

TAS



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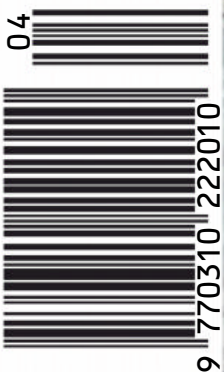
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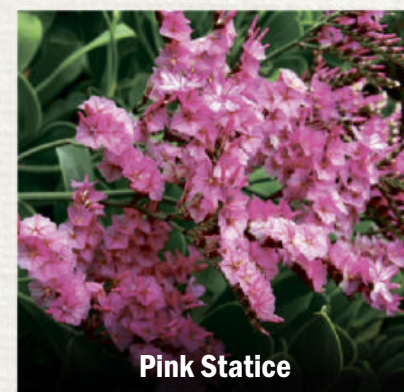
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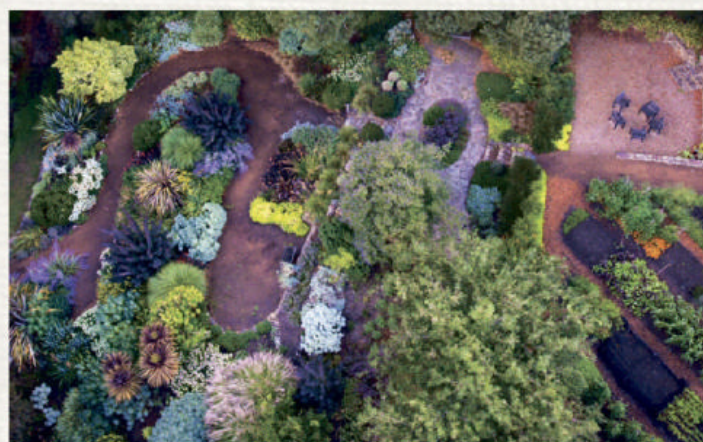
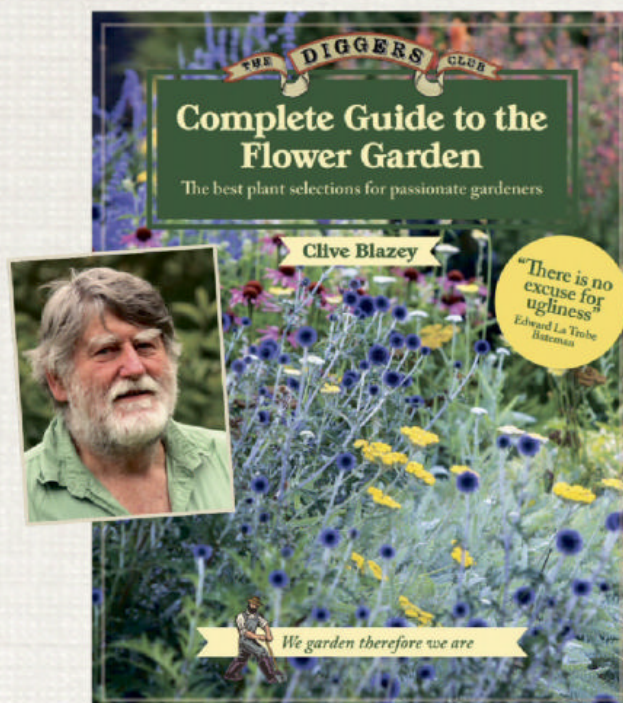


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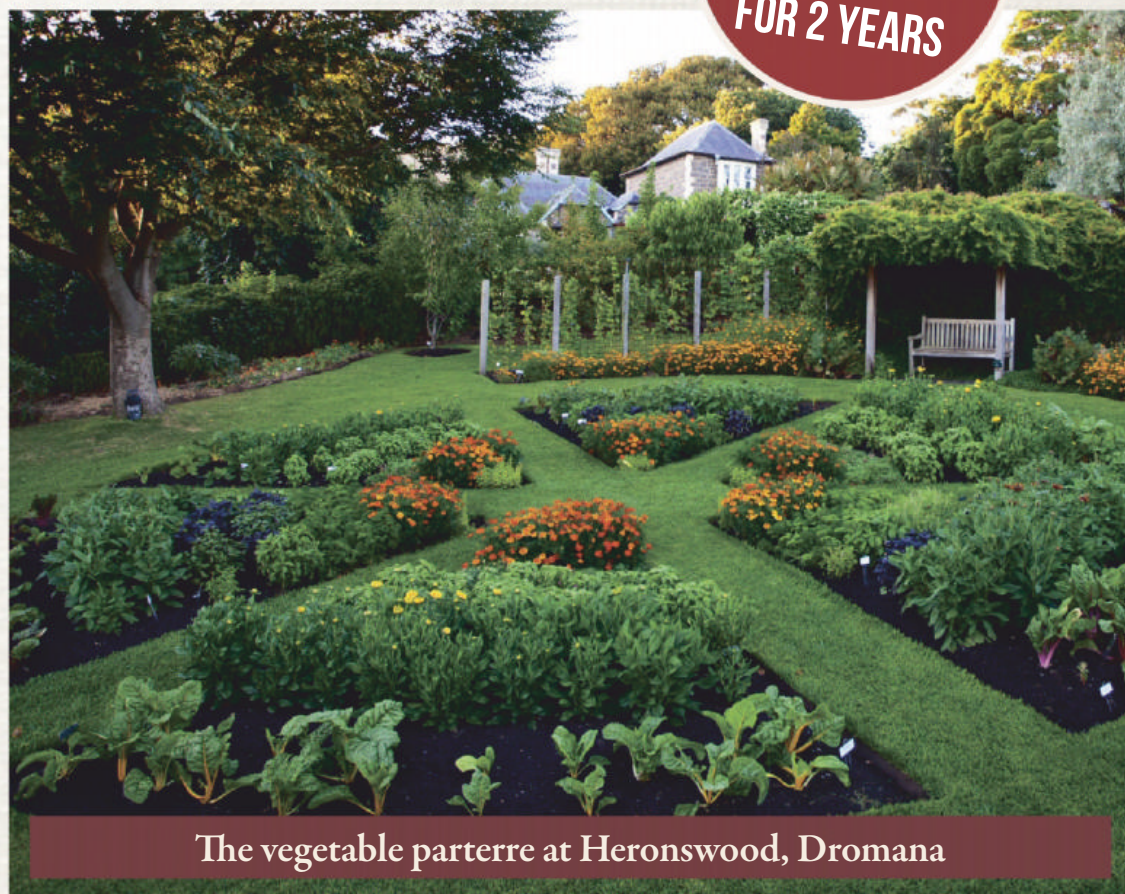
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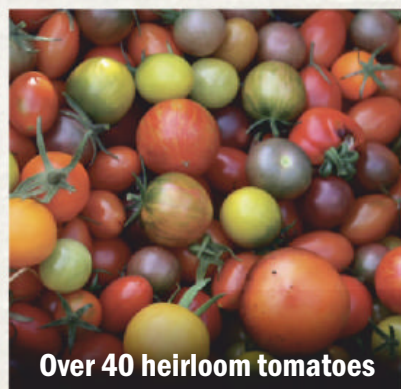
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Suburban market gardeners part two.



Jessie Kapitola:
grow healthy kids
with less rush.



Claire
discusses
bedding
options.

FRONT COVER: EG's chook maestro Claire Bickle, and her French Maran rooster, Jean Claude, getting ready to overhaul the coop and nesting boxes. Read more about Claire's great bedding ideas starting on page 28.

BACK COVER: Wendy Bartlett writes this issue about the challenges and delights of growing chillies. See her story starting on page 74.

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Tanya Jenkyn
in her new
home at last.



Bruce Hedge: milling
slabs for garden beds.

52

Dear readers,

Welcome to the summer issue. Many readers face a long, hot summer of difficult drought conditions and my heart goes out to you. Stay strong.

I've just been watching a short video clip of young Greta Thunberg addressing the UN General Assembly a few days after she'd called a massive worldwide student strike for the climate crisis. Her speech is impassioned, eloquent, well-researched, emotional, and honest. In fact, it's all the things that are missing from most speeches made by old, overfed, white male politicians around the globe.

But she was not just challenging the world's leaders. She was also challenging the world's citizens to redouble our efforts to fight the climate emergency.

I admit she made me uncomfortable. I could not deflect her outrage onto the easy targets. People like our current PM and his predecessors from both the old parties — who've known the climate science for decades — are obviously guilty of fiddling while the Reef bleaches. But I also felt an uncomfortable twinge about my own actions. I cast through the list of things I could do better to help the planet. It's not hard to do — we all have guilty secrets! And often we have some great justifications to go with them.

But one thing that's been abundantly clear to me for many, many years is that simply spouting about the problem on Facebook, or ear-bashing your family, or thinking less of your neighbours — none of those things help in the least.

What helps is when we band together as communities of like-minded activists — as global citizens — to work together to fight the climate crisis. Humans working together to insist on regulation to rein in the excesses of Big Capitalism can achieve remarkable

results. Western history is littered with examples too many to list.

When I arrived in Melbourne from New Zealand as a child in 1971, a lot of cars had a curious sticker on the back: it said something like "1054 - never again". It took me years to work out what it meant. It turns out that a year earlier the annual road toll in Victoria had peaked at 1054 deaths. Then the community started insisting on safer cars. Seat belts became compulsory. Without the community banding together to insist on regulation, Victoria's road toll today would be around 4,000 deaths per year. But it's down to around 240. Still too many deaths, but only 1/16th of what it could've been if Big Capitalism had got its way.

There is zero doubt in my mind that it's not too late to keep the world's warming to less than 1.5°C. But it is through joining existing climate crisis groups — rather than acting as individuals — that we start to have a big impact. Yes, I can install more solar panels, drive less, and so on, but 'doing the right thing' by ourselves is not enough.

It is by acting in concert with our fellow global citizens that we will beat this crisis. Greta has confirmed that people everywhere are just as concerned as we are. So maybe think about joining your local environmental activist group. Maybe think about joining Bob Brown when the blockade of the Adani coal mine is called.

As my old mate Jill Redwood, once famously stated at a forest rally in Melbourne decades ago: "Give me one good activist over 100 string bag users."

Brutal, but accurate!

Happy reading,

Alan



Climate rally in central Melbourne in September 2019. More than 300,000 people took part in Australia-wide actions.

Email your letters, messages and snaps to editorial@earthgarden.com.au or post to PO Box 1318 Broome, WA, 6725.

WHERE I WANT BE AT 83 ...

This is grocery shopping at my 83 year old uncle's house. He lives alone on his one acre block but spends all day tending to his vegies and fruit trees. Being an ex farmer his philosophy is 'if you can't eat it don't grow it'. He feeds the neighbourhood and expects nothing in return. But I take great peace in knowing that if he isn't in the yard working I will get a phone call to check on him as I live 1/2 hour away. My hero. **Cindy Farmer.**

That's so awesome.
John Darke.

Wow! Silverbeet on steroids. What a fabulous garden and gardener.
Dianne Macklin.

Very generous man, what a champion 83 years 'young'. A true gentleman and a treasure to the community — no wonder he is your hero. I hope he gets some help? If only some people did a fraction of this. The world would be a brighter place to live in.
Belinda McLeod.

Wow. That's how I want to be living at his age.
Simon Brown.

How fantastic. Keeps him fit no doubt. My 94 year old uncle is the same.
Silvana WiRepa.

Is he looking for a wife lol?
Marguerite Morgan.



EARTH MAIL is an open forum. The views expressed in letters from readers do not necessarily reflect the opinions of **Earth Garden**. Letters are always welcome, but please keep them concise. Good quality photos are also welcome.

EG IS EVERYWHERE! You can link up with other Earth Gardeners on Facebook, Instagram, Vimeo and the Earth Gardeners community group on Facebook. Go to earthgarden.com.au for all the social media links.



The remote settlement of Goongerah in the forests of Victoria's East Gippsland.

SHARE FARMER X TENANT HELPER

Much-loved EG writer, Jill Redwood, is offering living space on her amazing farm in the forests of East Gippsland. She's looking for a tenant who has their own tiny house, or caravan. Jill's 15 acre self-sufficient farm is on the river in remote forested East Gippsland. You'll help maintain the property, gardens, animals and fruit trees.

Jill works hard on broader campaigns and needs to downsize food production (she's already cut out four fruit trees) — or bring in other likeminded souls to help maintain and enjoy the riches.

This opportunity is perfectly suited to a 'can-do' couple or single person with practical and social skills. Pull up your gypsy wagon or tiny home to play Earth Gardeners in exchange for a bit of farm help.

Suit handy persons wanting a simple life with clean air, water and food on a quiet patch of earth to grow their food. You can email Jill at: jill@eastgippsland.net.au.



WHAT ABOUT GUARDING?!

This dog is a strawberry thief — not one left for me. Lucky I love you Princess Layla.

Angela Baker.

Our old Labrador would eat every single

fruit or vegetable in the garden! It was frustrating. She was very lovely though, like your strawberry thief.

Rachel Marks.

Name and shame!

Gaynor Barker.

My great dane Doug eats the raspberries off my bush. I thought it was birds until I caught him.

Tony Baker.

My Labrador puppy has been stealing my grandson's crop of strawberries also. I initially blamed the birds till she was caught red handed.

Jo MaWo.

Mine loves fruit and snow peas! Lucky they're cute hey haha.

Maree McGuire.

Snow peas — she eats them too — and wombok.

Angela Baker.



No strawberries for Angela.



UP TRUMPS WITH LEEK

Finally! Managed to grow a decent leek!
Fiona Gibberd, Hopetoun WA.

Is that a leek? Maybe I'm used to longer stems. Please keep the greens and use for stock and freeze down. Lovely flavour.
Rebecca Bowen.

It's a perpetual leek . . . sends out babies from the base and you harvest the large ones and allow the rest to spread and grow. And yes, food is precious, and nothing is wasted.
Fiona Gibberd.

It's lovely! I'll investigate these . . . many thanks.
Fiona Gibberd.

That's not a leek, it's Donald Trump in a stiff breeze.
Marie Podger.



SHARING IN ACTION

This is our new grow free cart. Just waiting for shelves. It will be chained to our front fence. "You take what you need and give what you can". It will have fresh vegies, seedlings, fruit, fresh flowers, gardening magazines. An amazing community garden and our town Cittaslow donated it to us to use for the local community.

Jan Edwards, Penrose SA.

Great idea.
Sharon Johnson.

Awesome!
Virginia Smith.

Is that Goolwa Cittaslow?
Jeanette Roulston.

Yes sure is. It will be in Goolwa beach SA.
Jan Edwards, Penrose.

Love it! Lots of conversations and happy community gatherings!
Kathleen Dott.

Well done. Love the concept. All the best. I know it will work really well.
Jan Smart.

MAURICE CAN CROW

Maurice the rooster has won the right to keep on crowing in his backyard each morning on the island of Oleron in France. Maurice's case and several other lawsuits against the sounds of church bells, cow bells, cicadas and the pungent smells from farms have prompted a national debate over how to protect rural culture from the encroachment of expectations that are more associated with urban areas.

In September the court decided the four-year-old cockerel's owner, Corinne Fesseau, will be able to keep the rooster on the small island of Oleron, off France's Atlantic coast. The judge in the south-west city of Rochefort also ordered the neighbours to pay 1,000 euros (\$1,600) in damages to Ms Fesseau for reputational harm, plus court costs.

