

Permaculture Cairns MAY Newsletter

EMPOWERING COMMUNITIES WITH SUSTAINABLE SOLUTIONS



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

Permaculture Cairns Incorporated

Web Site: www.permaculturecairns.org.au

PERMACULTURE CAIRNS

May Meeting & Information Exchange Night

Tuesday 17th May at 6pm for a 6.30pm start

Meeting Venue: ARC Disability Centre – 92 Little Street Manunda

Members please bring a plate of finger food to share and a friend or two!

Members are free but bring some change for a raffle ticket, non-members \$5

AGENDA

Welcome to Members, new Members and Guests

Workshops and Events notices

Permaculture Principle Number 5 - a practical explanation.

Guest Speaker Chris Gloor: Founder of Real Food Network Cairns is going to talk to us about how this Social Enterprise has rewarded local farmers and brought quality locally grown food to consumers.

Possible second guest speaker and if time allows there will be a few brief items on some of the following topics:

**Book review, Plants, Tools, Tips, Weeds, Pests, Recipes.
And if you have something to add please speak up.**

**About 8.15 we break for a cuppa and a chance to network with likeminded people.
Check out the books our Members Library –finished and on the way home by 9.00pm**

PERMACULTURE CAIRNS EXPO ROUNDUP

Message from the President – Jenny McGrath

Permaculture Expo was a great success, we had a huge line up of presentations and the stall holders managed to interact with lots of people who wanted to know more about Permaculture practices.

We would like to thank all those who volunteered their time to make the day possible. Many thanks to our hard-working Secretary Peter Spooner, our treasurer Craig Phillipson, Carol Laing, Bruce Zell, Terina Sylvester, Michael Hyde, Yujong Song, Caroline Tomkins, Niki Biro, Lindy Sinclair, Jason Webber, Judy Noller and Vanilda.

Events like these are only possible when we have members who contribute. We will be having a get together soon for our volunteers.

Backyard Meeting Roundup

On the 23rd April we went to the Cairns Centenary Lakes tropical food garden for a tour of the fruit and vegetable plants growing in the gardens. The tour was well attended with 19 participants.

David Warmington the curator of the Botanical Gardens gave us two and half hours of his time to educate us on the tropical food plants. The weather was great and we all walked away with some new knowledge.

Permaculture Principle No. 5

Use and value renewable resources and services
“Let nature take its course”

Make the best use of nature's abundance to reduce our consumptive behaviour and dependence on non-renewable resources.

The horse icon represents both a renewable service and renewable resource. It can be used to pull a cart, plough or log and it can even be eaten – a non consuming use is preferred over a consuming one. The proverb “let nature take its course” reminds us that control over nature through excessive resource use and high technology is not only expensive, but can have a negative effect on our environment

THE AMAZING MORINGA TREE

Moringa oleifera is a highly nutritious and multifunctional plant.

Also known as drumstick tree (because of the 30cm seed pods), horseradish tree (because the roots of young trees are used as a substitute for horseradish -(remember to peel the bark off first as the bark has toxic chemicals).

Moringa originated in India where it has been used for health purposes as well as food for centuries. It is now found in countries of the Middle East, Africa and the Caribbean. It has also become very popular in Australia over the past 5 years.

It is drought tolerant and disease resistant and yet it grows really well and very fast here in Cairns. I planted three in my front yard but they grew so fast and high I had to remove them so beware. If you plan to harvest the leaves, it is necessary to prune the tree to a height of 1 metre so you can easily reach the leaves.

Nutrition wise, the leaves are very very high in vitamin A, Vitamin C, Calcium, Iron and Potassium, also contains omega-3 fattyacids. The flowers are edible, tasting a bit like mushrooms. Flowers will bring in the bees. The young seed pods are high in protein and are boiled before eating. They taste like asparagus and are used like peas. Older seed pods can be fried and eaten, they taste like peanuts. Oil can be extracted from old seeds, and it can be used for cooking. The World Health Organisation recommends using the leaves in foods for malnourished children to help them regain weight and health within a month. Leaf extracts have been used as a natural fertilizer. So add it to you compost.

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GROWING FOOD IN THE WET TROPICS IN MAY

IN MY GARDEN IN MAY – look what can be grown now

The raised garden beds are full with beans, cucumber, kang kong, lettuce, rocket, bok choy, coriander, celery, Florence fennel, capsicum, eggplant, beetroot, parsley, brocolini, cauliflower, wombok, kale, celosia, edamame soybeans and bunching shallots. Tomatoes, Tropic, Black Russian Grosse Lisa and Cherry tomato grow on a large strong metal trellis.

The garden beds are bordered by perennial plants; comfrey, anise hyssop, holy basil, perennial basil, sweet basil, thai basil, birds eye chilli, garlic chives, cocoyam, taro, Okinawa spinach, sambung spinach, Brazilian spinach, ginger, turmeric, pineapples, pepino, bananas, papaya, dragon fruit, Barbados cherry, Grumachama, Lemon, Emperor mandarin, Cumquat and pigeon pea (for shade).

Ginger, turmeric, pineapples, taro and cocoyam grow under the shade of the pigeon peas. Flowering shrubs and small flowering plants are dispersed throughout the garden. I also grow a range of herbs in large pots at the back door. These don't need a lot of attention and will last for years if the potting mix drains really well for the chives, rosemary, thyme, lemon thyme, oregano and marjoram.

I don't use or need to use harmful pesticides, as the soil has been balanced with the necessary minerals and only natural fertilisers and composts are used when required. These practices make the plants unattractive to insects and if there are any invaders the birds will get them. There are 5 bird baths and one for the lizards in the garden and small birds are there all day.

