a member of the Feast of the Senses Committee.

The tour includes a full day bus trip which leaves from and returns to Anzac Memorial Park in Innisfail. Departure is punctually at 8:30am and return is around 5:00pm. (May be a bit late if you enjoy yourselves too much!)

Price : \$75 per person per food trail. Includes all transport and refreshments during the day. Some items may be available for purchase over the course of the food trail – these are not included in the price and will be a own expense. This year all food trails will leave at 8:30am to ensure returning by 5:00pm. Tickets will be available shortly and the link setup once all venues have been confirmed.

**Still in the planning stages for 2017 we can tell you that the Food Trails will be on:**

**Food Trail #1** sponsored by **Castaways Resort** : **Thursday 23 March 2017 – Tully and Surrounds** and will include Fruit Forest Farm, Visy Boxes and More in Tully, a rice farm and Castaways in Mission Beach. Several other places are yet to be confirmed including the lunch spot. [Food Trail #1 – Tully Surrounds](#)

**Food Trail #2** sponsored by **Trans North Bus** : **Friday 24 March 2017 – Tablelands**. Visiting Australian Dairy Buffalo Company, Rainforest Bounty including lunch and Mungali Dairy Teahouse for high tea this will be a very special day – returning in time to prepare for the International Food Fare in the evening. [Food Trail #2 – Tablelands](#)

**Food Trail #3** sponsored by **Norfoam** : **Monday 27 March 2017 – Mena Creek and beyond**. Again we have some firming up to do, but can tell you we will be visiting a Barramundi Farm, Aussie Pepper and Spagnolo's exotic fruit orchards. Several other venues including lunch will be added once confirmed. [Food Trail #3 – Out Mena Creek Way](#)

**Food Trail #4** sponsored by **Hasting NQ** : **Tuesday 28 March 2017 – Mirriwinni and Innisfail**. Taking in brunch at Broken Nose Vanilla, a visit to an LMB banana plantation, possibly a cane farm and a very well known and respected nursery and finishing at Innisfail Seafood. [Food Trail #4 – Mirriwinni and Innisfail](#)

**And Don't Forget Feast of the Senses Market Day On Sunday 26<sup>th</sup> March**

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## **FNQ Community Exchange – Lets Local Energy Trading System Calendar For MARCH 2017**

YUNGABURRA - Friday 17th March 10-12 noon Beginners course to LETS, that retro cafe 20 Eacham Road, Yungaburra - How to use the Online Community Exchange System. Don't know how to place an Offer or to look something up on the Wants list? No clue where to find your account statement? Or how to find other users? This course is FREE and so is the WiFi, drinks from the Menu will be available at the cafe for Bartles. Event Host: Katrin - 0417822446



RAVENSHOE – Kathy is having a well earned break from hosting trade days. If you can offer support in hosting Ravenshoe trade events please feel free. It can be a lot of fun – all you need is a regular place and time. All events can be promoted via this calendar which is also on the webpage and on FB. Details are needed by the 15th of each month. Contact Melitta directly 40952340 for more info about how to promote your event.

CASSOWAY COAST – Sunday 19th 11am – 3pm LETS Trade. Bring Lunch to share (BBQ available), items to trade, information on services offered and some good conversation as well.

Please consider BYO plate & cutlery to save our host excessive dish duties. Car pooling recommended when making the trip from the Tablelands. (\*Weather permitting please contact Bernie for confirmation of event). Event Host: Bernie - 0403523244

YUNGABURRA – Sunday 26th 12 - 2pm The Red Sheds Trade Afternoon. The RED SHEDS SHOPS 20 Eacham Road, Yungaburra. This event is the day after the Yungaburra Markets. Bring along something to trade a rug to display your wares. That retro cafe is offering 100% Bartles for drinks from the menu, you will need cash for lunch and drinks from the display fridge. On the Verandah is offering preloved clothing for 100% Bartles. We are now setting up at the back of the Red Sheds in and around the courtyard. Event Host: Melitta - 40952340

CAIRNS CITY – Sunday 26th 12- 2pm - Lafew Teahouse, 33 Sheridan Street. LETS relies on member initiative and participation to make events happen - At Lafew we offer: kombucha, tea and coffee. Available 50/50 Bartles/\$. Bring your trading sheets and goodies. We would love to see our garden area used as a drop off & pick up for edibles. For new members - please drop by and chat to the LETS traders, you can sign up on the day. Event Host: Lorna – 0475762838

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 to join LETS if you are not yet a member.

fnqes@gmail.com – 40966972 – [www.fnqces.org](http://www.fnqces.org) – [www.communityexchange.net.au](http://www.communityexchange.net.au)  
[www.fnqces.org](http://www.fnqces.org) [www.communityexchange.net.au](http://www.communityexchange.net.au)

## **Biodynamics FNQ Events Calendar 2017**

**April 9th Sunday - 10am – 3.30pm**

Working with the Biodynamic Calendar.

