



Grow Great Fruit

[10 KEY STEPS TO GROWING GREAT FRUIT]



MT ALEXANDER
Fruit Gardens



GROW GREAT
FRUIT GUIDE

Hi, Hugh and Katie Finlay here, thanks for reading our story. We draw on more than 18 years' experience as orchardists to bring you the 10 Key Steps to Growing Great Fruit.

Mt Alexander Fruit Gardens is our organic farm, in the foothills of Mt Alexander at Harcourt, in central Victoria. This is a traditional fruit growing area, with great climate and granitic soil that grows terrific tasting fruit. In fact, Harcourt has been famous for its apples for more than 150 years. In the early days of European settlement, a lot of other types of fruit were also grown in this district, including many of the heritage varieties of apricots, peaches, nectarines, plums, and cherries that we've reinstated on our farm.

Since we came home to the family farm in 1998, our climate's been anything but 'normal'—in fact, because of the effects of climate change, we don't really know what 'normal' is any more! In the last 10 years we've seen some pretty wild conditions—from drought to flood and everything in between—which has been very challenging at times, but means we've learnt lots about growing fruit in a wide variety of conditions.

Our farm is planted like an old fashioned 'garden' (the early name for an orchard) with small plantings of more than 90 varieties, providing an extended season of fresh fruit off the tree for almost 6 months.

With a combination of careful planning, looking after the trees well, good storage, and a range of preserving techniques, our farm is a working demonstration of how to keep your family supplied with home-grown organic fruit all year round.

We came home to the farm

after we'd both tried many different and diverse careers, including politics, sales, business services, travel writing for Lonely Planet, and editing (just to name a few), and both had successful and exciting careers in the city. But we both found ourselves drawn to the country to give our kids the carefree and natural upbringing we didn't think city life would provide. Coming home to the family farm seemed like the natural thing to do.

Almost straight away we struck a problem—we absolutely hated using the chemicals that are involved with 'conventional' farming (in fact we don't think there's anything conventional about it, and prefer to call it 'chemical farming').

But there were all sorts of barriers to switching to organic growing—some real, and some imagined! At the beginning we just couldn't imagine how we could manage to grow fruit without chemicals to solve all our 'problems'.

But the more we found out about the poisons we were

using, the more horrified we became and, one after another, we just stopped using them. And then a most miraculous thing happened! Most of our perceived 'problems' disappeared.

And so began an amazing journey of exploration, education, and experience, as we discovered the truth behind our 'problems' (that in fact we'd been causing most of them with the poisons we had been using), began to understand how to work with (instead of against) nature, and truly learned to understand, value, and

appreciate our most amazing asset—the soil!

By 2008 we were ready to apply for organic certification with NASAA, and by 2010 we had achieved our first level of certification!

Now we proudly use organic growing methods—and teach them—not only because it's better for everyone's health, but because we're acutely aware of how fast the climate is changing, and we want our farm to be part of the solution, not part of the problem!

Being certified organic means that everything we do (and everything we use on our farm) must comply with the Australian Organic Standards. We're audited once a year by a NASAA officer, who has the legal right to look at EVERYTHING we do, including all our bookwork and procedures.

But we don't mind—in fact, we wholeheartedly support organic certification, and love that it's such a rigorous process, because we think that gives the people who buy our fruit the confidence that we actually

“Our farm is a working demonstration of how to keep your family supplied with home grown organic fruit all year round...”

are doing everything the right way, and not just saying that we are. It's too easy for people to say they're organic when what they mean is spray-free, or almost spray-free. When you're shopping, if someone is claiming to be organic, ask them who they're certified with, and if they're not, ask them why not!

Being certified organic means (amongst other things) that no artificial fertilisers are used on the farm. We rely instead on natural fertility (you know, the sort that fed the entire human race before about 1920 when

superphosphate was invented, and our soils were ruined!). Natural fertility relies on using compost, compost tea, and other forms of organic matter to create healthy soil, full of microbes that provide the trees with nutrients.

Media and Speaking Stuff

We have been featured many times in the media, and Hugh and Katie have spoken at various events over the years. Here's some of the recent highlights:

- Katie was on the panel at a community forum called Get the Dirt on Food Security at Wesley Anne in Northcote.
- Hugh and Katie were featured speakers at the Organic Agriculture Association Future Farming conference in Bairnsdale.
- MAFG was one of four orchards chosen for orchard walks for delegates to the Australian Fresh Fruit Company (AFFCO) Training Workshop, as part of their Annual Conference in Melbourne
- MAFG was featured in articles in both *Australian*

<http://new.dpi.vic.gov.au/agriculture/climate/videos> (ep 2.1 *Climate and Planning*)

- Katie's story of returning to the family farm was told as "Love for the Land Runs Deep", in the Finding Neverland series of articles, Bendigo Magazine, Issue 33, Summer.
- We were included in a short video about waste in the food system called Waste Deep, made by the passionate people at Sustainable Table - watch the video here.
- We were featured in the Midland Express, both online and in the paper, in an article about our involvement in the local sustainable food system. Here's the link.
- The leader of the Australian Greens, Senator Christine Milne, visited the farm because we had been recommended as being a good example of a sustainable farming enterprise.

