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AUSTRALIAN PERMACULTURE

GROW . BUILD . EAT . THRIVE . NURTURE . CONNECT

FERMENTING . MUSHROOMS . DECLUTTER YOUR LIFE . BAMBOO . PERMABLITZ
THE FUTURE OF FOOD . DR VANDANA SHIVA . UPSIDE DOWN NO-DIG . SWALES

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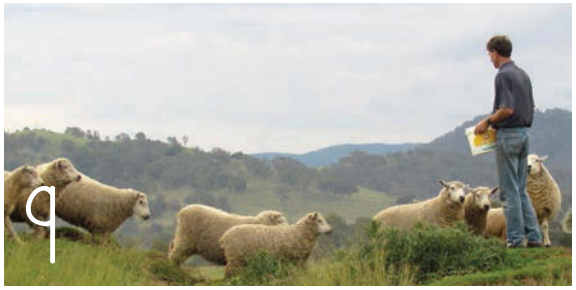

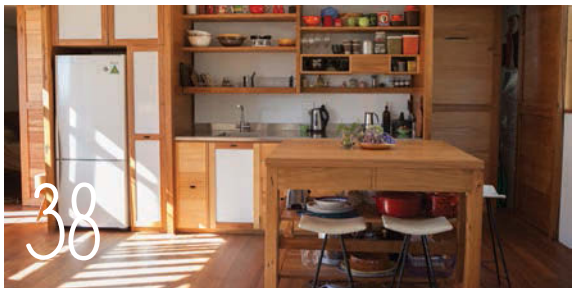

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DIY NATURAL BODY PRODUCTS

Words by Angie Pearson Photos by Green Living Australia (QLD)

We are becoming increasingly aware of the hazards of eating a chemical-laden diet, and many have taken steps to avoid toxins in their food. But avoiding human-made additives and petrochemical derivatives can be more difficult when it comes to body products. Commercial body products can contain dozens of chemicals, in the form of stabilisers, preservatives and artificial dyes, many of which are harmful to the environment and your body.

Here are some pared-back recipes which you can make at home with a few easy-to-find ingredients. These recipes are simple, natural and they work! Standard tools required for the recipes include: cooking thermometer, cooking pot, electric mixer, grater, kitchen scales, measuring spoons, mixing bowls, spatula. Additional requirements are noted in the recipes.

LATHERING SHAVING SOAP

This is great for everything from faces to legs. The shea butter is nourishing to the skin, and will allow you to get a close shave while conditioning the skin. The addition of grated natural soap ensures you're left feeing clean. The honey adds additional lather and can be substituted by sugar syrup for a vegan option. The essential oil is optional, but I prefer my soap to have a scent. I choose lemon myrtle essential oil because it is universally liked in my house. Vitamin E is an important ingredient in this recipe as it acts as a natural preservative which will give your shaving soap a shelf life of three to six months.

Ingredients

- 200 g good quality handmade soap
- 200 mL filtered water
- 150 g organic shea nut butter
- 100 g raw honey
- 10 mL essential oil of choice (optional)
- 5 mL vitamin E

You will also need two, clean, large-mouthed flip-top or screw-cap glass jars.

Method

1. Grate the soap and dissolve it in the water in a medium-sized pot on the stove, over medium heat. Gently heat and stir until the soap melts into the water.
2. Add the shea butter to the pot and stir into the soap-water mixture. Continue stirring until they are evenly combined.
3. Remove the pot from the heat and allow the mixture to cool to below 40 °C before you stir in the honey, essential oil and vitamin E.
4. Before the mixture thickens, pour it into the glass jars, and let sit overnight to solidify into a semisolid consistency.
5. To use, splash water on skin and add a small amount of shaving soap. Rub in to form a thick lather and shave as usual.