Happy Gardening, Carol – I am about to run some workshops on gardening if you are interested see below.

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PERMACULTURE CAIRNS VEGETABLE GARDENING WORKSHOPS

With Carol Laing

Do you want to know how to grow nutrient rich food all year round in Cairns.

I have been gardening most of my life including five years as a market gardener in Darwin, ten years as a plant nursery owner and operator. And for the past few years I have been improving the soil on my 600sqmt block of land in Cairns.

The soil, was described as well leached sand but now has been transformed into a rich fertile soil, which grows lots of fruit trees, annual and perennial vegetables.

I have a passion to know more about the microbes in the soil so, recently I did two workshops: one was online with Dr Elaine Ingham on how to use a microscope and how to identify various bacteria and fungi in soils and composts.

The second workshop was a four day certificate workshop with Nutri-tech Solutions on Nutrition Farming which included the importance of balancing minerals in the soil, organic fertilisers, trace elements, the benefits of organic matter, humus, humates, fulvic acid and methods to increase beneficial microbes in the soil.

I can show you how to improve your soil.

What plants to plant and some tropical perennial plants that will be there for you all year.

How to increase the microbes in the soil and why this is important.

How to increase organic matter in the soil.

How to recycle green waste and kitchen scraps through various methods such as: compost heaps, compost bins, worms farms, bokashi bins and chipping for mulch.

Advice on plants to grow for mulching and for improving your soil.

I grow and sell tropical perennial vegetables in pots for planting out.

If you are interested in learning how to grow really fresh uncontaminated food, email me so we can work out suitable dates and times.

Numbers will be limited for each workshop which will allow everyone to have individual attention.

Workshops can be during the week or on weekends, state your preference.

Half day workshops are best.

Email: carollaing@hotmail.com

LOCAL WORKSHOPS AND EVENTS

AQUAPONICS WORKSHOPS WITH ROD INGERSOLL

28th May and 18th June

Aquaponics is a simple organic gardening technique to grow fresh organic vegetables and herbs using fish waste that acts as plant food.

Aquaponics combines the best traits of traditional aquaculture (fish farming) and the use of water and nutrients to grow vegetables (hydroponics). Rod Ingersoll has been growing aquaponic vegetables for over 15 years and runs short courses on the subject to impart his knowledge.

His next workshops are scheduled for: 28th May (1/2 day) and 18th June (full day). Bookings can be made through his website <http://aquaponicgardener.com.au/aquaponicstraining>

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BIODYNAMICS FAR NORTH QUEENSLAND

Sunday 15th May 10am to 4pm - Annual horn burial – making of Horn Manure - Preparation 500

Discussion on use of Prep 500 and Prep 501

Q & A Session

2pm Annual General Meeting - election of new Committee. If you would like to nominate for a committee position, please contact the secretary Robin, or reply to this email.

Farm Walk with Adam Collins

Address: 709 Kaban Rd, Kaban Collins Farm

Follow Kennedy Hwy from Atherton to Tumoulin/ Ravenshoe turn off, 9km to right turn into Kaban Rd 1.5km to drive on right. BDFNQ Signs will be up.

Please bring lunch to share, chairs and wear old clothes, enclosed footwear.

For enquiries: Hilary Smith 0427 392753

Come and join us filling the horns with lots of great conversations with like - minded people.

COMMUNITY FOODS LATEST NEWS

We'd like to introduce our new Co-ordinator [Peter Reay...](#) If you haven't met him yet, please introduce yourself next time you're doing your co-op shopping.

This coming Saturday there will be a Fermenting Workshop run at the co-op by Sarah Veitch. Fermented foods will help to shift your body ecology to a good healthy balance. You will learn to make suaerkraut, kim chi, cultured vegetables, beet kvass and water kefir. Places are limited so book soon. Details here.....

Fermenting Workshop 14th May 2016

What are the signs of unhealthy digestion? Acid reflux, Throat and nose issues (clearing throat, runny nose, etc.) Gas/bloating, Inflammation anywhere in the body. Skin disorders anywhere on the body, Negative reactions to food
Loose stools or constipation

Our bodies rely on proper enzymes and healthy microbes to work with pathogenic bacteria and to produce anti-bacterial cultures in order to strengthen the intestinal walls and to support our immune system.

Today we are challenged on many fronts: lifestyle and diet, deficient intestinal flora, stress, toxic chemicals in our food/water/environment, consumption of alcohol, and frequent use of antibiotics all deplete our healthy supply of beneficial enzymes and bacteria. This allows disease to take hold beginning with yeast strains. Supplementing with friendly bacteria help keep harmful bacteria from multiplying in our intestines. Fermented foods are THE best way to get these.

Poor digestion will eventually cause one's health to break down. Fermented foods will help to shift your body ecology to a good healthy balance. Heres what you will learn to make.

-Sauerkraut - and many variations of - using different vegetables. Traditional method taught. -Kim Chi - traditional method taught , -cultured vegetables eg beetroot and cucumber using the brine method -Beet Kvass
-Water kefir

You will leave the workshop confident in fermenting veges. I will show you methods that do not require expensive equipment. You can start straight away. I provide a large range of testers so you can understand how different vegetables/herbs and spices ferment and begin to get an idea of what suits you.
I provide a take home information booklet with step by step instructions and ongoing support.

