

Gardens For Life - Work with Nature

This questions and answers manual was inspired by our 6 week radio program to introduce listeners to natural gardening methods involving mulching. When you work with nature the productivity goes up, whilst the need for external inputs as well as the workload goes down.

This ebook is suitable for beginners and advanced alike. It is structured on a weekly basis so you can take it one step at a time to start your own garden. You can put the information into practice any time of the year and any place in the world.





Hello!

We are Martin and Bianca from Gardens For Life

We will be publishing a more detailed step-by-step ebook on how to start your own garden using natural gardening methods that have worked in our experience.

Please subscribe to our email list if haven't done so yet:

http://gardensforlife.ie/subscribe





Week 1. Introduction, benefits of a garden and observation.

Week 2. Deciding what plants you want to grow and placing them in a simple diagram of your garden space.

Week 3. Mulching as a gardening technique and gathering materials such as cardboard, compost and mulch.

Week 4. Marking the area and putting down a layer of cardboard.

Week 5. Put on a layer of compost and mulch.

Week 6. Start plants from seed or cuttings.

"The best time to plant a tree was 20 years ago, the second best time is now."

Chinese Proverb



1. Introduction, benefits of a garden and observation

Week 1

Our names are Martin and Bianca and are based in Roscommon, Ireland with one acre of land. We have lots of small gardens to show that especially a small space can be extremely productive with very little work.

Through Gardens for Life we like to encourage people to start their own gardens no matter how little space you have, anywhere from a few flower pots on a balcony to a 1/10th of an acre or more in your front or back garden. Here at Gardens for Life we like to show that working with nature can be very rewarding and bring back people's connection with the land and the environment. Spending time outside in the garden helps to gain balance and can make you feel better both physically and mentally. When following natures ways, an abundance of produce can easily be created with very little maintenance. The surplus can be shared with family, friends and neighbors.

Watch our quick 'Lawn to No Dig Abundance' <u>video</u> where we show the conversion of our little front garden. We are looking forward to seeing this years progress as all the plants have taken root last year. Lots more on our projects <u>here</u>.





Our front garden has undergone a transformation

Exercise is just one of many benefits, but most importantly fresh in season food and herbs grown right at your doorstep without the use of chemical inputs. The key is to work with nature rather than against it.

The garden itself can be a wildlife habitat, almost a sanctuary providing food and shelter for animals and plants alike. Even saving money is another one of the many positive side effects of having a garden.

Starting a garden is the beginning of a transition towards a better quality of life, which we ourselves are in the middle of. You can start this journey by simply spending more time outside observing nature and start growing your own food, even if just a few kitchen herbs in containers.



To start simply spend a few minutes in your garden, observing the space you have and the environmental factors. Check where the sunniest spots are, what direction most of the wind is coming from and think about access.

Fruit trees are best planted in sunny spots and if possible in a sheltered location. Whereas most berry bushes such as currants can do quite well in semi-shaded locations mostly because they leaf out early in the growing season.

Trees grow about twice as fast in a sheltered location. Fruit trees will be more likely to crop well because a late Spring storm will not blow flowers away.

We will go into more detail on environmental factors in the step by step ebook.



Our front garden before we got started



2. Deciding what plants to grow and placing them in a simple diagram of

your garden space

Week 2

1. What kind of plants can you have in -the garden?

Flowers, herbs, trees, fruits and vegetables - Plants come in many shapes and sizes, some edible, some medicinal, some short lived and some live for generations. All plants are useful in some way. The majority of gardens are ornamental and relatively high maintenance, but there are many plants that are beautiful and can perform other functions in the garden saving you time.

We like to plant perennials like Marshmallow and various herbs with long flowering periods as these attract beneficial insects to the garden and help with natural pest control. There are many delicious edible flowers like Nasturtium and Mashua.



2. What functions can plants perform?

- Pioneering plants build soil and give rise to the soil ecology which is really all you need to grow a healthy garden without the use of artificial fertilizer and poisonous sprays. Every planting nature has it's function, learning the basic indicator plants helps when reading the land to determine the composition of the soil. We have an article on indicator plants on our website <u>HERE</u>.
- In an establishing system like most new gardens, support species such as nitrogen fixers can be used to help cultivated plants and give them a boost. We like to plants beans (legumes) under our fruit trees and once the plant recedes the nitrogen nodules on the roots are released into the surrounding soil feeding the fruit tree.



