Living the dream

Late last year Organic Gardener launched its Patch from Scratch competition to help one family transform their backyard from lawn to organic abundance. JACQUELINE FORSTER catches up with our winners, the Gordon family, to see how their journey was realised.

hen Stuart Gordon gazes out over his inner Sydney backyard he doesn't see a lawn in need of a mow or the concrete slab where an ancient shed once stood. He doesn't think of the suburb's industrial past, or hear the distant rumblings of Parramatta Road. Instead, he imagines a fruitfilled orchard and an abundant vegie patch – an oasis where his kids can play and forage, and slip between fence palings to visit their mates next door. He pictures a sustainable life where waste is recycled into compost, and worms churn through food scraps making fertiliser; where contented chooks cluck and friends gather for a barbeque to share in the backyard bounty.

Stuart can't help it, really – he's a town planner by trade so, naturally, he has vision, and besides, he's a country boy.

"I grew up in rural New South Wales. We always enjoyed time on the farms of family and friends, and my parents and grandparents grew a lot of their own food," Stuart says. "It's always been my dream to return to the bush one day or, failing that,

create an urban farm right here in Sydney."

For Stuart's partner, Alex, a city girl through and through, moving to the bush is not on her agenda. Work, school and friends have long been established in the big smoke but Alex has also yearned for a taste of the good life, inspired by childhood encounters with a European neighbour.

"Growing up in a recycling, composting and gardening family, I learnt the basic principles of reducing waste and successful ornamental gardening but it was Sebastian Ferlito, our green-thumbed Sicilian neighbour, who sowed a dream that one day I would have a sustainable edible garden too," Alex explains.

"Sebastian helped my parents in their garden, and my sisters and I would often be invited to explore his immensely productive backyard filled with rows of vegetables.

"It was one of the best vegie patches I have ever seen and to this day I have never ever eaten a better tomato than his Italian 'Oxheart." Alex recalls Sebastian's

resourcefulness. "He raised rabbits and chooks for meat and eggs, and he

g the family's new flo vegie beds. Facing page, : The Gordon famil Stuart, Noah, Frankie, Aurelia and Alex (left to right).



grew grapes to make wine in a crushing pit under his house. He was almost self-sufficient," she says.

Sebastian's and Alex's families became great friends. "He always had a box of vegies and eggs for us and my late father, an obstetrician, even delivered his grandchildren. The Patch from Scratch competition was a chance for us to kick-start our own self-sufficiency dream."

Stuart says winning the competition means a lot to the family. "The children have a wonderful school garden, and they bring home lots of passion and information about worms, compost, life cycles and raising chooks. A Patch from Scratch means the kids can build on that learning in their own backyard."

Indeed, every student at Dulwich Hill Public School has formal gardening lessons. Gardening coordinator, community educator and school parent Leonie McNamara says, "The aim is for children to discover the connections between people, plants, animals and insects, and how we all rely on the same basic needs – air, food, water and shelter in a shared space.

"Understanding this web of life allows children to identify their place in the world and is empowering."

Starting out

After winning the comp, Alex and Stuart enjoyed their first hands-on learning experience at Milkwood Permaculture's Serious Backyard Veggies course. The course, conducted over two days, focused on vegetable garden design and growing techniques including propagating, building healthy soil, plant needs and integrated pest management.

"We already had some knowledge," says Stuart, "but the course taught us more about improving soil, mechanisms of fertility, crop rotation and a lot more."

Following the course, Nick Ritar, co-founder and director of Milkwood



Milkwood Permaculture's Nick Ritar explains plans to the family. Right: Drip irrigation was installed in beds. Baby peas growing here.



Permaculture, visited the Gordons for a consultation and site analysis. Considering factors such as external energies – sun, wind, rain; access and energy flows; water – rainfall analysis and harvesting, and grey water re-use; biology and wildlife habitat; built structures, including the existing garden shed;

microclimates and soil, Nick conceived a schematic design (left). "A schematic design maps out

the rough size, shape and location of the individual elements and their functions, and is used to build strategic relationships between the elements," Nick explains. "The garden was designed to fulfil the family's immediate needs and wants and also be a long-term plan, implemented over time, for a sustainable future."

Nick says there were a number of microclimates within the yard to work with, and that although the soil was a dark silty/loam it was heavily compacted and possibly contaminated. He suggested soil testing (which found that the soil was contaminated) and building the soil up with compost, green manures and nutrient cycling from the worm farm and chooks to improve filtration and bind any contaminants.

One of the major stumbling blocks for gardening in the city is the possible contamination of soil from industrial waste and environmental pollutants. The

The Gordon's schematic design





RECYCLED RAILWAY SLEEPERS

When constructing the raised garden beds in the Patch from Scratch, *Organic Gardener* consulted with the owners, Alex and Stuart Gordon, regarding materials to use. They chose recycled untreated hardwood railway sleepers* as they wanted a rustic look with a hard-wearing finish.

