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Richard Tong
Email

Recommended Resources

- Web Site Hosting Service
- Internet Marketing
- Affiliate Program


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## About the Author

Adam Fawcett started gardening as a young child under the careful supervision of his parents.

Adam said, "They weren't committed to organic gardening but did avoid the use of the most potentially dangerous chemicals which were allowed to be used, and sometimes even recommended for general use in those days." "People were using arsenic-based weed-killers and highly toxic pesticides in large quantities and we're certainly paying for those mistakes now."
"I learned good habits because I had my list of chores in the family garden. I saw the rewards like larger crops which came from doing them well, I really loved the better taste of the vegetables we grew over almost all of those which we bought from the stores."

Adam became more interested in the organic gardening methods when he became a parent himself.
"My wife was also a keen gardener and very concerned about the impact of chemical fertilizers and sprays on the environment generally as well as the safety aspects for our children now and into the future."
"We were soon convinced that there are benefits from adopting a more cooperative approach to gardening to reduce the impact we have on the animals and plants we share the planet with, and which we depend for our continued health and well-being."

Adam wrote this ebook to share the tips and strategies which they have found most useful and to help his readers benefit from their experience.
"I share what has worked for me and try to correct some of the widely held beliefs which keep some people from getting the benefits we now enjoy."
"It isn't necessary to make big changes to your lifestyle or your gardening methods. You don't have to do everything I say - use what appeals to you and leave the rest for later consideration."
"Start small and take it a step at a time, but please start now so you get the maximum benefit from this ebook!"

## Introduction

I wrote this book as a simple guide to organic gardening practices and benefits for people that want to use more sustainable methods in their gardening and get the best results with minimum risk to themselves or the general environment.

My focus has been to show how my readers and their families can do that without too much disruption to their current lifestyle or commitments.

I based the book on my experience and research and have not glossed over my mistakes or false steps. I do not claim to be an expert in everything to do with organic gardening.

I am grateful for the generously shared gardening stories, including both successes and failures, which I got from many gardeners in different regions and with widely varied levels of knowledge and experience.

I believe that all my readers can gain from this ebook by adapting at least some of the strategies and advice to their own gardening adventures.

There is no need to make any radical change or try to do a lot all at once. I suggest that you read the entire book and then concentrate on those sections which are of most interest because of their potential to benefit your garden in the short term.

You will probably need to adapt some suggestions to fit with your particular location, the time and other resources you have available, and the goals which you have for your gardening activities.

I do not claim that my suggestions are the best for all situations or even that they will work equally well for you as they have for the people I know that use them. If you have any doubts about a particular tactic, talk first to a more experienced gardener in your area.

Building or renovating a productive and attractive garden is a marathon, not a sprint.

But it can be a very enjoyable journey with many benefits beside the produce and blooms which we get from it.

Sharing your knowledge and some of your produce with your family, friends and neighbors can be very satisfying. It is also a subtle but very effective way to demonstrate that organic gardening can be done without making extra demands on your time, and the produce can be as good (or better) as any that is produced with chemical assistance.

It is always better to show by your actions rather than just talk about the benefits of organic gardening.

Many gardeners say they save money by growing their own produce but the greatest enjoyment is the superior taste.

Gardening in line with the organic principles means that you are helping to improve the neighborhood and the wider environment.

## Why Choose Organic Methods?

As the population on our planet has grown, the demand for more food has put even more pressure on our natural resources.

Scientists and researchers stepped in to help. Their efforts to produce special sprays, modified plants and cheap fertilizers have undoubtedly saved many lives, reduced costs, and increased our ability to produce more food.

But, the new varieties of plants and new methods of production and processing have brought with them some problems which may cause us to reconsider the importance and ultimate value of some of the advances.

Sometimes the new developments have only provided temporary answers to pressing problems, but have also caused lasting damage to the underlying systems which were either not understood or not considered important at the time.

There are many examples, such as the enthusiasm which greeted the inclusion of phosphates in washing powder. This was considered a great advance in effective cleaning, but the run-off went through our drains and into our waterways.

Where the water was slow-flowing or still, the presence of the phosphates increased the number and severity of algal boom outbreaks which made the water undrinkable.