Reacting to the ruling, Ms Fesseau shouted a victorious "Cocorico" (French for cock-a-doodle-doo) outside the courtroom and said she was "speechless". "It's a victory for everyone in the same situation as me. I hope it will set a precedent for them," she said, calling for a new 'Maurice law' protecting the sounds of the countryside.

Maurice's dawn crowing irritated neighbours, Jean-Louis Biron, a retired farmer, and his wife Joelle, from the Haute-Vienne region of central France, who claimed they were being roused at 4:00am by the rooster's shrill wake-up call. The neighbours asked the court to make the animal move further away, or be silenced. Ms Fesseau said she made several attempts



Maurice will be allowed to stay on the small island off France's Atlantic coast.

to silence her pet, including placing black sheets around his coop to trick him into thinking that morning had not yet broken — all to no avail. Ms Fesseau's lawyer, Julien Papineau, said his client was "happy" and "cried" when he told her the court's decision.

What began as a dispute between neighbours ballooned into a national cause célèbre, with 140,000 people signing a 'Save Maurice' petition or proudly displaying his picture on 'Let Me Sing' T-shirts. A support committee made up of roosters and hens from around the region also came to support his owner during the trial in July.

"The countryside is alive and makes noise — and so do roosters," read one

of their banners. The ruling may spell good news for a group of ducks in the Landes region of south-west France, where a trial is underway between farmers and neighbours angry over the creatures' quacks and smell.

Authorities also ruled against residents of a village in the French Alps who complained about annoying cow bells in 2017, while an effort last year to push out cicadas from a southern town to protect tourists from their summer song also failed. Since Maurice's tale came to light, some French MPs have suggested a law protecting the sounds and smells of the countryside as part of France's rural heritage.

—AFP

Any news items of interest to Earth Gardeners may be submitted to **ON THE VINE**. Please send notice of meetings, festivals and gatherings well in advance of the events, by email to: editorial@earthgarden.com.au



Climate strikes like this one in Perth in September 2019 reflect the sentiments of most Australians.

CLIMATE EMERGENCY REPORT

In September the Australia Institute launched the next instalment of its annual 'Climate of the Nation' report, which this year shows increasing levels of concern among Australians about the impacts of climate change. The annual Climate of the Nation benchmark report has tracked Australian attitudes on climate change for over a decade. The 2019 Climate of the Nation report finds that:

- Eight in ten (81 per cent) of Australians are concerned that climate change will result in more droughts and flooding, up from 78 per cent in 2018.
- The majority of Australians (68 per cent) agree that the Government should plan for an orderly phase-out of coal so that workers and communities can be prepared.
- The majority of Australians (54 per cent) reject the idea that Australia

should not act on climate change until other major emitters like US and China do so (only 25 per cent think we should not act).

- Almost two-thirds of Australians (64 per cent) think the country should have a national target for net-zero emissions by 2050, similar to the UK.
- Most Australians blame increasing electricity prices on the excessive profit margins of electricity companies (57 per cent, up from 55 per cent) or the privatisation of electricity infrastructure (55 per cent, up from 52 per cent).

The Climate of the Nation report has already begun to have impact.

ACS DISTANCE EDUCATION CELEBRATES 40 YEARS

Starting out with nothing more than a printing press and a few ads in the back of gardening magazines, horticulturalist

John Mason has come a long way. Often referred to as an educational innovator, John heads up Queensland-based ACS Distance Education, a school focussed on real world skills in a changing digital landscape.

ACS has developed over 700 courses, helping students worldwide with everything from setting up a vegetable garden to becoming life coaches, landscape designers, counsellors, business owners, and many more. What has ACS learned in 40 years? Skills matter. Degrees look great – on your wall. Employers need staff with real world training and skills.

"There are no secrets to getting your dream job – it's all hustle and hard work. Volunteer for non-profits, and get involved in the sector as much as you can. Capitalise on any opportunities you see," says John Mason.

All learners have the potential to



A tiny home by Designer Eco Tiny Homes of Ulladulla in NSW (www.designerecotinyhomes.com.au).

‘make it’. “There’s no such thing as an unteachable student. Some people learn best by getting out and doing; others need time to read, diagram, and take notes. Do what works for you. You have to advocate for yourself,” says John.

You can visit the ACS career maps at: www.acs.edu.au.

GROWING TINY HOME INDUSTRY

The federal government says it wants to make tiny homes a bigger deal. Industry Minister, Karen Andrews, a self-described fan of tiny homes, says she wants to see the prefabricated building sector grow by \$30 billion over the next five years. The sector currently makes up about three to five per cent of Australia’s \$150

billion construction industry, but Ms Andrews says it could grow to 15 per cent by 2025. The Industry, Science and Technology Minister recently announced a study to look at ways to develop the prefabricated building industry.

“What do we need to do to grow this sector?” Ms Andrews told *The Age*. The government is looking to grow the tiny home industry, as part of a broader push to increase prefabricated construction.

The Industry Minister added there were social and lifestyle benefits to tiny homes, noting “we’re also very mindful of the cost of housing”. Tiny homes can cost well over \$100,000, but an entry-level new home (with a

toilet and shower) can sell for as little as \$40,000. Ms Andrews said tiny homes could provide more affordable accommodation, as well as extra space for family members or guests: “There are so many options with tiny homes.” The Industry Minister said she loves the concept of tiny homes. “It’s quite likely it may well suit me one day.”

The Housing Industry Association said there were some difficulties with prefabricated buildings, including tiny homes, as building and planning codes were written with traditional construction methods in mind. “This research program has the potential to break down some of these types of barriers to uptake,” the HIA said.

—SMH



Spellbound

BY SUNFLOWER SPROUTS

Permaculture farmer **Rachel Altenbacher**, from the mid-north coast of NSW, visits Olive Gap Organic Farm to learn more about sunflower sprouts.

WHILE spending time abroad many years ago I met a Kiwi sailor who was living off grid on a yacht in the Pacific islands. He spoke of the most bizarre food rations, creative storage solutions, days filled with raw fish salads and most fascinating tales of growing sprouts on deck. His life sounded like a dream, sailing the majestic turquoise waters, strolling through fresh food markets and jumping overboard to bathe in the sea. He told

me he was previously a chef so living on a boat was no obstacle in growing fresh food when he enjoyed cooking and eating it so much.

In the previous issue of EG I talked about Olive Gap Organic Farm where I was welcomed with open arms by Tara, Alex and their three vibrant daughters: Olive, April and Cedar. On my last trip to Olive Gap organic farm I learned about the tea tree oil extraction and while I was there I

managed to fall under a sunflower sprout spell.

Tara Luca first described her working days at Olive Gap Organic flower farm with poetic words that made life sound sublime. We spent hours chatting while harvesting sprouts seated on a handmade wooden table in her vintage decor kitchen. The zest for a harmonious lifestyle has Tara's family content and joyful. There were many sunflowers in blossom scattered around



Tara and Rachel harvesting sprouts.

her garden setting which resembled a story book scene.

I asked Tara if she could share with us how she grew the sprouts and here's what she said.

"I buy the organic black birdseed variety of sunflower seeds from our local rural store. Sunflower seeds have all the nutrients needed to grow contained within the seed, so a soil-less growing base is sufficient. I've experimented with many different

mediums, basically I use just whatever I have ready to go at the time.

I have tried a combination of 1:1 compost and sand, straight sand and even made use of my premium homemade potting mix. They all have worked fine however I think the sand was slightly slower, so I usually add in some compost or coco peat. You can pre-sprout sunflowers to get a bit of a head start, but I have also grown sprouts successfully with just raw seed.

"Sprouts are wonderful because wherever I go I can take a piece of my garden with me."



Fresh sprouts liven up any dish.

Rachel once lived and worked on Pacific islands and saw that — even on a yacht — growing fresh food was possible.

To pre-sprout: put 1/2 to 3/4 cup of sunflower seeds into a glass jar and fill with water to soak overnight with the lid on. Rinse out morning and night and continue to soak for two to three days or until they start to show signs of little tails. Fill a rectangular seedling tray about halfway and press down to level up the surface. Then add around 1/2 - 3/4 cup of sunflower seeds, scattered evenly. Add more of the soil medium on top, pressing down with a piece of flat wood to make the surface level and also to give them darkness and something firm to push through.

Water every day (possibly morning and night if needed). Sprouts will start to push through and will eventually drop their seed case. Allow them some light when they come through to green up. You can eat them when the first true leaves start to show and I like to plant another batch about seven days later to keep the supply going. We eat heaps of these plain but often add a little olive oil, apple cider vinegar and salt and pepper for a quick side salad



Buckwheat sprouts enhance Rachel's signature roasted sweet potato vermicelli noodle salad.

with any meal. You can harvest as you go, or snip them with scissors and put them in the fridge and they store for about a week."

I bought my own mini portable greenhouse tray to have a go at growing

sprouts and thought, how hard can it be?! I used moist cotton wool as a base with a fine sprinkle of seeds and the tray sat on the window ledge. It seems the sprouts would have been happier in the dark as they became too leggy



Tara Luca of Olive Gap Organic flower farm harvesting sprouts in her vintage decor kitchen.

reaching for sunlight. The next batch I started picking after three days rather than waiting a week and this method achieved better results. The sprouts ended up not being so bitter and were a crisp and tasty snack for a long car trip on the highway.

I selected pea and bean sprouts as well as mung beans, amaranth and alfalfa. The sprouting process heightens the nutrient levels of protein, magnesium, vitamins A and K, so not only do sprouts decorate many dishes, eating them contributes to good health. A local micro-green farmer Joe from Guyung farm explained how he grows the sprouts he sells at our

local farmers market on worm castings. The buckwheat variety enhances my signature roasted sweet potato vermicelli noodle salad.

In our journeys of sustainability, self reliance, permaculture, regenerative or holistic living — the label is not important — we are encouraged to look for the ‘cause’ of the ‘effect’ so that we may understand the root symptoms of dis-ease as well as the programming behind thoughts, actions, motivations and the voids we are trying to fill in order to live a more fulfilling existence. For me it has taken an incredible amount of solitude and getting back to basics. I now see the importance of

equal exchange, in fact when people are sincere, you don’t even have to ask, it is simply a natural flow of instinct to care.

In the same way I unknowingly ask my garden every day to feed me in return for the nurturing gifts I offer without an expectation of results. Sunflowers have always given me so much joy right from the moment I dropped a bucket of chicken feed on the ground up until the time an entire garden popped up weeks later. Sprouts are wonderful because wherever I go I can take a piece of my garden with me. Whether it be on land or sea my sprouts go with me for a nutritious and delicious delight.

a flower

BY ANY OTHER NAME

Goodness me. Our highly-esteemed garden chef, **Gary Thomas** of Daylesford in Victoria, is contemplating growing gladdies instead of vegies. What next?

Photographs by Pete Swan.

IT MIGHT be a change of life thing. I keep a small vegetable plot on the nature strip out front alongside my quiet suburban road. It is a really sunny spot, and has been terrific for growing snow peas, tomatoes, corn, chillies and the like.

The summer display is a point of interest for those on their nightly passiegata, as they walk dogs and kids on training wheels around the back streets of town.

Sometimes, people pass and suggest they might steal a cob or two and, who knows, they may well do, I'm not counting, they're welcome to it. Just last week I lifted 60 kilo of dessert lemons



A pretty pile of poached lemons.

off a backyard tree just because I knew the owners had gone away on holiday and all the fruit would be lost. So I am well in debt on that front.

Anyway, I'm looking at the prepared bed and thinking about what to plant there this summer. Will I put up a wire igloo frame and grow snow peas again, so I can sit secretly inside and stuff my face with garden lollies, and no one will ever know because I eat all my dinner anyway?

And what about a spread of baby cos, spotted and contoured, so we can eat a version of Caesar salad every summer day with crisp white wine, followed by traditional dancing



Battered brassica salad.

and laughter.

Or grow blue and black cherry tomatoes as a surprise for all those people who still don't know there is such a thing. And when they remark upon it I can say they don't taste very good actually, you should just stick to the red ones.

Thinking, thinking, thinking . . . what meretricious thing will I do, what planting will best address my usual demand for two useful purpose? So then, how come, this year, I don't do anything like that at all?

Instead, I plant flowers, gladioli corms actually, because I am suddenly aware how lovely it will be to come home at the end of a hot working day in the kitchen and be greeted

by the tall, slender, red forms of this vivacious bloomer.

Perhaps I will affect a Dame Edna accent as I walk inside to greet my family. And, to salve my soul, and hang on to the two purpose dogma — is there anyone out there offering a culinary or medicinal use suggestion for the gladdies?

I have always believed the very best flower to be the cauliflower, so delicious, so versatile. I read in an American online magazine recently that cauliflower is the new sexy. Apparently, hip young chefs in the Big Apple are promoting cauli from the neglected sides into a starring role as the main event. Just goes to prove that every dog does have its day, hey!

*“And when they
remark upon it
I can say they
don't taste very
good actually,
you should just
stick to the red
ones.”*

BATTERED BRASSICA SALAD

- 1 cup chickpea flour
- ½ cup self raising flour
- 3 tsp black sesame seed
- 3 tsp white sesame seed
- 2 tsp fresh green chilli, deseeded
- 2 tsp fresh red chilli, deseeded
- 1 tsp salt
- 1 cup whey/water
- 2 whipped egg whites (optional)
- 1 small broccoli head
- 1 small cauliflower

Mix together the dry ingredients — flours, seeds, spices. Add the whey or water and fold to a smooth batter. Whip the egg whites and gently fold into batter. If not using the whites, some additional water may be required.

Heat your frying oil to 180°C. Cut the veg into florets, halve again if larger than a dessertspoon. Dip the raw cauli and broccoli pieces into the batter, a few at a time and shake well to remove excess. Don't overcrowd the frypan or basket. You want a nice quick crisp fry, about 2 minutes each time. Drain and reserve until all are done.

Serve on a bed of salad leaves tossed in citrus dressing. And a sambal.



Ingredients for the batter.



Firm whipped whites ready to fold.



Batter all mixed and ready for dipping.



Finger licking good.



SAMBAL MATAH

There are many versions. It is a raw food. This one is based on what we have in our own garden today.

Combine together all the following – 5 finely sliced purple shallots, 2 tbs finely chopped garlic chive, juice of 2 limes, 1tbs veg or coconut oil, 1 very finely shredded young lime leaf, big pinch salt. Let it all sit together for 10 minutes before serving.

WHAT'S YOUR BUSHFIRE PLAN?

EG's living treasure, **Jackie French**, of Majors Creek in NSW, ponders that age-old conundrum. But today, her answers have changed from previous years.

WHAT would we do? It's a question we ask each other every year, and each year there is a different answer. What would we do if our home — house, orchards, valley — burned?

Twenty years ago the answer was easy. Do it all again. But Bryan is 80. My back is semi-functional since someone fractured it early this year. We can't build another house of granite and stone with our own hands again, nor plant another 800 fruit trees. Nor would we ever live to see what has taken 50 years of growing, seed to mighty trees.

Partly that doesn't matter: we plant for the generations to come, not ourselves. The planting would be "as much as we could manage and hope many or most trees resprout from the roots", which often happens and no one notices, as it can take a decade for new shoots to surface.

The house would be smaller, or rather, two small houses instead of larger one, so the kids can make all the noise they want while we go to bed

at 9pm. It would be wheelchair and ambulance accessible, being realistic about the next 30 to 40 years. And it would be fireproof.