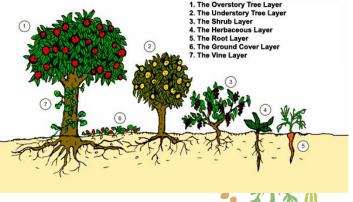
3. Can you grow different plants in the same area?

Yes you can and this is a planting technique also known as companion planting, plant guilds or polyculture. Plants performing different functions can help each other even when occupying the same space, in fact they need to be planted very close to each other for them to form these symbiotic relationships..

Space can be used very efficiently using the forest as a model, there are 7 main layers of plants. The 3 sisters is a simplified version with corn, beans and squash planted closely and getting 3 crops from the same patch of ground. The beans use the corn as a trellis and the squash is ground cover.



The Seven Layers of Every Forest



3. Mulching as a gardening technique and gathering materials.

Week 3

1. What is mulching and why is it a good alternative to conventional gardening (digging)?

- Mulching is a good alternative because it is a much more natural approach. In nature the soil is covered with a layer of leaves every autumn to insulate it from the cold during the winter and it provides fertility for new growth in spring. There is no need to dig your soil in the garden, instead simply cover it with a thick layer of mulch.
- There are many advantages, we will get into just a few briefly. More on this to come in the next ebook. In conventional gardening you would dig the soil removing rocks, weeds and grasses. This is a lot of work and can be quite off putting especially to people who are new to gardening or looking to start growing some of their own food.
- Not digging will keep the existing soil structure, which is important for drainage and root growth. We found that the soil becomes very loose and malleable, eliminating the need for tools in the garden other than a rake and a secateurs. Keeping the soil covered at all time protects it from the sun's UV rays and stops the soil from drying out, thus less or no watering is required even during the summer months.

2. What are the advantages to the plants when using mulch?

- Suppressing weeds and grasses would certainly be the most popular reason to mulch your garden, so that your plants don't have to compete and you don't have to spend a lot of time weeding.
- In particular wood chips are broken down slowly by a healthy soil life, releasing carbon and minerals into the soil making them available to your plants providing them with long term fertility. We found rich soil promotes healthy and rapid growth, as a result our losses to slugs and other pests have become insignificant.
- The soil being kept loose and malleable are ideal conditions to help the plants expand their roots at exponential rates. Roots need air in order to take in moisture and minerals.
- Carbonous mulch such as woodchips is an excellent habitat for fungi and insects. Through their activity locked up nutrients are made available to the plants, for example fungi can break down rocks releasing minerals into the soil.



Mushroom Compost and Woodchips



Walking stick kale - Giant tender leaves

3. Are there any common problems with using mulch?

- The most common misconception when comes to mulch is that the wood chips absorb all the of the nitrogen from the soil. This is not the case as long as you keep the mulch layer on top of the soil and not mix it in with it. The wood chips are then broken down slowly by the soil life from below.
- Some people believe mulch is a habitat for slugs. Even though all of our gardens are mulched, we have found slugs not to be problem because our plants are healthy and growing rapidly. The slugs just can't keep up. In fact they help attract beneficial wildlife such as frogs and hedgehogs which are a great natural alternative to killing the slugs using traditional methods such as slug pellets / poison or beer traps.



Leeks grown in pots and mulched

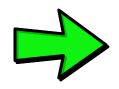


Our anti-slug table protecting young seedlings

4. What are the different materials that can be used for mulching and where can you get them?

Any carbonous organic material such as woodchips, bark mulch or straw. We prefer to use woodchips made from a variety of trees including branches, leaves and needles. This is also known as branchmulch, which will turn into a lovely uniform coloured mulch after 1-2 months. It can easily be obtained from your local arborist or tree surgeon, because it is a byproduct it is very affordable.









4. Marking the area and putting down a layer of cardboard

Week 4





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1. What is the purpose of the cardboard?

It's primary purpose is to smother existing weeds and grasses to stop them from competing with your plants. This saves you having to pull them all up and will turn them into compost for your plants instead. The worms and the soil life will break down the cardboard and recycle the carbon making it available to your plants.





2. How long does the cardboard take to break downonce covered with mulch?

Typically several months in a wet climate, or up to 1 year in very dry places. The aim is to layer the cardboard thick enough so that it stays intact for long enough to smother the weeds and grasses underneath.

3. What is the best kind of cardboard to use and where can you get it?

Brown cardboard is best because it is the most natural and it breaks down quickest. We found the best places to get free cardboard are furniture and bicycle shops. They are mostly big pieces so there is less need for overlapping.