Although the supplier confirmed that the timber was untreated, we carried out testing on the sleepers at the National Measurement Institute (NMI) laboratory. The results showed levels of herbicide and pesticide residue, phenols, PAHs (polycyclic aromatic hydrocarbons) and heavy metals either below the limit of reporting (essentially non-existent) or below the recommended safety level for residential settings.

Organic Gardener also contacted the NSW Environmental Protection Authority (EPA) for its official stance on the use of untreated railway sleepers. Its response: "The EPA believes untreated railway sleepers are safe to use for garden and landscaping applications as the hardwood sleepers are known to yield the necessary strength and durability without treatment and are not likely to leach chemicals into the soil or groundwater."

The EPA also advised that chemical treatments have not been used on railway sleepers in Australia since the 1980s, and that hardwood and timber suppliers are required to undertake chemical testing and/or risk assessment to ensure that timber sleepers are not treated and are not likely to pose a risk to the environment or human health, prior to supplying them for landscaping purposes.

EDITOR'S NOTE: Organic Gardener does not recommend using recycled timber unless you are confident of its origin. We suggest using corrugated iron, untreated hardwood, bricks or straw bales for the construction of raised vegie beds.

* Recycled railway sleepers may be contaminated by wood treatments such as creosote. – *Jacqueline Forster*



PLANTING PLAN

With four new raised vegie beds ready to go, it was an opportunity for the Gordons to have some fun with productive planting layouts. Most importantly, they aimed to grow things the whole family would eat. The first idea was the classic combination of sweetcorn, beans and cucurbits, better known as the 'three sisters'. The corn occupied the centre of the bed where it was under-planted with climbing beans a nitrogen-fixing plant that makes use of the corn stalks for support. Around the border went zucchini, squash and cucumber - acting like living mulch with their large leaves covering the ground.

The adjacent bed was filled with a range of tomatoes, big and small. Basil, marigold and mizuna created a colourful edible border, and lettuces lined the spaces between the rows of tomato bushes, providing a guick return before the bushes reached full size.

Later, plantings of brassicas dominated the third bed - Brussels sprouts, cauliflower, cabbage and kale. These crops share similar nutritional and pest control needs, so combining them in one bed makes good sense. The last bed became the home of a mixed bunch of family favourites with rows of neatly planted silverbeet, spinach, spring onions, garlic, celeriac and beetroot.

– Phil Dudman



Gordon's place was no different from many inner suburbs and testing by Macquarie University's Vegesafe program revealed elevated lead levels in the soil. To combat this, raised garden beds and a solid floor in the chook pen were necessary.

The process

As the design involved phases of construction, including a future renovation, it was decided that the plan would be tackled in stages. Stage 1, the "patch from scratch", would include constructing four raised garden beds, erecting a chook house, making compost bays, getting a worm farm up and running, installing a rainwater tank, and espaliering fruit trees and planting vines along the fence. Much of the work was carried out by Alex and Stuart themselves.

Stage 2 saw the removal of the concrete slab to establish a food forest and entertainment area, and Stage 3 included the renovation which would open up the rear of the house to the backyard for better access and more outdoor living space, with the finishing touches of an aquaponic pond, shiitake mushroom logs and fernery.

Stuart had already made a start on the garden beds by laying concrete footings. Untreated hardwood sleepers were used to form the walls of the beds, which were lined with cardboard to suppress weeds.

To save money, a 20cm layer of mulch, supplied by Marrickville Council, was sprinkled with blood and bone to help activate enzymes and prevent the mulch from leaching nutrients out of the clean soil, which was brought in to fill the beds ready for planting.

Keeping chickens had always been part of Alex and Stuart's vision, and the construction of the chook run was perhaps the most ambitious aspect of Stage 1. Stuart's keen sense of planning and design, and the

assistance of good friend and joiner, Gary Ward, resulted in a chook palace rather than a henhouse. A 20cm floor of compacted road base, mixed with concrete to stabilise it, was laid beneath a deep litter of mulch, wood shavings and straw. (See our poultry story on page 76 for more on this.)

The Gordons already had a rainwater tank collecting run-off from their garden shed. When they won another tank in the competition they decided it was time to invest in pumps to better utilise that run-off and to plumb the new tank into their laundry and bathroom for rainwater toilet flushing and clothes washing.

"Retro-fitting is expensive but the benefits for future water bills and the environmental savings will be worth it in the long run," Stuart says. "The site analysis showed a lot of water was being wasted so it made sense to make use of it."

The new tank is situated down the shady side of the house where a fernery is planned. This cool spot was also perfect for siting the worm farm.

"We used to feel a lot of guilt every time we threw food scraps in the bin, so couldn't wait to get a well-functioning compost and worm farm set up," Alex says.

The wheely-bin design of the worm farm, a worm juice tap and

FRUITFUL AMBITION

My visit to the Gordon's garden offered a good opportunity to fine-tune the placement of fruit trees in their planting plan. The long, sunny fence seemed the perfect place to espalier low-chill apples and pears, and oranges that they had already acquired as part of their prize.

