

Family	Examples	Soil requirements	Soil benefits
Brassicas.	Cabbage, cauliflower, radish, swede.	Leafy crops need nitrogen-rich soil; may need liming.	Rotation wards off risk of club root disease.
Legumes.	Peas, bean (broad French and runner).	Well-drained but moisture-retentive; not nitrogen-rich.	Fix atmospheric nitrogen in roots for future crops.
Onions.	Onion, garlic, shallot, leek.	High organic matter; may need liming.	Avoids impoverishing soil.
Potato family.	Potato, tomato.	High organic matter and nitrogen (potato); no lime.	Suppress weeds, break up soil structure.
Umbellifers	Carrot, parsnip, parsley, celery, Florence fennel	Root crops need stone-free soil; not freshly manured, and a fine tilth.	Root crops break up soil structure.



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Information Leaflet 3 **How to Rotate Your Crops**

Why you should rotate your crops

Most common vegetables can be grouped in different plant families. The principle of crop rotation is to grow specific groups of vegetables on a different piece of land each year. Groups are moved around in sequence, so they don't return to the same spot for at least three years.

1. If this is not done you may find that there is a build up of **pests and diseases** because they tend to attack specific plant families, so by rotating crops the pests' life-cycles are broken and build-up is reduced.
2. On the other hand, Some crops (e.g. potatoes and squashes) can suppress weeds, minimising problems for following crops, and so can be used within your rotational system as a form of **Weed Control**.
3. **Soil fertility**: Different crops have different soil requirements and benefits. Changing crops from year to year minimises deficiencies and allows the soil to replenish.
4. **Soil structure**: Alternating between deep-rooted and fibrous-rooted crops improves soil structure, so why not let your crop do some of the tilling for you?

Planning your rotation scheme

Divide the vegetable plot into four or more equal sections . Decide which crops to grow. Then group them, firstly following plant family (linked to pests and diseases), then soil requirements and soil benefits. To rotate the beds as described below move each bed back one family every year so that legumes move into the brassica bay, and brassicas move to umbellifers, for example:

- **Year one**: (see the diagram on the back cover of this brochure for a five year rotation), i.e. brassicas, legumes, onions, potato family, umbellifers.
- **Year two**: legumes, onions, potato family, umbellifers, brassicas.
- **Year three**: onions, potato family, umbellifers, brassicas, legumes.
- **Year four**: potato family, umbellifers, brassicas, legumes, onions.
- **Year five**: umbellifers, brassicas, legumes, onions, potato family.

If you do not wish to grow any specific plant family, you can modify this to a four year rotational scheme, with four main beds only. For those with a half plot, this can be reduced still further to a three year rotation.

Exceptions

Some plants have so few soil-dwelling pests or disease that they can be fitted in anywhere in the rotation:

- aubergines
- chicory
- courgettes
- cucumbers
- endive
- fennel
- French beans
- lettuces
- marrows
- peppers
- pumpkins
- runner beans
- squashes
- sweet corn

These you can distribute largely as you wish, but it is still sensible not to grow your runner beans, for example, in the same place every year, as they are still liable to suffer from lack of the specific plant foods they require for maximum health.

Probably the most important rotation of all is that of the solonacae (potato family, which includes tomatoes and peppers) to prevent the build-up of the dreaded potato blight.