Fifty years ago I thought our place was fireproof: stone doesn't burn, we had non-flammable plants in the house garden, and fire retardant plants beyond that. Plus there was no evidence that this part of the valley ever burned. Fires leapt from ridge to ridge but the up-draught from the valley stopped the flames burning downhill. Fire likes to climb.

Since then I've seen stone, adobe, brick, mudbrick and pisé houses explode in a fire. I've watched a fire burn across wet forest and rainforest that had never burnt before; then the wind changed and the fire burnt the remnant, leaving only dirt. A few days later the wind changed again. This time the fire burned the bare ground, fusing into black glass, as featureless as Mordor. We had been deeply overconfident about what was bushfire safe.

But there are house designs that do survive whatever bushfire can throw at

them, including design by CSIRO of a hardwood framework that chars so quickly that the charcoal on the outside stops the rest of the framework from burning. It's clad in corrugated iron, with corrugated iron shutters, too. And that is just one design. Once you look you'll find hundreds of options, to build yourself or have delivered to wherever you want your front door to be. Australians have become serious about fire in the past ten years. As our climate changes we need to.

We're not going to tear down the house (which would be pretty impossible: our stone walls are thick and tough) but we do now have an underground bushfire shelter, with enough air for four people for two hours, and kept ready all year. It was pre-fabricated then built here. Six thick concrete slabs and an even thicker hardwood door lowered in a vast hole we'd dug then its top covered with more dirt.

We keep our emergency kit together, from fireproof overalls to helmets to tools and supplies (including

"Fifty years ago I thought our place was fireproof: stone doesn't burn, we had non-flammable plants in the house garden, and fire retardant plants beyond that."



The house is thatta way . . .

Jackie and
Bryan's
bunker
building takes
shape.

This bushfire resistant Ball-Eastaway house in Glenorie New South Wales, was designed by Glenn Murcutt.

Photo: Anthony Browell/Architecture Foundation Australia.

books and chocolate): two minutes warning and we're there, ready to survive for weeks. We also have our GPS coordinates too: in a bad fire the road may vanish under fallen debris and mobile phone towers burn. We might be cut off for a long time, but with coordinates, not an address, a helicopter can see us and drop essentials. The bunker also contains cardboard and markers to leave signs for those who might be looking for survivors.

I don't think we are ever going to use it. Neither of us can fight a bushfire these days. We'll evacuate — if we can. But in the last three bad fires in our district all the roads were cut off long before the fire looked like it might threaten us. Pyromaniacs like to light fires along highways: less work for maximum destruction. Evacuation might be the most dangerous of all.

But afterwards? That's easy. Rent as nearby as we can, or buy a caravan while a prefab fireproof house is plonked down on where our house used to be.

Because the great loss in bushfire isn't your house and possessions. It's your communities. Bushfires these days often don't burn out a few houses — they burn whole towns, or part of them. I can face losing my house, but not my community.

If your house burns, stay. This is the most important thing of all to know about a bushfire. Houses are easy to rebuild. Communities aren't. And the loss of community can kill you: many people die in the year after they lose their community. Not from injury, nor anything directly linked to the disaster. They just die.

So that's the most important fire safety lesson of all: first of all, keep your community bonds strong. Volunteer, turn up at community events (okay I haven't in the past year but some b**## broke my spine. I will be back). The



The Karri fire house, in Denmark, Western Australia, was designed for a professional firefighter.
Photo: Andrew Halsall/Ian Weir Architects.

second? After the disaster, stay if you can, or at least return as soon as you can. A community is made of people not quite accidentally brought together who then work together, laugh together — and help keep each other alive, not just by fighting bushfires but by sharing jokes and a cuppa tea. Without them we might pine, never realising what we are

pinning for.

And each time a bushfire strikes, give, with money, bales of hay, temporary shelter or whatever is needed that you can give. The more that's given from outside, the faster the community can heal. The more we give, the stronger the bonds between us — and we won't just survive, but thrive.



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MARKET GARDENING PART 2

Last issue we read about a small group of enterprising young Melbournites who have started a market garden in suburban backyards. Here **Pippa Arnold** and **Lucille Kelly** finish the tale of the Strettle Street market gardeners.

BY THE START of last summer we were selling weekly \$30 vegie boxes to seven households within a two km radius of our gardens. Harvesting and packing those boxes for the first time was so exciting and rewarding. Our work had paid off and we were actually doing it!

We were astounded by how many people wanted a weekly vegie box and how well our community received us and celebrated what we were doing.

This revealed the shared ethical and environmental values within our community and a joint desire and need for an alternative to the current agricultural system that dominates where and how we get our food.

As our vegies grew, so did our passion for farming. We had a shared excitement that we were not only doing something of value for our community, but that we were part of the much bigger movement towards more

environmental and socially-just farming practices.

As the season went on four core members emerged from the group as others chose to focus their time on other projects, work and travel. Working with nine people brought so much joy, enthusiasm, ideas and energy to the project. But we found that by working in a smaller group we were able to come to decisions a lot faster. And it was easier to co-ordinate working bees,



"Our community . . . celebrated what we were doing."



"As our veggies grew, so did our passion for farming."

meetings and assign each person to specific tasks.

The friendships that formed throughout the season were unique and they blossomed alongside our growing interest and excitement in farming. We were constantly re-inspiring, sharing and getting excited with each other about new discoveries and ideas we had about plants, ways of growing food and initiatives.

Towards the end of the growing season we were faced with a terrifyingly large water bill. The price of city water shocked us and made us really think about what we were doing and how sustainable and practical it really was. As environmentalists, we realised how important water catchment systems and regulation was when it comes to growing food in dry Victoria, and from a practical point of view, we were not even going to break even.

Even though we were initially disheartened, looking back at the season



The group were astounded by how many people wanted a weekly vegie box.



The gardeners have been planning crop rotations, preparing soil, planting cover crops and resting beds.

we realised that the water bill could have also been a result of over watering, and a leak in our irrigation that we failed to notice. We also chose to look on the positive side of things and remember what we had all gained and learnt throughout the season was so much more valuable than the initial investment that we had made. Going forward into our next growing season we will put a lot of planning into managing our water in the most practical and sustainable way possible.

Of the original nine members two of us have decided to continue this project into the next growing season. We are excited and ready to give it all we have! We are currently planning our crop rotations, preparing the soil, planting cover crops and resting the beds so we are ready to get straight into the garden at the start of the season. We plan to start selling our weekly vegetable boxes to 11 households in the local neighbourhood. We are so excited for what the next year in the garden holds for us and where we will go from there!

● To follow the garden adventures of 'the Strettlies' check them out on instagram: [@strettlestmarketgarden](https://www.instagram.com/strettlestmarketgarden).



The group now plan to sell boxes to 11 households locally.



The price of city water shocked the group.

“We had a shared excitement that we were not only doing something of value for our community but that we were part of the much bigger movement towards more environmental and socially-just farming practices.”





Hemp bedding is great for those hens staying put for 21 days because it repels lice and mites.

BEDDING

why, what, where, which?

Bedding —and what type to choose — can depend on your chook housing, the bedding's effectiveness, cost, availability and good old preference. EG's chook guru, **Claire Bickle** of Brisbane gives us the lowdown.

PROVIDING litter or bedding for your feathered friends is not just a novelty or luxury. It provides your chickens with a secure foundation to walk on and hop onto from their perches. It will also absorb the moisture from their droppings, reduces smell and increases hygiene within the coop. When you clean this mix of droppings and litter out of the coop or the yard, it's great for the garden once it's been composted down for six weeks or so.

Another reason to have some bedding material on hand is to line the nesting boxes. This will ensure that the eggs don't get damaged or cracked when laid. Litter in the run or yard section gives your poultry something to

explore and dig through and keeps their feet from being on the hard ground, or stepping in their own manure, and reduce muddiness in times of rain.

Now, most avid poultry keepers will have a favourite bedding or litter of choice and will firmly believe in their one choice. So, it can be a hotly debated topic!

NIGHT HOUSE AND NESTING BOXES

HEMP

This is by far I reckon one of the best choices to use as a bedding and litter product within your hen house. Hemp poultry bedding is made from the stalk of the cannabis plant known as the hurd. It has no smell and is organic and completely non-toxic. In fact, it

acts as an insect repellent due to the oils within it. This will mean less mite and lice population build ups. It is highly absorbent too. Compared with other bedding choices it is a bit more expensive but worth it I reckon. Consider using a combination of hemp and lemongrass.

LEMONGRASS

It is the green leaf blades that are chopped up to make it into bedding for poultry — not the white part used in cooking. The fine green bedding it creates is long lasting, soft, super absorbent and hygienic. And it's naturally deodorising with its delightful lemony fragrance. It is best mixed

with another bedding material such as pine shavings rather than just on its own. It is a little expensive to buy so, maybe consider growing your own if room and climate allow.

WOOD SHAVINGS

This is a highly absorbent and hygienic product that can last for quite some time. The high absorbency means that all the moisture in your bird's droppings is drawn in and you then experience less smell. There are many brands of wood shavings and most have been kiln-dried on a high heat and been dust-extracted to reduce the incidence of dust inhalation by your birds.

HAY/STRAW

Straw is not only a reasonably good bedding source it can also be a good way to keep your chickens busy — they love digging through straw. Straw is reasonably absorbent, and it is long lasting. Depending on the season (drought!) it can be an affordable choice or a little on the expensive side. It does provide a nice thick layer of litter on chicken coop floors and or in the run.

RICE HULLS

If you have access to rice hulls this is a great choice for coop litter/bedding. It is very long lasting, has no dust, and dries very quickly. Some people use rice hulls in combination with wood shavings.



Claire and her French Maran rooster, Jean Claude, getting ready to overhaul the coop and nesting boxes.



Chickens need good nesting box material to lay eggs in, go broody and hatch chicks.



Wood shavings.



Chooks love digging through straw.



Sugarcane straw.

“When you clean this mix of droppings and litter out of the coop or the yard, it’s great for the garden once it’s been composted down for six weeks or so.”



Lemon grass.



Chook pot pourri is a mix of dried scented herbs and plants such as scented geraniums, lavender, rosemary, lemon grass, calendula flowers, rose petals and eucalyptus leaves.

PAPER

Shredded paper or newspaper tends to get rather soggy rather quickly when there are regular amounts of manure being deposited on it. This means it will get wet, mouldy and generally smell. Flat sections of newspaper are a no, as the manure builds up on the not very absorbent paper and then it smells, plus chickens can slip on it. But shredded paper can be used successfully in nesting boxes where your hens will lay their eggs.

LEAVES

Leaves on their own raked up are not really any good but whizzed through a mulcher — that changes the game completely. The catch is you have to make the time to rake up the leaves, process them through a mulcher and then apply them. It's a great way to reuse garden refuse though, especially if you have a lot of deciduous trees. Another plus: they're free!

Don't use cat litter, cedar shavings, or newspaper – flat pieces in particular.

THE RUN OR YARD

SAND

Sand is great for areas that may have drainage issues or that are quick to turn muddy during rainy times. Sand dries quickly, is easy to remove droppings from, doesn't break down, and can be used in a deep litter system. And chickens love to dustbathe in it.

It's not often used for inside the coop, but it can be if you take the time to remove droppings and rake it all over. It can actually be quite long lasting and used as part of a deep litter system. Personally, I opt for softer options for my nesting boxes and indoor floor.



A mix in the nesting box Claire find the best: wood shavings, hemp and chook pot pourri (nest & pest from 'Fat Red Hen').

SUGARCANE AND STRAW

This can be combined with other mulches to successfully act as a muddy breaker. But sugarcane can also be used as a litter, just ensure it isn't too dusty. Absorbency depends on the coarseness of the sugarcane – is it finely chopped or from the open course bales? I sometimes pop a bale in the run unopened for the chickens to enjoy scratching apart themselves.

GRASS CLIPPINGS

These tend to hold too much moisture to be useful in the coop and will break down very quickly. As they dry out they tend to smell a bit too. Once again, I tend to pop semi-dried grass clippings into the run for my chooks to dig through. You must not use grass clippings that have any pesticides (lawn grub killer), herbicides or fungicides used on the grass beforehand.

NEST BOX SUCCESS

Pine shavings and straw are a hit in my pen, and I'm going to have a go with hemp bedding too. It's a great idea to create what I call some 'chicken potpourri'. This is chopping up some aromatic herbs such as: lavender, rosemary, scented geranium, rose petals, eucalyptus leaves, wormwood, lemon grass, and sprinkling a small amount through the bedding of choice in the nesting box. The scented oils being released from these herbs will deter external parasites such as lice and mites.

WHAT ARE DEEP LITTER SYSTEMS

This is where there is a greater depth of bedding mulch. Having this much deeper level allows for the bedding to remain in place for months before requiring removal. To start you will have a set depth of bedding material and then every few weeks add another layer. Eventually it will all need replacing in say six to 12 months.



Bingo settles in to a new home.

FINALLY, *they are home*

Phew. In recent issues **Tanya Jenkyn** of Esperance in WA has been describing the upheaval of owner-building as she and her family move out of their long-term rented home. It's done. They're in.

AND JUST like that . . . the build was complete and we could move in. We cherry-picked our way through storage to pick out what would fit. Our washing machine dissolved into a pile of rust when we moved it but that was the only new thing we bought. I

treated our 20-year-old couch to fresh covers I handmade because I know we will never find another one as comfortable. I also gave our old fridge a facelift with chalkboard paint because, despite its age, it is in great condition and has all the right bits in the right

spots. Now we can scribble shopping lists, love notes or crazy cartoons on it.

The rooms are filling up with books and plants as well as the usual patina of family life – sandy footprints, schoolbags and the ever-present/never diminishing Laundry Mountain. Not



The challenges of owner-building are subsiding.



Spider orchid.



Spot the stick insects.



The bathroom.



A white king protea.

to mention random stacks of boxes here and there filled with things we love and want in our new home but haven't yet found the right spot for.

Our menagerie is happy. The dog greets guests from the front porch. Our other pets – the stick and leaf insects – are loving the ready supply of fresh Australian native bush. These fascinating creatures are perfect pets – they are clean, quiet, easy to look after and they teach kids how to be gentle. The boys hope to breed and sell them eventually and we recently greeted our first baby stick.

Finally, we are home. We could not fly under radars in our town so we did it all according to regulations. We complied, we had to . . . but we made it to our end goal. We were forced to clear much of our scrubby

bush block and now we are being blasted by wind and sand. It feels naked being so exposed and most of the barren soil breeds unwelcome intruders like bridal creeper and love grass but some of the places we've cleared are now riddled with spider orchids. They rise like weeds but we tread carefully with these.

We dig and lay down the bones of what will be. We are hardscaping, irrigating and reinvigorating the soil profile. Our orchard is in bloom and the maples flower before they leaf . . . we know that now in their second year. Our first round of native plantings are getting their roots down deep and growing bigger every day. It won't be long before our shed home is engulfed in greenery, herbs and flowers.



Pink Ice grevillea.

*"Our first round
of native plantings
are getting their roots
down deep and
growing bigger
every day."*



Chorizema cordatum.



Jane Jenkinson: a queen of fermented foods.

FERMENTED-FOOD *Family*

A family dedicated to the delights and benefits of fermented foods.

Brydie Piaf of Newcastle, visits them at their kitchen coalface.