We were frustrated because we knew we had simple solutions to all these problems—but by the time we heard about them, it was too late to save the crop. We realised that we had the answers, but that people needed to be delivered the information before the problems happened!

We've also heard (more times than we can count) that:

- most people know it's much healthier to eat organic food (we agree, we wish the whole world could afford to eat organics!)
- many people worry about food security for your kids as the world's population increases
- most gardeners want to improve the environment
- almost no-one wants to use chemicals on your home-grown food – but they don't know what else to do!

You may not know it, but if you're reading this, you're part of a huge movement of people interested in growing their own food. With our experience, we're in a great position to help you get the skills you need, which is why we came up with these 10 Key Steps. They're simple, and make the difference between the frustration of failed crops, and the joy of success!

Our hope is that you can take this information and start using it straight away.

“With our experience, we’re in a great position to help you get the skills you need...”

Horticulture magazine and *Good Fruit and Vegetables* magazine

- MAFG was used as a case study in the report *Many Publics. Participation Inventiveness and Change* by Kate Auty, the Commissioner for Environmental Sustainability in Victoria (you can read the report at: www.ces.vic.gov.au)
- Katie was a speaker in the keynote session at the Growers and Eaters Conference in Bendigo
- MAFG was part of the FarmVIEW video series featuring our response to the challenges of farming in a changing environment:

Why did we write this book?

Because, as organic farmers, we're connected to the land, and to our community, both local and global! We want to share what we know, to skill people up to grow their own food.

As well as that, we've talked to thousands of home fruit growers over the years when we sell our fruit at markets, and it was depressing that we were hearing the same simple mistakes being made time and again. If we had a dollar for every time we've heard a gardener tell us they didn't get any fruit from their tree this year, we'd be very rich!



Step #1: Build Healthy Soil

Fruit trees will happily grow in most types of soils, but the more you build up the soil, the stronger and more productive your trees will be.

For fruit trees of any age, it's worth putting some effort into improving the soil—think of the soil as the “immune system” for your plants, and you'll begin to understand why it's so important. You know how some people sail through every winter without getting sick? That's what you want to create for your trees—it just makes sense that if they're growing in healthy soil, your trees will be the last ones in the neighbourhood to get sick!

If your soil has a problem, like too much clay or it's too sandy, it doesn't really matter. You will probably still grow fruit trees in that soil, but they may not reach their full potential until you've created rich, biologically active soil (which is possible, but might take a few years).

Soil contamination

The only thing about your soil that might stop you in your tracks is if you have severe toxic contamination. This is pretty rare, and most people don't need to worry about it. If you have some reason to think your soil might be contaminated by a previous use on the site, or sprays that might have been used, it's wise (but expensive) to test the soil for contamination.

What most people don't know is that one of the most effective ways of cleaning up a contaminated site is with

soil, including bacteria and fungi, gives your soil the unique ability to act as a 'biological sponge' and literally clean up any contamination.

The other good news is that mild contamination (for example low levels of arsenic, or even DDT) will not go through your fruit trees into the fruit. But a word of warning – if you know you have this type of contamination in your soil, it's a good idea to get your first crop of fruit tested before you start eating it!

[caution: don't grow vegies in contaminated soil under any circumstances.]

How do I make soil healthy?

The good news is that no matter what type of soil you have, there is a one-stop-shop soil solution! (The secret is to add more organic matter to your soil...

then everything else follows).
The key is to add two key



ingredients to your soil:

1. **Organic matter** –this is made up of anything that used to be alive, and some good sources to use in your garden are:
 - manure
 - compost
 - lawn clippings
 - raked leaves
 - old straw or hay
 - kitchen vegetable waste
 - newspapers or paper waste
2. **Microbes**. The three easiest ways of getting more microbes into your soil are:
 - worm castings
 - compost
 - compost tea

“The more you build up the soil, the stronger and more productive your trees will be...”

soil biology. Building a strong population of microbes in the

To keep building your healthy soil you'll also be needing worms (as you probably already know) – as well as a whole range of other bugs and critters that live underground.

Creating healthy soil provides **lots** of fantastic benefits:

- Your trees will be strong, healthy and productive
- Your fruit trees (and other plants) will get FREE FERTILISER from the soil
- Your soil will suck damaging carbon out of the atmosphere and store it permanently
- Your garden will be more drought proof, as well as able to recover faster from floods.
- Your plants will be less attractive to pests and diseases
- Your trees will be less vulnerable to frost

Increasingly, people are even saying that increasing the amount of carbon in the soil is our best bet for beating climate change, so by improving your soil you'll not only be helping your own hip pocket by growing more of your own food, but you'll also be helping the planet as well!

How do I know if my soil is healthy?

If your trees are growing well, and you're getting great crops, you're already on the right track, so well done!

If you're not getting the results you want, the soil is always the first place to look. We love teaching people how to do simple soil tests to do at home, what type of laboratory soil tests you can buy (and how to work out whether you need them!), as well as all the ins and out about different soil microbes, what they do and how to encourage them.

Interested in this topic and want to know more?

This topic is covered in much more detail in the [Grow Great Fruit program](#), including:

- Bacteria
- Fungi
- Nematodes
- Worms
- Protozoa
- Actinobacteria
- Soil arthropods – shredders
- Ants
- Algae
- The soil food web
- What is soil made of, and what is healthy soil?
- Building the right worm farm for your garden
- Building a hot compost pile
- How to supercharge your soil with compost tea
- Soil tests – what are they, do I need them and how do I do them?