Some of the newly developed sprays, which proved effective on persistent
 weeds, contained dangerous chemicals that persist in our soils and have reduced its productivity and ability to be used safely for generations to come. Sprays which helped fight crop-destroying bugs sometimes also devastated other harmless species in the eco-system. That included some which were useful in controlling some of the bad bugs and weeds.

Reducing their numbers and effectiveness meant
that we needed to use more spray to combat the problems! Some of the sprays were responsible for injury or death of some of the people who used them, or ate some of the sprayed produce, or just happened to have their homes in the affected area.

The methods and suggestions in this book are focused on improving the results you get from your gardening and helping you to make only a minimal impact on the environment in which you live.

## Where to Start

I have included suggestions which will apply to a variety of situations. I expect that some of my readers will be working on established gardens that may be already doing fairly well while others will face the task of resurrecting a garden that is in poor shape for whatever reason.

And some lucky people will be in the happy position of starting to set up a new garden, like a painter with a blank canvas and nothing, except the amount of money and time available, restricting what they can plan to do.

## Simple Strategies

## Start small

My first suggestion is to start fairly slowly and not to try to do too much at once, however enthusiastic you are feeling.

You might want to start a major change straight away. But, if you don't have some experience with that type of project, any sort of setback may be deeply felt and cause you to lose a lot of your initial enthusiasm and energy. Your progress is actually likely to be more sustainable if you start with some small steps which will be easier for you to manage. Problems won't slow you down as much and your first small successes will boost your confidence.

That will also make it more likely that the bigger project you do next will also be a success.

## Use and Re-use

Recycle what it is safe to do so from your kitchen and your garden. Don't discard any material into your waste bin which could be recycled through your compost heap or as part of the mulch you put on your garden beds.

## Conserve

Don't use more water or other resources than necessary. As well as reducing what is available for later use, applying too much water can cause problems as bad as not providing adequate water.

## Plan Your Goals For The First Year

You probably have some things in mind which you want to achieve. Planning is a vital step which can improve your chance of success significantly.

Keep in mind that your goals will probably change as you gain some experience and perhaps see how other people have developed their own gardens with organic methods.

Getting advice from other gardeners in your particular location through casual conversation or meeting them at local gardening clubs and produce markets will also make you aware of more options which you can use to improve the results you get.

Then, start to act on your plan.

## Pests

When somebody says, "garden pest", you probably think of insects but there are also domestic and wild animals and birds to deal with in some areas.

Many gardeners automatically react to the appearance of any kind of damage from bugs in their garden by reaching for the spray can.

This can be effective in the short term but it is both more expensive than the organic approach and likely to create more problems for the gardener and the good bugs in their garden in the future.

Sprays can harm your garden because:

- They may wipe out weaker bugs but encourage the stronger ones to develop resistance to even some of the very powerful chemical treatments over time.
- They may harm beneficial insects, such as bees and also those creatures which feed on the pests which you use the spray to eliminate.

With their enemies reduced or removed, the bugs will thrive, especially if they develop a level of tolerance to the chemicals.

- The reduction of bees will reduce the pollination of many of your plants, lower yields and cause the same problems in other gardens around your area.
- Some chemicals build up in various parts of the plants and in the soil as well. These deposits can harm insects, wildlife and also humans that feed on contaminated plants or the produce which is harvested from them.
- Gardeners as well as other people and animals in the area where the spray is used and also where it drifts afterward may become sick, but not even realize that they have been affected by the chemicals.

Organic gardeners are getting good results by using a system of pest management which can involve growing plants which actually help to repel some of the most troublesome pests.

Another good tactic is to encourage the development of more colonies of predator insects (such as ladybirds), and also encourage those types of birds which will help to reduce the insects which damage your plants. This reduces the likelihood of major infestation and keeps the plants and beneficial insects in balance so they are healthy enough to defend themselves better against problem pests.

We do not use any dangerous chemicals which could introduce greater problems over time at all.

We only use sprays where there are no practical alternatives and the problem is significant enough to require serious action.

There are some sprays which can be used with a fair degree of safety. They may take more preparation and need more effort to apply properly, but they are much less dangerous to us and the plants and creatures which share our environment.