ZINGY, SOUR, salty, sweet: ask your taste buds what beetroot kvass tastes like and they'll probably work their way through the gamut of intricate flavours. Whether you're new to the fermenting game or have been incorporating beneficial bacteria into your meal times for some time, beet kvass is one of those nourishing tonics that you can get quite passionate about.

Both in the drinking and of the making, Jane Jenkinson is one of those enthusiastic people. So much so, that over the past several years, she's

developed a sought-after recipe that has her brewing and bottling 1000 litres at a time.

While stirring giant vats of gloriously pink liquid is the everyday now, it didn't start off like this. As a young family living in Sydney, Jane and her partner Paul were often surrounded by fermented foods. Eating as an addition to flavour, they were no strangers to the likes of kimchi and sauerkraut. However it wasn't until their eldest child Oliver was four years old, that for health reasons, they really

stepped into the world of fermentation. They noticed that their young son often seemed restless and moody, with an increased energy that was often hard to bring down at night time. They organised a gut micro biome test. This revealed a completely topsy-turvy picture, with no *lactobacillus* or *E-coli* present at all.

As a starting point the couple were advised to remove all gluten and lactose from Oliver's diet: "Anything that wasn't going to benefit his body, we took out of ours." Then throwing themselves into

the world of probiotics and biotics, they set about rebuilding his young gut, with an additional focus on fermented foods.

With a background as both a nurse and scientist, Jane and Paul bought every fermented book they could get their hands on. This began not only a deeper understanding for themselves, but also a wholefood, family-focussed love of wild fermentation. Bringing all that information together, Jane slowly began sharing both her resources and instructional recipes with the wider community.

“One thing led to another. While we were making the foods for Oliver, and healing his gut, we also really

loved what we were making, loved the flavours and the kids really took to them. What we had been through, and having had to do it all ourselves – something in me went, ‘Look if I was starting from scratch and there was someone I could reach out to or tap into for resources, then that would have really helped’,” says Jane.

Those lists of where to get raw goats’ milk, how to make water kefir and favourite methods of using coconut flour, slowly evolved into community cooking classes. From there, it was a natural progression: not just lining the family’s bench tops with fermented goodies, but to also selling them.

While fermentation holds an important role in Jane’s diet now, that love for great food started much earlier on.

“Mum was an awesome cook. As a foodie family, we’d all be in the kitchen of a night time – it was just the place to be. We had a big island bench. Mum would be on one side and we’d be on the other side helping. By the time we were about 12, we were allowed on the ‘other side’ and everything was open for experimentation. She’d let us cook and bake, trying things out. On Saturday the kitchen was ours.”

With that kitchen freedom also came an allowance to fail. With no interjections, Jane quickly learned the



Some of the family favourites.

difference between baking powder and baking soda, while also creating a kitchen confidence that comes from having both time and opportunity.

Jane's family had an interest in international flavours and diversity of ingredients and this ensured meals were always different. There was also a strong emphasis on cooking and eating as a way of bringing people together – the whole process being about spending time together as a family.

That early love and celebration of food has been replicated again more recently in Jane's own young family. While the dinnertime meals might be a little different several decades on, with three boys it's obvious that coming together over great food is still

a delicious expression of love.

For Oliver 14, Paxton 11, and Ryder 9, growing up with fermented foods has encouraged a broader palate. All three boys are actively involved in the whole food making process: taste testing new trial batches, offering suggestions on flavour changes, and of course enjoying fermented foods daily. A top 5 list of favourite family ferments gets quickly fattened to a top 10 but that zingy, salty, sour, sweet beetroot kvass sits as a firm favourite for everyone.

As well it should. Jane took two years to perfect the product, excitedly running into her ferment class one day, yelling, "I've finally found the perfect ratio!" The following week a

wholefood store rang to say they would like to stock the product and four years on, the family-run business sells both locally and interstate.

So after successfully embracing all things fermented, what's the best way for kids (or anyone!) to start out on their happy-bacteria journey? Whether it's cucumber pickles, kimchi-cashew dip or water kefir, a good starting place as Jane says, often begins with just a few positive words.

"If you make something seem special and amazing, children are going to naturally want it. If you say close your eyes, hold your nose and eat this, they are going to say 'no', because kids want that control. Give them that control in reverse though . . . and it's awesome. A totally different outcome."



Jane's beet kvass is a nourishing tonic.



Naturally-fermented vinegars.

A top 5 list of favourite family ferments gets quickly fattened to a top 10 but that zingy, salty, sour, sweet beetroot kvass sits as a firm favourite for everyone.

- If you are new to fermenting and want to dip your toe into the microbe world, Jane recommends carrots as a great starting point. Carrots are incredibly versatile and ferment well regardless of their freshness. Simply make up 3–5 per cent brine, cut them to how you see fit and throw them in a clean jar. Add a little dill, celery, mustard seeds or garlic if you want to jazz things up a bit, or keep them deliciously plain. Leave on the bench for a week or longer. The speed of fermentation depends on the season, and room temperature. Carrots can hold their shape and ferment for several months without going soft or funky.

- www.wholefoodfamily.com.au



Fermentation at work.



garbage to garden

PART ONE

EG's original Extinction Rebellion champion, **Jill Redwood** of Goongerah in Victoria, starts a series of articles on turning discarded products into useful items for around the garden, yard or farm. Part two will appear in the autumn issue.

DISCARDED junk can be like rescue dogs – once rehomed in the right place, they can be the most valuable friend and assistant. These are just a smattering of ideas for repurposing rubbish that can become invaluable and long-lived items for our gardens.

RETIRED WATER TANKS

Cut them down and use as giant worm farms or compost heaps. They make great raised beds as well.

MESH

There are so many sizes and gauges of mesh – they are all a gardener's 'gold'. Perfect for climbing frames for beans and peas or bend them into a tent shape for cucumbers and pumpkins. Sit them upright or stake them horizontally 25cm off the ground to allow broad beans, dwarf beans or even tomatoes to grow through to stop them flopping over onto the ground. Weave tomatoes up through larger-sized reinforcing

“Holey buckets can still carry compost, chook poo, mulch, garden tools or a harvest for the nightly meal. If holey, then all the better for draining out rinse water.”



mesh stakes upright as they grow. Put finer mesh over seed beds to prevent birds or bush rats scratching up the soil.

DOOR OR WINDOW SCREENS

These are easy to place over plants needing a bit of extra shade when recovering from transplanting or for heat stressed plants on a super-hot day. When cleaned up they make fantastic food drying frames laid out in the sun.

DOG BED/COFFEE TABLE TYPE FRAMES

Any low frames are handy for sitting over delicate plants needing protection. Use them to hold up shading materials in summer or glass in winter.





LASER LIGHT OR CORRO OFFCUTS

Use these as frost protection, sun traps when bent and jammed into the ground around a small bed or individual plant. Place corro as protection from cold southerlies in winter. A number of short lengths of corrugated iron or laser light can be used to fully circle around young seedlings to make ‘forts’ against slugs and snails.

CONTAINERS

Receptacles of all variety eventually come in handy; from rain-proof slug traps to weed killers. The ubiquitous plastic bottle can be cut into mini greenhouses, as fruit-fly or blowfly traps, or if a small hole is put in the bottom, as individual slow waterers for plants.

Holey buckets can still carry compost, chook poo, mulch, garden tools or a harvest for the nightly meal. If holey, then all the better for draining out rinse water.

Tin cans can be pushed over certain ‘wish I’d never planted that’ plants like comfrey or horseradish. This kills them by depriving them of light and therefore photosynthesis.



Old clothes or sheets torn into strips make perfect soft garden ties. Being cotton they can be composted when finished with.

WINDOWS/GLASS

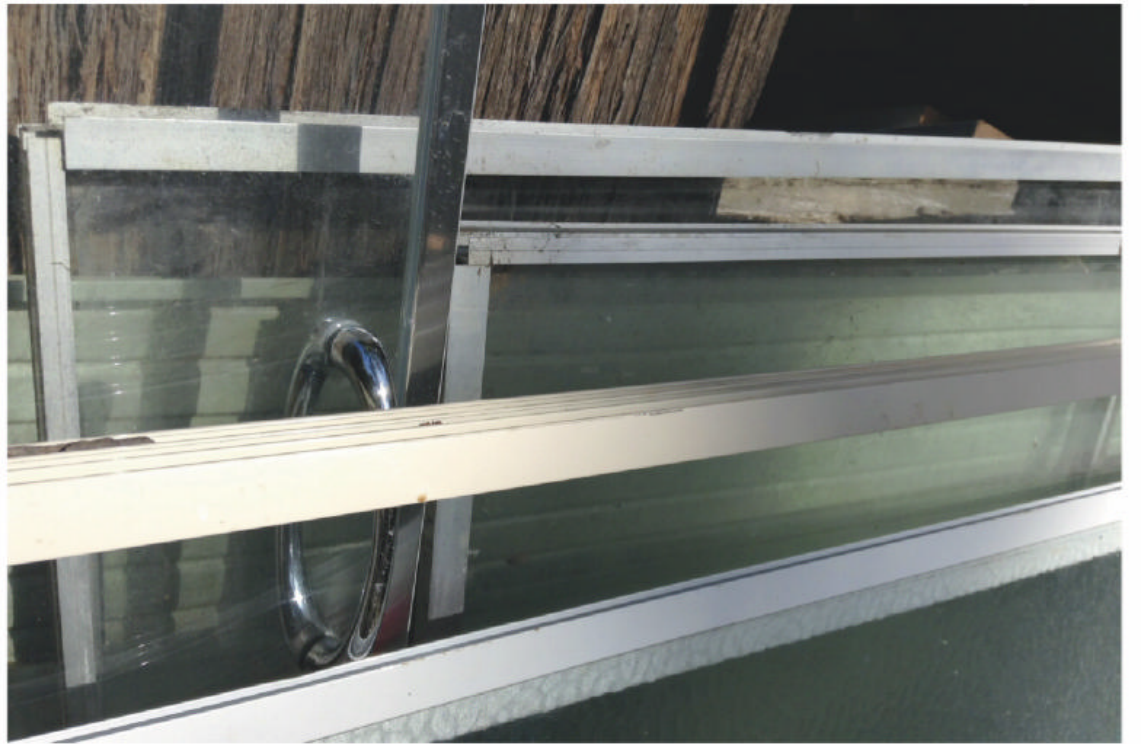
These are common item in tips, tip shops or hard rubbish collections. An obvious use is as cold frames (tent style) for winter vegies and early seedlings, as frost covers, or for the keen, to make a larger patchwork greenhouse.

MESH TRAYS AND CONTAINERS

Coarse or fine, they are useful for sieving seedling mix or sand, rinsing off spuds or other vegies (dirt washes through). If saving seeds, smaller mesh containers are useful for sieving seed from the husks and dried leaf.

COTTON MATERIAL

Old clothes or sheets torn into strips make perfect soft garden ties. Being cotton they can be composted when finished with. Plait strips together as makeshift rope. Cloth or Hessian sacks make useful soil shades to keep carrot and other fine seeds from drying out while germinating.



OUT, OUT *damned plastic*

Jo Roberts from northern Tasmania discusses the myriad alternatives to single-use plastics in the kitchen.

WHEN I received my first set of reusable produce bags, I would proudly fill them up at the green grocer's then bring them home, line them up on the kitchen bench, and then think, "Now what?" I had been so used to storing fruit and vegetables in plastic bags in my fridge that it took some research and experimentation to find alternatives. Plastic wrap was another stand-by in my kitchen for saving left-overs, and now I have completely eliminated it. It turns out there are any number of alternatives to single-use plastic in the kitchen, and most of them are easy swaps that don't cost a cent.

First, left-overs. The easiest option is to invert a plate over a bowl or a bowl over a plate and pop them in the fridge, or use a container you already own. If you are just starting out, you don't need to buy plastic or glass containers – just save your jars and re-use them. Old coffee or pickle jars are great as they are roomy and straight-sided which helps when spooning the left-overs out again.

Next level leftovers storage is buying or making beeswax fabric wraps (see EG 183) to wrap over the top of a bowl. Use your hands to warm the wax slightly and mould the wrap to the bowl. Beeswax wraps have become a

trendy zero-waste item recently, but have actually been in use since medieval times. Another option is sew-your-own elasticised fabric bowl covers. A friend sewed a set for me from her partner's old shirts. They are reversible so I can decide whether I want the green plaid or blue plaid leftovers today.

A fun tip I learned from an Agatha Christie novel is how to keep a plate of sandwiches moist while waiting for the tennis party to return to the tea table (but who poisoned the fish paste sandwiches? Ah, you will have to wait until the last chapter to find out). After you have arranged the fatal sandwiches



A collection of ways Jo stores leftovers without plastic.

artistically on the plate, cover them with a damp tea towel. This will keep them moist and fresh no matter how long the last set drags out. Unfortunately, this method has no effect on the arsenic.

Now, to turn our attention to the vegetables. Again, the easiest solution is to wash them, shake them, and pop them in whatever containers you already own. Don't discount containers just because they aren't classic fridge storage. I find an old Pyrex dish from the op-shop perfect for storing veg. Don't wash berries until just before you use them, or they will go mouldy. Capsicums, zucchinis and cucumbers can be stored whole in the fridge crisper until you cut them, then you can pack them in a container. I jumble all of the cut vegies together in a container, which reminds me to eat them.

Sweet potato, beetroot and pumpkin form a kind of protective skin after cutting if you leave them exposed to the air. Just pop them on a shelf in the fridge. I have discovered that a cut cabbage will last for a couple of weeks in my cold back porch in the winter without any covering. Experiment and see what happens. Many vegies love to be wrapped in damp tea towels in the fridge. Cabbage, cauliflower and broccoli last well like this, and spinach, kale and lettuce can be washed, laid flat on a damp tea-towel and wrapped up like a burrito. These greens can also be washed and popped into a lidded container or jar.

Celery, spinach, kale, parsley and many other greens and herbs will flourish like a lovely healthy green bouquet in a jar with a couple of inches of water in the bottom left out on the kitchen bench.

Cheese does well wrapped in beeswax wrappers, or stored in a lidded container with a piece of paper towel in the bottom to absorb moisture. The paper towel can go in the compost after it has been used.



Many greens and herbs will stay fresh on the kitchen bench with water in a jar. Berries and beans freeze well.



Bread lasts well in a calico bag.

Beeswax wraps have become a trendy zero-waste item recently, but have actually been in use since medieval times."

Bread lasts well in a calico bag or pillow case, or can be wrapped in a tea towel (if you have any left in the tea towel drawer by now). You can also freeze bread in the calico bag or a pillowcase. If you accidentally leave the end of a loaf of bread in a calico bag in the back of a cupboard for a month (I can't imagine who would do such a thing . . .) it won't go mouldy as it would in a plastic bag. Instead it goes rock hard and you can rescue it by blending it up for breadcrumbs.

I have splashed out and bought rectangular glass containers to freeze meat in. Alternatively, meat can be cut up in small pieces ready for cooking,

frozen on a baking tray then packed into glass jars. This makes it easy to have meal-sized portions all ready for cooking. Another plastic-free solution is to wrap the meat in butcher's paper, freeze, then wrap in a layer of aluminium foil. The paper can be composted or burnt, and the foil can be re-used many times.