Step #2: Feed your trees

If your fruit trees are going to feed you, it's only fair you return the favour!

Fruit trees need nutrition at key times in their growing cycle:

- In spring, after they have used up all the nutrient that was stored in the buds over winter.
- In summer, to make sure the fruit develops properly.
- In late summer and autumn, when the buds for next year's fruit are growing and the tree is storing nutrition for the following spring's growth.

What most backyard growers **don't** know is that most of the artificial fertilisers you can buy at your local garden shop will do more harm than good. These artificial fertilisers are usually harsh and salty, and may kill off all the wonderful worms, bugs, and microbes that you need to encourage to live in your soil.

So, what to use instead? The very best natural nutrition your fruit trees can get is the nutrients provided by the

microbes in the soil. It sounds amazing, but if you think about it, plants had evolved a way of getting all the nutrition they needed ages before we turned up!

what to feed them with, how to make compost and compost tea, how to build a worm farm, and everything else you need to know about how to feed your trees cheaply and effectively!

"Fruit trees need nutrition at key times in their growing cycle..."

So, how do they do it the natural way? Out of all the microbes that live underground, one type is particularly special –and they're called mycorrhizal fungi.

Mycorrhizal fungi form a very close relationship with the roots of fruit trees, and their job is to act like the pizza delivery boys! In exchange for receiving delicious sugars from the tree, the fungi respond to messages from the tree, telling them to go get whatever nutrient the tree needs!

So the basis of a natural fertility system is actually to feed the microbes that feed the tree! Great ways to feed microbes are compost, worm castings or worm juice, or manure (and as we saw in step #1, you'll also be building healthy soil while you're feeding your trees!).

If your soil is not so great when you start, you might also need to add some organic fertiliser at key times, but organic growers have proved that the need for this becomes less and less as your soil improves.

Our Grow Great Fruit Program teaches you when to feed your trees,



Interested in this topic and want to know more?

This topic is covered in depth in the [Grow Great Fruit program](#), including:

- Nutrition through the year: a summary of nutritional needs of your tree in each season
- Leaf testing
- Feeding your fruit trees in autumn
- Maximising your soil fertility
- Nutrient cycling
- Making sure your fruit trees have enough nutrition before winter
- Grow an autumn green manure crop to improve your soil
- What is 'natural fertility' and how did plants grow before artificial fertilisers
- Is it too late for green manures?
- Spring nutrition
- Diagnosing nutrient deficiencies in fruit trees

Step #3: Don't let your trees get thirsty

Fruit trees need water at the right time, but it can be confusing knowing when, and how much to give them.

What most fruit growers **don't** know is that if you want to grow good fruit, one of the most important times for your fruit trees to have enough water is spring. If the soil is too dry at that critical time, your fruit will be small that season, no matter how much water you give the trees later on.

That's because during flowering, when the fruit is fertilised, it goes through rapid cell division, and if it doesn't get enough water at that time, cell division is limited. That's going to limit the size of the fruit later in the season, even if the tree gets plenty of water.

How much water does my tree need?

There's no fixed rule about how much water a fruit tree needs, but it's not too hard to work out. It depends on several things:

- The age of the tree
- The amount of fruit it has on it
- Your soil type
- The temperature
- How windy it is

There are some simple ways to check soil moisture in your garden. One of the easiest ways to tell if your fruit tree needs watering is to check the soil at the bottom of the tree. Dig a little hole and check the soil - it should be moist but not too wet, and cool. If it's completely dry and very hard to dig into, your tree will probably need water!

When you're planning your irrigation system (or trying to figure out how much money it might cost you if you have to pay for your water), assume that a mature tree, with a full crop of fruit, in a hot summer, is going to use about 200 litres of

water each week.

Again, there are lots of variables in that equation, including the variety – late-cropping varieties need more water than early cropping, and whether the tree has a heavy or light crop in any given year.

How can I save water?

As with everything to do with sustainable gardening, diversity is the key. It's great to be able to use water from more than one source if possible – town water, dams, tanks, bores etc. That way you'll reduce your vulnerability if you have a drought.

Also try to harvest as much of the water

that falls on your land as possible. The best way to do this is to store it in the soil, and remember—the more organic matter (and therefore carbon) you have in your soil, the more water it will hold.

Swales, contour drains and keyline design are all other ways to retain rainfall.

Interested in this topic and want to know more?

This topic is covered in depth in the [Grow Great Fruit program](#), including:

- How much water do your fruit trees need?
- Two methods for working it out, and a rule of thumb.
- Soil moisture monitoring
- Tensiometers for the home garden
- Eight key principles of watering fruit trees
- Set up or improve your irrigation system over winter
- How long should you water your trees?
- Swales—what are they, how to build them, and how do they help prevent runoff and erosion?
- Keyline planning for better water retention on your land
- Do your trees need a drink already?
- Irrigation review
- Setting up a drip irrigation system
- Setting up a grey water system
- Help your soil recover from flooding
- Growing fruit with limited water
- Drainage techniques

“Try to harvest as much of the water that falls on your land as possible...”