Bookings are essentials - in person at Community Foods

Have you heard about the new bicycle collective Rubber Side Down who hold regular workshops out the back of the co-op? We are super excited to have them involved with the co-op, and getting more bums on bikes! [Check them out here...](#)

The Team at Community Foods Co-op **Address:** 74 Shields St, Cairns QLD 4870

Phone: 07 4041 5335 **Email:** shop@comfoods.org.au

Website: <http://www.comfoods.org.au>

CAIRNS REGIONAL POULTRY CLUB SHOW

Saturday 28th May2016 10am – 4pm

Poultry Pavilion, Cairns Show Grounds, Quigley Street entry

FNQ COMMUNITY EXCHANGE MAY Calendar

Relocalising all of Far North Queensland

LETS is a Community Trading System which uses "Bartles" for trading.

CAIRNS – Sunday 1st 10am – 3.30pm Permaculture EXPO, ARC Community Hub 52 Mcnamara St, Cairns. Buy plants/second hand books/magazines/ raffle tickets with Bartles. This is not a LETS event, however LETS members are welcome to participate and trade. Presentations and demonstrations FREE ENTRY.

CASSOWARY COAST - Sunday 1st Johnstone River Community Garden Permaculture Picnic Celebrating Mamu Health 26th Anniversary, Flying Fish Point Rd, Innisfail. Tropical gardening workshop and garden tour. Activities from 9am. Garden harvest lunch at noon. This is not a LETS event. Event host: Bernie - 0403523244

KOAH – Saturday 7th 9am – 1pm Monthly Market and Trade at Koah Community Hall. You are invited to be part of the local Koah Monthly Marke, an excellent family friendly venue. This is a traditional market style with the option to trade in Bartles. \$5 or 5B per stall, set up from 8am . If you want to register, visit the "Koah Monthly Market" facebook page or just come on the day. Event host: Tonielle – 0422058995

MALANDA - Saturday 7th 10 – 12 noon. Malanda Trade in the Park. Eacham Memorial Park, opposite the post office. Bring along morning tea to share, something to trade and display your wares. There is a shelter, so it's an all weather event. Event host: Katrin 40966755.

ATHERTON – Sunday 8th From 6pm Indian Dinner & Trade – 11 Evans Street, Atherton Bring along a plate of something deliciously Indian to share and something to trade. Event host: Irene Chapman 0439914876

CASSOWAY COAST – Sunday 15th 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. Event host: Bernie - 0403523244

RAVENSHOE – Saturday 21st 12 - 2pm Trade afternoon Youth Shed, Ravenshoe Community Centre, 3 Bolton Street. Following Community Gardens gathering - come and check it out. Child friendly event. Bring something to trade and some lunch to share. Event host: Kathy - 40977864

YUNGABURRA – Saturday 28th 12 - 2pm that retro café Trade Afternoon. This event is immediately after the Yungaburra Market. Bring along something to trade, a rug to display your wares. 100% Bartles for drinks from the menu, you will need cash for lunch and drinks from the display fridge. Please be mindful when setting up to keep the path clear at the front of the shop. There is also an area at the back of the building available for LETS trading, just through the Art Garage to the right. Event Host: Melitta - 40952340

KEWARRA BEACH – Saturday 28th 4.30 – 8pm Afternoon/Evening Dinner Trade, Kewarra Beach drop off point. Bring along something delicious to share for dinner and a table or a blanket to display your wares Event Host: Ilona - 0438759711

CAIRNS CITY - Sunday 29th 12- 2pm - Lafew Teahouse, 33 Sheridan Street. LETS relies on member initiative and participation to make events happen - At Lafew we provide a prime position toposite Rusty's Market. We offer: kombucha, tea and coffee. Available 50/50 Bartles/\$.Bring your trading sheets and goodies. We like to focus on edible plants and 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

MAY 15th - DEADLINE FOR JUNE CALENDAR

All details to Melitta - fnqces@gmail.com or 40952340 to be included in 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 to join LETS if you are not yet a member.

EVENTS & NEWS FROM HOME AND AROUND THE WORLD

Recycled coffee grounds give rise to Fremantle mushroom farm

By [Laura Gartry](#)

From ABC News



Photo: [Ryan Creed and Julian Mitchell show off their home grown mushroom boxes. \(ABC News: Laura Gartry\)](#)

An ambitious plan to start WA's first urban mushroom farm using coffee grounds to grow the fungi has come to fruition, diverting three tonnes of coffee waste from landfill.

Last year, best mates Ryan Creed and Julian Mitchell saw a market for mushrooms and a cheap way to grow them, with moist coffee grounds providing the perfect soil for gourmet oyster mushrooms.

The fly-in fly-out mine workers successfully crowdfunded the \$30,000 needed for their plan to cycle around Fremantle every day picking up the waste and taking it to a commercial urban farm to mix with mushroom spores.

Over the past three months they have produced 240 kilograms of mushrooms using three tonnes of coffee grounds in a sea container in a Fremantle industrial area.

They are now selling the mushrooms back to local restaurants, while hundreds of other people are now growing their own mushrooms with their boxed home kits.

Mr Creed said the response from the public had been "phenomenal".

"We've been overwhelmed by our start and we sold out of our first crop," he said.

"We've sold roughly 400 boxes after 30 days of production so it's far exceeded our expectations, people are surprised that you can grow them on your kitchen bench."

They are now regularly supplying mushrooms to more than 10 restaurants and are beginning to branch out further.

"With our boxes we've got them online, but we're looking to get them into retail stores and eventually a national chain," Mr Mitchell said.

COFFEE GROUNDS GET THIRD LIFE AS GARDEN FERTILISER

Mr Creed said only 1 per cent of a coffee bean ended up in the cup, while the remaining grounds become a problematic waste product.

He said about 300 tonnes of coffee waste from the Fremantle area alone went to landfill each year.