NATURAL DEODORANT

This works by using the antibacterial properties of the beeswax and essential oils, as well as the action of the bicarb soda to fight the microbes that cause bad body odour. This is not an antiperspirant, as it does not contain dangerous aluminium. It is a great natural alternative to the heavy metal and chemical-laden commercial deodorants on the market today. I like using patchouli, lavender, clove bud or rosemary essential oils for their antimicrobial properties and pleasant scents.

Ingredients

- 200 g coconut oil
- 50 g natural beeswax
- 50 g hempseed oil
- 30 g bicarb soda (sodium bicarbonate)
- 5 mL essential oil of choice

You will also need soap moulds or a refillable deodorant stick container.

Method

1. Put the coconut oil, beeswax and hempseed oil in a medium-sized pot on the stove, over medium heat. Stir and heat until the beeswax melts into the oils and they are evenly combined, at around 70–80 °C.
2. Remove the pot from the heat, and add the bicarb soda and mix in well, ensuring you remove any lumps. Allow to cool to 40 °C.
3. Once cool, stir in the essential oil.
4. Immediately after you mix in the essential oil pour the mixture into soap moulds and place in a fridge or freezer until they solidify. Unmould once they have hardened, and store wrapped in waxed paper. Alternatively, refill an old deodorant stick container.

WHIPPED BODY BUTTER

This can be made using as little as four natural ingredients and no nasty chemicals! The vitamin E gives this nourishing product a nine to twelve month shelf life, and the glycerine ensures the oils are absorbed into your skin faster, avoiding that oily feeling. Adding mineral micas for colour and essential oils as scent isn't necessary but is recommended; try 'starlight green' mica with peppermint essential oil, or 'pansy' mica with lavender essential oil, or a bit of 'bronze' mica for a bronzing effect. Hint: body butter makes a great gift.

Ingredients

- 200 g shea nut butter
- 50 g vegetable glycerine
- 50 g sweet almond oil
- 5 mL vitamin E
- 5 mL essential oil of choice (optional)
- 5 g mica colour of choice (optional)

You will also need metal containers.

Method

1. Put the shea butter, glycerine and almond oil in a medium-sized pot on the stove. Stir and heat gently until the butter has melted and is evenly combined. Remove the pot from the heat and place it in the freezer for five minutes.
2. Remove the pot from the freezer and whip the mixture with an electric mixer for five minutes. Return the mixture to the freezer for another five minutes.
3. Remove the pot from the freezer and add the vitamin E, and essential oil and/or mineral mica colour. Whip for a further five minutes, or until the colour and scent is mixed in well. Place the mixture in metal containers and use for the next nine to twelve months. For best results, store below 30 °C.

LUSCIOUS LIP GLOSS

Fewer things makes a person feel more glamourous than lip gloss. This recipe is easy, natural and fun, and can be made in dozens of lip-safe colours using mineral micas. I don't add essential oil to mine, but a lot of my friends do. You can also add natural flavours such as honey or stevia if you don't like the glycerine taste. As long as you use cosmetic or food grade glycerine it will be lip-safe. I prefer mineral mica colours over liquid colours because most liquid colours are full of chemicals and all have preservatives I have to avoid. Mica colours are natural (or re-creations of natural products) which do not contain chemicals and preservatives. Always use lip-safe colours on lips, and avoid heavy metals!

Ingredients

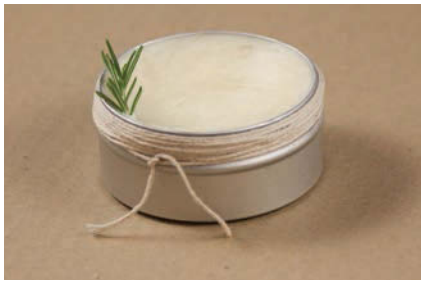
- 3 teaspoons vegetable glycerine
- ¼ teaspoon lip-safe mica colour
- 3 drops food grade essential oil (optional)
- ¼ teaspoon honey or stevia (optional)

You will also need a 15 mL glass pot or lip gloss tube.