To freeze liquid food, such as soup, stews and stewed fruit safely in glass jars you must take a couple of precautions. Glass sometimes cracks in a freezer, because water expands as it freezes. To avoid this, only fill the jar to the three-quarter mark, and don't pour hot food into a cold jar. Cool the food in the fridge before freezing, and sit the lid loosely on top of the jar,

screwing it on the next day when the food is entirely frozen.

To freeze berries, peas, corn or other small, cut vegies like carrots and beans, place them in a single layer on a baking tray in the freezer, then tip them into containers or glass jars. These individually frozen berries or vegetables will also tip out individually, which is so much better than having a giant frozen lump stuck permanently in the jar.

I have to say that I am not finding it easy to clear plastic out of my kitchen – after all it is everywhere. But learning to store my food without resorting to single-use plastics has made a big dent in the waste I create. I'm calling that a win.



Many vegies love to be wrapped in damp tea towels in the fridge.



Soup ready for freezing in jars.

WHAT IS AVAXHOME?

AVAXHOME-

the biggest Internet portal,
providing you various content:
brand new books, trending movies,
fresh magazines, hot games,
recent software, latest music releases.

Unlimited satisfaction one low price

Cheap constant access to piping hot media

Protect your downloadings from Big brother

Safer, than torrent-trackers

18 years of seamless operation and our users' satisfaction

All languages

Brand new content

One site



AVXLIVE:ICU

AvaxHome - Your End Place

We have everything for all of your needs. Just open <https://avxlive.icu>

Hazelcombe

HAPPENINGS

Hazelcombe Farm is an inspiring beacon of sustainable living located in a fertile valley about 50 km east of Mudgee in NSW. Hazelcombe is run by an indefatigable couple, Nicki and Dan Power. Regular readers will know that they have written for *Earth Garden* over the years. Nikki and Dan power through so many fascinating sustainable living activities in the course of an average year, that we now begin a regular series of snippets from Hazelcombe. For more details about the events at Hazelcombe, visit their website: www.hazelcombefarm.com.au.*

DAIRY

When we decided to have milking animals, we realised we needed some way to restrain the cows and goats while milking them. So a DIY dairy with milking stalls for a cow and a goat came into being. We also store their feed and supplements there. We treated ourselves to a very good quality, smallscale milking machine, having been not so successful at hand milking (started too late in life). And we'd suffered years of break downs with a cheap smallscale milking machine. This all means we have our own regular source of milk for cheeses and dairy products – heaven!

• Nicki and Dan also somehow find time to run *Scythes Australia* and they send their beautiful crock pots by mail order all over Australia.



Nicki and Ella milking the goats.

DEEP PIPE IRRIGATOR

Nev Sweeney from St Clair in NSW, describes a clever way to get plant watering to where it's really needed: right to the deep roots of large shrubs and trees, and well away from surface evaporation.

OVERALL, Australia is a drought country and climate change seems to be making that worse if anything, so even when the rain comes we know that more dry conditions are just around the corner. It is with these gloomy thoughts that I started to research low cost, low tech irrigation techniques that were also water efficient. Here is one idea I found, that we are using now.

DEEP PIPE IRRIGATION

The basic point of deep pipe irrigation is that it gets water where it needs to be: direct to the roots of trees and shrubs. This has a number of benefits.

- 1.** You use less water – because you are getting the water to where it needs to go rather than standing around watering the ground surface and hoping it percolates down to the
- 2.** You use less time because you're not standing around with a hose waiting for water to percolate down. It is just a case of fill each pipe and move on. It can even be set up to be drip fed, reducing time even further.



Post driver and gal pipe ready for action.

- 3.** Deeper roots are stimulated to grow. When trees and shrubs are watered from the surface, surface roots develop to make the most of this water. Unfortunately the top of the soil is the first bit to dry out leaving your plants susceptible to drought. By using the deep pipe method water is applied down into the soil, stimulating the plants roots to grow down and out to follow the water as it moves through the soil.

SO, WHAT IS DEEP PIPE IRRIGATION?

Deep pipe irrigation uses of a length of PVC pipe 50mm in diameter (less if drip irrigation is to be used) and between 400 mm and 600mm long, sunk vertically into the ground within the plant's root zone. Water goes directly to this area, directly irrigating the root zone.

I use 500mm long pipe because it is in the middle of the range and gives me an even number of pipes if you buy your PVC pipe in 3 metre lengths, as I do. To make the irrigator, cut the pipe to length, then drill a series of 3mm holes 50 to 75mm apart down one side of the pipe, mark at the top which side the holes are on. When installing the pipe it is crucial to have the line of holes facing the plant to be watered.

There needs to be a cover for the open end (top) of the pipe to prevent dirt and leaves etc filling the pipe over time and to keep out wildlife. My original plan was to have a solid plastic end cap on the open end (because I like the look), but that left me with another problem. One of the reasons to put in this irrigation method is to reduce the time required for watering, but if I had to get down on my knees and take each cap off, then replace it after watering, it seemed a bit self-defeating.



The gal pipe end cut to two sharp points.



The hole ready for the pvc tube.

To get around this I used some spare shade cloth and made a clip by cutting off a 25mm length of the 50mm PVC tube and then making a vertical cut on one side so it could be opened out and fit around the irrigation pipe. This holds an 80mm square of shade cloth on, allowing the pipe to be filled with water but keeping out the wildlife.

RETROFITTING DEEP PIPE IRRIGATION

This style of irrigation is excellent for establishing new trees and shrubs and so

can be put in at the time when the new plants go in. Deep pipes will also allow you to water existing plants but is a bit more hassle to put in. Here is how I installed them to my existing plantings.

I had a 1500mm length of old imperial 48mm outside diameter galvanised pipe with a 50mm socket on one end (although an end cap would also do). I used my angle grinder to cut the end without the socket on and angle from each side so that it came to two sharp points, one each side of the

galvanised tube. It also helps if you make a mark on the side of the tube at the depth to which the deep tube is to be installed (in my case about 450mm–500mm).

To use the galvanised pipe to make a hole for the deep tube waterer to go in I needed a post driver, a large stillson wrench, a 25mm square stake about 1800mm long, a pair of ear muffs and a rubber hammer. The process is as follows.

- 1.** Decide where to install the pipe and clear away any mulch and debris from the ground surface. Place the galvanised pipe pointy end down onto the soil and place the post driver over the top of it.
- 2.** Make sure you are wearing the ear muffs because it gets very noisy. Drive the galvanised pipe into the ground — to about a third of the desired depth. Remove the post driver.
- 3.** Remove the galvanised pipe from the ground by using the stillson wrench to grip and turn the pipe to loosen it up for removal. While turning the pipe around, apply upward pressure to the stillson wrench so the pipe is slowly screwed out of the ground. This will be comparatively easy for the first part but will become increasing more difficult (but still doable) the further down you go.
- 4.** With the gal pipe removed from the ground, place the stake in the top of the tube, invert the tube and strike it against a hard surface like a concrete path so that the stake is forced up into the tube and the plug of soil removed by the pipe is forced back out the end. You may need to clean some remaining soil out of the end if it is sticky and clayey.
- 5.** Repeat steps 2, 3 and 4 until you get to the desired depth, cleaning out the pipe each time.

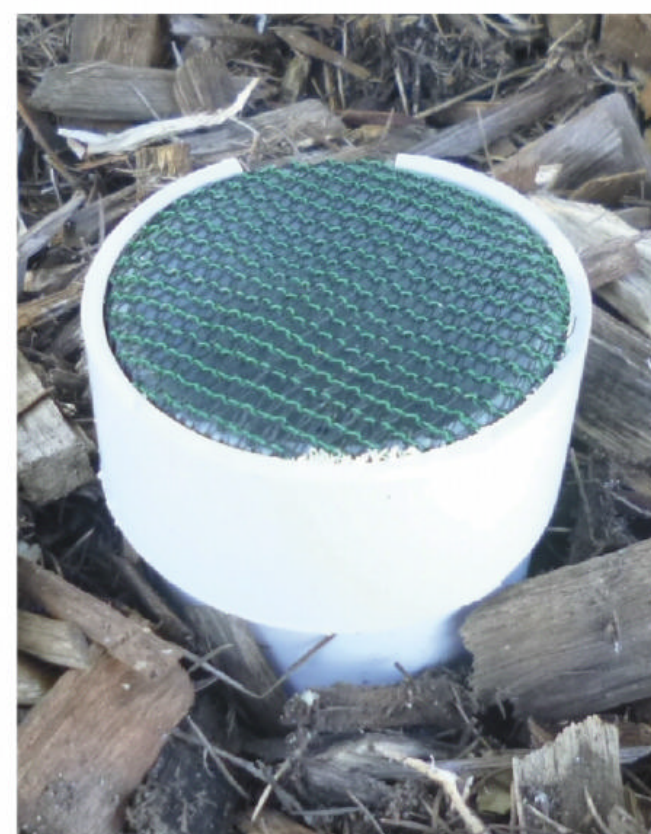


Drain holes about to be drilled.



You can use a cap but that's more work.

- 6.** The galvanised pipe (48mm OD) is a bit smaller than the PVC pipe (50mm ID) so you need to put a bit of force on the PVC pipe to install it. Place the PVC pipe in the hole, ensuring that the line of holes is facing the plant to be watered and then, using a large rubber hammer, apply enough persuasion for the pipe to be installed to the bottom of the hole (ie, hit it!).
- 7.** With the pipe installed, place the square of shade cloth (or other mesh you have handy) and clip it in place. You can now deeply irrigate as many trees and shrubs as you have deep pipes for.



Nev's vermin-proof cap allows watering in situ.



Missy
babysitting
a lamb.

Missy and babysitting

Steven French continues his delightful series of snapshots from his family farm in northern Tasmania.

OUR IRISH DONKEY, Missy, is well-known to *Earth Garden* readers from the front cover of the Autumn 2019 issue.

She takes her role as a baby sitter rather seriously. However, just every now and then it all gets a bit much for her and she looks to me to take her away from her self-imposed duty. After all, the baby animals are not her responsibility, are they?

Our house cows, Lulu and Dotty, are notorious for just wandering off and leaving the calves, the two Ronnies, behind. If someone else will baby sit all-well-and-good, but to the Jersey girls the responsibility of motherhood is optional.

I have seen Missy stick with the calves for half a day before their mums return. You can tell she is concerned and disapproves strongly of the cows' slipshod attitude. Sometimes one of the bullocks will take a turn with the calves or even the bull will grudgingly do his bit. But mostly it is up to Missy.

Now that the two Ronnies are older

Missy doesn't worry quite as much, but she is still never far away.

Missy also looks after baby lambs. She does get a bit carried away though, because if they are lying down asleep she will make them stand up – just to be sure that they are okay.

If nudging them with her nose doesn't work Missy will grab them by the loose skin

along their backs and lift them onto their feet. At first I was worried she would hurt the lambs but they are always unconcerned so obviously she doesn't bite hard.

Every now and then an orphan lamb seems to think that Missy would make a good mum and they nose around her legs. She puts up with this commendably and seems not to mind at all.



Missy and the calves.



What do you do with half an acre of mature pines?

from seedling to MILLED SLAB

EG's permaculture master, **Bruce Hedge** of Newham in Victoria, describes a project that has just produced some surprisingly good results. All for \$139.

IT WAS JULY, 1982. We'd been on our permaculture adventure for four years. Ten acres of bare paddock were slowly taking shape into the design we'd adopted a couple of years before. We owed a neighbour a favour for deep ripping our block with his tractor, and one afternoon over a few bottles of excellent home brew, we discussed various aspects of this new fangled permaculture idea.

"I'd like to plant a crop of Christmas trees," he said, "and I'm looking for a place to put a few more in". My immediate thought was "Pinus radiata? ... yuk ... why do you want those? They're an awful encroaching weed tree,

and they're nowhere on OUR plan".

Well, to cut a long story short, we agreed to allow a crop of small Christmas trees to be planted on our western corner leaving a single row as a shelter belt after they were harvested five or so years later. A thousand seedlings were planted at 1.5m centres into dust-like soil at the beginning of the driest spring ever recorded in our area. The drought finally broke after Ash Wednesday in 1983, and 80 per cent of those trees survived. I lost a couple of hundred natives that year because we couldn't keep water up to them. *Pinus radiata* is one amazingly tough tree!

Five years later, the neighbours moved away, and the trees were never harvested, and since then we have been very grateful for the products we've sourced from those 'weed trees'. The shelter offered from the cold westerly was first. Then as the trees grew ever taller, they dropped pine needles which we easily raked up and laid between garden beds as slowly decomposing paths. Dry pine twigs and cones are excellent fire starters, and the soft clean understorey became a playground for children's cubbies.

Thirty seven years later, many of those trees are now dead or dying. We initially thought it might be disease,



Bruce sets up the steel rails to cut the first 'flitch'.



From seedling to garden bed timber over a 40 year timespan - all by Bruce and family's hard work.

but it's more likely that the answer is a combination of a drying climate and simply running out of soil nutrient through overly close planting. There are at least a couple of hundred very straight, lightly branched trunks from about 40 cm diameter up to 30 m tall ready to fall over in the next high wind.

Here was a terrific resource on my land, but what was I to do? Searching the internet for 'portable saw mill', I found a device called an 'Alaskan Mill' which attached to my own chainsaw. Numerous YouTube videos later convinced me this was the way to go. I was very surprised to see one available

locally for only \$139 with free delivery.

The setup was simple, and a bit of fine tuning achieved a really good result. The photos tell the story. Two 4 metre long 40mm RHS steel lengths are attached initially to a fallen 3 m log as a guide, and after the first slice is made, the mill then follows the flat surface, cutting at the depth set on the mill. I chose 50mm slabs, which seemed to be about right for the sides needed for my new raised garden beds.

There aren't many downsides. My 55cc Husqvarna chainsaw with a 20 inch bar works fairly hard to cut a slab in about eight minutes. A bigger saw with a 24 inch bar would be better. Protective gear, including a mask to exclude the very fine sawdust and two stroke fumes is essential, although working upwind on a breezy day is much better! A quick touch-up sharpen on the chain between each slab makes for much easier cutting, and the cost in fuel, bar oil, and sharpening files adds up to about \$1.50 a slab.

Treated pine, in comparison, is approximately \$18 for the same area and half the thickness. I stapled some old greenhouse plastic on the inside to keep the soil from touching the wood directly. The wooden sides give some protection from the marauding rabbits and the beds



Bruce uses his 20 inch Husky but says a bigger saw with a 24 inch bar would go better.

are 3 m long by 1 m wide to allow bird or insect netting to be draped over hoops of polypipe, foiling whatever airborne pests are on the attack. Best protection from white cabbage butterfly ever!

By far the biggest advantage however is the sheer satisfaction in seeing trees you planted yourself converted into very useful projects. I could never have envisaged that scenario all those years ago.

An aspect of permaculture not discussed much is that it feels really great to have parts of your land with plants you'll not necessarily use yourself, but will pass on to the next custodian. Half an acre of pines has been great for us. I cheerfully admit I was wrong!



Vaughan helps his Pop sow summer garden in new beds.



Teff ETHIOPIA'S ANCIENT GRAIN

EG's esteemed co-founder, **Keith Smith**, Artarmon, NSW, writes about a fascinating grain not many of us know about.

Illustration By Daisy Gray

SOME YEARS ago I ate spongy round loaves of *injera*, a fermented wheel of flatbed, at a local Ethiopian restaurant in Sydney (now sadly gone). I tried to find out more about teff (sometimes tef or t'ef) and pronounced as 'teef' or 'taf'.