Step #4: Regular haircuts - successful pruning

Getting the pruning right can make the difference between whether or not your trees bear fruit, and is one of things we answer most questions about!

Apricots and cherries are often pruned in summer, but other fruit trees such as peaches, nectarines, plums, apples, and pears are usually pruned when the trees are dormant, in winter. On the farm we prune about 5,000 trees each year, including cherries, apricots, peaches, nectarines, plums, apples and pears.

Pruning can be extremely confusing – every book (or expert) seems to tell you a

different thing! That's why we base all our teaching on an understanding of the basic principles, because once you understand how a tree is likely to respond to a pruning cut, it makes it much easier to make pruning decisions.

There's no 'right' or 'wrong' with pruning – there's just understanding the basics, getting to know your trees, and the wisdom that comes with experience and practice.

Types of pruning

There are three main types of pruning, and they're all important!

Establishment pruning

This is the type of pruning you use for newly planted fruit trees, and for the first 2–3 years of their life, to set them up in the right shape. It's really important and, sadly, very neglected, just because people don't know what to do!

Before you plant, you need to decide what shape you want your tree to be, so you know how to prune it right from the beginning. We recommend and teach growing vase-shaped trees (in most situations, but not all), because it creates a tree that is easy to work with and that bears fruit where you can reach it easily from the ground.

The key to establishing a vase-shaped tree is to prune down quite low in the first year (or maybe two), because wherever you make those first cuts is where the permanent branches of the tree start from, and you want them low in the tree rather than high up.

Depending on your situation, and your aims for the fruit tree, you might also choose another system, such as:

- central leader
- high vase
- espalier
- bush
- wild, natural

Maintenance pruning

Mature fruit trees need a regular "haircut" to encourage the tree to grow new wood each year, on which the fruit will grow. Once you've established the shape of your tree, the permanent branches that make up the shape are usually kept from year to year, but the smaller side shoots growing from the main limbs need pruning attention regularly.

Before you start pruning, make sure you check how different types of tree produce



“Before you plant, you need to decide what shape you want your tree to be...”

their fruit. For example peaches and nectarines **only** produce fruit on fresh new wood that grew last summer, so if you go gangbusters with your pruning and remove all of that new growth—guess what? No fruit next year!

Restoration pruning

Got a monster tree in the backyard? Occasionally a tree needs a complete overhaul, and it's great to do it without killing the tree! We recommend making a 3-year plan for major tree renovations, so you're not removing too much wood in any one year.

Two of the basic pruning principles are (i) remove as little wood as possible to establish the shape you want, and (ii) the tree will replace any wood you remove to re-establish the balance between roots and branches. Remember, the more wood you cut out with pruning, the less likely the tree is to produce fruit that year.

Interested in this topic and want to know more?

This topic is covered in depth in the [Grow Great Fruit program](#), including:

- Summer pruning apricots and cherries
- What's the difference between summer and winter pruning?
- Ten key pruning principles
- Heading cuts and thinning cuts
- Best pruning equipment for the home gardener
- Fail-safe pruning technique
- Maintenance pruning method
- Pruning different types of trees
- Pruning young trees made easy
- Different tree training systems
- Renovation pruning for mature trees
- Pruning apples and pears
- Switch on to summer pruning



Here's what one of our customers told us about how we helped her with pruning...

"I think pruning is really difficult! Been to several workshops over the years and I vacillate between leaving the tree to do its own thing, and cutting off everything that is not absolutely where I think (!) I want it! Your info was excellent because (1) you were encouraging, and (2) you kept referring back to the basic principles – which makes us THINK, observe before we prune! Many thanks for giving so generously of yourself!"

Clare Claydon, Sidonia

Step #5: Manage crop load with thinning

Believe it or not, fruit thinning is one of the most important jobs you should do with your fruit trees every year—and also the most neglected!

But what is thinning?, we hear you ask. It's the practice of removing some of the fruit by hand, while it's still tiny and

crop every year. It also helps to control pests and diseases, and protects your tree against broken branches that can result from too much fruit. And of course, it helps you avoid the gardener's curse of producing tiny fruit.

“Fruit thinning is one of the most important jobs you should do with your fruit trees every year...”

immature in spring.

Thinning is often neglected, either because home gardeners haven't heard of it, or because they think the only reason for doing it is to grow big fruit and they are quite happy to grow small fruit, so why bother thinning.

What most home gardeners don't know is that fruit thinning is also the best way to make sure your trees bear fruit every year! Most fruit trees bear fruit biennially, which means that if they are not managed properly they will have a bumper crop one year and almost nothing—or actually nothing—the following year!

Without going into the detail of why this works, thinning your fruit each year persuades your fruit trees to have a decent

How much fruit should I remove?

This will depend on the size, age, and health of your tree; how much fruit it is carrying; and the size of the fully grown fruit (eg, large fruit like peaches need to be given more space to grow than small fruit like apricots).

As a rule of thumb, leave only single pieces of fruit (not doubles or bunches) hanging about 10 cm (4 fingers width) apart for small fruit, and up to 20 cm (a handspan) for larger fruit.

Leave more fruit on a tree if it's having a light-crop year, and remove more fruit from a tree that has set a really heavy crop. The only fruit we don't normally thin is cherries (though some large commercial cherry

Interested in this topic and want to know more?