4. What is the best time of the year to start a newgarden bed?

Any time of the year is a good time to start setting up a new growing space in your garden, in particular when using a no dig gardening method with mulch. The weeds and grasses are covered one way or another whether it's summer or winter.



Wood Mallow

Beautiful perennial insectary



5. What are the considerations for the layout when marking the garden? (access and growing space)

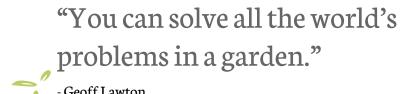
- The most practical way to lay out a garden is to make paths for easy access to all parts of the growing spaces, so that you don't have to step on the growing space to reach your plants and compact the soil under the mulch.
- While straight lines in the garden may be practical and aesthetically pleasing to some, we like to keep our gardens looking as natural as we can without losing the element of the more edges or borders the better. In nature these are often the most fertile and biodiverse places. When using rocks as a border for example they will store the sun's energy during the day and give off heat at night keeping plants in the immediate surroundings growing for longer, extending the growing season slightly. More on microclimates in the step-by-step ebook.



Keep smaller plants that are used more often close to the paths, for examples kitchen herbs. Plants that are visited less frequently can be kept either further away in corners or in the middle of large beds. For example Rhubarb, flowering shrubs or even fruit trees. Lay the cardboard around existing trees and shrubs.

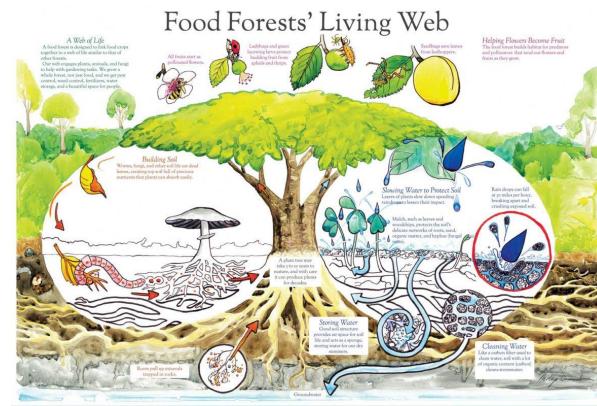






- Geoff Lawton







5. Put on a layer of compost and



Week 5

What is the easiest and most basic way to mulch your garden?

- You can put down a layer of cardboard on existing weeds and grasses without digging or turning the soil. Then simply cover it with a thick layer of mulch such as wood chips. You can leave the cardboard and mulch resting if you wish without utilising the newly reclaimed space. The weeds and grasses will be smothered and the cardboard will break down slowly in about 3-12 months depending on your climate.
- If you are putting on an additional layer of compost before putting on the wood chips, then the cardboard will break down much quicker in about 2-4 months.



2. Can you plant directly into a mulched garden bed?

You can plant small plants, seedlings or tubers directly into the wood chip mulch without making a hole in the cardboard. Simply make a hole in the mulch with your hands, add 2 generous hands full of rich compost and plant your tuber or seedling closing the mulch around the top. This will stop new weed seeds from starting beside your plant. The plants roots will grow through the cardboard layer as it begins to break down.



3. How long do the wood chips last as a mulch for
blocking weeds and giving off fertility?

- The more active and healthy your soil life is, the quicker the wood chips are broken down and turned into the best mineral rich compost you will ever find. This is going provide long term fertility to your plants for years to come, so you never have to give extra buy plant food or liquid feed.
- Depending on the thickness of the layer of wood chips you put on when starting a garden bed, they may need topping a little once a year or every 2-3 years in the long term. This is going to block new weeds from popping up and keeps the ground walkable. The mulch layer on top is like a protective skin on the soil blocking UV light from the sun, stopping it from drying out and acting like thermal blanket so the soil doesn't freeze in the winter. The extra microbial activity in the soil during the colder months helps to extend the growing season. This can even keep plants that normally don't live through the winter alive, effectively turning them into perennials in cold temperate climate!

4. How do you mulch around existing trees and _____shrubs?

It's handiest to plant new trees before mulching the area, if you haven't so yet. Same as existing trees you can simply lay down the cardboard all around the tree making sure you leave no gaps and overlap it well. I like to take a large piece of cardboard, cut out a hole in the middle the size of the stem of the tree, then tear or cut a straight line to the outside. This way it will fit tightly around the tree and no weeds will find their way through.