Injera is made from teff, the staple cereal grain of Ethiopia, where it has been grown since ancient times. Impressions of the grain appear on pottery dating to the first century BC at a site in southern Yemen. I thought

of the Ethiopian athletes who regularly run long distances at high altitudes. Much of their diet is teff, in the form of injera, which is served at almost every meal.

At that time, however, there were no commercial teff crops in Australia, although the grain was once raised here as hay for stockfeed. I discovered that exporting teff was then (and is still) prohibited by the Ethiopian government.

Teff (*Eragrostis tef*) is a warm season grain which originated in the Ethiopian

highlands and belongs to the grass family (*Gramineae*). The word is derived from the Amharic 'teffa', meaning 'lost', a reference to the tiny grains or seeds – smaller than a pinhead, about one millimetre in diameter. It is gluten free and nutritious, with a high content of iron, fibre and calcium.

In *Evolution of Crop Plants* (London 1976) Norman Simmons speculated that agriculture was brought to Ethiopia from the Middle East by the ancient Cushites or Nubians, who



Fresh injera being cooked in Ethiopia. Photograph by PhoTom.



A Gheralta woman cooking injera in Ethiopia.



A meal of injera and several kinds of stew or maraq, typical of Ethiopia and Eritrea.

“Injera is eaten by millions of Ethiopians, Eritreans and Somalis by tearing off pieces of the sour-tasting flatbread to scoop up food like spicy stew, chickpeas, lentils, bean dishes and salads.”

domesticated a range of crops in the highlands, including finger millet, teff and sorghum. He suggested a date of origin of 5,000 to 6,000 years before the present.

Injera is eaten by millions of Ethiopians, Eritreans and Somalis by tearing off pieces of the sour-tasting flatbread to scoop up food like spicy stew, chickpeas, lentils, bean dishes and salads. It is used as an edible ‘serving plate’ for these dishes. No need for cutlery.

To make injera finely ground teff flour is mixed with water and allowed to ferment for several days. It is then poured in a spiral, like a big pancake, around a flat clay griddle and baked for five minutes over a wood fire. Wheat flour, corn flour, barley or millet is often substituted for teff in the lowlands.

Teff is also ground into a brown chocolate flour to make a kind of cereal or porridge and can be mixed with

other grains to make bread or pancakes. The straw is used to make mudbricks for walls and houses. Coffee is also thought to have originated in Ethiopia, where wild bushes still grow in rocky and sandy places.

Having interested you in growing teff, I leave Earth Gardeners with the task of obtaining seed to plant, perhaps in the ‘food forest style’ mentioned recently by the Seed Savers group in the NSW Blue Mountains.

GROWING

Teff, also called ‘love grass’, is an annual warm season crop. Plant densely in spring. A handful of the tiny seeds will plant a small field, though teff is low-yielding, averaging 900 kg per hectare. It matures quickly, is drought tolerant, pest resistant and survives in waterlogged places. In high country, teff will grow at high altitudes up to 3,000 metres.

Plants have fine stems and are leafy and green at the base. Crops were traditionally kept weed-free using wooden hand hoes. Teff is ready to harvest within 45 to 55 days. In Ethiopia this is labour-intensive, using a hand sickle then threshing with oxen, and sieved. Modern commercial farmers (some in, of all places, Taiwan and Idaho, USA) now use combine harvesters to scoop up the grass.

Teff stores well and in Ethiopia subsistence farmers keep grain for several years. It is not attacked by weevils.

VARIETIES

There are white and brown teff seed types local to areas in Ethiopia. They include ‘Kay’ (red grain), ‘Nech’ (white) and ‘Tikur’ (black). White or ivory teff have the mildest flavour, while darker seed colours taste rich and earthy. Teff has a sweeter flavour when fermented.



A DIFFERENT VIEW

As Keith and Irene were leaving Denmark on a Baltic Sea cruise in July 2019, Keith took this photo from their ship. The aircraft in the foreground, between the row of offshore wind turbines, is about to land at Copenhagen Airport. In 2017 Denmark obtained 43.6 per cent of the country’s electricity demand from wind power and is aiming for 50 per cent in 2020.

RUSH RUSH RUSH



George digging up potatoes.

“We live in a time where kids are so often rushed,” says EG’s healthy kids columnist **Jessie Kapitola** of Perth. Here Jessie suggests strategies for anti-rush.

THEY spend hours every day trying hard to sit still and concentrate at school. They do huge amounts of work involving screens. Their before and after-school hours are scheduled to the max with extra-curricular activities and they are tired. Tired, cranky and in desperate need of unrushed, unpressured, unstructured time where they can just be kids. Kids who are free to use their imagination, to explore, to create, to guide themselves,

to dream and to get dirty. Where better than to send them than the garden?!

Thankfully, we are starting to become more aware of the negative impact of always rushing our kids and filling their time in order to help them ‘excel’. We are gradually seeing a rise in the idea of allowing our kids to slow down and giving them free time, and of parenting experts like Maggie Dent encouraging kids to get back to nature.

We live in bigger houses on smaller

blocks, so our little ones are losing touch with nature. But happily, we are seeing more and more schools recognise the myriad benefits of gardening for little ones and introducing school gardens. How fabulous! School gardens are a remarkable opportunity to take the classroom outside. Helping to shake off the restrictions of a desk and chair and connect children with their world and with where their food comes from. And the skills they learn through time in the



Jessie's kids cooking with their vegies.



Ellie loves ALL creatures.

“With schools breaking up and the summer holidays upon us, I challenge you – give your little ones lots of free time and encourage them out into the garden.”

garden aren’t confined to the outdoors. They can involve maths, science, art, physical education and practical skills for their everyday lives.

Not growing up surrounded by productive land, it can be easy to be quite disconnected from the source of our food. A remarkable number of children can’t identify many fruits and vegetables. And when you can’t identify something, it feels unfamiliar and scary – you’re much less likely to try and cook or eat it.

So many kids from cities and suburbia can be reconnected with their

natural world and the source of their food through a garden. And it doesn’t need to be a big one. It can be as simple as a lemon tree in a pot that enjoys a sunny spot on a balcony, or little pots of herbs or cherry tomatoes growing in window boxes.

With schools breaking up and the summer holidays upon us, I challenge you – give your little ones lots of free time and encourage them out into the garden. And if you don’t have a garden yet . . . get started on a very simple one together. Guide them, but no need

to force it. Let them explore. Simply talk to them. Talk to them about the colours, patterns and shapes they can see on different leaves.

Talk to them about what worms do in the soil. Why not start collecting some vegie scraps so the kids can start to feed the worms? How quickly will the vegie scraps be turned back into soil?

Talk to them about the different stages of fruiting or growth of the plants. My little ones delight in being the first one to find a tiny fruit on the end of a flower and checking the progress daily.

Explore with them. Are there tadpoles in a pond, and can you find out more about the frog life cycle together as you watch them? Can you go digging for root vegies? Can you teach them how to use a knife or secateurs safely, to be the one responsible for bringing in part of dinner? And even better, can you get them to work with you to cook and proudly serve the food they’ve picked?

Time in the garden will teach them lifelong skills, encourage them to learn, and free their minds while keeping their bodies moving. It’s not an officially scheduled extra-curricular activity but it will help them to excel – in body, mind and spirit . . . and you might just find you learn something along the way too.



George’s avocados.



Harry cooking with his blueberries.

from bug catcher to hatcher

Beth Wyatt from Woronora in NSW has an ironic upcycling project.

HELLO everyone. I thought you might be interested to see my latest upcycling project. A few weeks ago I went to Reverse Garbage at The Bower in Marrickville, Sydney, searching for three old letterboxes to turn into insect hotels. My plan is to place these letterboxes in my medicinal herb garden. I found an old bug zapper and thought it would be a awesome idea to change this killing device into a bug's paradise. From bug zapper to bug hatcher.





ROSA MITCHELL

life and vegetables

Weekend hippie, **Liz Ingham** of Yarraville and Clydesdale in Victoria, drops over to yarn with a rather talented bush neighbour.

ROSA MITCHELL lives across the valley on the side of an old weathered volcanic hill in Yandoit, Central Victoria. We are strangers with parallel travel lines, working a few blocks apart in Melbourne's legal district where she runs the renowned Rosa's Canteen, escaping to the country about 3 km apart on weekends.

So one Saturday afternoon I knocked on her door and we sat laughing about life and vegetables until way later than either of us meant to. Before Rosa was a professional cook, she was already committed to the things that have made her unique – seasonal, local,

sustainable ingredients, cooked with simplicity and care.

There are hundreds of Italian restaurants in Melbourne. But at Rosa's Canteen, if you want a tomato in your salad in winter, you'll have to wait . . . for months.

And that's because Rosa cooks as though her hillside in Yandoit were a village in Sicily. The sense of place is palpable – for both places. You eat what's in season, grown by her husband Colin on their property, or by people in the region who she knows personally. And yet it's a proper posh restaurant, tucked between the Supreme Court

and a high-rise bank, full of shiny people.

And yet it isn't. You look across from your meal, and there's a little group of ordinary stovetop espresso pots on the counter, with an assembly of mismatched teacups next to a fruit tart on a stand. Behind them, the people in the kitchen are calm and co-operative with each other.

In order to save the Earth, sustainable concepts can't always come from the fringe, targeted to people who are already passionate about the issues. They have to sit comfortably in mainstream society and commerce.

The reason I knocked on Rosa's door was to find out how she does it. In her kitchen in Yandoit, Rosa explains that her career from hairdresser to cook ("I'm not a chef!") to restaurateur developed in parallel with her own growing confidence in making a place where people feel like they are in her own kitchen eating the food she grew up with.

Rosa's grandfather grew everything his family ate. "They put too much chemicals in it," she quotes, in his voice. They ate what was in the garden that day and meat was a luxury.

"A lot of people think pasta is Bolognese. I never make Bolognese," she laughs. "Just do fennel! I try to explain – if you can cook properly you don't need meat."

Not that she doesn't cook meat, mind you. Her husband Colin, was a vegetarian for 17 years. So what happened? "Then he met me!" She looks at me as if to say: 'You're next, sunshine'.

Her two cook books – *My Cousin Rosa* (2009) and *Rosa's Farm* (2012) – feature some gruesome/delectable (depending on your point of view) pictures of meat including less-used cuts and offal, but what you won't find is a vegetable dish that needs meat for flavour, or even many that need cheese.

"You just have to know how to cook," she insists "and that includes texture. People don't understand seasonal, because it's in the shops! But an eggplant has to grow in the sun. You buy one in winter, it's full of water, so you salt it and the water comes out and it disintegrates when you fry it." ("Hey yeah," adds Trevor. "I thought I was just not cooking it properly.")

Then you look around you for flavours and textures – fennel, cardoons, broccoli rabe, nettle, celery, radish, olives, capers, chestnuts, chicory, artichokes.

Side note: I have cooked nearly every veg recipe in both books and as I write this, I am tucking into one of my favourites, 'cavolfiore con olive verde' (braised cauliflower with green olives),



Fresh produce from Rosa's farm.



Imagine the sheer joy in harvesting this much farm-grown goodness?

Rosa's grandfather grew everything his family ate. "They put too much chemicals in it," she quotes, in his voice.

which has four ingredients. It's not like green olives are anything exotic, but they do take it up a notch.

Rosa's mother grew up in the mountains of Sicily then moved to Catania, a port city on the coast, where there is Greek influence in the cooking. As she started to move beyond family recipes towards researching her culinary roots in earnest, Rosa "started playing with fish", a topic which naturally brings us to short-sighted closures of sustainable commercial fisheries like Port Phillip Bay for the sake of the recreational fishing lobby. Like with vegetables, Rosa can list the names of her fish suppliers and the provenance.

"We as chefs have to say 'no' to black market fish."

It's a powerful statement, from someone with authority to say it and who will say it to her own customers. Then she corrects herself: "I'm not a chef, I'm a cook".

So what's the secret? It's right there but I can't see it. Authenticity, for sure, but it's more than that. Maybe making enough bankers wait four months for a capsicum has given her a super-power. Or maybe the success of her business model means that a wish to live more simply is latent in the mainstream, like a dormant seed, and there's hope for us all.



Round zucchinis and flowers from Rosa's farm.



Rosa Mitchell at her restaurant.

Passion for UPCYCLING

Julie Humphris takes us on her journey from consumer to upcycler in this first of two articles. Part two will be in the autumn issue.



A discarded scarf
upcycled into a beautiful
flow shrug.

YES, in my past life I too have been guilty of throwing away unwanted items, so perhaps my now passionate love affair with upcycling is my penance. I love the magic of opening a box or bag of goodies that a friend – and now very often a complete stranger – has given me to discover what treasures lie within.

And then the adventure begins! “Oh, this tshirt will be amazing!” is met by the questioning raised eyebrow of the giver: “Is she crazy?”

Or perhaps they begin to wonder if they have just parted with a rare and valuable item they didn’t know they had? All concern is put to rest though when I rave on about how it’s the perfect colour to add to the rag rug I’m currently

working on. Or a new headband. The picture on the front will be just gorgeous on a picture blanket. The hems are nice and strong for tying up tomatoes or vines, and the tiny scraps will add just the right texture to some scrap twine.

We pause now for the inevitable blank overwhelmed stare. They take a breath and think: “Yep . . . crazy,” then say something polite like: “I’m so glad you can use them. Otherwise I would have sent them to the tip.”

Then they back up slowly trying not to make eye contact and make a quick departure in case I try to convert them to my upcycle crafting cult.

Seriously though, I’m always so very grateful for the gift of items I can

use to create something amazing. And seeing we’re very dedicated to a minimal spend lifestyle (the word frugal seems to now to be a dirty and misunderstood word) it is a great resource to spark creativity.

I recently had a lovely elderly gentleman notice me hand sewing a rag rug in a waiting room. He came and sat beside me admiring it and then proceeded to offer me a box full of materials he has sitting in his home. They were the most beautiful vintage materials I’ve seen in quite awhile, and they’ll be used for far more glamorous projects: perhaps some handbags or a retro vintage skirt.

Curbside council collection piles are another great opportunity to rehome



Local skill sharing groups are invaluable: cooking up traditional dumplings.



An op shop-rejected T-shirt quickly becomes an infinity scarf and snood.

"I don't take orders for items because I find this takes away the pleasure of the making and puts the pressure on to hurry to complete the item."

items and as it turns out, to make new friends. After noticing some lovely terracotta pots in a pile on the side of the road I knocked on the door to make sure they were okay for me to take. The lovely owner said: "Of course . . . you don't happen to do craft do you?" Needless to say 20 minutes later I left with two boxes of fantastic and hardly-used crafting equipment and tools plus the two terracotta pots.

We exchanged phone numbers so she can call me when she has completed her next stage of craft item clean out so she can pass them on to me. In return I've promised to let her know of all the

local swap, skillshare, and craft workshops I hear of. And as I often do I will drop off a jar of jam next time I go past in the spirit of good trading and gratitude.

The items I upcycle make great birthday, Christmas and special occasion gifts and just a few we sell if someone asks to buy it once it's done. I don't take orders for items because I find this takes away the pleasure of the making and puts the pressure on to hurry to complete the item. Our goal is always a happy and less stressful life.