I have more details in the resources section near the end of this ebook.

## Maintain Your Gear

The best advice I ever got about garden tools was that you won't know whether something was a bargain until you actually use it and then see how long it continues to perform well.

Cheap equipment can be a waste of time and money if:
8 It doesn't actually do the job well
8 It breaks before you have got enough use to justify the cost
8 It causes you pain or injury through bad design, or
8 It damages your plants.
I suggest you ask a more experienced gardener what tools they use. I have found a local store where I get good advice without any pressure, so I buy most of my gear there although sometimes it costs a little more.

## Neat and Clean

Maintaining good hygiene in your garden and with the gardening equipment you use is a very important part of your program. The small amount of time involved in checking and cleaning tools and storing them so they will be ready the next time will be repaid many times over.

Clean all your equipment that you use for your gardening immediately after you finish a session. That includes your boots, gloves and any other special coverings as well as your tools, mats, ladders and containers which you intend to re-use.

That will reduce the risk of spreading any contaminants or other problems around your garden on a poorly cleaned tool.

Remove any diseased, damaged or dead plants from your garden as soon as possible. Check for any clues of what caused the problem and then dispose of the material where there is no risk of spreading the problem.

## Talking to your Plants?

I cannot guarantee that talking or singing to your plants will make them better producers, but walking among your plants will probably improve your mood. More importantly, it also provides an opportunity for you to examine
them more closely. This will help you to see any significant changes in them fairly quickly. It's a simple and quick way to spot any emerging problem, such as lack of nutrients (or water) or the first signs of invasion by a bug or disease.

## Mix Your Plantings

Although it's common practice to put just one type of plant in a particular section, or all the flowers together and all the vegetables in a separate section somewhere else, mixing different types together can help you reduce attacks from some pests and also add to the eye-appeal of the different areas.

Insects are more likely to be attracted to areas which are full of a single type of plant which they favor than an area which has a lower concentration of that plant mixed among other plants which they don't like.

This should only be done when all of the plants need a similar environment and maintenance.

## Know Your Plants

It's worth learning the characteristics and preferences of the particular plants you are growing so that you will be more likely to notice any change in their appearance fairly quickly.

Always check any new plants which you intend to put into your established garden. Make sure your new purchases don't bring possibly expensive problems with them.

## Change them Around

Rotation of your plants is a wise tactic if you have the space and enough plants to make it worthwhile.

The system which my parents followed was to have four sections for vegetables and small fruit plants. Three were used in any one season and the other section was allowed to rest, except for a planting of a high nitrogen crop which was dug in to help replenish the nutrients in that section.

The various vegetables were rotated among the three sections which were planted that particular season.

Some plants make higher demands for particular nutrients and this helps to even out the demand, but you still need to add some nutrients to support the plants each season.

The regular rotation also helps to reduce the build-up of particular pests or diseases which attack a particular type of plant.

## Companion Planting

This technique involves putting different plants close to each other and using their natural qualities and individual defenses to protect each other from pests and diseases and improve the soil in that area.

The benefits of companion planting are widely accepted by gardeners because of their experience with the practice, but scientists sometimes express doubts because there is little in the way of rigorous testing of the practice.

I believe it is worth doing but don't expect that it will always be a complete answer to a particular problem.

I believe it is often useful in reducing the need for sprays or other invasive control measures with your organic gardening, but it can have other benefits as well:

Q Some plants collect or produce nutrients in excess of their own requirements which can help other nearby plants produce more or reduce their susceptibility to attack by pests.

Q Some flowering plants help attract predator insects which reduce or remove insects which damage other productive plants in your garden.

Q Deep-rooted plants can help by breaking up some of the subsoil which will help the general productivity of the soil by improving the flow of water and the level of nutrients available around to other plants which you grow near them.

Q Taller plants can provide protection from wind and other weather conditions to smaller and more fragile plants growing near them.

Q Small, ground-cover plants can stop weeds present in the soil from getting started quickly which can help your favored plants to establish themselves better.

Q A mixture of plants in one area can make them less attractive to predators. Flowering plants can encourage more bees and other helpful insects to visit the area.

Several herbs have been recommended by some organic gardeners for helping with a variety of pests and problems.