The coffee waste collected for the mushroom farm is mixed with straw, which is later repurposed as garden fertiliser.



[Photo: Mushroom spores incubating in a cool room. \(ABC News: Laura](#)

[Gartry\)](#)

Mr Mitchell said it was hoped this little-known method of mushroom farming could help reduce the large carbon footprint agriculture can produce.

"Urban farming, such as mushroom, has very low input in terms of water use, electricity use, no chemical input. So we see things like urban mushrooms and other products coming online really decentralising how we go about growing food," he said.

The two would-be mushroom moguls set-up the social enterprise "Life Cykel" to create sustainable food and educate others about healthy living.

"We've just been able to bring on 10 schools to use the mushroom growing boxes for fundraisers as a healthier alternative to chocolate," Mr Creed said.

Fremantle restaurant Bib and Tucker's head chef Scott Bridger is using the mushrooms from his coffee waste on his new menu.

At the moment, the restaurant has two or three kilograms delivered each week for a signature dish.

"They are so delicate, so full of flavour and I think the best part is that they come from our coffee. They are grown in our coffee and delivered back to us as mushrooms, it is just winner all around," Mr Bridger said.

"We've been selling lots of it, people seeing "Fremantle oyster mushrooms" on the menu, straight away their eyes light up, it's local and different."

[Anyone interested in recycling coffee grounds in Cairns??????????????](#)

[Contact – newsletter@permaculturecairns.org.au](mailto:newsletter@permaculturecairns.org.au)



CELEBRATE ALL THINGS GARDENING AT THE 2016 QUEENSLAND GARDEN EXPO!

What do you get when you combine more than 35,000 gardening enthusiasts, 360-plus exhibitors, eight live stages, celebrity speakers and guests, landscape garden displays, food courts and entertainers? Australia's largest sub-tropical gardening event, the **2016 Queensland Garden Expo!**



Planning is now well underway for 2016 and we plan to celebrate with some great new features, including a new kids area with gardening activities especially for the little ones.

You can also look forward to an extensive lecture and demonstration program, beautifully crafted **landscape display gardens**, hundreds of diverse and interesting exhibits (including **55 nurseries**, selling over 40,000 plants a day), a **giant organic kitchen garden** and a 'Gardeners and Gourmets' **cooking stage**.

Not to mention great food, entertainment and a range of free children's activities including street performers, musicians, the children's playground and animal farm coupled with the multitude of food stalls and special interest activities all combine to make the Expo a great day or weekend out for the whole family."

We have even put together some great holiday packages so that you can enjoy all the best of Queensland Garden Expo and the Sunshine Coast.

Be sure to mark **8-9-10 July, 2016** in your diary now for another 3 days of gardening innovation, information and inspiration.

If you are in the area, go, it is amazing

From the CSIRO

CLIMATE SCIENCE CENTRE A WIN FOR AUSTRALIA'S FUTURE

The CSIRO has today announced the establishment of a national climate research centre to be based in Hobart.

CSIRO Chief Executive Dr Larry Marshall said the CSIRO Climate Science Centre will focus on climate modelling and projections for Australia, drawing on both national and international research expertise.

"Our Strategy 2020 is focussed on collaboration, global connection, excellent science and innovation – all four of these pillars are at work in this Centre," Dr Marshall said.

"As I indicated at the start of CSIRO's current broader change process, it is critical that we retain the capability that underpins our national climate research effort.

"The announcement today is a culmination of the ongoing consultation and feedback we've had from our staff and stakeholders, and this new Centre is a reflection of the strong collaboration and support right across our system and the global community."

Operating as part of CSIRO Oceans and Atmosphere, the new CSIRO Climate Science Centre has a guaranteed research capability for 10 years and will focus CSIRO's climate measurement and modelling researchers and resources.

Collaboration and partnership will be a cornerstone of this decadal commitment for Australia. In recognition of this, the Minister for Industry, Innovation and Science has agreed that an independent National Climate Science Advisory Committee will be established.

The Committee will have representation from CSIRO, the Bureau of Meteorology and other experts from Australia and overseas.

It will report at Ministerial level to inform the future direction of Australia's climate science capability and research priorities.

The Minister will work with the Minister for the Environment in the Committee's establishment.

"The Centre, with support from the Advisory Committee, will allow scientists across the nation to provide a decadal commitment to climate research in the nation's interest," Dr Marshall said.

The foundation of the Centre will be 40 full time CSIRO scientists.

It will work closely with researchers from Australian universities and other stakeholders.

Working closely with the Bureau of Meteorology, the CSIRO is also planning to deepen its existing partnership with the UK Meteorology Office.

CSIRO will offer its unique Southern Hemisphere modelling capability and measurements to the UK's global model, helping to build a model that is even more relevant for Australia and other Southern Hemisphere nations.

All of CSIRO's critical measurement infrastructure, such as the ice and air libraries, ARGO float program and Cape Grim, will be guaranteed in the same manner as the other national facilities such as the RV *Investigator*, which is also centred in Hobart.

CSIRO thanks Australia's Chief Scientist, Dr Alan Finkel AO, and its colleagues at the Bureau of Meteorology for their support in shaping this important national agenda.

From Shareable online newsletter

Look what other countries are doing about food waste.

Yes Cairns does compost wet waste but wouldn't it be better if the home user recycled it at home and used it to grow fresh food – its tooooo valuable to waste and very expensive to treat when polluted with other garbage.

Give it some thought!!!! Perhaps Council should give those that recycle their kitchen scraps and green waste a reduction in rates charges.

