

Papilionaceae - the pea and bean family

- Alfalfa
- Asparagus pea
- Broad bean
- French bean
- Pea
- Runner bean

Helps corn (wheat crops), spinach, lettuce, rosemary, summer savory, dill, carrots, brassica, beets, radish, strawberry and cucumbers.

Helped By summer savory.

Avoid tomatoes, chilli, peppers, sunflowers, Onions (alliums) cabbage, kale & broccoli.

Chenopodiaceae - the beet family

- Beetroot
- Chard or swiss chard
- Leaf beet, perpetual spinach or spinach beet
- Red orache
- Spinach

Helps lettuce, kohlrabi, onions and cabbage.

Helped by catnip, garlic and mint.

Avoid runner beans for they stunt each other's growth.

Asteraceae - the lettuce family

- Cardoon
- Chicory
- Endive
- Globe artichoke
- Jerusalem artichoke
- Lettuce
- Salsify

Helped by radish, kohlrabi, beans and carrots.

Avoid celery, cabbage, cress and parsley.

Solanaceae - the potato family

- Aubergine
- Pepper chilli
- Pepper hot
- Pepper sweet
- Potato
- Tomato

Helps roses and asparagus.

Helped by borage, onions (alliums) mints, basil, oregano, marigolds, celery, parsley, geraniums and nasturtium.

Avoid beans, black walnuts, corn, fennel, dill, brassica (cabbage, cauliflower etc), beetroot, rosemary and peas.

Note: Tomatoes do not like to be put too close to potatoes.

Some vegetables do not have a group so these can be squeezed into the rotation plan.

- Chinese artichoke
- Corn salad
- New Zealand spinach
- Sweetcorn

There are also perennial vegetables that are not included in crop rotation, which do fall into the families above such as:

- Asparagus
- Globe artichoke
- Cardoons
- Nine star broccoli
- Rhubarb
- Seakale
- Sorrel

Green Manures

Most of which are brassica (cabbage) or legumes (pea/beans). Also buckwheat and grazing rye can be used. Clover and vetch make excellent green manures too.



Organic Vegetables

Grow your own... Organic Vegetables with Whitehall Garden Centre

● The Organic Option



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Organic Vegetable Growing - Simple Steps and Ideas

The benefits of growing organic vegetables are:

- Provides safe, uncontaminated food
- Reduces food miles and the use of fossil fuels
- Waste can be recycled via composting and eliminates packaging
- Better for the environment
- Better flavour and higher nutritional value

Site

The ideal site for any vegetable plot is a fertile, well-drained and moisture retentive soil, in a flat sheltered but sunny position.

Most gardeners do not have these ideal conditions but still manage to grow excellent vegetables by making the most of their site.

Sun and Shade

Deep shade will hinder vegetable growth but some are fine in light shade. Including lettuce, chard, beetroot and kohlrabi.

In cool climates, position tall vegetables so that they will not cast a shadow on low growing plants, but in hotter climates use them to provide welcome shade.

Drainage

Vegetables will not thrive in a waterlogged site, which is better used for something else, such as a pond or bog garden. Improve heavy soils gradually by adding low fertile organic material regularly.

Shelter

Protect exposed sites with permanent or temporary windbreaks – such as hedges fences or netting. Protect individual crops with barriers, cloches, or other covers when plants are young.

Slopes

Use terracing to prevent soil erosion. Position rows or beds across contours of a site rather than up and down. Note the bottom of the slope can be a frost pocket.

Space

Select vegetables to suit the space available. Even quite small areas can be productive. Research the vegetables that you would like to grow early on in the season, so that you can maximise space available to you.

Include space for making leaf mould and compost when planning your site.

Vegetables can also do well in raised borders, which would reduce the risk of any joint problems. Container grown vegetables are increasingly popular for people who only have a patio or balcony. Some vegetables prefer not to be put straight into the ground e.g. chillies, and aubergines.

Preparing the Site

You may have a site already prepared. But if you do not there are various organic methods of preparing it.

A light excluding mulch can be useful way to clear a weedy patch. Landscape fabric or Mypex weed suppressing fabric can both be used. Both of these products let water through and keep light out. Also planting potatoes as a first crop in a certain area can be beneficial.

Used as a cleaning crop, their fast growth and large leaf canopy can suppress weeds by casting heavy shade over the ground.

Before doing any planting, find out about your soil and start to think about it organically.

Use organic soil improvers, organic matter and fertilisers as necessary. pH tests can be done by purchasing a pH testing kit. Soil needs to be ideally 10°C to gain an adequate reading.

To find out what kind of soil you have and its nutritional information, send it away and have it tested. The Royal Horticultural Society may offer this service providing you are a member.

The Soil Association may be able to help.

However, in general they only offer this to commercial growers seeking organic status.

Plans

Even if you are only growing a limited amount of vegetables to start with, make a simple plan of crop rotation. Keep a close eye on what happens through the season, so you can deal with any problems and adjust growing conditions accordingly.

Throughout the year keep records on yields, pest and diseases, weather conditions and what grew well and where. Just remember not to plant the same family of plants in the same spot within the next 3 years this would reduce the risk of soil borne pest and diseases.

Forward Planning

Forward planning can help you to get the best results from growing vegetables. It is possible to harvest vegetables all the year around through proper planning.