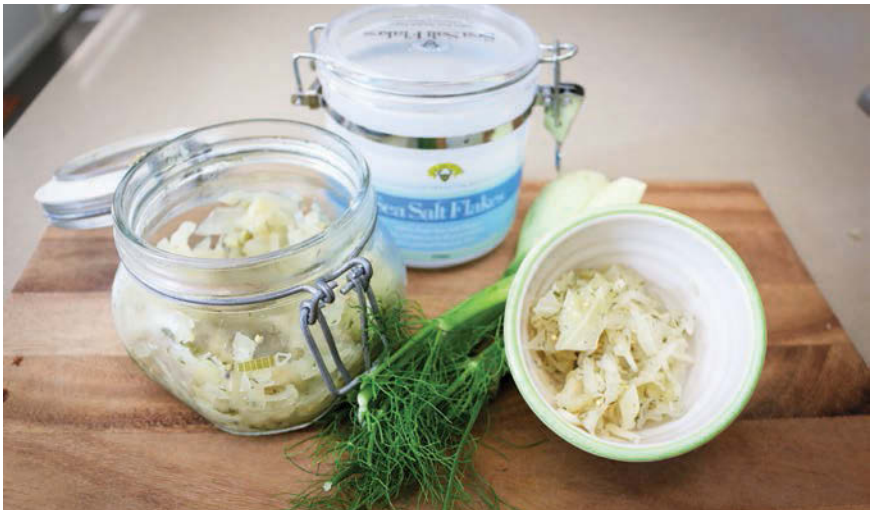
METHOD

1. Add all ingredients to a small mixing bowl and stir well with a spatula, ensuring there are no lumps.
2. Transfer the mixture to a glass pot or lip gloss tube. This will last up to twelve months.
3. The mineral mica colour powder may settle out, so shake or stir immediately before use. I add a small stainless steel bead to mine to make it easy to mix with a quick shake!

Further information and ingredients are available from www.greenlivingaustralia.com.au.



"NUTRITION IS DETERMINED BY WHAT WE CONSUME AND ABSORB, SO A HEALTHIER GUT MEANS A HEALTHIER PERSON."



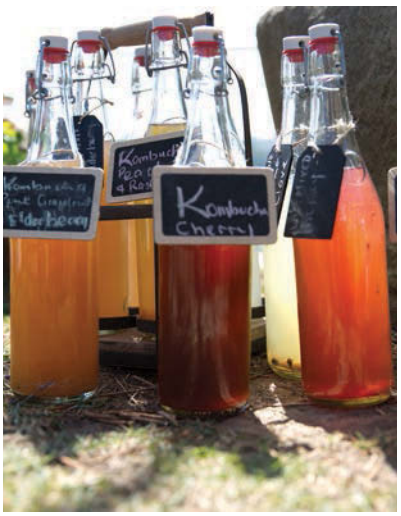
Fennel kraut

Gillian

Vitality kraut

Fermented fruits

Fermenting ingredients



Flavoured kombucha

FERMENTING FOR HEALTH

Words by Gillian Kozicki. Photos by Cultured Artisan

When I first heard about permaculture I was drawn to how it provides tools for living in sync with the planet, as a designed approach with ethics and principles. What I wasn't prepared for was how it could be applied to so many aspects of life. So, when I was introduced to lacto-fermentation it was no surprise that it did the same thing, but on a microbial level: we have a gut food web similar to the soil food web, which can be nourished, maintained or killed by the choices we make.

Consuming fermented foods and drinks promotes diversity of gut microbes, builds resilience in our immune function and has other benefits. Fermenting uses microbes in, on and around us to create foods that benefit our gut and bodies: microbes consume sugars and create enzymes and vitamins, and perform other digestive functions.

During fermentation beneficial microbes work together, sometimes as a colony referred to as a culture or a 'symbiotic colony of bacteria and yeasts' (SCOBY). We can manipulate the fermenting environment to favour the desired outcome, for example to preserve food.