This year I decided I would have a minimal or no-spend goal for learning skills. So far it has been working

extremely well! Our local swap group is a wonderful monthly catch up swapping not only produce and homemade items but we also now have a skills share session at the end of each of our traditional swap meets. It's an absolute joy to participate and learn or share a skill you have that perhaps you didn't realise others would value. These are minimum cost — usually a gold coin donation to the hall where we hold them.

I taught an upcycle session, and we had an amazing local lady who moved here from Taiwan teach us how to make traditional dumplings. We have also had beeswax wraps and pasta-making classes



Julie upcycled T-shirts destined for landfill into a reverse appliqué dress for a few more years life.

and there are plans for fermenting, macramé, needle felting, sourdough baking, glass work, rag rug making and cooking sessions for the near future. As a person sharing your skill free it's great to know it all comes back around. I learn new skills from others

that otherwise would have cost a small fortune (and sometimes not so small).

The access to skills knowledge and sharing is far easier than it ever has been before! Pinterest, YouTube, google, books and magazines abound with advice and directions but I always feel

something is a little missing. I'm sure it's the human interaction and sharing of stories of creating that builds such a wonderful experience and bonds you more to the craft. Being able to ask specific questions and gain advice from an experienced hand is invaluable.

Araucanas, brush turkeys & more

Claire Bickle of Brisbane, EG's resident chook whisperer, answers questions from stumped readers.

Q My black leghorn hybrid point of lays have started laying but their eggs are only as big as my bantams. Will their eggs get larger?

A With most chickens there is a sort of practice run of stop-start laying at the beginning, and again at the end of their laying life. This will include smaller eggs, sometimes even shell-less ones and so on. I am pretty confident that as your chickens come further into their laying cycle, the eggs should increase to a medium sized egg.

Q Does you have any suggestions for dealing with a vicious scrub turkey that has decided our yard is theirs? Sadly, it has started attacking our chickens. It doesn't even worry when we try chasing it away. Thanks in advance.

A The brush turkey is more than likely trying to mate your chickens, thinking they are just rather small female turkeys. Could you confine



Sometimes chooks lay shell-less eggs when they're just starting out.

your chickens to the pen until this spring loved-up turkey has moved on? Or get a rooster if allowed by your council? He would be very protective of his female companions. Other options are to get a council trap

and relocate the offending turkey. And a more serious commitment would be obtaining a Maremma shepherd dog: they are great flock protectors. I've even seen Costa talking about hanging up stuffed



An Araucana chick: blue Araucana eggs were taken to Australia from New Zealand in the 1930s.



Brush turkeys can be aggro if they want to mate with your chickens.

teddy bears — a sort of brush turkey scarecrow I guess! Anything is worth a try.

Q About Araucanas — do they lay less than the other heritage breeds? I am trying to convince my husband to get more chickens.

A In my experience I have actually found my Araucanas to lay more prolifically than most of the other breeds within my coop. Araucanas are a tough and resilient breed of chicken. Their eggs are reputed to have higher levels of protein. And they tolerate our hot summers well. And are always the first to come onto the lay in spring, and the last to take a break in winter. Plus, you get the divine pale blue-shelled eggs.



Q

I have a 10 x 6 m run for my flock and they free range most days at the moment, however they are destroying the gardens and eating the flowers! How many hens would you keep in that size run if they free ranged into grass a few times a week?

A

Most council regulations state a set amount of space per

bird is required when keeping backyard poultry. For example, Brisbane City Council recommend six birds maximum on blocks under 800 square metres, and up to 20 on a block over 800 square metres. In the fenced run I'd look at a minimum of one to two square metres per bird.

If they are being let out a few times a week, I'd still stick close to your council's recommendation

otherwise things like bullying will start, overload of manure in the soil etc.

I have found that you really do need to have your gardens fenced — especially the vegetable garden and soft flowering plants, or else it's fair game. You can these days buy moveable fencing, to either surround the garden that needs protecting, or confine the chickens to set areas to free range.



NT solar resources are driving gas generators to the wall.

THE 'DEATH SPIRAL' AT WORK

The electricity generation company owned by the Northern Territory government says it faces an “existential risk” from the rise of solar power. It may be the first energy utility to openly recognise that the growth of cheaper renewables could spell the end of its traditional fossil fuel business.

Territory Generation has issued a frank assessment of its future prospects, saying its portfolio of predominantly gas-fired generation assets were losing out to lower cost solar alternatives that are becoming increasingly attractive to NT homes and businesses looking to reduce their energy costs.

“The introduction of solar power on residential and business rooftops as well as large scale solar farms provides a threat to the viability of Territory Generation,” they say.

“This is because the cost of producing solar power is below the marginal cost of producing power from gas in the Northern Territory. This is the existential risk to the Corporation.”

The utility is now considering installing a big battery in either Darwin or Katherine to reduce the amount of spinning reserve it needs, and so save on the fuel costs that cripple its budget. Alinta Energy has done something similar with great success at its Newman gas plant in another isolated grid in the Pilbara.

The utility estimates that the amount of solar generation in the grid will rise four-fold in coming years – growing from around 30MW now to more than 140MW by 2022–23 (not including the massive 10GW solar project proposed for exports to Indonesia).

This is bringing in new competition, and competitors. And the threat to its traditional business model of burning gas for electricity is revealed in figures that suggest its generation will fall from 1.4 terawatt hours last financial year to just over 1 terawatt hour in three years time. Fuel costs account for half of its overall costs, which is why it is looking to batteries to reduce operating and maintenance spending.

“TGen is developing a proposal for a large battery in the Darwin/Katherine system to support system stability at lower economic and environmental costs than the use of spinning reserve,” it says. “Battery technology can provide elements of these services more cost effectively than traditional methods.”

Territory Generation is owned by the Northern Territory government, which itself has suffered its own



The Hornsdale Wind Farm has the giant Telsa battery attached to save coal plants during power cuts.

financial troubles, and operates eight power stations across the territory, most of which are fuelled with natural gas.

Fortunately for NT households Territory Generation has opted to carry the financial burden by again agreeing to further write-down the value of its portfolio. In doing so, the utility avoids pushing the cost burden onto NT consumers, which would likely accelerate the shift to rooftop solar.

“The loss of revenue means that the fixed overheads of the business must be recovered over smaller sales therefore pushing up the average price. This will lead to further losses in a competitive market or higher tariffs in a less free market.”

While the situation for Territory Generation looks dire, the prospects for a renewable energy boom in the Northern Territory remain overwhelmingly positive. In June 2019, Beyond Zero Emissions (BZE) issued a vision for the Northern Territory that spelled out the 10 Gigawatt potential for renewable energy in the region, which could provide much needed stimulus built upon a multi-billion dollar renewable energy export opportunity.

“An ambitious renewable energy

goal, combined with the Territory’s strategic location, can also unlock new opportunities such as meeting the world’s growing hunger for renewable hydrogen, exporting renewable electricity to growing Asian economies and adding significant value to exports through mineral processing,” BZE said in its report.

—Michael Mazengarb, *Renew Economy*

ACT FIRST ‘MAJOR’ CITY OUTSIDE EUROPE TO 100% RENEWABLE

Canberra became the first city outside Europe to source 100 per cent of its electricity needs from renewables, according to a new Australia Institute report. The report found Canberra became just the eighth city in the world to complete the transition away from a fossil-fuel based energy supply. Canberra reached the milestone on 1 October, when stage three of South Australia’s Hornsdale wind farm starts feeding energy into the grid. Canberra joins three cities in Germany and Austria, as well as one in Spain, in achieving the green energy goal.

Only cities with a population of more than 100,000 were considered as

part the institute’s analysis. The German state of Schleswig-Holstein, which has a population of 2.9 million, is the largest jurisdiction to have made the transition. The cities are technically not powered entirely by renewables, as each is connected to a grid network which includes energy sourced from coal and gas. However, each jurisdiction sources enough electricity from renewable energy projects to meet their city’s needs.

Canberra’s supply comes from wind and solar projects which are linked to the ACT government’s ‘reverse auction’ scheme, such as the Hornsdale farm (above). In those auctions, proponents of renewable energy projects bid to supply the territory with energy in exchange for feed-in tariffs. The Australia Institute’s climate and energy program director, Richie Merzian, said the ACT was a “renewable energy trailblazer”.

“This shows that States and territories are leading the way on climate action while national governments often lag behind. Australia is a perfect example,” Mr Merzian said. The study’s release comes after the ACT government recently unveiled its new



Lentil As Anything Thornbury has installed a big solar rooftop with a four year payback period.

climate action strategy, which provides a roadmap for reaching its target of net zero carbon emissions by 2045.

—*The Canberra Times*

PAY-AS-YOU-FEEL RESTAURANT GOES SOLAR

Lentil As Anything restaurants and grocery stores have no set prices. Anyone is welcome to go for a meal and contribute in any way they can which ensures everyone leaves with the feeling that they are part of an inclusive community.

Focusing on creating delicious and healthy dishes to taste and share, Lentil Thornbury uses the best quality ingredients sourced from local markets and rescued by The Inconvenience Store. Lentil As Anything is an active community hub, passionate about food, the environment, human rights, art and music.

A detailed analysis of their power bills by Solar Choice outlined a solar project with a payback period of under four years and included the standard 9.9c Feed In Tariff applicable in Victoria. They were able to achieve a 15kw install

using HT-SAAE panels and a SolaX Power inverter. They are now expected to save around 1,000 tonnes of carbon emissions during its lifetime.

— *Solar Choice*

SPECTACULAR SOLAR SUCCESS IN EUROPE

A new report out of Europe has confirmed that solar PV is by far the cheapest form of bulk energy in many parts of the world, even with the addition of two hours' storage. The report from Christian Breyer at Finland's Lappeenranta University of Technology puts the levelled cost of electricity from solar at €24/MWh in Malaga (Spain) and €42/MWh in Helsinki (Finland). And it shows how the LCOE of solar PV beats the average spot price across Europe – by a considerable margin in sunny countries like Italy and Spain, but also in Germany.

The most stunning results, however, come from Breyer's estimates that solar PV plus two hours storage ranges from €39/MWh in Malaga to €69/MWh in Helsinki with 1 kWh/kWp storage and

from 54–95/MWh with two hours storage.

That means that solar with two hours storage is competitive, now, with the average spot market electricity price in Rome and Malaga. And solar with one hour storage will become competitive in 2020 in London and Toulouse, and by 2025 in Helsinki and Munich. Now all that's needed is for policy makers and industry to keep up.

“This is of utmost importance since the debate on how to react to the ongoing climate crisis and the necessary transformation of the energy system towards 100 per cent renewable sources demand urgent measures and political decisions based on realistic information on the potential of different technologies,” Breyer writes.

“The societal tipping point for tackling the climate crisis may have been passed right now due to the global Fridays for Future movement of the youth all around the world with support by scientists. So that it can be hoped that fast and massive measures will be encouraged in the short term to midterm. This should be done on a best possible data basis.”

Growing chilli

Wendy Bartlett of Normanville in South Australia is our 'fundamental food' columnist. Each issue she describes the fundamentals of how to grow a different food plant. Warning: this issue it's chillies.

"Mum, why don't you grow a chilli that's really hot – I mean really hot – I want to feel it burn."

"You want to feel the burn, I hear you say, son? Well I'll grow that chilli and it's going to blow your socks off."

And so the quest to find the hottest chilli began and I ended up finding a super-hot variety to plant in a pot called Trinidad Scorpion Cardi yellow. And I couldn't wait to pick these fiery beauties so I could grant my son's wish. I'm not going to lie – I was kind of busting to see his face turn red and his eyes pop out of his head.

Chillies are relatively easy to grow, but they do love the heat, more so than their cousins, the tomato and capsicum. And they don't mind being confined to a pot either so they are ideal for a small sunny spot on a balcony.

GROWING CONDITIONS

I prepare the soil a couple of months before planting by adding well-rotted compost, some poultry manure and



Harbanero chilli – hot hot hot.

wood ash (for plenty of flowers and healthy fruit). I have to sow seeds in punnets and place on a warm sunny spot on the kitchen windowsill for them to germinate in mid spring so they are ready to transplant into the garden by the end of spring, when the soil has warmed up.

Plants will need to be staked so they don't fall over because they become quite heavy when the fruits are forming.

Water deeply once a week in milder weather and every couple of days during hot weather and if you are growing them in an extremely hot area of the garden, plant them on the eastern side of taller plants so they receive some shade later in the afternoon and always mulch with straw or hay.

Give them a feed of an organic liquid fertiliser once a month and another sprinkle of wood ash just after fruit has



Wood ash stimulates chillies to flower and fruit.

begun to set to encourage more flowers. Chillies will not ripen unless temperatures are over 30°C so in cooler areas you shouldn't expect to be picking your chillies until late summer and into autumn.

If you find yourself with too many of the fiery fellows, simply hang them in bunches and let them dry naturally or preserve them in oil or vinegar. You can even freeze chillies and place in zip lock bags, allowing them to thaw in the fridge before use.

The heat in chillies is rated on a scale called the Scoville unit which is the measurement of Capsaicin (the oil that makes the chilli hot) found within the chilli. A mild chilli might have a rating of 1 (500 Scoville units), whereas a hot chilli, like the Habanero has a rating of 10 (250 000 Scoville units). Speaks for itself really – doesn't it?

One red raw chilli (45gm) may contain 90gm of Vitamin C which is 100 per cent of our recommended daily allowance. Not bad for a little guy and if you can tolerate the heat, chilli can help to relieve nasal congestion during colds and flus and may prevent blood clots responsible for a stroke or heart attack. They are full of antioxidants and

bioflavonoid which are plant pigments thought responsible for preventing cancer.

Creams containing capsaicin may relieve the painful burning sensation associated with shingles and is said to relieve painful arthritis and reduce mouth pain associated with chemotherapy.

The heat from chillies comes from the flavourless and odourless capsaicinoids – found in the white pith and seeds – which directly attack the mouth's pain receptors, causing the eyes to tear and the nose to run, not to mention the feeling that your mouth is on fire. Make sure you wash your hands well after picking or handling chillies or you might experience that 'burning feeling' some place you'd rather not.

To extinguish the fire try drinking a glass of full cream milk or eating some yoghurt because the fat in these foods should rapidly break down the capsaicinoids.

Needless to say – we both took the tiniest of bites and it was 15 minutes till my mouth and lips stopped burning – I can only imagine how terrifying eating a whole one would be. Only for the brave I say.

One red raw chilli (45gm) may contain 90gm of Vitamin C which is 100 per cent of our recommended daily allowance.

MY FAVOURITE PICKS

- Hellfire Mix (Diggers Seeds) – Medium to hot varieties – including Habanero – heat 10.
- Hungarian Yellow Wax Hot (Diggers Seeds) – Great for cooler regions – heat 4.
- Purple Tiger (Diggers Seeds) – purple bush with tear-drop shaped red fruit, great for borders – mild.



Chillies drying in bunches.