Plus garden discussion with Michael and Lindy Alba, Mareeba

Bring chairs and food to share

**May 14th Sunday -10-3.30pm**

Horn Burial and AGM

Collins Farm, 709 Kaban Rd, Kaban

Bring chairs and food to share for lunch.

**Enquiries : Simon Harden 07 40977837 Cheryl Kemp 4095 1119.**



Dr Wendy Seabrook, Director

## GROWING HEALTHY FOOD WITH LESS HARD YAKKA

Two-day course - Saturday 10th and 11th June 2017 at Hill Top Farm, Cooktown Queensland

Grow

ing healthy food doesn't need to be such hard work. Redesign your garden to grow yummy food more reliably and with fewer costs. At our course 'Growing healthy food with less Hard Yakka' you'll have fun designing an ecological makeover for your garden. Letting nature give you a helping hand. Creating an enchanting garden you'll have more time to enjoy, and a safe space for your children to play, picking passion fruit, paw paws and pomelos ...

## GETTING TO THE HEART OF PERMACULTURE DESIGN

Four-day course - 15th – 18th July 2017 at Hill Top Farm, Cooktown Queensland

At this 4-day course, we'll take you on a journey to the heart of Permaculture Design.

As Bill Mollison said – at its heart Permaculture mimics nature. He understood that by learning from nature we can make our gardens, farms, and communities sustainable. In ways that are also productive, easier to manage, and better able to bounce back from extreme weather and other unchosen change.

In this course, you'll develop ways to bridge the gap between how your project operates and natural ecosystems perform using our Toolkit of Ecological Practices and Permaculture Design Tools.

## News from Home and around the World

### LOOK WHAT IS HAPPENING IN OUR OCEANS



## Plastic Oceans;

We use over 300 million tonnes of new plastic every year. Half of this we use just once and usually for less than 12 minutes. 8 million tonnes of plastic waste ends up in the ocean every year.

Over many years, as this plastic waste is carried along by ocean currents, it breaks up into tiny pieces. So much is getting into our ocean that in some places these plastic particles outnumber plankton by a ratio of 26:1

A large amount of this “thrown away” plastic carries toxic chemicals such as BPA, phthalates, pesticides and PCBs.

Over 600 species of marine life are known to suffer directly from plastic pollution including some on the IUCN red list such as the Hawaiian monk seal, loggerhead turtle and sooty shearwater.

Birds consume plastic, and an increasing number starve when their stomachs are full of plastic waste. Over 90% of seabirds worldwide have plastic pieces in their stomachs.

**JUST STOP THROWING IT AWAY!!!!, PICK IT UP AND PUT IN RECYCLING**

-O-

## **CLEAN COAL IS SIMPLY A MYTH!**

FEBRUARY 23, 2017 BY [LOUISE BETHANY](#) & FILED UNDER [WHY PERMACULTURE?](#)

While politicians may go around lobbying for usage of ‘clean coal’, this is just a campaign strategy. Coal cannot be clean! Right from the time it’s mined in its raw form to the time it is used after processing, it emits nothing but toxic waste into the environment.

### **THE NOTION OF ‘CLEAN COAL’**

‘Clean coal’ is portrayed to be as a result of high-tech low emission of toxic substances. The processing of coal produces sulphur dioxide, nitrogen oxide and carbon dioxide; all of which have dire consequences to the environment. Extensive scientific research has led to discovering ways of reducing sulphur dioxide and nitrogen dioxide. However, the real problem is how to reduce carbon dioxide.

Carbon dioxide can be reduced by bottling it up and storing it deep in the earth. This is known as carbon-capture or sequestration. However, this is only true in theory, it’s neither viable practically or financially.

Carbon-capture requires more energy and this means 25%-30% more coal is needed. This will inevitably require an increase in mining activities and transportation costs. In addition, several tons of CO<sub>2</sub> are captured daily so just think of how much infrastructure is needed to store all that! Another uncertainty is if the gas will remain safely buried. Leaks are likely to occur and this can be extremely dangerous.