Humans have 100 trillion good bacteria in and on our bodies, most in our guts. We are a microbial host, where the microbial DNA outnumbers cellular DNA by 10:1. What we consume matters.

BENEFITS FROM CONSUMING FERMENTED FOODS

As Hippocrates stated over 2000 years ago, 'all disease begins in the gut'. Nutrition is determined by what we consume and absorb, so a healthier gut means a healthier person. Stress and a toxic chemical overload in modern lifestyles can reduce the diversity of beneficial bacteria in the gut, and result in an imbalance that leads to poor gut function.

Fermented foods and drinks are full of beneficial microbes that help with digestion, cleansing and the absorption of nutrients in foods. They inoculate the digestive tract with beneficial microbes that crowd out available space for pathogenic bacteria which cause many modern chronic health issues. Researchers also believe that consuming fermented foods and drinks can improve mental health through brain function linked to gut health.

Health benefits of consuming fermented foods include:

- diversity of beneficial bacteria
- strengthened immune system
- assisted digestion
- improved mental health and moods
- vitamin synthesis
- controlled sugar cravings, and assisted weight loss
- increased energy
- clear skin
- fewer food allergies, inflammatory responses and internal fungal issues.

HOW TO FERMENT

The key to fermenting is to create an environment for beneficial microbes to thrive, while not favouring those that putrefy. For example, some need air (aerobic) and others don't (anaerobic). I've suggested some recipes.

HOW TO INCORPORATE FERMENTING INTO YOUR LIFE

Start small, diversify the ferment types or timing, and accept the feedback from your body. More does not mean better – a single teaspoon may contain millions of live microbes. Sauerkraut is a great ferment to start with, as are kombucha tea and kefir.

When you introduce unfamiliar fermented food or drink to your diet you may experience an unwelcome reaction because you're introducing a huge number and diversity of gut bugs. This may affect your digestion and/or cause inflammatory responses, and could result in toxins being released if pathogenic bacteria die off in large numbers. If you have serious health issues these may need to be resolved before you start consuming ferments.