Some of the results are widely accepted but other gardeners have not always been able to duplicate the results consistently.

That may be because the benefits in some cases are also partly dependent on other specific factors in the local environment which may not be the same in other areas where they were tried.

So, don't be too disappointed if your results from some companion planting are not as successful as you expected. At least, they should not introduce any new problems for you.

A list of plants, their beneficial companions and some which may inhibit their development or which they may have a negative effect on is included in the resources section at the end of this ebook.

The list is not guaranteed because conditions vary widely and you must accept full responsibility for any use you make of the information.

## Dealing with Pests

## Animals

Animals can be a problem for gardeners but we should try, as much as possible to find ways to reduce the problems without any harm to the animals.

Sometimes, there are laws which require that we do just that. In other circumstances, we may have to take drastic action if there is no other way, such as relocating the animals to a suitable area where they can flourish without interfering with anyone's garden.

## The Pests we Love

Some of the animals that can cause trouble in the garden are our own pets.
It's a wise strategy to teach them to leave your garden areas alone. That will help to avoid problems for the plants and also for your pets.

There are many plants which are common in our gardens but can cause injury or sickness to pets.

Even common products like snail bait can be very dangerous for dogs and cats.

If you can't train them to avoid the plants, it's best to keep them completely out of the garden if you can or, at least, use barriers to keep them separated from your prized plants.

Some pets can be trained. I had a cat that would walk around the garden paths and played on the section which I was resting that season. But, it would never go on those patches where there were crops.

That was an ideal situation because I lost very little fruit to birds during those years!

## Other Animals

Except in rare circumstances, we must be careful to only use methods which don't harm the animals.

The best thing to do is to contact your local Agricultural advisory service. Searching the Internet may get you a variety of advice but you should check anything before following advice which may not apply in your area.

Barriers can be useful for preventing various types of animals invading your garden but you must ensure that the barriers will not cause harm to people or animals. For instance, some fencing can be a trap for inquisitive animals and even small children.

Some animals are listed as pests and you may either be able to trap them for release elsewhere or kill them in certain areas.

## Weeds

Weeds are not all bad. They are basically a plant which is not wanted where you find it.

It is likely that the weeds will probably be more vigorous than your plants as well.

Despite you thinking that it is unwelcome, it may have features which gardeners in other areas regard as useful or even valuable.

Yarrow is a great example of a plant which many gardeners classify as a weed because of its wide spread through the countryside and its ability to quickly cover the area where it is planted.

But, Yarrow has qualities which many people have learned to value highly. It is a perennial herb which originated in Europe and now established in North America is helpful in binding the soil on hillsides and is widely used for that as it tolerates dry conditions as well.

It is believed to attract pest-eating insects such as hoverflies and ladybirds, perhaps because of the beneficial elements and oils which it stores.

These elements improve the quality of compost when you add yarrow plants to it.

Yarrow is especially prized by people involved in natural medicine. They recommend it often for treating a wide range of conditions. But, it should only be used after checking with your local medical adviser. There are some potential side effects and other risks associated with Yarrow.

Anyway, you call them weeds and want them gone because they're in an area where you want to have other plants.

Chemical weed killers are easier to use but they can damage or destroy some of the productive plants, poison animals or beneficial insects and some remain in the soil to affect it's productivity in future years.

These methods can be effective with most weeds but they will require more effort and time than the quick-fix chemicals.

## Remove them

You can get rid of some weeds by removing them from the planting area before you put in your productive plants. This can give your plants a headstart which will help them to compete with the often more vigorous weeds which are deposited by birds or the wind later during the growing season.

## Discourage Them

Mulch: Applying a mulch (see resource section at the back of this ebook for further information) can deprive un-sprouted weeds of light, water and nutrients at the start of the season. Put your plants into holes in the mulch to give them a head-start on the unwelcome weeds.

## Solarizing

This sounds very modern but it's a simple, low-tech way to destroy weed seeds and stalks which are in the soil before you put in your desired plants.

It is most effective on bare soil but you may get good results if you just mow the area as close to the level of the soil as you can.

Then, spread a large, and preferably fairly strong, sheet of clear plastic over the area. Now, you just have to secure the edges and leave it in place through the warmest part of the day or even a few days.

