It has never been more important to embrace sustainability. In the next four decades, we will need as much food as during the last 500 years.

*Outside the Magic Square* considers issues of food security and offers solutions at the street, neighbourhood and global levels. Mixing gardening advice and food plot design with discussion of pressing issues like global warming, dwindling oil supplies, the future for farmers and GM foods, Lolo Houbein challenges us to mobilise for food security.

‘Put down the KNIFE! Back away from the kitchen, and pick up this book. If we don’t change the way we look at food, many will get hurt. Understanding the complexity of the issues surrounding food security is going to scare you; understanding what you can do about it is right here in this book. It is an insightful, informed and practical survival guide for our eating future.’

Simon Bryant
Food security – and the absence of it – has been Lolo Houbein’s lifelong preoccupation. She regarded every garden where she messed around with plants, as a farm to feed her household. Her previous book, *One Magic Square: Grow Your Own Food on One Square Metre*, won a Gourmand Award in 2009 and made the short list for Le Cordon Bleu Best Food Book in 2010, and has been published in North America, New Zealand and South Africa.

Lolo Houbein’s great-great-grandfather was a market gardener in North-West Frisia, passing a gardening gene down the generations. Lasting influences were her Uncle Wim’s small farm and the famine of 1944–1945 in Western Holland, which she barely survived. She came to Australia in 1958 to escape the Cold War.

Lolo had her formal education at the universities of Adelaide and Papua New Guinea and Adelaide Teachers College, in the literatures of Australia, Papua New Guinea, the Pacific and Africa, classical studies, world religions and anthropology. Her novel *Walk A Barefoot Road* was awarded the Bicentennial/ABC Fiction Award and her autobiography *Wrong Face in the Mirror* the Dirk Hartog Literary Award.

In *Outside The Magic Square* the author asks questions about Australia’s precarious situation in the world food system and looks for solutions in the suburbs where most of us live.
By the same author

**Fiction**
*Everything Is Real*, 1984  
*Walk A Barefoot Road*, 1988, 1990  
*The Sixth Sense*, 1992  
*Lily Makes A Living*, 1996  
*Island Girl*, 2009

**Non-Fiction**
*Wrong Face in the Mirror*, 1990  
*Tibetan Transit*, 1999  
*One Magic Square*, 2009

**Health Warning**

It is not advisable to use horse manure from regions where Hendra Virus (HeV) is active and where HeV-carrying fruit bats (flying foxes) live near horses – thus far only in Queensland and parts of New South Wales. The virus can pass to humans via infected horses. Contact your Department of Primary Industries for details. Manures must be composted before planting, either *in situ* or the compost bin, to prevent E. coli and other diseases. Also see your doctor about tetanus injections if handling horse manure and manured soils. To prevent e-coli infection wear gloves and wash gloves and hands thoroughly after using any manure.
Outside the Magic Square
A HANDBOOK FOR FOOD SECURITY
Lolo Houbein
For all people who love to eat and feel good afterwards.

When large pumpkins are forming it is time to prune away non-productive vines and tip prune those that are producing. Stir-fry tip prunings or steam them in coconut cream.
Mulberries ripening.
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Introduction

How are you coping with the daily barrage of news on how we all need to act to slow the effects of climate change by using less petrol and energy to reduce our carbon footprint? ‘Carbon footprint’ has become such a popular phrase that even people who haven’t stopped to think what it entails, use it as a conversation stopper before rapidly changing the subject.

How can you blame anyone in times like these for closing their eyes and ears, clutching the status quo courageously to their chests, pushing aside ever-conflicting media reports, mistrusting scientists except those they need, and sticking to the beaten path of life as they’ve always known it. Not in active denial, but in a vague hope it will all come to pass – if it must – after they have shuffled off this mortal coil. Blaming is a waste of time and energy.

I am a lover of peaceful hours at home, reading, writing, studying and tending my garden, and it is difficult to entice me out to attend meetings, forums, or working bees. And yet, I seem to have been doing that for years, recently in the cause of food security for all. So I fully understand if you have been shoulder shrugging, biding time and – unless you live in flood, fire and drought-prone regions – observing that life as we know it seems to be continuing somehow in Australia.

Amid the hotchpotch of action programs and specialist advice we have to make personal choices. We weigh up what others are doing to make the future bearable and join or start a group. Our household began by gardening organically, growing our own fruit and vegetables as far as possible and, for some decades, involvement in tree raising and revegetation until fragility put an end to that. We are pleased when we see schoolchildren and younger adults planting trees, evidence that new generations have adopted revegetation as ongoing maintenance of our environment. It has been found that trees communicate via their root fungus internet. Trees communicate with us when
we hug them or live amongst them. Without trees there would be virtually no life on the planet, yet more are destroyed each year.