This topic is covered in depth in the [*Grow Great Fruit program*](#), including:

- Four reasons for thinning explained
- Using thinning to help control pests and diseases
- Easy chart to figure out how much fruit to remove
- Thinning different types of fruit trees
- When is it OK to thin your fruit trees late in the season

orchards are experimenting with thinning).

For all other fruit types, thinning is one of the most important jobs in your fruit tree calendar, and should be done as soon as possible after flowering has finished. Wait at least a couple of weeks to be sure that any fruit that is going to fall off naturally (called shedding out) has done so, so you're not wasting time and energy pulling off fruit that would fall anyway.

The earlier you do this job, the greater benefit you get in terms of fruit size this season, as well as in the size of the crop the following season.



Step #6: Keep your trees healthy and free of pests & diseases

When it comes to keeping your fruit trees healthy, prevention is better than cure!

Keeping your fruit trees strong with healthy soil, good pruning, enough nutrition and water, and managing the crop load, as we've already described, are the first steps to preventing pests and diseases.

As we described in step #1, healthy trees are much less likely to be attacked (just like healthy people are less likely to get every cough and cold that's going around!).

There's also lots of strategies you can use to protect your fruit trees from pests and diseases (these are the tricks that professional organic orchardists use):

- Pick up all fruit from the ground under your trees throughout the fruit season, as it can easily spread

disease to healthy fruit.

- Make sure enough light and air can circulate around your fruit trees with pruning and weed control.
- Monitor your tree for pests and treat them—only if necessary—before they cause too much damage to a tree. Very often, the appearance of a pest will be followed by a predator that will eat it up, for example aphids are often followed by ladybirds.
- Use physical bands around tree trunks to prevent crawling insects like codling moth larvae and earwigs from getting into the tree
- Use physical barriers like tree guards to prevent animals such as rabbits and hares eating young trees.
- Use a safe organic fungicide (such as Bordeaux or lime sulphur) in spring to prevent

the outbreak of fungal diseases such as leaf curl, blossom blight, or apple scab, especially if conditions are wet. Your trees may need two treatments.

- Anticipate wet weather, and make sure your vulnerable trees (particularly peaches and nectarines) are covered with sulphur spray, or some other organic fungicide, before it rains.

In an organic orchard (and in your garden) the aim is to let nature return to balance. There are potentially thousands of species of insect in your garden, and most times you have no way of knowing whether they are pests (eating your fruit or damaging your tree) or predators (eating the pests!).

So you know what? Don't worry about it! Focus instead on creating a rich, diverse garden, with lots of different varieties of trees, understory plants, weeds, insects, birds, animals, soil microbes, and

“Over the years we've developed a few key strategies we use each year to prevent pests...”



microclimates. Most times, you'll find that pests are quickly followed by the predator that will keep it under control.

There's no call to be irresponsible though—we do have to make sure our gardens don't become breeding grounds for pests that might damage commercial crops or trees in other people's gardens. Pests like codling moth, earwigs, fruit fly, and birds should not be ignored or they can ruin your crop. Over the years we've developed a few key strategies we use each year to prevent the pests that, left unchecked, can do severe damage.

A word of warning—many of the chemicals available at garden shops that are used against pests can do more harm than good. Even products like pyrethrum (a natural insecticide made from daisies) can be harmful to beneficial insects in your garden if not used the right way.



Interested in this topic and want to know more?

This topic is covered in depth in the [Grow Great Fruit program](#), including:

- Pest and disease control: why organic?
- Five key steps to pest and disease control
- Monitoring for pests, diseases and nutritional deficiencies
- Orchard maintenance: what is it, and why is it important?
- Preventing big animals from damaging your fruit trees
- The pros and cons of copper sprays
- Understand the life cycle of pests and diseases to learn how to control them
- Why are healthy trees less likely to be attacked by pests and diseases?
- Different types of fungicides to use in organic gardens
- How to protect your trees from above and below
- Practical spring tips for preventing pests and diseases
- Home spray units
- Make your own organic fungicides
- Diagnose common problems
- What healthy trees should look like at different times of the year

Spotlight on a pest

- Rutherglen and Harlequin bugs
- Controlling birds—different netting systems for home gardens
- Fruit fly
- Codling moth
- Pear and cherry slug
- Aphids
- Fruit tree borer
- Grasshoppers
- Rabbits and hares
- Apple dimpling bug
- Earwigs and garden weevils
- Carpophilus beetle

Spotlight on a disease

- Silver leaf
- Brown rot
- Leaf curl
- Black spot
- Bacterial canker
- Bacterial spot
- Gummosis
- Phytophthora
- Blossom blight
- Freckle
- Shot-hole
- Leaf virus diseases

Step #7: Plan your garden to meet your needs

You may already have some established fruit trees in your garden, or you might be planning to plant some. Whatever your situation, there are ways you can keep improving your fruit tree garden so that it better meets your needs.

To get started on your planning, ask yourself these basic questions:

- How much fruit do I want to grow? (How much fruit do you and your family eat each week.)
- Do I want to preserve any fruit to eat over winter?
- How much space do I have?
- What types of fruit do we

like to eat?

- What other purpose (if any) does my fruit tree need to meet (eg shade, beauty, screening an unwanted view, providing extra income...)?

