



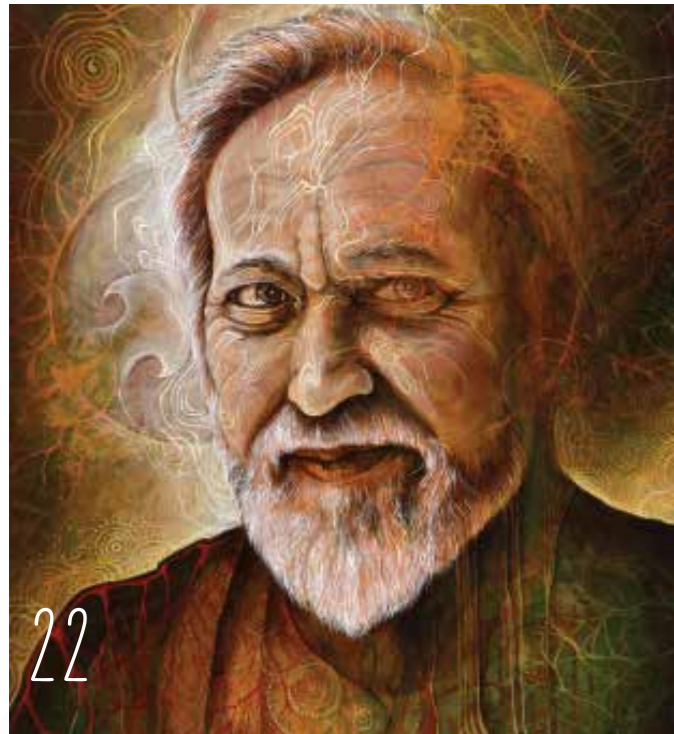
AUSTRALIAN PERMACULTURE

GROW • BUILD • EAT • THRIVE • NURTURE • DESIGN



CHICKEN CARE - VEGAN PERMACULTURE - PICKLING - RARE TRADES
ELECTRIC CARS - BREEDING CHICKENS - NATURAL DYES - HOMESCHOOLING

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IN THE GARDEN: MARCH – JUNE

Seasonal garden guides for all climates.

COOL TEMPERATE

What to sow and plant:

- **Brassica seedlings.** [March and April]
- Successive crops of **broad beans, English spinach and peas**; and winter vegies such as **beetroot, carrot, celery, Florence fennel, leek, parsnip, turnip.** [late March through to May]
- **Green manure crops**, for winter digging in. [from March to May]
- **Hard neck garlic.** [April to May]
- **Asian greens, silverbeet, spring onion and winter lettuce** will keep you in fresh greens in winter and early spring. [from April]
- **Soft-neck garlic.** [from May to June]
- **Non-keeping salad onions**, such as red or white varieties. [from May]
- As June approaches, shift your focus from planting annual vegies to perennials – lift, divide and replant the following through June and July: **asparagus, chive, garlic chive, globe artichoke, horseradish, Jerusalem artichoke, onion, potato, rhubarb, shallot.**
- Plant **bare-rooted deciduous trees** and **cane fruit** during their winter dormancy.
- Some annuals will germinate and grow (slowly) in cold winter soil: use **broad bean, English spinach, pea, radish, spring onion** to fill gaps.

What to do:

- As you clear summer crops (such as sweet corn, tomato, zucchini), **rake up any mulch** that was on those beds and compost it. This **reduces** the habitat for **slugs and snails** that could overwinter in the mulch.
- Try to **keep on top of weeds** and grass so that they don't set new seed.
- In early autumn young **brassicas are still vulnerable to the cabbage white butterfly** – squash the grubs.
- **Pick pumpkins before the frosts come.** Always leave a bit of stalk attached, and the pumpkin will extract the last bit of goodness from the stalk as it dries off. After harvest, let the pumpkins sit somewhere sunny and out of the weather for a few days to help the skin cure. Then store in a cool, dry and dark spot. [March and April]
- **Watch out for late outbreaks of aphids:** grey ones on brassica, especially where broccoli or cabbage heads are forming; and black ones on chive, young garlic or spring onion. [autumn]



WARM TEMPERATE

What to sow and plant:

- **Sow direct:**
 - **beetroot, carrots, coriander, daikon, English spinach, mizuna, pak choi, parsley, radish, silverbeet.** [from March to May]
 - **broad beans, lettuce, radish.** [from March to June].
- **Sow in succession**, in trays in a protected area: **non-loose-leaf brassicas, fennel, leeks.** [March, plant out from April]
- **Garlic.** [March until May, depending on variety]
- **Onions** and **strawberry runners.** [from May, directly]
- **Green peas, snow peas and sugar snap peas,** in succession for a long crop. [from April]
- **Raise strawberry seeds** in a protected area. [from June]

What to do:

- **Stake and tie broad bean** in case of windy weather.
- **Clear summer vegie growth** as it begins to die off, and mulch and compost.
- **Collect autumn leaves** for hot-compost carbon.
- **Divide overgrown perennials** and transplant.
- **Cut down asparagus** as it turns yellow, mulch and feed well.
- **Keep an eye on citrus** for gall wasp. [May and June]
- **Plant green manures** for winter digging in. [from April]
- If you live in a low-lying or frosty spot, **protect any vulnerable plants by covering them on clear nights.** [winter]
- **Prepare areas for winter-planted perennials and fruit trees.** [autumn, plant from June]



Clockwise from above left: Warm temperate seedlings; Cool temperature rocotos; Subtropical comfrey; Mediterranean artichoke; Cool temperature lettuce. Following page, left to right: Tropical turmeric; Mediterranean artichoke; Tropical wing bean.



SUBTROPICAL

What to sow/plant

- **Beetroot, broad bean, carrot, leek (seedlings), lettuce, pak choi, radish, rocket, silverbeet, spring onion.** [all season]
- In frost free areas: **bean, capsicum, cucumber, egg-plant, okra, potato, pumpkin, rosella, sweet potato, tomato, zucchini.** [all months]
- **Coriander, fennel.** [from March to May]
- **Raise in a protected area**, before transplanting out in succession: **non-loose-leaf brassica, celeriac, celery.** [from April]
- **Onion, pea** (climbing, sugar snap and snow). [from April]
- Begin to sow **garlic** and **strawberries.** [from May]
- Begin to sow **parsnip.** [from June]

What to do

- **Finish clearing summer weeds**, then mulch before winter weeds get a foothold. [from March]
- **Plant winter tomatoes** in a spot where they will get at least six hours of direct sunlight daily.
- **Divide** and transplant **overgrown perennials.**
- **Propagate herbs** and shrubs from cuttings.
- **Prune deciduous fruit trees** and shrubs, and **plant bare-rooted varieties.** [June]
- **Feed leafy greens** with a liquid fertiliser.



Martin Bridge

A TRIBUTE TO BILL MOLLISON

Words by Ian Lillington

Bill Mollison – the ‘father of permaculture’ – died on 24 September 2016. To imagine and then create a worldwide movement of remarkable resilience is an incredible feat. Permaculture books are printed in many languages, it’s taught and practised in almost every country of the world, and found on websites in at least 110 languages.

Bill didn’t do this alone – his mix of Aussie-gruffness, love for storytelling and massive charisma was just what was needed to create a vision, a design system, and a network of teachers and practitioners who have spread the concept globally.

Bill had a brilliant mind. He observed, he catalogued and used a systems approach to help weave seemingly disparate ideas into the most detailed tapestry. In this sense he was a true visionary. He was also challenging, angry and driven by a deep sense of injustice. He used to say, ‘First feel fear, then get angry, then go with your life into the fight’.

Growing up in Stanley, Tasmania, Bill left school at fifteen to help run the family bakery, and then went on to work as a shark fisherman, seaman, forester, mill-worker, trapper, tractor-driver and naturalist. He joined the CSIRO (Wildlife Survey Section) in 1954, and gained extensive research knowledge. His lack of formal education gave him many learning opportunities in how the real world works.

After ten years at the CSIRO he left to study biogeography at the University of Tasmania in Hobart. He became a lecturer in 1968, and developed the relatively new discipline of Environmental Psychology. His calls for a more interdisciplinary approach were ignored or rejected, so he resigned to allow scope to pursue his studies in combining psychology with the natural world.