After handing over my last boxes of home-raised tree seedlings I returned to my great love, food growing. Believing the future of continuing food supplies was not rosy, I gathered my writings on the subject for my grandsons. Out of this came a book, named after a neighbourhood course I advertised in 1998 as ‘Grow you own food on one square metre’, a title that caused merriment in the land of endless horizons.

There are aspects of growing your own food that contribute to slowing climate change and reducing your carbon footprint, as well as improving the health and wellbeing of food gardeners and their families. So much so, that I am willing to keep working until I turn 80 to make Australia’s five million backyards – give or take a few – productive in food. Australians’ self-reliance in food must become a reality, the sooner the better, and I try to contribute by passing on what I have learned.

By becoming one of the five million who will bring about this miracle of Australian self-reliance in food, you will save your health, that of your loved ones, your country, and the globe. Growing home produce puts you in control, you can do it at home, and you can do it with your children. It has been done in wartime and during the Great Depression, but do not wait for a war. Let us do it while we can, in peacetime, starting now.

Lolo Houbein
South Australia 2011
Many times I have been asked: ‘Why one square metre?’ Each time I seem to give a different answer. Finally I dug back in my memory to 1945 and the last months of World War Two. It seems square metre garden plots have dotted my life ever since.

At age 11 I was evacuated with many other children from the starving western provinces of the Netherlands. I landed in a small canal village in south-east Drenthe bordering Germany. The village had a tiny school of two classrooms and office. Being in 4th grade, I shared a classroom with grades 5 and 6. Grade 6 consisted of two girls in a front desk.

Our teacher was an enlightened young man from Amsterdam. He may have felt fortunate to have escaped that starving city in time, for he prepared a long strip of ground in the school yard and divided it into as many plots as there were children. I remember my plot well, probably 100 x 50 cm. The teacher handed out the seeds. I think I grew radishes and some flowers, maybe marigolds. The summer was all too short for me and my plot, because convoys of children were being returned to the west after the country was liberated on 5 May 1945. My truck rolled up on 4 July and I said goodbye to my foster parents and my teacher and was delivered home in the late afternoon of that same day to my very surprised mother. I had been away four months and without realising it had switched language in that time. I spoke fluent Drenths and could even sing the Drenths anthem. My mother could barely understand three words of the stories of my sojourn in the east. That took some sorting out, but unfortunately I lost all memory of Drenths, the language of the people who saved my life. The country’s communications were still in tatters, and although both Mother and I had written each other many letters, we didn’t receive them until months after the war was over, tied in neat little bundles by Red Cross volunteers.
We had no garden at home. Our workman’s cottage stood a little more than a metre from the pavement which adjoined the road. At the back of the house was a concrete place for the washing, to tinker and store bikes, and a small shed. Our only plants were indoor plants, looked after by Mother and me.

When I arrived in Australia I was hoping to have a garden. It took a few years before we qualified for a State Bank loan and had a simple house built on a block in what was then still countryside. I adored the wide views of the Adelaide Hills and the Aldinga Range. Although we could not afford fences, I started to dig some ground for a vegetable garden, but due to my ignorance and the poor quality of former grazing land, nothing grew and I gave up. Deciding on tough geraniums and succulents, I was constantly prevented from developing a garden because of plans to terrace the sloping site with concrete retaining walls. And so the best memory I have is of a quarter circle drawn in a square metre corner where two walls met. Here I made a miniature garden, building a hill with excavated soil, retained with rocks, planted with succulent cuttings I picked here and there. This became the only delightful little corner, full of tiny starry flowers in summer. I’d lay flat on the grass looking up my little hills and imagine it to be a landscape.

It must have been in that ‘garden’ too that I enlisted the services of the two eldest children with weeding. My daughter tells me I would mark out a square metre and she and her brother would have to weed it clean. Children remember such awful things about their parents! We did many pleasant things too, and the kids had a freedom-filled childhood fossicking outdoors on vacant lands.

In the ’80s my partner and I set up a caravan and shed on a hill in the Adelaide Hills, where we lived in primitive comfort. Burr began building an environmentally sound house and I started to make a garden on top of the plateau in the forest. It would eventually spread across an acre. But the plots began by Burr picking over one square metre at my request, from which I removed rocks, stones and roots. The soil was then dug, given compost and planted with herbs. I remember a huge electricity truck with two men coming up
the long driveway, looking fruitlessly for a metre box – we were not connected – as I sat on my bank of clay raking out gravel for yet another plot. ‘Making a little garden, luv?’ asked the driver from his great height behind the wheel, a note of pity in his voice. They circled the fire tank and left the property, shaking their heads.

On the plateau we built planter boxes with second-hand bricks to grow vegetables. These were approximately 100 x 200 cm, convenient to cultivate, plant and reach across.