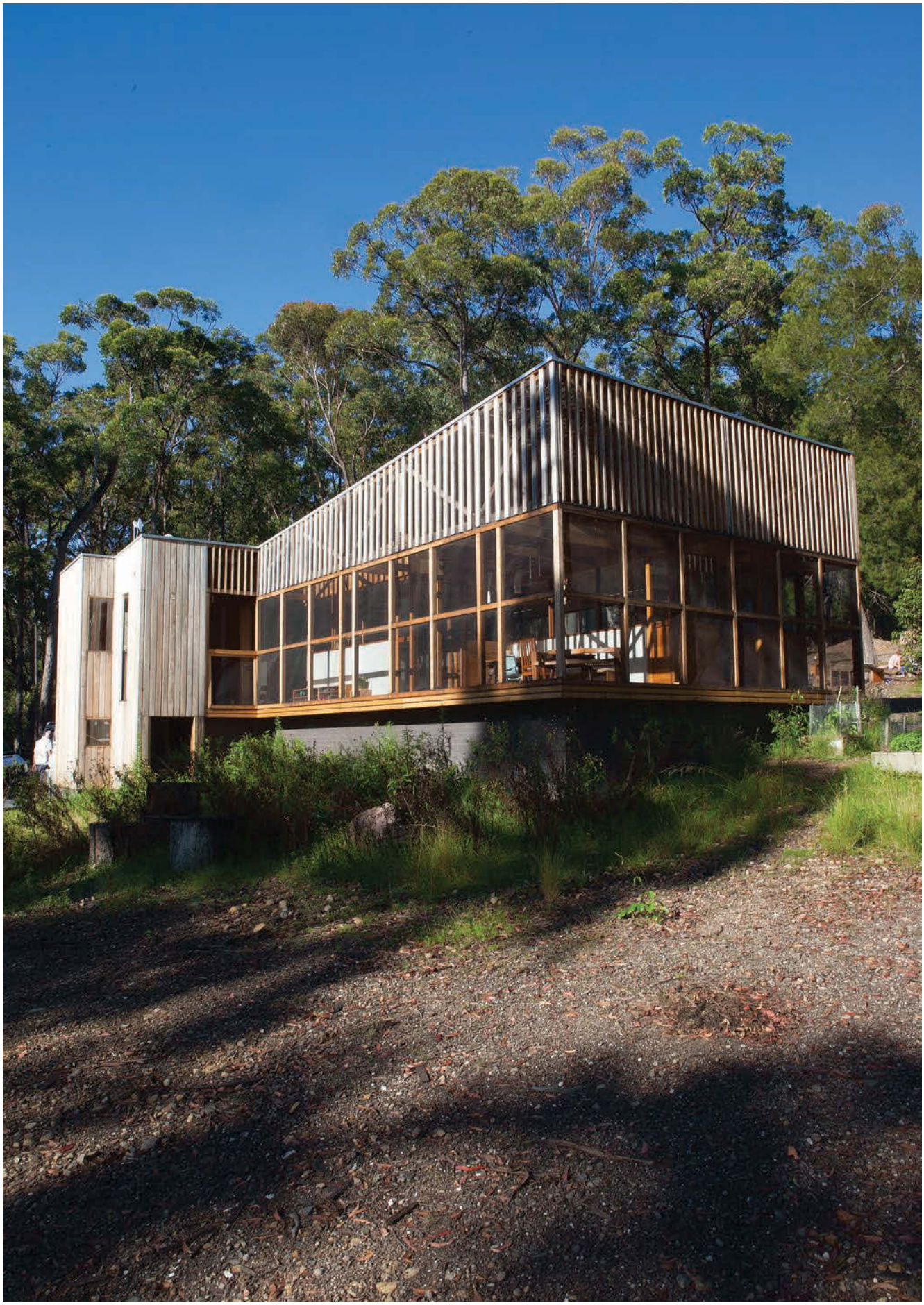
Fermented tonics are made easily at home from simple ingredients and are great pick-me-ups as they cleanse, re-energise, rehydrate and build immunity in the body.

GROWING CULTURE - BUILDING COMMUNITY

Fermenting not only works with microbe cultures to transform foods and drinks; by consuming them, fermented products supply the same diversity to gut flora. A beautiful additional benefit is that fermenting has a way of building human communities and culture.

SCOBYs multiply with every batch, so they could continue to ferment larger batches, but there is a limit to how much one person can consume. It makes sense to ferment what you can consume, and share excess cultures so that others can enjoy them; you then also have a backup if your SCOBY fails and dies.

Fermenting vegetables in season, when they're abundant and cheap, avoids waste and makes it easier to share the produce – preserving makes things last. This can bring people together, and build resilience and food security in communities. The current fermenting fervour is also reviving food traditions and connections to cultural heritage.



HOUSE OF CUPBOARDS

Words by Bernadette O'Leary Photos by Robyn Rosenfeldt

Q: What happens when an architect and a furniture maker design a house together for their young family?
A: The 'house of cupboards'.

When Sunny Wilder (architect) and Nicholas Coyle (furniture designer/maker) moved their thriving timber furniture making business from Melbourne to Pambula, on the far south coast of NSW, they wanted to build a house that combined their skills and included a lot of storage. 'We have always liked the idea of prefabricated houses, but have seen that they are limited by their size and scale if they are the type that arrive fully finished on the back of a truck. Most prefabricated houses of this type also require easy site access and crane hire, which is not always suitable for tight urban spaces or remote areas. And prefabricated houses usually lack the timber detailing, warmth and individuality of an architecturally designed house', says Sunny.