While he was still a lecturer at the University he met his co-author and co-originator of permaculture, David Holmgren, an environmental design student. They started to discuss why the agriculture of indigenous peoples had survived the centuries, and why modern agriculture was only good for a relatively short time.

Bill and David began to develop the permaculture concept in 1974, and as they grew an experimental garden they also began to design and to write. They drew on the ideas of FH King (an American agricultural scientist) who had observed the highly productive agricultures of Asia¹, and the ‘keyline’ concept from PA Yeomans². And Bill was influenced later by Masanobu Fukuoka³. Together Bill and David created a design concept for landscapes, water systems and forestry, along with permanence in human activities, which they called permaculture.

David’s thesis for his Environmental Design degree was the manuscript that became **Permaculture One**⁴ in 1978; **Permaculture Two**⁵ followed in 1979. Through the 1980s, Bill travelled, taught and wrote. He worked closely with Andrew Jeeves who illustrated the **Designers’ Manual**⁶, and Reny Mia Slay who played a major role in distilling his work into the **Introduction to Permaculture**⁷, the first book to codify a set of principles, with help from little-known American John Quinney. These principles offered a framework beyond the three permaculture ethics, and gave a starting point for the development of a more extensive description of principles by Bill, Rosemary Morrow and other permaculture teachers in the 21st century.

Bill wanted to spread his ideas and – rejecting the model of formal education – he decided to teach an informal seventy-two hour course in permaculture, a new discipline that he would offer to anyone who might turn up; a move so audacious that it was laughable to his critics. And yet, even on those early courses, Bill demonstrated to students – with typical force of will – that they were part of an idea that was unstoppable.

Bill’s PDC was intended to inspire self-belief: that ordinary people, without prior knowledge or expertise can reach out and achieve change in their lives. He encouraged insurrection against a prevailing system that he saw as destructive to us and the natural world, by advocating small-scale changes to the way we choose to live our lives. His legacy is an ever-growing mass of over three million permaculture practitioners.



Clockwise from left: Pickled vegetables; Matt and Lentil harvesting cucumbers for pickling; Dill pickles.



CATCH AND
STORE ENERGY

PICKLING THE HARVEST

Words and photos by Matt and Lentil Purbrick

People have been preserving food forever. Before the invention of fridges, knowing how to preserve your harvest by salting and drying meats or fermenting vegetables was an absolute necessity. These days the need for preserving may seem to have disappeared, but we feel it's as important as ever. We still see preserving your harvest as a fundamental part of living a full life. It's in our blood: there is a deep satisfaction in preparing a larder so that you can enjoy foods that are out of season all year round.

There is no better time to learn to preserve than when summer is in full swing. Everything is 'in' and no other time of the year feels quite so abundant. Sometimes the late summer harvest can be so abundant that it's quite overwhelming! Having a few preservation tricks up your sleeve will mean you are ready for anything. And winter will feel that little bit sunnier when you can pull out the summer treats you stored away.

There are loads of ways to preserve, but let's focus on one of the most ancient: lacto-fermentation, an ancient technique that has kept humans healthy and fed for thousands of years. It preserves by helping the good bacteria (lactobacilli) overpower the bad.

Everything is preserved in the process of lacto-fermentation, including all of the original vitamins and minerals and the natural enzymes; as a bonus, the bioavailability of most of the vitamins and minerals is enhanced because of the pre-digestion performed by the good bacteria and enzymes. As a result, the taste of the food is enhanced, differing almost totally from its raw, unpreserved state. When we consume the good bacteria present in fermented foods, we are also maintaining the balance of good to bad bacteria in our digestive systems, and happy digestion equals lots of energy for our bodies.

There are many famous lacto-fermented preserves. Kimchi and sauerkraut are probably the most famous these days. But when it comes to fermented pickles, we think dill pickles are the undisputed kings. When winter arrives and you have no more fresh cucumbers, you'll be glad you made these. Vary

the recipe with whatever herbs and spices you love. Try tarragon instead of dill, or add a hint of chilli. Have a play!

ULTIMATE DILL PICKLES

Quantity: one litre jar

Time to make: ten minutes preparation, and five to seven days fermenting.