Economically, such a process could guzzle billions of dollars of taxpayers’ money and yet its effectiveness is not guaranteed. Needless to say, this is an impossible task to accomplish.

### **HEALTH IMPLICATIONS**

Burning of coal emits chemicals and particles harmful to the human body. A good example is soot and smog which are the leading cause of asthma. The American Lung Association claims

that 13,000 lives are lost every year due to pollution caused by coal in America alone. 22,500 premature deaths are caused in Europe every year.

Death also frequently occurs in the mining sites. Coal miners die in mining accidents and direct exposure to the toxic chemicals. Countless others suffer injuries that render them incapacitated and therefore, unproductive.

## **ENVIRONMENTAL IMPLICATIONS**

Sulphur and nitrogen compounds in coal combine with rain to form acid rain. Acid rain corrodes metal and kills vegetation and this is very counter-productive.



Global warming is a crisis that the world is trying to avert, and coal mining only adds to this global headache. It's carbon emissions create a greenhouse effect that leads to the rise in global temperature. According to UNEP, coal produces 1.7 times carbon per unit than natural gas.

## **ALTERNATIVES TO 'CLEAN COAL'**

The time, money and energy that is used to make coal clean is completely unnecessary because there exist cleaner and more cost-effective alternatives. These include the likes of solar power, wind power, natural gas and gas-fired power. They produce half as much carbon dioxide as coal, not to mention they are renewable while coal is finite.

More people are employed in the solar industry than the oil extraction and coal mining sectors. Worldwide, 8.1 million people are employed in industries that produce renewable energy so it's only logical to follow this road.

Nothing beats conservation of the available energy; it's the safest and cheapest alternative. Conservation can be accomplished through the use of insulation, LED lights and appliances that are designed to use less electricity.



Despite all that, research into ways of making coal cleaner should not cease. The danger comes in when we let it blind us to other alternatives that are more cost-effective and less dangerous to the environment. Perhaps, one day a solution to making coal genuinely clean shall be found but for now, 'clean coal' is just a myth!

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## Production of Bee-Friendly Insecticide To Remain In Australia

FEBRUARY 23, 2017 BY [JESSI GOWAN](#) & FILED UNDER [BEES](#), [GENERAL](#)

[Innovate Ag](#), the company behind the bio-insecticide Sero-X, has managed to secure funding that will allow them to continue producing this game-changing product in its home of northern New South Wales. Thanks to a new partnership with Belgium-based Biological Products of Agriculture (Bi-PA), Innovate Ag will be able to commercialize Sero-X – and begin distributing it around the world.

Using an active ingredient made from the peptides of the butterfly pea legume, Sero-X could provide significant improvements to the ethical and environmental sustainability of the food and fiber production industries. After 15 years in development, Sero-X was introduced last year on macadamia crops, and more recently, the product was registered by the Australian Pesticides and Veterinary Medicines Authority for use by cotton growers.

This is big news for beekeepers like [Harold Saxvik](#), who has been relocating his operation away from Riverina after losing 500 hives in 2013. According to Saxvik, the loss was the result of drifting insecticide spray from nearby cotton farms.

"The secret behind this innovative product comes straight from nature itself in the form of cyclotides," said Nick Watts, project director with Innovate Ag. "Cyclotides are peptides, or mini-proteins, that are naturally found in plants and have a range of biological activities, including insecticidal and antimicrobial."

This new bio-insecticide is already making a difference for macadamia farmers, who rely heavily on honey bees for pollination. "Before the introduction of Sero-X, it was not uncommon for growers to lose up to 50 percent of their crop without the use of pesticides," said Macadamia Industry Agronomist Neil Innes.

"There's more reliance on less specific, more broader spectrum [synthetic pesticides](#) which have a lot more effect on our pollinators," Innes said. "There are three basic pesticides, and they all have major constraints. It's a big juggling act to not damage pollinators, moving hives around lots of growers have had issues with bee kills."

As demand for the product grows, Innovate Ag is hoping to expand from their current pilot plant in Goondiwindi. Watts said the company is hoping to commission a second production facility this year, to ensure a production capacity of 10,000 litres of Sero-X per week. The addition of a second plant would provide room to triple this production if needed.