Sunny has always been passionate about designing a low cost home. She knows well that Australian labour costs are high: 'The best ways to restrain costs are to reduce the time on site and the amount of trades used – our whole house can be built by a carpenter, there is no tiling or plasterboard used'. Faced with a bush block and limited funds, Sunny and Nick needed to build a house fast for themselves and their family. Prefabricated housing is becoming increasingly popular, and they wanted to try out their own version in an attempt to create a new housing model. This project is an example of how a natural low-tech material such as timber, combined with traditional joinery techniques, can be used in a new way.

GOALS

Sunny and Nick wanted their house to:

- be low cost
- be prefabricated in their workshop, easy to put together on site and quick to build – but not limited in its scale
- have lots of built-in storage, and for that to be a functional part of the house, not
- something fitted in at the end – it is load-bearing and integral to the way the space works
- include solid timber joinery that lasts the life of the house, not something to be ripped out and updated when it wears out or goes out of style
- be bushfire resistant and sustainable
- be light filled and inspiring to live in.

GREEN FEATURES

Design

- A small footprint – the house is 82 m^2, the deck is 34 m^2 – less to heat and less material used.

Lots of passive solar features, including:

- orientation for natural light (north) and to capture north-easterly breezes to keep the house cool
- slatted screens allow filtered dappled light in
- flyscreen wrapped around the house allows insect-free outdoor living, cross -ventilation and reduces the impact of the sun
- the cavity timber floor is insulated using batts
- a large, fully insulated roof cavity stops heat penetration in summer and heat loss in winter
- the 2.4 metre ceiling height means that there is less space to heat in winter.

Pambula is temperate in winter so large-scale thermal mass is not required. The couple is looking into thermal mass further for cooler climates.

BUILDING MATERIALS

Recycled timber is used for the structural frame.

Solid timber joinery and flooring used throughout is sourced locally, from Blue Ridge Hardwoods (Eden) Pty Ltd.

Flooring 'shorts', an inexpensive by-product from the mill, were used for the infill panelling in cupboard sections, door panels and joinery.

Use of structural insulated panels, which come clad with white COLORBOND® both sides, and with compressed mineral wool inside – R value of 3.0, fire retardant, and no need for interior or exterior cladding. The panels were recycled from a construction job. Luckily many were the right size for the job; a few needed to be cut down.

WATER SAVING

Rainwater is collected from the roof, stored in bladders underneath the house, and then pumped up to a 25000 litre tank for gravity-feeding.

Composting toilet.

ENERGY SAVING

The gravity-fed water system doesn't need to use a power pump every time a tap is turned on.

A small, slow-combustion wood heater heats the house more than adequately in winter.

LED lighting is used throughout, and only needed when the sun goes down.

A small instantaneous gas hot water heater is used currently: one cylinder of gas is used per quarter for a family of four for all hot water, and also for cooking.

Provisions for solar panels and solar hot water are in place, and a switch to solar will happen in the near future.

"WE BELIEVE THAT THE SUBURBS PROVIDE AN AMAZING OPPORTUNITY TO SUPPLY THE BULK OF FRESH FOOD FOR LOCAL COMMUNITIES."

NAT WISEMAN: WAGTAIL URBAN FARM

Interview by Robyn Rosenfeldt Photos by Wagtail Urban Farm

WHO STARTED WAGTAIL URBAN FARM?

Steven Hoepfner, Brett Young and I set up Wagtail in 2013. After completing an internship with Allsun Farm (near Gundaroo NSW) in 2011, my partner and I started looking for land in Adelaide to start up a small urban farm. Steven joined an urban farming interest group I'd set up, and mentioned he'd been offered land in Mitchell Park, about ten kilometres from the CBD. Along with Brett, we decided to start Wagtail together.

WHAT INSPIRED YOU?

The idea of trying to make a livelihood from growing vegetables in the suburbs; to see if we could make it work on a small scale and learn from our mistakes before we started something bigger.