Now, you can let the sun destroy a significant amount of the unwanted weed seedlings. That's safe, simple and almost hands-free!

## Soil

The health and depth of your soil are major factors in determining the results you can expect to achieve from your gardening.

Just as a the value of a house is dependent to a large extent on the quality of its foundations, the potential of your garden is largely dependent on the quality of the soil.

Before you decide what plants you will grow and where you will have them in your garden, you need to take a careful look at the state of the area.

You will probably want to introduce different plants to what has been grown there is the past or make some changes to improve the productivity of the area and make any changes which can reduce the effort and time which you need to put into it during the following seasons.

## Soils Aren't Just Soils!

The simplest way to classify soils is to put each sample into one of three basic soil types based on the consistency of the sample.

This is a good enough measure for a basic check but you should do more specific testing if you are considering a significant change or financial outlay related to your garden.

Your garden is likely to have more than one soil type in different areas and the state of the soil could change over time, depending on what is added or removed from that area.

Clay soil: If you roll a small sample of your soil into a ball and it stays in that shape, your soil is predominantly clay.

Silt soil: A sample of this type will retain its shape to some degree, but start to break up within a short time; your soil is classified as Silt.

Sandy soil: A sample of this type of soil will not retain the shape of the ball at all.

These types are very general but they are enough to start with.
If your soil is too sandy, it will not retain water and nutrients for your plants and the insects which work the soil.

If your soil is too high in clay, it will hold the water and not let it through to the lower areas.

## Improve the Soil You Have

One of the best ways to improve either type of soil is to add organic compost.

Increasing the organic content will improve water retention in sandy soil, start breaking up clay soil and encourage worms and other beneficial organisms to increase in number and activity in all soils.

## Reduce Damage to Your Soil

Soil is like the Earth's skin and, like our own skin, it is often taken for granted instead of being respected and properly protected.

When I began to understand the critical importance of the health of the soil in my garden to the results the family would ever be able to get from all our gardening efforts, I was relieved to find there were some very simple ways that I could get better results fairly quickly.

I decided to put some of the plants into raised beds. This may seem like more work than staying with the regular plots at ground level. There is some extra work to begin with but I have saved some time and much effort every season since then.

I don't have to bend and stretch as much, and it's actually easier to cultivate the raised beds than I found it was on the old system. One friend, who had been about ready to give up his beloved garden because of pain he was suffering, has switched to raised beds. The increased production is a welcome extra bonus for him!

Because, I don't have to stir the soil up as much, the worm population has increased more than I expected and there seem to be more worm casts, which are a very valuable bonus in those raised beds. The worms also improve the drainage in the soil because of the tunnels they create.

I get more plants in the raised beds because I don't need as much space between the rows of plants. The weeds crowded out to a large extent by having the plants close together like this too.

A layer of mulch between the plants is consumed by the worms and this improves the health and activity of the micro-organisms as well as the fertility of the soil and the drainage.

Because you don't walk on the soil or put any heavy barrows or other equipment on it, the soil does not compact like it does when you have the plots at ground level.

This is a benefit to the garden's whole eco-system!
A cover crop which is just grown before the main crop to provide nutrients in the soil at the start of the season will reduce weed development and add valuable nutrients to the beds when you turn it in.

It is much easier to do with the raised beds, too!
That gives your main plants a great head start.

## Alternative to Peat Moss

Peat Moss is a standard part of many commercial potting mixes.
It has been widely used for domestic and commercial plant development for a very long time.

It has also been used as a low-cost substitute for wood to burn in homes through parts of the United Kingdom.

It would seem to be a material which organic gardeners would be very happy to continue to use.

But, there has been a strong movement in the last several years to reduce the use of peat from environmental groups around the world.

The problem which they point to is that the harvesting of the peat causes lasting damage to the areas where it is mined.

The top layer is removed and this destroys the habitat of certain animals and plants.

Numbers will be significantly reduced and some species may not survive in that area.

After the peat has been removed, the areas have often been abandoned. However, some harvesters are now doing repair work when they have extracted the peat, but it will be many years before the areas are as productive as they were before.