Food waste has become an enormous global problem, with an [estimated one third](#) of the world's current food supply for human consumption being lost or wasted every year. And the solutions aren't simple, as food waste is as complex a problem as it is dire. Food waste occurs at every step along the supply chain, including producers and distributors who reject imperfect food, stores and restaurants that discard uneaten food, and consumers who throw away leftovers or allow food to spoil. In a world where [795 million people go](#) hungry every day, food waste is unacceptable.

In addition, 97% of food waste ends up in landfills, and the methane gas released from rotting food – the same thing that's released in your refrigerator drawers causing perishables to expire faster – is 30 times more potent than carbon dioxide as a greenhouse gas. So reducing food waste has an environmental impact as well, playing an important role in curbing climate change.

Addressing food waste through prevention, redistribution and composting is an emerging focus for city leaders. Inspired, in part, by the report [Wasted: How America Is Losing Up to 40 Percent of Its Food from Farm to Fork to Landfill](#), by [Dana Gunders](#), staff scientist at the NRDC, food waste is a hot topic.

Despite the magnitude of the problem, solutions exist to prevent food waste—many of them fairly easy and inexpensive to implement. In fact, a great deal of food waste prevention can be accomplished simply by changing people's habits.

Everyone can help reduce food waste and there are steps that elected officials, city managers and other leaders can take to make food waste prevention a widespread practice. Countless resources, tools and initiatives to prevent waste and draw attention to the issue have already been created:

- France became the first country to [ban supermarkets from disposing of unsold food](#). Supermarkets in France now donate unsold food to charities and food banks.
- The [Food Too Good to Waste](#) toolkit provides families and communities both strategies and tools resulting in a nearly 50% reduction in preventable food waste.
- [Just Eat It](#), a documentary film about food waste, is screened around the world.
- National Geographic features the ugly foods movement in its cover story, [How 'Ugly' Fruits and Vegetables Can Help Solve World Hunger](#).
- [ReFED](#) – a collaboration of more than thirty business, nonprofit, foundation and government leaders committed to reducing United States food waste – creates [numerous resources](#), including a [Solutions to Food Waste](#) interactive chart and the [Roadmap to Reduce U.S. Food Waste by 20 Percent](#).
- [WRAP](#), a UK organization that works in “the space between governments, businesses, communities, thinkers and individuals,” creates the [Love Food Hate Waste](#) program to educate and instruct people about food waste prevention strategies.
- [SHARECITY](#) is [crowdsourcing information](#) about food sharing activities enabled by Information and Communications Technologies (ICT). They're creating a searchable database of 100 cities around the world.
- [Save Food](#), a joint initiative of the Food and Agriculture Organization of the United Nations (FAO), the United Nations Environment Programme (UNEP), Messe Düsseldorf, and interpack, forms to fight world food waste and loss through a global alliance of all stakeholders.

- Italy offers [tax breaks to supermarkets](#) that donate their waste food to charity.
- [FoodCloud](#) announces a ground-breaking partnership with Tesco Ireland to redistribute surplus food from 147 grocery stores to charities and community groups.
- The [Real Junk Food Project](#) creates cafés in the UK that serve restaurant-quality food from produce headed to the landfill.
- The [Think.Eat.Save](#) campaign of the [Save Food Initiative](#) is created to “galvanize widespread global, regional and national actions, and catalyze more sectors of society to be aware and to act.”
- [LA Kitchen](#) recovers healthy, local food from the waste stream to feed the hungry and provide culinary training to unemployed adults, particularly adults exiting prison as well as foster kids aging out of the system.
- A growing number of apps are created to reduce food waste, including [Waste No Food](#), [Copia](#), [Zero Percent](#), [Pare Up](#), [Spoiler Alert](#), [FoodKeeper](#), [Food Cowboy](#) and many more.
- [Imperfect Produce](#) launches to deliver ugly fruits and vegetables in the Bay Area.
- End Food Waste’s [Ugly Foods](#) movement grows into a global community connected by social media platforms.

For city officials, reducing food waste remains a matter of educating residents, providing the necessary infrastructure and creating a consistent messaging strategy that addresses both sides of the issue: preventing food waste and recycling organic matter once there is waste.

Shareable connected with three food waste reduction experts to get their recommendations for city leaders in the effort to help reduce food waste on a municipal level. We spoke with Cassie Bartholomew and Jeff Becerra from [Stop Waste](#) in Alameda County, California, which has one of the largest food scrap recycling programs in the country, and Veronica Fincher, Waste Prevention Program Manager at [Seattle Public Utilities](#) in Seattle, Washington, where it’s now illegal to throw food and food waste into the trash.

Their responses include great tips to prevent food waste, strategic partnerships for food redistribution and recycling options for food waste once it is generated. Here are their top 27 recommendations.