5. How do you make your garden productive quickly using mulching?

- No dig gardening and blocking weeds using mulch is the best method to improve your soils fertility long term with many positive side effects. But if you want to speed things up, you can add a thick layer of compost (for example mushroom compost) between the cardboard and the mulch layer. Be sure not to mix the layers.
- The compost will provide an instant growing medium for the plant roots to take over. We had phenomenal results using this method and plants were growing at an exponential rate because the roots are able to expand very easily through the loose malleable soil. Please see our <u>projects</u> and <u>mini</u> <u>projects</u> on our website for more pictures and info.



6. Starting plants from seed or



Week 6



1. What is the easiest way to get your plants started?

- You can either buy plants or grow them yourself. If you are new to gardening or if your just starting a new garden, it's probably best to buy the majority of your plants at first as they will establish quickly. However i would encourage people to still start some of your plants from seed because you will learn a lot about them and save money as well. Year after year you will be able to grow more of your own plants and even start seed saving in your garden.
- We like to choose perennial plants whenever possible. This means they will grow for many years without having to replant them every year. Another advantage is that harvests are exponentially bigger than annual crops, because the plant doesn't need to regrow from seed every spring but instead increases the size of the root system year after year. In particular tree seeds need extra treatment before they will germinate successfully. Techniques such scarification and stratification will be discussed in greater detail in the near future.

2. When can you start seeds?

- The best time of the year is just before or during the growing season, which is early spring to late autumn here in Ireland. Although some seeds can be sown directly into the garden in late spring or early summer typically after the last frost as this would damage some of the more delicate plants.
- Annual vegetables and herbs are the easiest to germinate, but make sure you start them early in the year to allow for enough time to mature before the end of the current growing season. Quick growing plants like salad greens can be started any time and staggered planting every 2 weeks is great for a continuous harvest throughout the growing season and beyond.
- Perennial plants are more flexible, although i would give them plenty of time to grow to get strong enough to make through the first winter. Once you have them you can repot them as the roots fill out the pot, this way they will continue to grow larger until you are ready to find a permanent spot in your garden.

3. Can you only start seeds in a greenhouseor also outside?

- Ideally seeds are germinated in a warm place, such as a window sill in the house or in a greenhouse. This way you can start them early in the spring even when it's still cold outside. By the time they are ready to be planted out they will have grown for a few weeks already and get off to a good start.
- You can sow seeds directly into garden or start them in pots outside in the summer when it's warm enough. We prefer to start them in small pots or seed-trays before planting them out. This way you have more flexibility deciding where to plant them and they are easier to manage because all of your seedlings will be same place which is handy for watering and keeping the slugs off them. Check out our <u>video</u> on the anti slug table especially designed for vulnerable seedlings such as the slugs favorite - beans.



4. How do you start plants from seed?

- All you need is the following: Seeds, potting soil or seed-starting compost low on nutrients (less chance of moss and mold), small pots or seedling trays, a watering can with clean water (not tap water as it's poisonous, rain water is better), a warm space with medium to full sunlight and a bit of time.
- Fill the pots or trays with compost without compacting it, you can tap them down on the table gently. Now place 2-3 seeds (10-20 for salads or herbs) in each pot or cell and lightly sprinkle 1-2 mm of compost on top or a bit more for larger seeds like beans.
- Water once per day and ensure good drainage keeping the compost moist without over watering as the roots need to breathe. Depending on what plants you are growing it take 1-4 weeks for seeds to germinate and for the first growth to emerge from the soil. After 1-2 extra weeks when plants have become more substantial, either repot them into a larger 0.5-2 liter pot to continue growing them indoors or plant them out into the garden. We found keeping perennial plants in a 2 liter outdoors works out great for about 1 year.
- We will go into a lot more detail on repotting, starting and keeping plants in future ebooks.

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5. Are there other ways to multiply plants?

- It depends on the plant. Quite a few flowering shrubs and berry bushes can be propagated by taking cuttings and rooting them. It is a highly effective method and works with a lot of plants, others are more difficult and you will need to use extra technique to be successful at it. We have a <u>video</u> on our youtube channel showing the potting up of rooted cuttings. There is a number of other ways to multiply your plants. For example tip-layering like blackberries do naturally. They simply grow into the air until the vine gets heavy enough to tip over and wherever the end of the vine touches the ground it will root.
- We will go into detail on many more plant propagation methods and techniques in a future ebook.



Thank you for reading

Take a look at our website to see our project galleries, useful plants series, shop and much more... <u>Click Here</u>

Happy Gardening! Martin and Bianca - Gardens for Life and Birdland Cottage

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