Ingredients

400 ml pickling brine (see notes)

1 clove of garlic, halved (unpeeled is fine if clean)

1 teaspoon mustard seeds

1 teaspoon coriander seeds

1 teaspoon black peppercorns

600 g small cucumbers (you can pickle any size you like – the only restriction is the size of the vessel – and always keep them whole, otherwise they will ferment too fast and turn mushy)

2 dill flowers (or replace with dill fronds if you can't source them).

You'll also need a one litre glass jar.

Method

Day 1

Make the pickling brine (see notes). Add the garlic and spices to the jar, and then stuff in the whole cucumbers so that they are all nice and snug. Pour the brine over the cucumbers, filling the jar to the brim. Place the dill flowers on top to make sure the cucumbers stay below the surface of the brine – this is critical, otherwise the exposed parts will become soft or mouldy. Put the lid in place, but don't fully tighten it. Sit the jar on a plate (liquid will spill over the lip of the jar during the fermentation) and leave to sit for five to seven days at room temperature.

Days 5–7

The cucumbers should have turned from a bright green to a nice olive colour. They should be crunchy. If any pickles floated above the brine and turned soft or mouldy, just cut off



USE AND VALUE RENEWABLE
RESOURCES AND SERVICES

NATURAL DYEING: COLOURS FROM NATURE

Words and photos by Maude Farrugia



Clockwise from top: Dyed wools and dye ingredients, avocado, eucalyptus, iron, oxalis and lichen; A dye pot journal: Deb's collection of dye samples range from the 1970s to now; The wonder of mordants: all these wools were dyed with oxalis, and then treated with different mordants (iron and sodium bicarbonate) throwing different colours; Shawl died with oxalis. Hand spun, dyed and knitted – Deb crafts her work every step of the way, from ingredients to finished object.



'There's dye in everything, really', says artist Deborah Brearley, as she unpacks oxalis, lichens, rusty nails and an array of other gathered materials onto the kitchen bench: all ingredients for the natural dye pot. Deb has been dyeing textiles using natural pigments for more than three decades, and in the world of natural dyeing that makes her a bit of a master.

'This is like a journal', she says as she produces a loop of twisted-wool dyed samples, with handwritten tags such as Lichen (Paradise Falls, Apollo Bay), winter 1979 and Orange fungus (Perrys', Bacchus Marsh), winter 1981. The journey of her life is noted on these tags, a record of her art and travels, tracking the seasons and places she has been. As well as dyeing her own fibres, Deb spins her own yarn and knits it into garments and artworks. Her art practice is multidisciplinary – including painting, quilting and photography; she's committed to understanding and valuing materials and processes, from ground pigment to finished artwork.

'I look around for materials in the urban environment.'

Dyeing is very much Deb's way of exploring her environment and the mediums within it, the interactions between natural fibres and dyes. Lichen 'smells like the bush'. Oxalis is feverishly collected and frozen during its short flowering season to allow for sunny yellow throughout the year. Orange fungus is foraged for when in season. As a revegetation pioneer and avid gardener, Deb respects and celebrates nature when collecting her materials: 'I look around for materials in the urban environment, like scraping lichen off my shed roof instead of marauding through the bush for it.' says Deb. Many natural dyes can be found in re-wilded urban spaces with weeds and fungi a rich source of potential dyes.

Deb spends the morning sharing stories and brewing up dyes in the kitchen, and this domestic element is central to her love of natural dyeing. 'I love to use everyday kitchen and garden stuff in my dyes, it's kind of magic', she says as she drops hanks of pure, undyed wool into a cauldron of bubbling oxalis flowers. 'This is the real witches' brew stuff', as she gleefully sprinkles sodium bicarbonate into a kitchen bowl, and dabs a steaming yellow ball of yarn in it. A sunburst of orange begins to creep up the strands of yarn as the chemical reaction begins.

Deb's attitude to natural dyeing is wonderfully playful and focuses on experimentation, using everyday ingredients to explore colour and texture: 'I was down in Tassie and didn't have any iron with me, but I did have my iron tablets, so I put some in and it started working – I said "thank you very much, I'll use that!"'. She also happily sings the praises of the natural world as it 'throws' up different colours in each brew. You can't predict exactly what colours you'll get when dyeing with naturally found ingredients, just as you can't replicate the flavour of a wine from vintage to vintage: the growing conditions, harvesting and dyeing process all contribute to the final colour. For her, that is part of the beauty and fun of using home-brewed dyes rather than those obtained from a bottle.