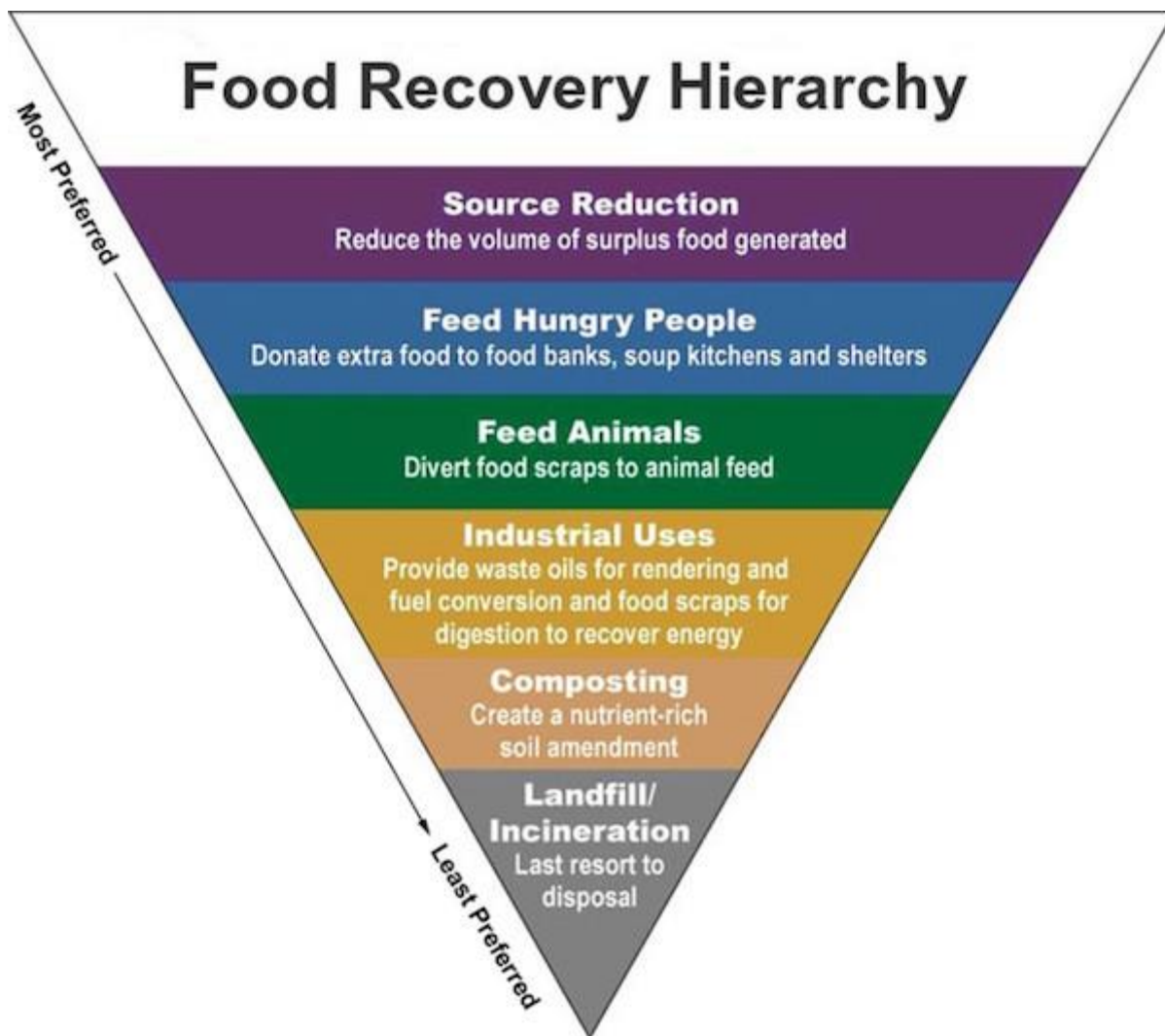
1. Look to Prevention First

Just as the materials recycling hierarchy places reduction as the best option, ahead of reusing and recycling, food waste has a similar hierarchy. Preventing food waste is a far more desirable option than dealing with it once it’s been created.

Composting is certainly better than letting food waste rot in the landfill. But it’s also important to remember that when food is wasted, all of the resources used to produce the food, including [water](#), are also wasted.

As Fincher explains, at the municipal level they’re trying to reduce the tonnage of materials going to the landfill through both composting and prevention.

“It saves everybody money if we don’t have stuff going into the waste stream period,” she says. “It’s a matter of trying to use resources wisely, conserve, keep rates as low as possible, and help our customers reduce the amount of food waste they throw out.”



The [food recovery hierarchy](#) places reduction as the most preferred means of reducing food waste.

2. Raise Awareness of Food Waste Reduction Strategies

One of the biggest challenges of reducing food waste is breaking people's habits and automatic behaviors. If someone has thrown away food scraps and uneaten food for decades, composting requires a complete behavioral shift.

The best way to accomplish this shift in thinking is to create awareness regarding the massive amounts of organic waste. The [Food Too Good to Waste](#) toolkit is designed to help families both track and reduce their individual food waste. It includes instructions and messaging and marketing materials as well as research conducted on reducing household waste. Numerous cities are already utilizing this toolkit for broader campaigns and food waste challenges, and it can be customized to work with any community or family.

Communities can also include food waste prevention with their municipal messaging, supplying tips and resources to help citizens implement food waste prevention strategies in their own daily lives.

3. Bring the Problem Home

Food waste prevention requires everyone to do their part. Programs that people can easily implement at home and that involve the entire family bring food waste awareness to people of all ages.

Therefore, it's essential to find and create ways to work with families to minimize food waste.



An estimated one third of food produced in the world for human consumption is being lost or wasted.

4. Reduce the Ick Factor

Some people already understand the benefits of composting, while others push back with concerns about cleanliness and rodents. As Becerra points out, compost consists of the same waste that people are already generating, they're just sending it to a different location.

"When you have a new waste stream like this, people don't necessarily get it," he says. "There's sort of this ick factor that people need to get over."

Becerra suggests creating simple behavioral changes, such as designating a small pail in the kitchen to collect vegetable trimmings and disposing of food-soiled paper in an outdoor organic bin.

5. Support the Growing Community Composting Movement

[Community composting](#) programs use previously wasted resources as local assets and reinvest them back into the same community. Many of these food waste prevention programs are powered by bicycle. City officials can support community composting programs and partner with them to further engage the community.