After 15 years in the forest we moved to a level 2.5 acres where we planted a mixed native forest on more than half of it. The house gardens sprawled over an acre and were developed in the same way as the Hills garden, metre by metre cultivated and planted before going on to the next plot. You can have an overall plan in your head of what will go where, but to enjoy gardening you best take it one square metre step at a time.
In the 1980s I came across a book entitled *Square Foot Gardening* and tried Mel Bartholomew’s system, a great improvement on scattering a packet of seed and raking it in. This may well have had something to do with the resumption of my life’s theme, for in 1998 I advertised a community food gardening course on, you guessed it, one square metre. Tutored with two other avid food gardeners, we repeated the course in 1999. I wrote a kitchen garden plan at the time, adjusted for this book. Kitchen garden plans tend to fall quite naturally into little squares and circles.

So there you have it. I am but a round peg standing proudly in a square plot. And since *One Magic Square* appeared, thousands of people have discovered how much fun, food and satisfaction can be had from such small spaces.
How to Use This Book

If you have grown your food on a square metre and picked some good meals, you are probably already thinking outside that magic square. You may have scaled up your food garden to four or more squares to try out different plot plans featured in my earlier book published by Wakefield Press in 2008: *One Magic Square: Grow Your Own Food on One Square Metre*.

*Outside The Magic Square*, is a new independent companion volume. There are nine parts. We begin by stepping outside our backyards and looking at the food situation in Australia and globally, a theme that runs through the book because Australia is no longer self-sufficient in food.

Seasonal lists of vegetables and key points on soil and water are included to also make this a fit manual for food gardening. The reader will find new plot plans, chapters on getting value from home produce, what can be done with herbs, the revealing omega-3 and omega-6 story, interviews with food gardeners, food gardens abroad, and community gardens. The book finishes with Part Nine, **Passing it On**. It offers ideas for everyone to pass on information about the growing and preparing of food to make us into a self-sufficient nation.

You can of course read the book from cover to cover. Or take a dip and read the parts that appeal. Find what interests you in the contents, the vegetable lists in Part Two, or the index. Then put the book down and go into the backyard and do something about it! Dig up a square, or clean up last year’s plot and stake out a modest expansion. Or return to *One Magic Square* to see which plots you haven’t tried yet.

During many interviews and numerous talks in town and country on the merits of starting with a one square metre plot and extending slowly, I met thousands of gardeners and gardeners-in-waiting. We discussed food security issues and what they could or did do to feed their families. The talks also became a discussion of the bigger issues involved and no two talks were the same.
Sections on **Further Reading** and **Useful Addresses** listed at the end of this book show the way to books and websites where you discover facts about the global picture of food. To understand the future of food is to be prepared and to understand why you are growing your own.

*Outside the Magic Square* is a sharing of great food gardens, large and tiny, and much food know-how gleaned at seminars, food events, gardening and writers’ festivals. It is also a book that asks a lot of questions. Maybe they are your questions too. With *One Magic Square* and *Outside the Magic Square* you can take control of your basic food needs.

The kitchen garden at work. Photo by Phillip & Anne Duguid, Sunningdale Farm.
PART ONE

Our Food Future

Giant artichokes underplanted with potatoes. Photo by Phillip & Ann Duguid.
Dreaming a Different Dream

As residents of the Lucky Country we have grown up in the belief that we can follow our personal dream to its fulfilment. The seniors amongst us have grown old believing that it is never too late, and grey heads belatedly pursue as wide a variety of dreams as younger generations. We can do that because Australia is a wealthy country and a land of opportunity.

Much of the wealth goes overseas through resources export, in dividends to overseas shareholders, and through overseas investors who invest here to take profits home. Yet Australia is still a land of opportunity, mainly because much development during nearly 225 years of white settlement was based on old European patterns, using the natural wealth of this continent as if it was infinite. If entrepreneurs could find a way to export land they would not hesitate to slice the continent up. But one day we will have to stop selling Australia and ask ourselves how much of this continent’s wealth our expanding population needs to survive.

Few settlers looked in awe while travelling inland, thinking: How marvellously different is this land. How shall I survive here without unwittingly damaging this natural ecosystem? Only a few had the concept of ecosystem then, such as Charles Darwin and Alfred R. Wallace, and the returnee Rachel Henning (see Further Reading). It is new even for most of us. Yet some country people today know ecology in their bones.

The literature of exploration and settlement tells of a race to grab the best land, rivers, forests and minerals, exploiting them as if there were no tomorrows and displacing Aboriginal peoples and wildlife in the process. This happened all over the globe, always with the same result: the decline of indigenous people,
fauna, flora and biodiversity, followed by a resurgence of indigenous people, now landless and without the means to support themselves. Australia is now losing species of flora and fauna at a rate which could lead to environmental collapse. We have more people than ever before and less land on which to grow their food.