By choosing the right varieties to grow in your garden,

varieties that ripen one after another. We pick fresh fruit from November right through until May, with a selection of new varieties (and types of fruit) ripening up most weeks.

For example, one week we might be picking 2 types of

“We recommend keeping good records and reviewing them every season...”

you could be picking fruit from your own trees from spring through to the end of autumn! We've demonstrated how to do this on our farm by planting

apricot, a plum, a peach and a nectarine. A month later it might be one variety of apple, one apricot, three plums and two sorts of peaches. We're always looking for new varieties to fill gaps in our picking schedule, particularly early and late ripening varieties.

We also preserve a lot of fruit by bottling, jams, chutneys, dried fruit, pickling and freezing so we can eat our own fruit right through winter as well. Being lucky enough to be able to grow citrus in our garden as well, we buy very little fruit throughout the year (though we'd love to be able to grow bananas and mangos, and admit to supplementing our diet by buying these wonderful 'exotics' now and then!).

How can you plan the same thing in your garden? It's pretty simple. First you need to find out a bit about your climate:

- How hot does it get in summer?
- How long is your growing season?
- How cold in winter?
- What is the rainfall, and availability of water from other sources?
- Find out about frosts in your area, and winds at different times of the year.
- Do you get snow cover on the ground in winter? How long for?



Interested in this topic and want to know more?

Here's some topics and resources we make available in the [*Grow Great Fruit Program*](#), to help you with your garden planning:

- Fruit Tree Garden Planner
- Fruit Tree Database
- Global Climate Zone Maps
- Where does the prevailing wind come from?
- Plan your home orchard to meet your needs
- Assess each fruit tree and make a plan to ensure it's pulling its weight in your garden
- Harvest fruit for 6 months or more with good planning
- Dealing with gluts of fruit
- Making sure you have the right varieties for cross-pollination
- Pros and cons of different compost systems
- Fruit self-sufficiency may be easier than you think
- Practical strategies to foil frost in your garden
- Chill factor—what is it and do I have it?
- Drainage and fruit trees. Choosing the right site, and retrofitting drainage when you need it
- How to use the Fruit Tree Database
- Spring observations to help you plan your garden to meet your needs
- Notice the feedback from your garden to make it work for you
- Picking, care and storage of different types of fruit
- Preserving peaches and nectarines
- Bottling/canning with or without a Fowler's kit
- Jam making—choosing fruit, equipment, and technique
- Would you love to eat organic plums all year?
- Preserving summer fruit without losing the vitamins
- Drying apples
- Freezing fruit—techniques and safety tips for perfect results
- Avoiding food waste and increasing security of our food supply by taking matters into our own hands
- How to make jams, jellies, marmalades and pastes
- Preserving cherries for health
- Perfect dried apricots
- Planting and looking after young trees
- Should your young tree have fruit?
- Choosing and preparing a site to plant your new fruit trees
- Choosing young trees from a nursery
- How to plant young trees
- What should my young trees look like?
- Looking after young trees in summer—checklist for success

This information will give you an idea of what will grow well in your climate. Most deciduous fruits will grow in most temperate climates, but some grow better in some climates than others.

For example, many fruit trees need to get very cold in winter, for a certain number of hours, before they will grow fruit the following season (this is called "chill hours"). If you have a relatively mild winter, you will need to focus on varieties that have a "low chill requirement" or "no chill requirement". Each variety also has a known ripening period, so for example if you want to be able to eat an abundance of fresh cherries from your own garden for at least 6 weeks every year (and you have space for three cherry trees), you could plant three varieties that ripen one after the other, from mid-spring through to early summer.

Now, make a list of the types of fruit your family likes to eat, and decide how many fruit trees will fit in your garden. Then choose varieties that ripen consecutively.

Once you have your garden planned and planted, we recommend keeping good records and reviewing them every season, because it's easy to constantly improve whether your garden is meeting your needs either by grafting new varieties on to existing trees, replacing trees or planting new ones.



Step #8: Get to know your trees

You may be a keen and passionate gardener who has lots of time and energy to spend in your garden. Or you may be extremely busy working, looking after your family and trying to juggle a little bit of gardening

“Our Fruit Tree Diary that makes it very quick and easy to record all the key information you need to know about your fruit trees...”

into your “spare time”. Either way, it’s an excellent use of five minutes of your time each week to visit each of the fruit trees in your garden and say g’day.

We think this one is so important that we give members a bonus gift when you join our Grow Great Fruit Program of a Fruit Tree Diary that makes it very quick and easy to record all the key information you need to know about your fruit trees, in a format that’s easy to use and simple to refer back to year after year.

We recommend recording events like flowering dates, whether the tree has a heavy or light crop, what date you pick the fruit, any particular events like frosts, and anything else that has affected the tree like pest or disease outbreaks. It’s surprisingly hard to remember from one season to the next exactly what happened, and yet the information can be really useful in diagnosing problems in your garden, and continuously improving your fruit trees so they meet your needs.

Even just stopping briefly to say hi to your tree once a week or so is a great time to check whether it looks healthy, see if it needs a drink, and keep an eye out for any developing problems with pests and diseases.

Interested in this topic and want to know more?