A generous space to the left end of the central pathway provided enough room to place trees that would be visited often, such as fig and lemon. These could be under-planted with pumpkin and watermelon vines with a row of blueberry bushes on the border. Passionfruit vines were planted on the back fence in lieu of a 'fedge' (fruiting hedge).

Neighbours were successfully growing avocado, mango, loquat, olive and plum trees, in a veritable suburban orchard, so the food forest on the opposite side of the path was planned to include other smaller trees including lime, pomegranate, pawpaw, babaco and coffee backed by taller-growing olive, avocado and mango.

CANNING PHOTOS: MARY

organic design

easy access to castings make for

hassle-free harvesting.

A rewarding journey

learning curve – plus have

segments on their garden

transformation.

vision for our garden."

As project managers go, Alex Gordon is one cool customer. With three kids under eight and a part-time job, it's not easy to oversee building and landscaping work, let alone get amongst it - shovelling soil in the dark to finish the raised beds and enduring a steep poultry-rearing

time to scrub up and appear in ABC TV's Gardening Australia

But Alex proved unflappable and a most deserving winner. "We had made a start on our vegie garden, but the competition has allowed us to benefit from the prizes and to learn vast amounts quickly," she says. "We have really enjoyed the journey so far, and now have a much bigger and longer term

When Organic Gardener started the Patch from Scratch competition, we didn't realise how big an adventure it would be - for us, or for the winners. We had never attempted anything so audacious. The ABC didn't have the budget for a blitz-style makeover, which doesn't fit Organic

- Phil Dudman

Stuart Gordon working on the chook run.

organic design

COMPOST BAYS

A compost bin is like the engine room in an organic garden. This is the place where raw organic materials are processed and transformed into the fabulous organic fuel we commonly call

compost. Needless to say, a solid and manageable composting system was high on everyone's list of 'must haves' in the Gordon's garden.

The first consideration was placement – positioning the compost where it is most likely to be frequently visited to ensure it gets regular attention. For the Gordons, this was in the chicken run. But only green waste goes into the two-bay system.

Whenever someone makes a daily visit to the henhouse, they can check on the compost to see if it needs watering, turning or covering. Weeds and prunings can be collected along the way to be tossed onto the heap, along with some manure-rich chicken litter close by.

The Gordons were keen to make use of some old timber and corrugated iron sheets they had lying about so, together with Costa Georgiadis, from ABC TV's *Gardening Australia*, we set about designing and building a first-class compost system. We decided on a basic two-bay design – one bay to house the composting material and the other to receive the material when shovelling and aerating the heap. (A third plastic compost bin provided by Marrickville Council is used for household scraps the worms or chooks don't get.)

Although typically you would put compost bays directly onto soil to allow easy access by critters and worms, because the soil was contaminated we laid a solid base of pavers. A few lengths of 4 x 3 hardwood timber made handy posts, the iron became the outer and

internal walls, and some well-weathered fence palings were cut to equal lengths to create the front of each bay. We also attached two lengths of narrow timber to the insides of each front post to create channels into which the slim timber panels could be slid in and out as needed.

As soon as the last panel was in place, in went the ingredients for the Gordon's first batch of 'hot' compost. We steadily built up a range of organic materials in multiple thin layers – lucerne, straw, grass clippings, garden weeds, shrub trimmings and cow manure. And every few layers we sprinkled on some blood and bone, then wet everything down to help initiate the breakdown process. The heat coming off bay 1 the next morning confirmed that the microbes had landed.

To watch the *ABC Gardening Australia* Patch from Scratch segment on how to build your own compost bays, go to organicgardener.com.au/content/ building-compost-bays – *Phil Dudman*

Many thanks to our Patch from Scratch sponsors and helpers:

Milkwood Permaculture, Bushmans Tanks, Backyard Chicken Coops, The Diggers Club, Worms Downunder, Seasol, Searles, Birdies Garden Products, Irrigatia, Red Comb Chook Feeders, Green Harvest, Netpro, New Leaf Nursery, V–gardens, Wormticklers, Fresh Prince of Bondi, Urban Growers, Marrickville Council, David Boyd Horticulture, Costa Georgiadis and the team from ABC TV's Gardening Australia, Tom Kortegast and Max Peters (carpenters who built the garden beds), and Stuart's mates, Gary Ward and Rowan George.



Gardener's ethos anyway, so Patch from Scratch became a journey. A journey of discovery, of lessons learned, of new friendships and of reality.

Gardens don't happen overnight. They are a labour of love. They have significance in our lives because they create memories or are inspired by them. When the Gordon children grow up they will likely remember how their parents worked to create a productive and vibrant space for them and how much they enjoyed it together as a family. **OG**

Phil and Costa get started on the compost bays. Below: the finished two-bay system.