

Permaculture Cairns Newsletter

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS FOR 10 YEARS



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

Permaculture Cairns Incorporated Web Site: www.permaculturecairns.org.au

Tuesday 21st July 2020

Meeting will be held online again this month, so check it out at:

[Permaculture Cairns Facebook Page](#)

[Permaculture Cairns Facebook Group](#)

[Permaculture Cairns YouTube Channel](#)

6:30 PM

AGENDA

Welcome to all and Info on upcoming local events.

Member talk- A home nursery set up. Presented by Carol Laing

The meeting will be live streamed from Carol's backyard so if you have any questions on creating a nursery at your place make sure you put them in the comments of the live stream for Carol to answer.

The Tropical Veggie Patch

The weather is so fantastic now everything is growing beautifully.

Flowers everywhere - Pentas, sunflowers, salvia, marigolds, zinnis, coleus, dianthus, golden candle, angels trumpet, elderberry, native bees, birds and butterflies all enjoying the garden.



REPORT ON THE *-New plants for this year include Ethiopian cabbage, Purple Brocolini, Kohl rabi, Hong kong broccoli, Spicey Basil, Zucchini Tromboncino*

***Zucchini Tromboncino** is fantastic, this is grown on a trellis, the first fruit grew to 150cm long and was so heavy it broke the vine. The fruit was still young as the skin had not hardened up. I Decided to cut and eat. The flesh is quite firm and sweet especially when raw and is delicious either raw or cooked. And I think has a more interesting taste than the usual zucchini. I had almost given up growing Zucchini because of the Powdery Meldew, but this plant is worth the trouble of spraying every so often and removing the old leaves affected by the meldew. I had used Eco Fungicide and it works a treat, definitely worth growing.*

The **Ethiopian cabbage** is about a metre high and producing lots of lush leaves for salads, stirfry steaming or smoothies. I have pinched out the leading growing point so they are now starting to bush up by sending out side shoots with more leaves.

Spicey Basil is only a small bush to 30cm but has lots of leaf and seems to be handling the new Queensland fungi on Basils really well. Has a great taste.

Tropical Perennial Food Plants. Some of the tropical perennial vegetables will grow in part shade where there is good light but no direct sun. This makes the leaves on these groundcover plants more tender and lush, so give Sambung, Okinawa Spinach and Brazilian Spinach a try, they will be there for you all year round. Other Tropical greens to plant now are the Timor Lettuce, Kang kong, the Moringa tree, Aikiba and Sweet leaf shrubs all these have edible leaves with valuable nutrients and/or medicinal properties. Grow a hedge of Sweet Leaf, keep it to one metre high and harvest the lovely tasty high protein leaves all year round for salads or stirfrys. Carbohydrate root crops for the tropics, cocoyam, taro, cassava and sweet potato, so much to eat and you can grow it in your backyard.

What to plant now -Direct seed leaf amaranth, corn, beans, bok choy, gai choy, cucumbers, lettuce pumpkin, radish, melons, egg plant, tomatoes, kale, beetroot, carrots, brocolini, wong bok, beans and watercress.

Herbs - all the basils, tarragon, mints, garlic chives, coriander, parsley, chives, lemon thyme, thyme, oregano and spices turmeric, ginger, galangal, cardamom, Vanilla, Pandan and mother of all herbs.

Tips on keeping Parsley alive through the wet season. Don't plant it in the ground, leave it in the pot and sit the pot on top of the soil, the roots will go into the soil, this stops the crown rot of the plant when it is hot and humid.

This goes for Comfrey too, even in well drained soil it usually dies off in hot wet humid conditions. Alternative is to grow one in a pot to replant when the cool weather comes.

Something eating your seedlings off - try diatomaceous earth, it is silica which has sharp edges and will stop beetles from eating your plants off at ground level. If not beetles try a Mollusc drench.

Some really interesting YouTube sites

Charles Dowding (on Instagram as well) No Dig organic gardening in UK but what he does is very interesting. Lots of information. He grows to sell the produce all year and has some good tips for a market gardener." Even though it is in the UK just switch the months around June is their summer whereas June is our growing season.

Geoff Lawton has lots of videos on his "Permaculture Research Institute Website

Green Harvest online seeds - this web site has a massive amount of information on plants, seeds, books, tools.

The area of the seeds includes information on where to grow them, how to start them off and lots of other relevant information on the plants.

Check out the Edible Plants and the information of each of them. These are the plants I grow and sell here in Cairns. So if you have one of these Tropical Perennial Plants it might be worth a look at this web site for more information on how to grow them.

SEED SAVING & SEED SHARING

In recent months it has been shown how important saving seeds from your garden has become.

There are groups in the north who have joined together to share home grown organic open pollinated seeds.

The Community Seed Exchange Mareeba has been sharing seeds within their group for the past few months in response to seeds becoming unavailable due to overwhelming demand.

They are onto their 6th mailout list. I enquired if the list could be posted in the Permaculture Cairns Newsletter, and I expected a complete knock back because of privacy issues, but this is their reply.

They have generously advised

"If you like to share seeds with the Community Seed Exchange Mareeba please contact Ulla via email pederulla@hotmail.com and we will add you to our mail out list. Please let us know what seeds you have to share and what seeds you are looking for.

Happy Gardening"

I would strongly encourage you to share your seeds with the Seed Saver Groups of the Far North.