The *Grow Great Fruit program* includes:

- Fruit Tree Diary

Step #9: Manage risk with diversity



There's absolutely no point in trying to control nature because it's impossible! The reality is that when you're growing fruit, you will often have to cope with hard conditions like drought, flood, frost, hail, disease outbreaks, or pests in plague proportions!

You'll relax when you hear that our strategy is to expect bad conditions, and plan for them as much as possible. Then, when you have a perfect season it will seem like a huge bonus! (And you'll seem like an incredible grower when you manage to harvest some fruit while those around you have lost everything!)

The key to managing risk is very simple: diversity, and it applies to everything in your garden!

Types of fruit

The more types of fruit you grow, the safer your food supply — if one fruit fails chances are all will not be lost. In our orchards we have cherries, apricots, peaches, nectarines, plums, apples, pears, and quinces. In our garden we also have lemons, grapefruit,

oranges, mandarins, limes, cumquats, olives, loquats, almonds, macadamias, mulberries, raspberries...and then there's the vegetables...you get the idea!

We also have a huge diversity of varieties, growing more than 100 in total! Again, the more varieties you grow, the more chance you have of picking some fruit in any given year. For example, some varieties of

apricot are more vulnerable to diseases like blossom blight than others. So if you have three varieties on the same tree, and it's a bad season for blossom blight, or you don't get the timing of your organic fungicide spray quite right, chances are that one variety will be hit harder than the others, and you'll still pick some apricots.

Sources of water

Manage drought risk by having more than one source of water available to water your fruit trees. If you live in town and have a reticulated water supply, you may feel like it's very secure and you don't need to worry about it. But experience showed that in the last drought, most towns in the drought affected areas (which was a lot of Australia) were on drought restrictions so severe that no water was allowed to be used on gardens.

In many cases the only

fruit trees that were survived were in gardens that had the forethought to make sure they had another source of water, for example a grey water diversion system from the garden, a bore, or tanks – and little signs popped up all over the place proclaiming “this garden fed by bore water” to make sure they weren't reported by over-zealous neighbours for illegally using restricted water!

Understorey plants and weeds

Yes, the rule of diversity also applies to your weeds! Weeds and other understorey plants like herbs and shrubs all play a really important role in the ecosystem of your garden, and provide a fast track to creating healthy soil. Weeds help to create the right conditions to help healthy soil microbes thrive – they protect the soil from the harsh sun, stop it drying out too fast and keep it cooler, they 'mine' nutrients from deep in the soil and bring them up where your fruit trees

“When you're growing fruit, you will often have to cope with hard conditions...”

can access them, and they shed roots and leaves that provide food for the microbes. They also help to pump carbon from the atmosphere into the soil.

On top of all those good benefits, many understorey plants provide habitat for insects, including the important predator insects that help to keep the bad bugs under control. Plants with yellow and white flowers are particularly useful for this purpose, but it doesn't matter much which insects need which plants, stick to the principle of having as

many different plants as possible in your garden for maximum benefit.

Microclimates

Microclimates are created by the lay of the land, overhanging trees, buildings, bodies of water like tanks, ponds and dams, altitude, wind breaks, fences, walls, boggy patches, installed drainage, aspect of a slope, etc. They happen naturally, but you can also create them with some thoughtful design.

Microclimates can make a substantial difference to the timing of different events in the life of your fruit trees – it can delay or promote flowering for example, or help with disease prevention (for example the faster a tree dries in wet weather, the less likely you are to experience a fungal brown rot outbreak).

On our farm we grow many varieties in more than one place, for example our 'Castlebrite' apricots grow in three different orchards, and they not only respond differently to environmental conditions in their different locations, but picking dates can vary by up to 10 days!

Nutrition

In an organic 'natural fertility' garden, the nutrition for your

fruit trees comes straight from the soil, and depends on having healthy populations of soil microbes that convert the nutrients into a form your trees can absorb.

To make sure the microbes have access to all the nutrients your trees might need (like zinc, boron, potassium or phosphorus), you need to add organic matter to the soil that has come from a variety of different sources. Making compost from your kitchen scraps really helps to add diversity to your soil, because the different vegies that go into the compost are all themselves made of different nutrients.

It's also important to make sure you have a good diversity of microbes in the soil, so adding compost from different sources (either make your own or buy it from different places each year) can really help. If you have a worm farm, feed your worms a wide variety of different food sources to create really nutrient-dense worm castings, and if you're using mulch, alternate between a couple of different types of mulch.

Insects and birds

Encourage the widest possible range of insects, birds and other animals into your garden by having a wide variety of plants, making water available all the



time, creating lots of interesting microclimates, and NOT using any chemicals!

Don't get too hung up on whether any particular insect or bird is doing good or harm in your garden. The ecosystem is waaaay more complicated than most of us can come even close to understanding, and the truth is, it doesn't really matter. If you follow our tips on how to protect your fruit trees from particular known pests, then you can just relax and trust that the others will be kept in balance by their natural predators, as long as you're providing a balanced ecosystem for them to live in.

The principle of diversity holds good for pretty much every aspect of your garden that you can think of, and is one of the basic principles of permaculture design as well. In fact, when you think about it, the notion of "not putting all your eggs in one basket" is relevant to most parts of life!

Interested in this topic and want to know more?