Thinking about the year also helps to spread the workload. It enables you to put aside time for compost making, collecting leaves for leaf mould, incorporating green manures and applying soil improvers, as well as sowing, planting and harvesting.

Crop Rotation

Crop rotation is the practice whereby you plant vegetables of the same family together but move them into different plots during consecutive years. Vegetables of the same botanical family can be susceptible to the same pests and diseases.

Parsnips for example belong to the same family as carrots. Potatoes and tomatoes belong to the same group. However, it is not always easy to guess which plant belongs to what family, for example cabbages and Brussels are easy, but swede, turnips and radish belong to the brassica family also. All of which would need to be rotated with their family groups.

Three or four years are the usual recommended minimum for crop rotation, but it can certainly be longer if you know that your soil has a serious problem such as potato eelworm, onion white rot or club root.

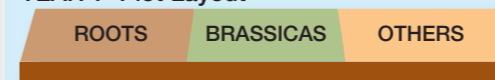
Nutrient Availability - vegetables differ in their nutrient requirements, so moving them around the growing area helps prevent the soil becoming depleted of nutrients and makes the most of the soil. For example, peas and beans fix nitrogen in the soil so it makes sense to plant a vegetable that needs lots of nitrogen the following year.

Soil Treatment - some crops need soil amendments to do well, others make good use of residual fertility left by previous crops (the pea/bean example). Grow crops with similar requirements together so you can apply the appropriate soil treatments for them. This means that all parts of the vegetable area will receive the same treatment over the period of rotation.

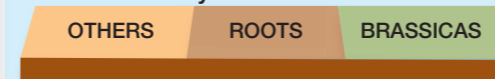
Crop Rotation

ROOTS	BRASSICAS	OTHERS
Beetroot Carrot Chicory Jerusalem artichokes Parsnip Potato Salsify Scorzoneria	Broccoli Brussel Sprouts Cabbage Cauliflower Kale Kohlrabi Radish Swede Turnip	Aubergine Bean Capsicum Celeriac Celery Cucumber Endive Leaf Beet Leek Lettuce Marrow Onion Pea Spinach Sweet Corn Tomato
Do not add manure	Add some well-rotted manure or compost at digging time if soil is known to be short of humus	Add a liberal amount of well-rotted manure or compost at digging time
Do not lime	Lime the soil unless you are sure it is already alkaline	Lime only if the soil is known to be acid
Rake in a general purpose fertiliser about 2 weeks before sowing or planting.	Rake in a general purpose fertiliser about 2 weeks before sowing or planting.	Rake in a general purpose fertiliser about 2 weeks before sowing or planting.

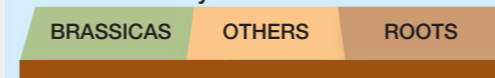
YEAR 1 Plot Layout



YEAR 2 Plot Layout



YEAR 3 Plot Layout



Weed Control - planting vegetables such as potatoes and marrows help to suppress weeds because of their foliage. Others like onions and carrots are not so easy to weed around and do not have a growth habit that can compete well. Alternating vegetables with these characteristics helps keep weeds under control.

Soil Structure - Plant roots occupy different levels of the soil. Alternating deep with shallow rooting vegetables does have a positive effect on soil structure.

Planning

Make a list of what crops you want to grow throughout the year and rough quantities.

Group vegetable families (see below).

Draw a plan of the growing area divide it into equal sized sections according to how many years the rotation is to last.

Be flexible and be prepared to adapt your plans. Unexpected weather and crop disease can affect everyone.

Keep records of what you have planned and what actually happened. This will be useful information if you want to adjust the rotation in following years.

Companion planting and Vegetable Groups

A very useful practice with vegetables is to companion plant with other varieties to deter pests and improve flavour.

Families

Brassica - the cabbage family

- Brussel sprouts
- Cabbage
- Calabrese/Broccoli
- Cauliflower
- Chinese cabbage
- Kale
- Kohlrabi
- Mizuna
- Mustard
- Pak choi
- Radish
- Rocket
- Swede
- Turnip

Helped by geraniums, dill, onions, rosemary nasturtium and borage.

Geranium can repel cabbage root flies and beet leaf hopper. Alliums and nasturtiums repel blackfly.

Do not plant along side mustards, tomatoes or peppers.

Alliaceae - the onion family

- Chives
- Garlic
- Leek
- Onion
- Shallot
- Welsh onion

Helps fruit trees, tomatoes, peppers, potatoes, cabbages and carrots.

Helped by carrots, repels slugs, aphids, carrot fly, cabbageworms.

Avoid beans, peas and parsley.

Apiaceae - the carrot family

- Carrots
- Celery
- Coriander
- Fennel
- Parsnips

Helps tomatoes, onions and lettuce.

Helped by onions (alliums), rosemary, wormwood, sage, beans and flax.

Carrots attract lacewings and parasitic wasps

Avoid dill, parsley and radish.



Cucurbitaceae - the cucumber family

- Courgette
- Cucumber
- Marrow
- Melon
- Pumpkin
- Summer Squash
- Watermelon
- Winter Squash

Helped by nasturtiums, radishes, marigolds, sunflowers, peas, beets, carrots and dill. Beneficial for ground beetles.

Avoid tomato and sage.