By growing seeds from this area the plants become acclimatised
Carol Laing

Farming crops with rocks to reduce CO₂ and improve global food security

- Enhanced rock weathering involves adding minute rock grains to cropland soils which dissolve chemically taking up carbon dioxide and releasing plant essential nutrients
- Unlike other carbon removal strategies enhanced rock weathering doesn't compete for land used to grow food or increase the demand for freshwater
- Other potential benefits include reducing the use of agricultural fertilizers and pesticides, lowering the cost of food production and increasing farm profitability



Image courtesy of: Iisa Kantola (University of Illinois, Champaign-Urbana)

Farming crops with crushed rocks could help to improve global food security and capture CO₂ from the atmosphere, a new study has found.

The pioneering research by scientists at the University of Sheffield together with international colleagues suggests that adding fast-reacting silicate rocks to croplands could capture CO₂ and give increased protection from pests and diseases while restoring soil structure and fertility.

Professor David Beerling, Director of the Leverhulme Centre for Climate Change Mitigation at the University of Sheffield and lead author of the research, said: "Human societies have long known that volcanic plains are fertile, ideal places for growing crops without adverse human health effects, but until now there has been little consideration for how adding further rocks to soils might capture carbon.

"This study could transform how we think about managing our croplands for climate, food and soil security. It helps move the debate forward for an under-researched strategy of CO₂ removal from the atmosphere - enhanced rock weathering - and highlights supplementary benefits for food and soils.

"The magnitude of future climate change could be moderated by immediately reducing the amount of CO₂ entering the atmosphere as a result of burning fossil fuels for energy generation. Adopting strategies like this new research that

minute rock grains dissolve chemically in soils, they take up carbon dioxide and release plant-essential nutrients.

Critically, enhanced rock weathering works together with existing managed croplands. Unlike other carbon removal strategies being considered, it doesn't compete for land used to grow food or increase the demand for freshwater.

Other benefits include reducing the usage of agricultural fertilizers and pesticides, lowering the cost of food production, increasing the profitability of farms and reducing the barriers to uptake by the agricultural sector.

Crushed silicate rocks could be applied to any soils, but arable land is the most obvious because it is worked and planted annually. It covers some 12 million square kilometres or 11 per cent of the global land area. Arable farms already apply crushed rock in the form of limestone to reverse acidification of soils caused by farming practices, including the use of fertilizers. Managed croplands, therefore, have the logistical infrastructure, such as the road networks and machinery, needed to undertake this approach at scale. These considerations could make it straight forward to adopt.

Professor Stephen Long at the University of Illinois Champaign-Urbana, and co-author of the study added: “Our proposal is that changing the type of rock, and increasing the application rate, would do the same job as applying crushed limestone but help capture CO₂ from the atmosphere, storing it in soils and eventually the oceans.

“Global warming is a problem that affects everyone on the planet. Scientists generally have done a poor job of getting across the point that the world must reduce emissions of greenhouse gases from fossil fuels and combine this with strategies for extracting carbon dioxide from the atmosphere to avoid a climate catastrophe.

Professor James Hansen from the Earth Institute at Columbia University and co-author of the work, added: “Strategies for taking CO₂ out of the atmosphere are now on the research agenda and we need realistic assessment of these strategies, what they might be able to deliver, and what the challenges are.”

Additional information

The Leverhulme Centre for Climate Change Mitigation

The Leverhulme Centre for Climate Change Mitigation is funded with an award of £10 million over 10 years from the Leverhulme Trust and includes UK partner institutes (University of Sheffield, University of Southampton, University of Cardiff and the Open University) and international partners (University of Illinois at Champaign-Urbana, James Cook University, University of California – Riverside, and the South East Asian Rainforest Programme).

The Leverhulme Trust was established by the Will of William Hesketh Lever, the founder of Lever Brothers. Since 1925 they have provided grants and scholarships for research and education; today, we are one of the largest all-subject providers of research funding in the UK, distributing approximately £80m a year.

The Department of Animal and Plant Sciences

The Department of Animal and Plant Sciences at the University of Sheffield is home to one of the biggest communities of whole-organism biologists in the UK. Their research covers animals, plants, humans, microbes, evolution and ecosystems, in habitats ranging from the polar regions to the tropics. This work aims to shed new light on the fundamental processes that drive biological systems and help solve pressing environmental problems. Researchers and students work closely with organisations ranging from the UK Environment Agency and the Royal Horticultural Society, to Heineken and Shell, with every student given the opportunity go on an optional field course between second and third year to habitats ranging from the Peak District to Tanzania. Second year students are also given the chance to make wildlife documentaries with the help of BBC film makers. Find out more at www.sheffield.ac.uk/aps.

The University of Sheffield

With almost 29,000 of the brightest students from over 140 countries, learning alongside over 1,200 of the best academics from across the globe, the University of Sheffield is one of the world's leading universities.

A member of the UK's prestigious Russell Group of leading research-led institutions, Sheffield offers world-class teaching and research excellence across a wide range of disciplines.

Unified by the power of discovery and understanding, staff and students at the university are committed to finding new ways to transform the world we live in.

Sheffield is the only university to feature in The Sunday Times 100 Best Not-For-Profit Organisations to Work For 2017 and was voted number one university in the UK for Student Satisfaction by Times Higher Education in 2014. In the last decade it has won four Queen's Anniversary Prizes in recognition of the outstanding contribution to the United Kingdom's intellectual, economic, cultural and social life.

Sheffield has six Nobel Prize winners among former staff and students and its alumni go on to hold positions of great responsibility and influence all over the world, making significant contributions in their chosen fields.

Global research partners and clients include Boeing, Rolls-Royce, Unilever, AstraZeneca, Glaxo SmithKline, Siemens and Airbus, as well as many UK and overseas government agencies and charitable foundations.