The [*Grow Great Fruit program*](#) includes lots of tools and information about how to add diversity to your garden:

- Using weeds to fight climate change.
- Getting rid of problem weeds—if you must!
- Using guilds to grow healthy trees
- Many weeds are herbs, and have many uses.
- Making safe herbal remedies from weeds in your garden.
- What's so great about weeds anyway?
- It's not weed control, it's understorey management
- Managing weeds around your young fruit trees
- Planting a spring green manure crop
- Using the science of allelopathy to make your weeds work for you
- Which weeds are dynamic accumulators, and what free nutrients will they give your fruit trees?
- Do you have a weed problem, or an animal deficiency?
- Weed of the month, featuring a different—and useful—weed each month.
- Growing your own trees from seed or cutting
- How to get fruit trees for free
- Grafting in summer—budding
- Growing peach trees from seed
- Growing rootstocks from seed
- Rootstock compatibility—growing the right tree on the right rootstock
- Grafting part 1—the principles
- Grafting part 2—whip tongue
- Grafting part 3—cleft grafting
- Calendar of grafting jobs
- Grafting aftercare
- Learn from grafting success and failure
- Who owns fruit varieties, and are we allowed to propagate them?
- Creating micro climates to improve your fruit growing

Step #10: Don't panic!



to chemical orchardists that kill the aphids and remove the problem, and we were worried about how we would deal with them when we converted to organic growing. We found a natural pest killer that we can use to spot-spray the aphids as soon as they appear, and for a few years managed to keep it under control with that. The amazing thing is that every year we have had less peach aphids on our orchards, not more. What we find now is that on the rare year that we see a few aphids in the orchard, they are quickly followed by an outbreak of ladybirds which move in and gobble them all up!

Our experience has shown us that it can take a few years for a garden (or farm) to get back in balance, but it does happen. The keys are being patient, adding more diversity, and monitoring carefully, so that any problems that do arise can be nipped in the bud (using organic solutions) before they can do too much damage to your tree.

Using chemical solutions for pest and disease problems, or artificial fertilisers, seem to provide a short term "fix" for a problem, but in the long term they actually damage

If you've used sprays and fertilisers to help you grow food up until now, there's a strong temptation to reach for the bottle of weed or pest killer as soon as a "problem" appears in your garden. We went through the same thing ourselves when we converted to organic production more than 10 years ago.

But a funny thing happened—the more we stuck to our new "organic" way of growing, the more the problems disappeared!

Nature has a very clever way of providing solutions to most problems, so it's important

not to panic and reach for the chemicals at the first sign of a problem.

For example, we had green peach aphids for many years in our peach and nectarine orchard, an annoying bug that damages new leaves, makes a mess in the tree and can even kill young trees. There are many effective chemicals available

"There's a strong temptation to reach for the bottle of weed or pest killer as soon as a "problem" appears..."

the environment, kill off the predator insects and soil microbes, and do more harm than good!

So DON'T PANIC...monitor, watch, wait, look for the "good" bugs, and only treat if required to save your tree or your crop, using one of the many organic solutions we provide.

How to use this information

Whether you have started on your fruit growing journey yet or not, or maybe you want to make the switch to organic growing, hopefully these 10 key steps will help you relax about your fruit growing.

With almost 20 years' experience, we can assure you that they work! We've been through drought, flood, pest attacks, diseases and bird plagues—and survived them all! Along the way we've made many mistakes and learned our lessons the hard way, so that you don't have to!

If you're ready to pursue your fruit growing journey, we strongly recommend you take up the Grow Great Fruit program offer, because it will literally give you ALL the information you will ever need to be a successful fruit grower.

Not very many years ago, most families had a family connection to a farm, or a parent or relative who grew fruit and held the family 'wisdom' that was passed down from generation to generation. Unfortunately a lot of that wisdom has been lost. We want to restore it, and help you become the fruit growing expert in your family, who will be able to take this knowledge and start a new tradition of passing it down to the next generation.

To misquote Samuel Goldwyn (who famously said "The harder I work, the luckier I get"), when it comes to growing fruit "The more things I grow, the less risk I take".

We hope this answers some of your questions, but if you have any others, please go to the Contact Us page of our website and shoot us an email.

Happy harvests!

Katie & Hugh

DISCLAIMER: We make every effort to ensure the information given in this guide is accurate. However, as conditions and methods vary, we cannot guarantee the results, and take no responsibility for any damage or injury that may occur, no matter how caused. But relax—you'll probably grow twice as much fruit as we predict...without incident!

Learn More

Part of what we love about our online activities is that we're building a community of like-minded fruit growers - something we wish we'd had when we were learning how to grow fruit.

There's lots of ways to get more information, join in, ask questions, share info, swap stories, stay in touch with our daily news from the farm, and get to know one another:

Check out our website, or send us an email with any specific questions you have...

w: www.growgreatfruit.com

e: info@growgreatfruit.com

Online Course Library

Our online course library has 50 learning modules and our range of e-books to support your rapid journey to becoming a confident fruit grower! You can also access our free resources - such as our free weekly webinar - by selecting "Free stuff" in the Course categories box.

The courses are bite-size learning chunks that are easy, fun and detailed. You can dip in and out at your own pace, and learn about any fruit growing topic—from soil nutrition and management, right through to harvest and eating. We'll turn your enthusiasm and excellent gardening efforts into reliable results in no time.

[Click here to view the Online Course Library.](#)