A 200-year-old dream of never-ending wealth has been rapidly fading. Those who saw the turning point looming began to make repairs, especially to the earth. But 21st-century problems are piling up. We humans are in the centre of the web of life and the web is trembling severely. Climate change, decline of oil resources, land degradation, loss of farms and farmers, and rivers that periodically stop flowing have become unpalatable inserts into our dream of a lucky country. Food security and bio-security have been added as highly topical issues caused by all the above. Yet, none of these topics seem to cloud talk at the office lunch and Christmas celebrations, or prevent holidays and economic stimulus packages.

Let’s ask just one question. With 10% of Australians suffering mental illness, one-third of Australians on medication, two-thirds of Australians using those so-called ‘recreational’ drugs including nicotine and alcohol because they need help to relax and have a good time, and just about everyone admitting to periodic stress . . . are we a happy people?

Are we a well-fed people when 2.2 million Australians are living in poverty? (Clare Martin, CEO Australian Council of Social Services, *Age*, 15 October 2009). How many Australians live in ‘food deserts’, where corner shops sell only junk food, fresh food is unobtainable, and the supermarket too distant to walk to and carry groceries home (see Further Reading: Brendan Gleeson, *Lifeboat Cities*).

So what good have higher pay and bigger profits in our consumers’ paradise done for us as a society? Why do many families live on inadequate diets so that sickness follows them like a shadow? Why do many once dedicated workers admit they’d retire tomorrow given half a chance? We suffer longer hours, fewer
free weekends, shift work, couples both working to make ends meet, deadlines, and the crazy traffic on the roads. Is it all worth it?

What have we lost? Time, tranquillity, and the freedom to tap into real beauty and pure joy in a natural world we rarely see, may not have seen since childhood. To recapture time, tranquillity, beauty and joy would make it easier to be philosophical about a future with higher prices, less petrol, worse weather and fewer long hot showers. We might even contemplate getting much more serious about reducing, re-using and recycling. Or decide that what we really wanted all along is to live a simpler life.

Most people believe that living with a cherished wish brings fulfilment of that wish. If that is so, we need to dream a different dream, a dream that fits the new circumstances of the future that waits around the corner. A dream that won’t shatter as the momentum gathers that drives the world, not just Australia, to a number of tipping points where sudden stops and cuts will be made in how we live, love, eat and die. We will have to do things differently, although we do not know exactly how, when and where. Which priorities will turn out to carry the seeds of new dreams? But hey! Weren’t we always pretty good at dreaming?

Social scientists and philosophers have advised that we need to live simpler, want less, care more, and love what is left of nature. Vast numbers of people I have known over decades before climate change was a topic, have been doing just that voluntarily. It was clear in the 1970s if not before that human society was careering madly off the rails. Dr Tim Flannery is hopeful we can change enough to survive. Professor Brendan Gleeson believes the suburbs will save the cities and wants to see a suburban green renovation. Dr Hugh Stretton, ever down to earth, believes wartime rationing will be needed to prevent depletion of resources. All these astute observers advise that Australia has to cut emissions. Clive Hamilton, in reviewing books on climate change (The Monthly, 2008) wrote that a 60% global cut by 2030 dictates that the rich countries have to cut by 90%, and that it may ward off the worst of global warming. Wouldn’t it be
worth all the trouble and inconvenience just to hear in summer 2030 that we’ve slowed down enough to celebrate, with a big watermelon?

To simplify life, make a mental list of essential needs: the roof over your head resting on walls standing on land no matter how small, personal skills, essential possessions. If you have enough clothes until you turn 90, hang on to them and dress dramatically out of style on official occasions and op-shop shabby-chic everywhere else – such a relief! List what courses might contribute to your personal development: weightlifting, horticulture, permaculture, keeping fowls, woodworking, spinning, weaving, cloth dying, watercolour painting, or climatology.

That was sneaky. All these skills can be learned and practised in the garden. As well as a host of other creative pastimes to pursue when the oil runs out. And if you do not have a garden, join or set up a community garden (see Community Gardens in Part Nine).

Although we cannot bring back non-renewable resources once they are gone – called extinction by complete depletion or exhaustion – we can bring back the renewable resources that prevent our own extinction, as we do through tree planting.

As for water, the global amount of water remains ever the same thanks to the precipitation and evaporation cycle. We often run short of water in Australia when rainfall is low because water is not used economically. Water is wasted (not recycled) in many agricultural endeavours such as growing cotton, tea and coffee, wine production and vegetable mega-industries which use 10 times more water than small organic and home producers. As 60% of the food grown here is exported, Australia, the driest continent on earth, essentially exports its water.

How can we be water-wise at home? Instead of tea, coffee or soft drinks, try teas from herbs grown in your garden. Try yarrow, nettle, chamomile, lemon balm, lime, rosemary, sage, or dandelion root. Make cordials with lemons, elderberry flowers, and rose petals.