The protesters also point to a hidden cost of using peat. Most of it is transported in large, compressed bales to distant markets and this is now acknowledged as causing damage to the environment as well as being a significant cost to the companies involved and the ultimate users.

Peat is also inflammable and it is very difficult to extinguish any flame once it starts in peat.

There are two alternatives which are suggested as replacements for the peat we currently use in great amounts.

1. You can use compost which you produce or which you get from local suppliers. This gets maximum value from local material which would probably otherwise be discarded.

I used locally available mixes until I was able to produce all I needed myself. Just check what they contain with the supplier so you maintain your commitment to organic practices.
2. The second material is Coir, which is compressed scrap fiber and dust left after coconut husk fiber is processed for craft and other uses. This is also a way to support communities which may not have many alternative options for employment so they can build a sustainable export trade.

This material is light and effective. Even with the cost of transport, many people consider it a better alternative to the traditional peat.

## Using Water Wisely

Organic gardeners are at the forefront of the battle to conserve, protect and re-use our water resources.

We sometimes fail to understand just how vital the access to clean water that most of us take for granted really is!

In many areas, the local authorities are imposing restrictions on when we can water our gardens and sometimes even what methods are permitted. And, you will find that more and more of the water we take for granted is becoming polluted!

Some simple tips for using water wisely include:

- Watering in the coolest part of the day so that you avoid losing water because it quickly evaporates.
- Ensure as much as possible goes on the area where you actually want it by not watering when it is particularly windy. You can also minimize loss of water by avoiding spraying it on areas like driveways.
- Several short sessions of light watering will not have the lasting benefit for your plants of a couple of sessions where the plants get more water that reaches the roots of the plants.
- Choose methods, like drip irrigation and soaking hoses, which get the water where the plants can make best use of it.
- If the water starts to pool around the base of your plants, stop watering for a period so that the water can soak below the soil surface where the plants can make better use of it. Any more water that you apply at that point will just lie on the surface and be wasted. The plants might be more susceptible to pests or disease while the excess water is there. This is a sign that your soil is not able to properly handle the amount of water you are applying.


## Compost

Composting can be a very useful part of your gardening system.
As more and more gardeners start using it, it is being recognized as having benefits for the world's carbon cycle as well as for your garden and local environment.

When you and your family make compost from what you would otherwise discard into the local rubbish collection, you make a positive contribution to reducing landfill and conserving scarce resources without even leaving your kitchen!

Although you could add some of the materials which you make compost from directly to the soil and save some time and effort, the composting process reduces weeds and other threats, reduces or eliminates odor and allows the nutrients to be more easily taken up by your plants.

The suggestions I include here cover the basics of making your own compost (the best idea if it is practical for you), or selecting and using compost from other local sources.

I suggest that you don't use compost which comes from outside your local area because that would involve transport and other costs which we should be trying to keep to a minimum. The local options should cost you less and using them will benefit your community as well as your own situation.

If you buy compost, it is usually supplied in bags or loose and at a lower price when you are willing to buy a large quantity.

Before you considering buying compost from anyone, it is wise to ask what it was prepared from.

If there is any chance it might contain any contaminated material, ask if it is pre-tested before you buy it.

Recycling waste into compost is a good thing provided the resultant compost cannot bring problems with it back to your garden.

## Making your own compost

Making your own compost is fairly simple. Some people have tried it but may not have been successful. That is usually because of lack of knowledge or not being consistent in maintaining their compost pile or using some inappropriate material in its construction.

You can buy a plastic compost bin from a garden store or make a container for your compost heap yourself. They are fairly simple but need to be well made so that you reduce the possibility of problems like a vermin attack or the development of anaerobic bacteria which will result if the material is too dry or compacted to cook and convert to humus as intended.

You don't really need a bin - you could just pile the scraps in layers in a loose pile.

But, I suggest that you use some sort of container so that:
You remove the material from view while it is converted to compost.
Q You deter vermin.
Q You reduce the possibility of neighbors complaining to you or the local authorities about the appearance or supposed odor of your compost pile. A well-balanced and maintained pile will have little odor anyway, but neighbor relations are very important.

Q You will substantially reduce the time it will take to produce your compost. A pile will probably take at least a year but using a container will reduce that a lot.