Edited by Judith Gray

ALTERED TRAITS SCIENCE REVEALS HOW MEDITATION CHANGES YOUR MIND, BRAIN AND BODY

**Daniel Goleman &
Richard J Davidson**
Published by Avery
paperback 330 pages,
black & white
\$29.95 inc GST

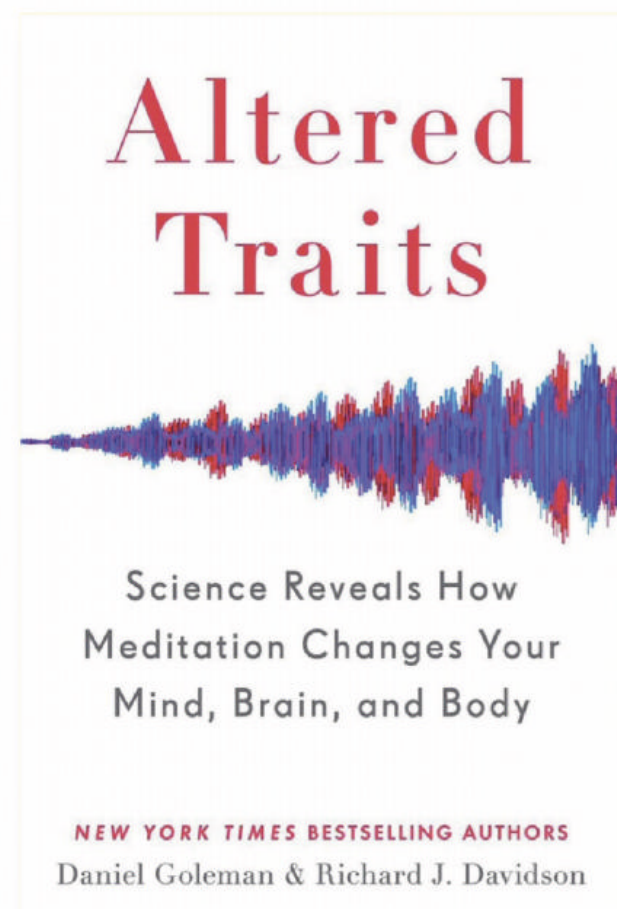
Authors Goleman and Davidson are both passionate and completely committed to meditation. Both highly regarded authors. Richard J Davidson is a professor and director of the W M Keck Laboratory for Functional Brain Imaging and Behavior and the Laboratory for Affective Neuroscience at the University of Wisconsin-Madison.

Daniel Goleman is a psychologist and science journalist. He reported on brain and behavioural research for many years. He is the author of more than a dozen books, including three

accounts of meetings he has moderated between the Dalai Lama and scientists, psychotherapists, and social activists. Goleman is a founding member of the board of the Mind and Life Institute.

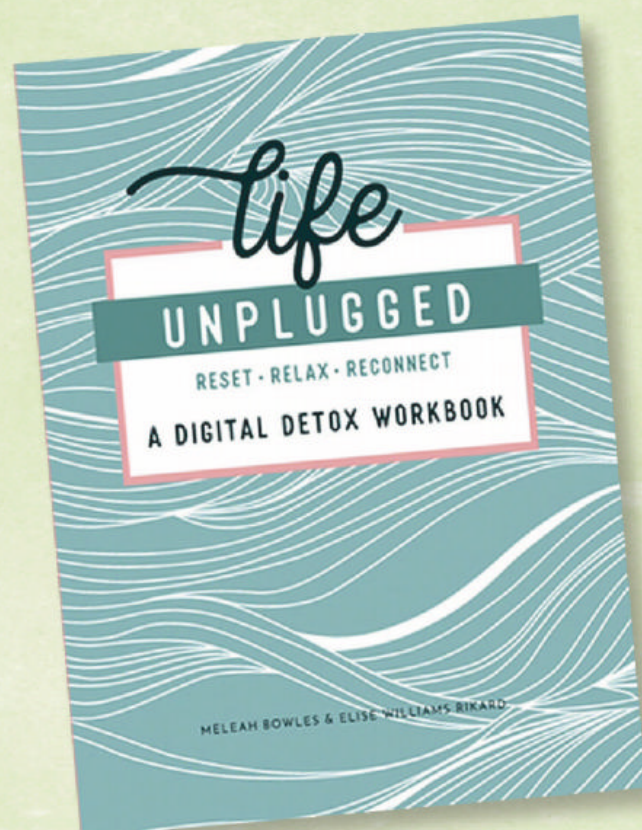
In a world where the word 'mindfulness' is tossed around like salad dressing, this book is very timely. Following our rather witty authors back in time to their early experiences in India in the '70s, *Altered Traits* ties up to date scientific evidence to centuries-old meditation practices in such an illuminating way. We can now, really measure and observe the effect of long-term meditation on the brain. After decades of research and practice, we begin to see what meditation can really do for the brain, body and the mind.

Our very astute authors make it plain that in the West, meditation is often taken to be a cure for stress and associated health problems. Originally, meditation was developed to cultivate awakening or awareness. This book



demonstrates how meditation can be used on a deep level to alter traits, not just states. We learn that meditation is a far greater tool than a fix-it plan.

Rich, complex and definitely a book for the more intellectual reader, *Altered Traits* powerfully brings together the ancient and modern in a way that inspires a deep appreciation of just how much potential the human mind has.



LIFE UNPLUGGED: A DIGITAL DETOX WORKBOOK

Meleah Bowles & Elise Rikard
Published by Murdoch Books
160 pages black & white paperback
\$29.99 in GST

Recently my 16 year old daughter lost her phone. Just an object, but the ramifications were huge. She was so distressed and difficult to deal with that my alarm bells started to ring. Yep, this is real dependancy and you know what? I realised I knew how she felt. We are all so needy when it comes to our electronic devices, it appears to me that they are the root cause of so much agitation.

2040

Documentary Film

Madman Films

Directed by Damon Gameau

<https://www.madmanfilms.com.au/2040film/>

As a parent, Director Damon Gameau felt overwhelmed by the constant negative news about Earth's climate and what kind of future his daughter was going to inherit. Damon says: "So I just spent about a year looking at the solutions and researching to see what was out there that we could actually do about it, and was pretty blown away by how many things we can do."

With so much awareness, and so many solutions this film offers a different story. If we embrace the best technology that we already have there is great hope. This film looks at housing, energy solutions and farming practices. Learn how smallscale energy systems create communities, how farmers are enriching soils with carbon, and how food sources can adapt.

By changing a political landscape from reacting to disaster, to moving it into a different direction we can evolve.



Damon argues . . . "there's such a push for it at the moment all around the world. There's the kids' climate strikes, and people want to create a new version of the world we're living in. So I think there's a chance that we might get there. But we've got to be able to see it first to even know that it's possible. And that's

why I made the film."

Be inspired to make the change in your community. 2040 has free lesson plans suitable for teachers of upper primary and secondary students. Check Cool Australia website www.coolaustralia.org/cool-2040-film-curriculum-materials/

This book is very timely for me. It is a workbook that guides you through ways to de-stress, cultivate mindfulness, and improve your mood and health while also helping you find balance and joy in your daily life through digital detoxing. Learn to live without being attached to your phone, TV, laptop or social media. It can be as easy as taking a few breaks from your digital devices a day to make you feel refreshed, enlightened and purposeful. Sleep better and improve your overall mental and physical health by taking a break from the internet. The practice of digital detoxing has proven to improve your memory, posture, blood pressure, and give you greater feelings of

gratitude and happiness.

If you find yourself saying 'I wish there were more hours in the day' then you might consider decluttering your phone. Reduce the number of apps on your phone, and cut down the number of devices you use. Start a journal, and integrate alternative activities into your day.

Discover how to optimise your free time, so you're more productive throughout your day. Become more creative, spend more time in the garden and revisit old hobbies.

It may not happen overnight, but there is no doubt that this book is a great start. Answer the multiple choice questions and find out just where you need to start.

behind the scenes

NUMBER ONE IN A SERIES

JILL REDWOOD

Jill lives in a small remote valley nested in the forests of East Gippsland. She moved to the small settlement of Goongerah and created a magical and productive food park and animal sanctuary from a blackberry ridden cow paddock. Jill's apprenticeship in making-do and simple self-sufficiency began in her early 20s. Jill then built her pole-framed house: the 'house that Jill built'. She set up off-grid power, fenced, planted, adopted many animals and established a large food production system. Jill has been writing about self-sufficiency for EG since 1990.

While living in the remote Gippsland forests Jill also works tirelessly for our environment. As a key forest campaigner in regional Victoria she has been instrumental in protecting important forest areas and continues this work as the co-ordinator of Environment East Gippsland. Jill now runs a small eco-accommodation cottage. She continues to advocate for our wildlife and our forests and their critical role in climate moderation.



JUDITH GRAY

Judith has been the co-publisher and book review editor of *Earth Garden* for 30 years. She lives with her husband Alan and children on a solar-powered 'urban farm' at Cable Beach in Western Australia. Judith is an accomplished artist, art teacher, and yoga and meditation teacher. She is knowledgeable about food gardening, compost and chooks. Judith also runs the *Earth Garden* office, as well as being a Director of the Earth Garden Foundation Ltd, which she helped establish in 2008. Judith has been involved in many other projects and environmental campaigns, and home-schooled three of her children for three years. She was the main cook for a local emergency food charity in Broome, training other cooks for five years. She has travelled extensively throughout the remote deserts of Australia, and trekked in the Himalayas to the most remote Tibetan valleys to install solar lighting in health posts.

JACKIE FRENCH

Jackie French AM is one of Earth Garden's most loved writers. She has written her column for EG continuously since 1986. She has written over 240 books and won more than 60 national and international awards. Jackie is one of Australia's most popular children's authors, but is also an historian and ecologist, writing across many subjects such as the award winning eco history *Let the Land Speak* and her historical novels for adults, all with a deep ecological recognition. Her books are part of the Australia Curriculum. *Diary of a Wombat*, illustrated by Bruce Whatley, has been translated into 34 languages. It was also on *The New York Times* bestseller list. Jackie was awarded the 2015 Senior Australian of the Year, and Australian Children's Laureate 2014-2015 as well as Australian Literacy Ambassador 2011. In 2016 she was appointed a Member of the Order of Australia for services to literature and youth literacy.

In her early twenties Jackie moved to Araluen, near Braidwood, NSW, where she lives with her husband Bryan Sullivan. They have turned their property into a conservation refuge. Jackie is the director of The Wombat Foundation and patron of many organisations to help children and the earth.



CLAIRE BICKLE

Children, chooks and all things related to gardening and nature are the main passions in Claire's life. Claire is the chief chook writer for EG, and is highly regarded for her wide-ranging practical knowledge. Her love for everything horticultural stems from childhood days spent with her grandmother, an avid gardener and plant lover. Claire now shares this passion with her three children. Claire is a qualified, Brisbane-based horticulturalist and also an Advanced Design Certificate in Permaculture Design. She's also a tour Leader for Ross Garden Tours. Claire and her family have finally acquired their very own patch. Claire grows, with her family, their own organic fruit, vegetables, herbs and her other plant passion: – natives and flowering perennials. Over this time Claire's become a successful breeder of various types of purebred poultry. Claire also contributes to a range of publications, she works regularly on ABC Radio, and even finds time to present on a community TV show.



GARY THOMAS

Gary is the executive chef and owner of 'Spade to Blade', a catering business based in Daylesford, Victoria — his family's hometown since the Gold Rush. Gary has written the recipe column for *Earth Garden* magazine since 1993. He has been committed to organic growing and cooking since way before it became trendy. Gary was selected as one of eight delegates from Australia to the World Meeting of Food Communities conference in Turin, November, 2006. Since then he has maintained his advocacy for Slow Food via many other international and Australian events. 'Spade to Blade' specialises in using organic and locally-sourced premium ingredients for all their cooking, whether that's for an intimate party or a cast of thousands. Gary studied journalism at uni but has also worked on merchant ships, and as a cook in a remote Outback roadhouse. Gary lives with his wife Trudi and their two children on their abundant property with a seasonal flavour to all their culinary and growing activities.

KEITH SMITH

Keith Vincent Smith is a writer, historian and journalist. He and his wife, Irene Smith, co-founded *Earth Garden* in 1972. Keith has always maintained his column in *Earth Garden*, and has therefore been writing for the magazine for 47 years. Before *Earth Garden*, Keith worked as a journalist on the *Sydney Morning Herald* and *The Australian* and was a correspondent for Australian Associated Press in London, Saigon and Sydney. As a mature student, Keith gained a doctorate degree at Macquarie University. He is a notable historian of the Eora, Sydney's coastal Indigenous people, and author of *King Bungaree* (1992) and *Bennelong* (2001). Keith worked as senior researcher for Episode One of the acclaimed TV series, 'First Australians'. In 2018 he became an Emeritus Curator of the Library Council of NSW in recognition of his exhibitions 'EORA' and 'MARI NAWI: Aboriginal Odysseys' at the State Library of NSW in Sydney. His blog EORA•PEOPLE is online at www.eorapeople.com.au/.



ALAN GRAY

Alan has been the editor of *Earth Garden* since 1987. He lives with Judith (co-publisher) and their family on a solar-powered urban farm at Cable Beach in WA. Alan worked as a journalist in Melbourne before taking over *Earth Garden* from Keith and Irene Smith. He has always been an environmental and social activist, pre-dating the Franklin Blockade. Alan is the Chairperson of the Earth Garden Foundation, and has worked for 12 years with their Indigenous partners in the Himalayas to install solar lighting and power in more than 55 remote village health posts and regional hospitals throughout Nepal. Alan and Judith owned Australia's first commercial electric car, the first 'Blade Runner'. He is a keen organic food gardener and surfer, and has travelled extensively through remote desert regions of Australia with his family. Alan has an abiding interest in Aboriginal culture and works on projects to help remote Indigenous families solve their financial crises.

EARTH MARKET



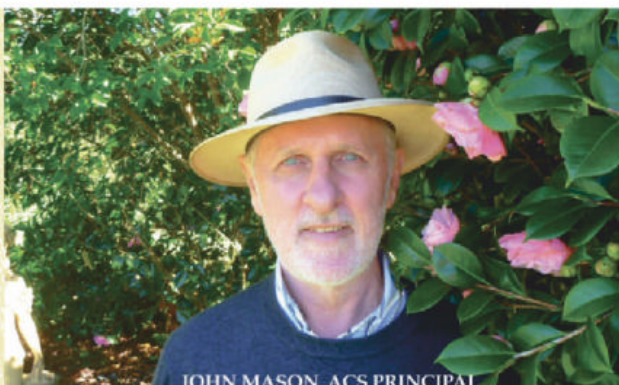
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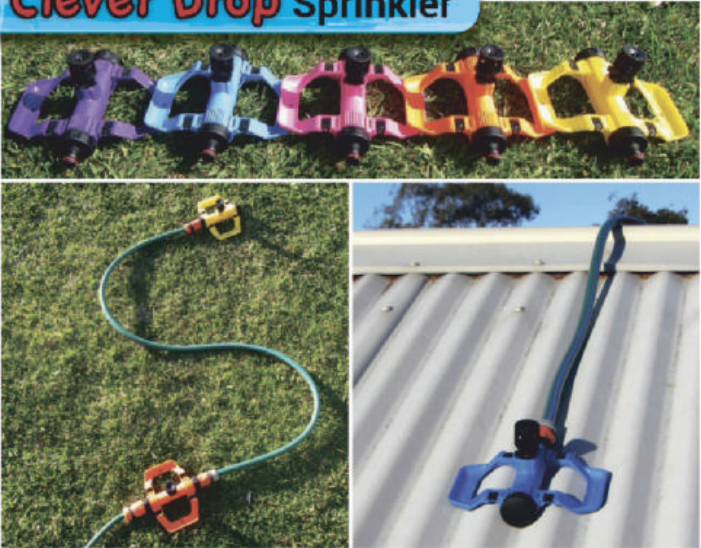
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— Alan Gray, Chairperson, EGFA Limited.

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