6. Educate Composters about Prevention

One of the challenges that Stop Waste faces is getting people who are already composting to make a deeper commitment to food waste prevention. Composting is the fifth tier of the EPA's Food Recovery Hierarchy, so it's important to educate seasoned composters about the importance of reducing food waste in the first place.

"People may feel like they're already doing their green duty," says Bartholomew. "They feel good about [food] recycling. It's easy to do. It doesn't take as much thinking and analysis as prevention."



Through composting, organic waste becomes fresh soil. Photo: [USDA](#) (CC-BY)

7. Look at the Big Picture

Because food waste is a complex issue, it's important to look at the big picture as well as the steps toward ideal solutions. Stop Waste did some strategic planning to assess the whole waste management cycle—how materials are produced, consumed and ultimately discarded in their area—to create a closed-loop cycle.

“That’s where the prevention and reduction piece came in,” says Bartholomew, “from looking at the EPA’s food recovery hierarchy and trying to develop resources and best practices around reducing waste through prevention, reduction and donation, then composting the rest.”

8. Work on a Community Level

Raising awareness of food waste prevention and recycling should be part of a top-down messaging effort, including mailers, posters and websites. But the message should also be community based, reaching community members in familiar places. Where are people in the community gathering? What messaging will they respond to? What kind of hands-on education can you provide? These are key questions to ask.

9. Develop Culturally Appropriate Materials

Developing culturally appropriate materials for community members works hand in hand with community outreach efforts.

Determine your target market, then work with community organizations to find the best ways to spread food waste messaging and disseminate resources. Be culturally sensitive. Work closely with neighborhood organizations to determine the most effective strategies for their specific community, then support them in doing the work. A marketing message has far greater impact when it comes from someone within a community.

“We work with community organizations and nonprofits so they can help educate their communities,” says Becerra. “They work in conjunction with us, but in a way that resonates with them. We’ve been visiting nonprofit groups over the last couple of years and have worked closely with them to find the best ways to reach their constituents.”

The resulting projects include a community mural about composting and a door-to-door canvassing campaign.

“It’s a little more of a grassroots community effort,” says Becerra.

10. Create Food Waste Reduction Requirements for the Garbage Franchise

Cities typically control the garbage franchise, so they can require garbage haulers to pick up the organic stream. That organic stream can be set up to allow for food waste, including food scraps from preparation, uneaten food and food-soiled paper, such as paper coffee cups and takeout containers.

“If the city is able to site a commercial composting facility, that helps a tremendous amount as well,” Becerra says, “because you’re generating this new waste stream, so you need to have a place fairly close by to process it. The city can assist by making sure the permitting process is not too cumbersome for setting up a commercial composting facility relatively close to the city.”

Becerra stresses that waste haulers need to be on board and invested in the fact that recycling organic matter is worthwhile, and not simply meeting the requirements of their agreement.

11. Find the Right Location for Industrial Composting

Neighbors will likely push back against proposed locations for commercial composting facilities because they don’t want it in their neighborhood. Finding an agreeable location will be different for every city, but Becerra advises finding an area that is close to the city, but not necessarily in an urban setting. Many of the Alameda County composting facilities are in fairly remote areas.



The Food Too Good to Waste toolkit is full of resources and strategies to reduce household food waste.

12. Create Diverse Strategies and Messaging

In your communications about reducing food waste, offer a variety of options. Not every food waste prevention technique will work for every family or individual. In a small pilot study in Seattle, residents received a list of possibilities to reduce waste and tested three options over the course of a month.

“We were hoping it would settle on a few key, top strategies,” says Fincher.

However, they discovered a mix of 15 different strategies that worked for different people.

“It’s so individual,” Fincher explains. “We recognized that we need to allow for a lot of flexibility in our messaging so people can pick what’s going to work for them.”

13. Leverage Waste Management Funding to Raise Prevention Awareness

Cities may have robust budgets and resources available for food scrap recycling, but fewer resources available for food waste prevention. Bartholomew advises leveraging the recycling budget to raise awareness about food waste prevention.

“When rolling out a new recycling program, for example,” she says, “see if you can you pair the messaging to use this as an opportunity to teach people how to reduce the amount of food waste they’re generating in the first place, then compost the rest.” She adds, “It’s a complex message and you’re teaching multiple behaviors. Clearly there’s an opportunity to leverage that funding that already exists for outreach by adding in the prevention messaging.”

14. Create Food Waste Challenges

Building on the resources from the [Food Too Good to Waste](#) toolkit, you can create food waste challenges in households, neighborhoods and cities to bring awareness to the issue of food waste. Rally community members around the cause, and introduce a competition where people can challenge themselves and each other.

15. Utilize the UK’s Love Food Hate Waste Resources

[Love Food Hate Waste](#) is a project of the Waste and Resources Action Programme (WRAP). Their website offers a number of resources to reduce food waste, including an app to help people waste less and save money, a perfect portion tool, a two-week meal planner and hints and tips about date labels, freezing food, storing food and more.



To help reduce food waste, set goals for yourself and your household. Photo: [Madhan Karthikeyan](#) (CC-BY)

16. Create Partnerships

Partnerships play an important role in solving food waste at a grassroots level.

“If communities are going to be successful,” says Becerra, “multiple parties need to be on board. Working together is critical to making it happen, whether it’s food waste prevention or food scrap recycling.”

Potential partners include industrial kitchens, restaurants, school cafeterias, supermarkets, local community organizations and nonprofits. To facilitate these partnerships, there's a growing need for companies to create software and increase efficiency.