Q A pile will take up more valuable garden space.
Q Moving a bin is not recommended but moving a pile, if it became necessary, would be a lot worse.

Locating your compost bin will need thought. A shaded position which is warmed by the sun and out of the busiest areas is preferred.

But, you need to make sure that it is not so isolated that family members start to dump their scraps in the waste bin instead to save themselves some time.

Home-made structures are more likely to let vermin in or interfere with the proper processing of the contents which can results in a smelly mess.

Whatever sort of bin you decide to use, these are important features to have:

- Design should include an easy way to get out the prepared compost from the bottom of the heap. This could be a hatch near the bottom which you open to remove the content after it is processed.
- A tight but easily removable lid to keep vermin and bugs out.
- Small gaps that will let air in but not so big that smell (if any) or contents can get out.

You might want to shred any raw material which you have a lot of to reduce the time it will take to be processed.

## Possible content

Garden clippings - Avoid anything which has bugs, sprays or infection on it or is very wet. Don't include large amounts of one item such as grass clippings which could make the balance between different carbon or nitrogen components become unbalanced. Wet grass clippings will also be a problem if they become a mouldy layer in the heap.

Kitchen scraps - Avoid bones or meat (attract vermin and causes smells), citrus (especially skins) and anything which has mould or other problems.

Newsprint - It should be shredded before use.
Manure - Avoid dog, cat or human waste.
Sometimes, compost heaps don't produce the right result. That is usually due to an imbalance between the amount of the various types of ingredients, contamination, too much moisture, lack of aeration or because there was not enough material in total for the bacteria to thrive and do its work.

## Fertilizers

It's easy to understand that when you remove flowers, fruit or vegetables from your garden, you take away some of the nutrients which were previously in that plot.

So, you must ensure there is enough there to feed the next lot of plants. You can add some nutrients with compost, but most will probably be added in the form of some kind of fertilizer.

But, it is a good strategy to do a soil test before you buy your next lot of fertilizer so that you know what particular nutrients and trace elements may be lacking in your ground.

Then, consider the needs of the particular types of plants which you are putting there before buying your fertilizer.

Take into account what, if any, organic matter you will be adding to that area.

## Organic or Synthetic Fertilizer?

The two basic types of fertilizer are organic and synthetic fertilizers.
The advantages which are touted for chemical fertilizers is that they are cheaper, easier to use and always consistent in the amount of each ingredient in the mixture.

However, their price at the store is just part of what they cost you and the rest of us.

Like people, plants need a number of other nutrients to complete a balanced diet.

Many people believe that any fertilizer which is labeled "complete" will have all the nourishment which their plants will need, including any trace elements and other substances which may be missing from their soil.

But, even if they are called "complete" fertilizers, they may contain little nutrient value other than the three basic substances; nitrogen, phosphorus and potassium.

There are organic fertilizers which deliver their nutrients to your plants slowly. This is often preferred to using a fertilizer which delivers everything fairly quickly and is then exhausted of nutrients in useful quantities.

Quick release fertilizers do have their uses when you have plants which need a quick boost.

If you have a fair-sized garden and a strong interest in gardening, you might want to get a basic pH kit to test your own soil.

These are useful, but give only a limited picture of the health of your garden. For anything more, a detailed soil test is recommended. You can usually get these from your state agricultural service. The fee is usually low and the results can be helpful if you want the best results from your effort and investment in your garden.

## Mulch

The practice of mulching has a long history and is a great way to reduce weed problems by covering the area with something that will prevent the weeds developing or continuing to grow because their source of light and air is blocked.

Black plastic has been used but it causes problems by stopping water from getting through to the soil which becomes harder and unproductive. Not good at all.

Grass clippings that have dried on the lawn can be gathered and used with expectations of success. Fresh clippings can become a mess and not benefit your garden as you hoped.

Never use any clippings from lawns or plants which have been treated with chemicals.

Timber byproducts, including shavings chips, bark and sawdust are widely used items for mulching now.

Bark will probably look the best of all these choices and is by far the most effective. The others may remove some of the nitrogen which your plants will need. If you do use them, add some nitrogenous fertilizer to make up for what they take.