HOW WOULD YOU DESCRIBE WAGTAIL?

Wagtail Urban Farm is a highly productive micro urban farm set in the inner southern suburbs of Adelaide, producing vegetables for market on only 180sq meters of land (about the size of a suburban back garden). We're not certified organic, but use organic inputs and don't spray with nasty chemicals. We use a biologically intensive approach championed by American market gardener, Eliot Coleman, which focuses on healthy soil, careful crop planning and efficient and ergonomic hand tools to make the work quick and enjoyable.

WHAT ARE THE MAIN PHILOSOPHIES BEHIND WHAT YOU DO?

We want to pursue 'right livelihoods' that care for the earth and people around us; growing vegetables really does that for us! We believe that the suburbs provide an amazing opportunity to supply the bulk of fresh food for local communities. A future of energy descent may force this on us. It makes sense to grow perishable crops close to where they're consumed, and storable crops further away, to save on fossil fuels for refrigeration and transport. It also reconnects people with their food sources.

WHAT ARE YOUR AIMS AND LONG-TERM VISION FOR WAGTAIL?

My aim is to scale up to make a viable enterprise growing organic vegetables, but I have had difficulty finding enough land in the suburbs. We're agreed that to provide a living wage we need to scale up by a factor of ten, to about 2000 square metres minimum; if we only doubled in size it would stop being an enjoyable hobby and start being a very low paid job! Given this, I've started a new project – Village Greens of Willunga Creek, at the Aldinga Arts EcoVillage south of Adelaide – which will be a 2000 square metre garden supplying vegies to the EcoVillage members and local markets.

Steven will keep running Wagtail with our amazing crew of helpers. We have had so much support from so many different people, I think there is definitely a future for it. As a model – for growing a lot of food in a small space – it has been really successful.

WHAT ARE SOME OF THE BIGGEST CHALLENGES YOU FACE?

Lack of time! We all work other part-time jobs, and manage to squeeze planting and weeding into Monday afternoons, picking on Saturday mornings and markets on Sundays. It doesn't leave much time to sit back and assess things from a distance – what Joel Salatin calls 'working on the business' rather than just 'working in the business'. Although limited time has made us efficient.

WHAT WOULD YOU CHANGE TO MAKE YOUR SYSTEMS WORK BETTER?

Better record keeping! The first year we were flying by the seat of our pants and didn't have time to record things like days to maturity, crop failures, what worked at markets and when, and best varieties. While I spent a lot of time planning, I neglected day-to-day record keeping. With that we could have focused on our mistakes rather than just guessing/remembering at the end of the season.

WHAT LED YOU TO WHERE YOU ARE NOW?

We've each integrated Wagtail into our busy lives. I started out growing herbs in pots in a rental house. My dad lent me his copy of *Permaculture one* (Bill Mollison and David Holmgren, Tagari Publications 1978), and that got me hooked! I read up on sustainable agriculture, did my PDC at The Food Forest (Gawler SA) in 2008 and WWOOFed there, helping Annemarie Brookman, where I saw her copy of *The new organic grower: a master's manual of tools and techniques for the home and market gardener* (Eliot Coleman, Gardener's Supply 1995) – a light switched on. It has been a ten-year journey to get where I am, and there is still much to learn.

WHAT ADVICE WOULD YOU GIVE OTHERS?

Start small: 200 square metres is a lot of land if you're managing it intensively, and it can produce a lot of vegetables! Iron out the inevitable mistakes and then scale up, based on your experience and market contacts (vital). And never stop reading and researching – I'm always coming across new ideas from other farms, journals, blogs ...

For more information visit:

www.wagtailurbanfarm.wordpress.com
www.fourseasonfarm.com
www.growingformarket.com

Clockwise from top: Urban bounty. The stall at The Market Shed on Holland St. Nat Wiseman with the produce. Fresh tomatoes.