While Deb uses edible ingredients in all her dyes, she says it's important to have a healthy respect for them and the dyeing process. For her tips for health and safety while dyeing with natural pigments see the boxed text.

HOW TO DYE YARN NATURALLY

Deb favours dyeing wool to start with, rather than cotton or other fibres, as the colours take very easily and there is less need for chemical mordants to fix the dye colour to the fibres: 'Natural dyeing is a huge world, so this is a nice entry point'. You can also use silk in the same way; but if you want to dye cottons you will need a more advanced understanding of mordants.



This page, clockwise from above right: Jodie harvesting for juices; Dorothee in the garden; Fresh garden produce; Jodie in the artichokes. Following page, left to right: Jodie and Dorothee in the garden; Fair Harvest sign post. Final page, clockwise from top left: Worm farms provide nutrients for the soil; Gratitude for the garden; The converted barn which now hosts the weekly lunches and courses.



INTEGRATE RATHER
THAN SEGREGATE

FAIR HARVEST PERMACULTURE

Words and photos by Robyn Rosenfeldt

Fair Harvest Permaculture is a testament to Jodie Lane and her dedication to community. Created over the last two decades, Fair Harvest is everything a permaculture demonstration site should be: a living, breathing example of permaculture principles in action, honouring the three permaculture ethics. But it is not the physical examples of permaculture that are most striking; it's the community involvement that stands out the most.

Although Jodie is the heart and soul of Fair Harvest she has not made it what it is today on her own. Over the years she's made it a hub for her local community and people passing through, who want to learn more about permaculture; feeding them, sharing her home with them and sharing her knowledge.

The 145 hectare property on the edge of Margaret River, 270 kilometres south of Perth WA, was bought by her parents in 1986 as degraded farmland with very few trees. Today it is a thriving example of working permaculture systems, with a focus on regenerative farming.

HISTORY

Jodie moved to the farm in 1995 with her partner Chris and daughter Oli, who was three at the time. Her parents had recently completed their new home on the other side of the property, and vacated the farmhouse that Jodie moved into.

At the time they were part of a core group that started up the South West Blockade, defending the south-west forests of WA from logging. The farm became the unofficial headquarters and sanctuary from the blockade, which soon turned into an intentional community of like-minded people living together on the farm.

'The blockade was fighting against the world we didn't want, and the farm was creating the world we did want: we planted trees, grew all our own food, had a common purse, ate all our meals together, had regular heart circles, ran courses and it was a really functional community – while we were do-

ing it, we did really well', says Jodie. 'There was a core group of around a dozen people, and always a lot of WWOOFers and other people passing through. It was a pretty amazing ten to twelve years.'

FAMILY

Jodie now lives on the property with four generations of her family. She lives with her partner Dorothee Perez in the converted barn. Jodie's daughter Oli and her three children live in the farmhouse nearby. Her parents live on the other side of the property, and her brother lives next to them in a separate house with his family.

COMMUNITY

Fair Harvest is not only home to a large extended family; it's also a meeting place and centre of learning for the local community, WWOOFers and students. Jodie and Dorothee: put on a community lunch each Thursday, made from produce from their garden, supplemented with other locally sourced goods; run Swap Shuffle Share, a food swap, on the third Tuesday of every month; and they have a full calendar of activities throughout the year, including beekeeping courses, PDCs, film nights, wellbeing retreats and events such as the Festival of Fibre which ran in November 2016.

'Our aim is to use growing food as a way to interact with the community and encourage them to grow their own food, and I think we have definitely done that, particularly through the swap', explains Jodie. 'When we run the café, people can come and look through the gardens, and see how food is grown and get inspired. The younger generation moving here can find a way to get into food growing. I think we can say we've played a part in the increase in people growing food in their own backyards in the area.'

'We have also had hundreds of people come through here doing short courses and our PDCs. And WWOOFers, from all over the world, come to experience life on a functioning permaculture property.'