Sawdust can clump and become a barrier to water and some beneficial organisms in the soil.

Do not use any wood byproducts which may have been chemically treated at any time. Some chemicals previously used for treatments have been banned and others may cause problems.

You can use newspaper or cardboard to cover areas. You might want to shred them to allow air and water to penetrate more easily.

You may be able to get the ends of rolls of unprinted newsprint for very low cost from your local newspaper. This is far better than used papers because some of the inks (especially colored ones) may be a risk. I know that some of the inks used will cause sickness or worse in some birds and animals.

## Welcome!

Welcome to the world-wide brotherhood of organic gardeners.
If this is your first serious gardening experience, you could not choose a better way to start.

If you have been gardening for a long time but are just starting to adopt some of the organic methods and principle, I know that you are going to really enjoy the years to come.

You should also see some health benefits from your use of organic gardening methods; good produce and more peace of mind about what you and your family and friends eat in the future.

I wish you the best of everything with your organic gardening adventure!

## Adam Fawcett

## Resources

## United States Department of Agriculture

http://afsic.nal.usda.gov/nal display/index.php?info center=2\&tax level=2\& tax subject=296\&level3 id=0\&level4 id=0\&level5 id=0\&topic id=1413\&\&pl acement default=0

Organic farming and gardening resource list.

## Florida Council of Bromeliad Societies

http://www.fcbs.org/articles/canola.htm An article on using Canola oil instead of commercial White Oil on Orchids

## South Australian Government ("zero waste" site)

http://www.zerowaste.sa.gov.au/upload/alternatives-tochemicals/GardenAlternatives.pdf A downloadable guide to "Safe, effective and thrifty solutions to common garden problems" from the "zero waste" site of the South Australian Government.

## Australian Institute Of Landscape Architects

http://www.aila.org.au/canberragarden/maintenance/white oil.pdf Article with a home-made white oil recipe

Note: Some experts suggest that leaving white oil on some plants (orchids, roses etc., ) may lead to leaf burn and possibly other problems. Also, you should never use more than is recommended.

## Organizations

## United Kingdom

Garden Organic

## http://www.gardenorganic.org.uk/

Garden Organic is the working name of the Henry Doubleday Research Association (HDRA). It is a registered charity focused on the promotion of organic gardening. There are some videos to watch on the site, some downloadable documents and more in (paid) Members' area.

WWOOF (World Wide Opportunities on Organic Farms)
http://www.wwoof.org/ A company limited by guarantee, registered as a charity in the U.K.

From their website:
"WWOOF is a world wide network of organizations. We link volunteers with organic farmers, and help people share more sustainable ways of living.

WWOOF is an exchange - In return for volunteer help, WWOOF hosts offer food, accommodation and opportunities to learn about organic lifestyles.

WWOOF organizations link people who want to volunteer on organic farms or smallholdings with people who are looking for volunteer help."

## Royal Society for the Protection of Birds

http://www.rspb.org.uk/advice/gardening/ Advice for gardeners about making their gardens friendly to wildlife, especially birds.

## Reference Lists

## Sustainable Gardening

Royal Horticultural Society
As well as this section on sustainable gardening, there are many other sections which will be of interest to gardeners, especially those in the United Kingdom.

## http://www.rhs.org.uk/Gardening/Sustainable-gardening

## Organic Farming

Environmental protection Agency
Resources for people interested in farming in line with Organic Farming principles.

http://www.epa.gov/agriculture/torg.html

## Companion Plants

Essay and list about Companion plants by Professor Stuart B. Hill Department of Entomology, Macdonald College at McGill University (Macdonald Campus) Ste-Anne-de-Bellevue, QC, H9X 3V9 Canada.
http://eap.mcgill.ca/publications/EAP55.htm
Information from Down Gardening Services (United Kingdom).
http://www.dgsgardening.btinternet.co.uk/companion.htm

## Insect Control

Health and Safety Executive - Pesticides (United Kingdom).
Information about pesticides and safety.
http://www.pesticides.gov.uk/garden home.asp

## Ladybird and aphids

Photos and other information on the Augsburg College (South Minneapolis, MN 55454) website:
http://www.augsburg.edu/home/biology/photoofmonth/ladybird.html

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