"I don't need to wear safety gloves because it's so benign to use, so it's an easy choice to make for us if we've got to use a spray when the bees are out feeding and pollinating, it's sort

of a no-brainer,” said James Thomas, a Gympie-based grower who was the first farmer to try Sero-X when it was approved last year. “I can just spray exactly when I need it to get the best use of the product and the bees will continue to feed and pollinate the flowers.”According to Bi-PA’s chief executive officer, the agreement with Innovate Ag means Bi-PA can help develop and register the insecticide for use outside of Australia and New Zealand, while continuing production at the current plant in Goondwindi. The partnership, he said, will help address the needs of growers in the international market, and speed up the development of this revolutionary insecticide.

## One Thought On “Insecticide Use By Nearby Cotton Farms Is Causing “Devastating” Losses For An Australian Bee Keeper.”

1.  ANGELO ELIADES

*February 22, 2017 at 6:15 pm*

A few more facts about the neonicotinoid insecticide fipronil.

Fipronil is listed in the US EPA’s Group C cancer classification as a possible human carcinogen

It is a very persistent poison and takes over 100 days for fipronil to breakdown to 50% of the concentration that it was applied at, so if the chemical is reapplied each year, it will build up in the soil.

It also has considered a high bioaccumulation hazard as it can build up in fish and animal tissues. Once absorbed into the body, it is difficult to eliminate, as much as 50% of the chemical is left in the body.

Fipronil is not water soluble, and has a moderate propensity to adhere to organic matter in soil, and therefore also presents a moderate hazard for moving off site from where it is applied and poisoning surrounding areas. Spray drift is not the only mechanism for contamination of non-target areas.

Furthermore, being a neonicotinoid pesticide, it is a systemic pesticide, and will be absorbed by all plants through the soil in contaminated non-target areas, rendering every part of the plant in the area toxic. These systemic pesticides translocate through plants and may be found in pollen, nectar, and guttation droplets (small drop of water that plants ‘sweat’ from the tips of the leaves), and can be consumed by pollinators such as bees. The result is a toxic ecosystem where the poison is being exuded slowly over time. Particularly in the case of neonicotinoids, there is evidence that residues can reach high enough concentrations to be hazardous to bees. The length of time that systemic products remain toxic to bees may vary and has not been studied.

You also don't need lethal doses of neonicotinoids to adversely affect a bee hive, stored pollen, nectar, or wax comb can become contaminated with pesticides. Severely weakened or queenless colonies may not survive the winter.

A growing body of scientific evidence suggests that neonics can negatively influence bee health and may make bees more vulnerable to mites and other threats. For instance, a study published in the journal Science found bees exposed to neonicotinoid pesticides seemed less able to navigate their way back to their hives. And another study documented negative effects on populations of wild bees in seed-treated fields and in surrounding meadows.

A recent study published in Nature found that neonicotinoid pesticides affect honeybee queens. The researchers wrote that the "reproductive anatomy (ovaries) and physiology [of neonicotinoid exposed queens] were compromised."

As a toxicologist, I think this information will paint a clearer picture of the neonic problem, it's far worse than overspray killing the bees dead outright. Slow, sub-lethal cumulative poisoning is less obvious but a more insidious threat.

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*Stop Press*

### Seed suppliers- online catalogues

The Seed Collection from \$1 packet, \$2 postage under \$20, free postage orders over \$20  
Seeds2freedom -\$3.50 packet - Free postage-  
Green Harvest prices and postage vary

### Moon Gardening Calendar available from

[www.moongardeningcalendar.com](http://www.moongardeningcalendar.com)

\$15.50 including postage

J & R Scott

P.O. Box 492

Kuranda Qld.4881

*Editor, Carol Laing - [newsletter@permaculturecairns.org.au](mailto:newsletter@permaculturecairns.org.au)*

Please **PRINT – SIGN – SCAN** and **RETURN** by email to  
treasurer@permaculturecairns.org.au.

## Permaculture Cairns

### Membership Form 2017

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 Cairns Penny or Online Direct Deposit to Permaculture Cairns A/c at Cairns Penny in Grafton Street. BSB704-966 A/c No. 100009440 please include your Surname as reference.

If you have a Permaculture Design Certificate could you please complete the following survey.

YOUR NAME: .....

Who was the Course Presenter: .....

When did you do the Course: .....

Where did you do the Course: .....

Permaculture Cairns Public Meetings - All Welcome Every month on the Third Tuesday of month Jan to Nov (Second Tuesday Dec). Doors open 6pm, meeting starts at 6.30pm at: ARC Disability Centre, 92 Little Street, Manunda

### Enquiries

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