Food recovery—taking surplus food from one business and delivering it to organizations working to curb hunger—also requires key partnerships.

In Orange County, California, they found that restaurants didn't understand the [Good Samaritan Act](#), which protects businesses from criminal and civil liability when they donate food to nonprofit organizations. Concerns about liability had been preventing restaurants from donating food.

To educate restaurant owners, local health inspectors, who regularly visit the restaurants, were trained to discuss how to safely donate excess food.

The county then partnered with Yellow Cab and local 7-11 stores: Yellow Cab picks up the food during off-hours and takes it to the convenience stores to refrigerate overnight until pick up.

“These are innovations that are specific to that community,” says Bartholomew, “and they took a handful of partners to really think through and come up with.”

Food rotting in landfills produces methane, a greenhouse gas 30 times more potent than CO2. Photo by [Taz](#) (CC-BY)

17. Sell or Donate the Compost

Compost can be sold, donated to local schools and organizations or used for public projects, such as parks and gardens.

“One thing you can do,” says Becerra, “is have free compost giveaways. It's a way to show residents, who are essentially the customers, that their work is creating a useful product, and not just disappearing.”

One school district in Alameda County has language built into the city's franchise agreement to donate a percentage of the finished compost to the school district for school gardens. One of the haulers also has a donation program where they donate directly to community groups and school groups that can promote the use of local compost.

18. Do a Local Study

Gathering sample data can help determine next steps toward sustainable consumption in cities. Officials in Seattle conducted a small food waste study of 119 households. They asked each household to weigh their organic waste to help determine how much of their total waste stream was organic matter.

“That gave us some data that we didn't have from any other source,” says Fincher. “It showed that a third of our food waste is edible food waste, and that reducing it is actually something that is worthwhile.”



Food waste occurs at every stage of the food cycle, from producers down to consumers. Photo: [s pants](#) (CC-BY)

19. Create and Support Food Recovery Programs

Food waste recovery is an important, socially responsible aspect of reducing food waste. Businesses may be inclined to adopt food waste recovery practices, since production is unaffected. Encourage local stores and restaurants to join existing food recovery programs or to create a new program.

20. Create and Support Food Redistribution Tech Tools

Preventing food waste requires smart systems. Develop and use local tech platforms, such as online portals or mapping platforms, to connect those with surplus food to those who need food. In Seattle, for example, 200 different agencies pick up and redistribute food, but, as Fincher explains, “There are a lot of other generators and people who need the food.”

21. Celebrate Wins and Showcase Businesses Taking a Leadership Role

One of the best ways to get businesses and organizations on board with food waste reduction is to spotlight the ones that are already doing it well. This inspires and encourages other enterprises to find ways to participate.

“We’re always trying to share success stories and best practices,” says Bartholomew, “by highlighting businesses that are doing the right thing or highlighting how they overcame some barriers.”

22. Set Food Waste Reduction Goals

In keeping with the nationwide goal to [reduce 50 percent of food waste by 2030](#), city officials can create local goals to keep leaders and residents on track.

“By setting some sort of goal, tracking how much pre-consumer food waste is being generated, then categorizing why it’s being generated and whether that food gets composted or goes to the landfill,” says Bartholomew, “we can see where that food waste is generated and where it goes.”

Stop Waste will be gathering data for the next few years to yield better insight into the county’s larger waste generators. Once they’ve pinpointed the largest problems, they can work to reduce food waste in those areas.

23. Include Food Scrap Pickup in Mandatory Recycling Programs

Alameda County has a mandatory recycling program for businesses that includes organics collection. [Recycling Rules Alameda County](#) states the rules and gives information on both the expectations and best practices.

24. Support Food Waste Reduction Legislation

There's an increasing amount of legislation addressing food waste reduction—particularly regarding date labeling. Advocates aim to create a standard labeling system to help reduce food waste. The NRDC report *[The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America](#)* is a “first-of-its-kind legal analysis of federal and state laws related to date labels across all 50 states.” The report presents recommendations for a new labeling system.

Congresswoman Chellie Pingree from Maine recently introduced the [Food Recovery Act](#). The bill is aimed at reducing the amount of food wasted each year in the United States and includes nearly two dozen provisions to reduce food waste.

Supporting legislation around food waste issues is critical for city leaders working to prevent food waste.

25. Provide Food Waste Awareness Outreach in Schools

As Bartholomew explains, it's easier to instill positive waste reduction behaviors in children than to change existing behaviors in adults. To facilitate this behavior change, city leaders can create and support programs designed specifically for local schools and youth organizations.

Organizers should work with an existing recycling coordinator or find the resources to integrate food waste education into existing programs. To create consistency, Bartholomew recommends setting up a consistent infrastructure, so kids have the same recycling bins at school that they have at home.

Stop Waste's Student Action Project visits 5th grade and middle school classrooms to train teachers about recycling and food waste. Their team also helps families with the Food Too Good to Waste program, which works with them for four to six weeks. Bartholomew finds the citizen-science aspect to be particularly effective because students are bringing the same messaging home to their families.

26. Get Other Officials On Board

The best way to get other officials on board with a food waste reduction program is to show them projects that are successful in other cities.

“City officials have to deal with many of the same issues,” says Becerra. “It's helpful for elected officials to know that it is possible to do these things.” He adds, “Sometimes it takes a while for people to understand that this can be done fairly easily, and that it is important.”

27. Connect with Successful Food Waste Reduction Programs

Are you ready to get started on a food waste reduction strategy? The Stop Waste team is available to advise and share its best practices. Services and programs are well established in Alameda County, and the Stop Waste team stresses that they can help connect the dots for other leaders, too.

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



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