

Crop rotation

Contributed by Gavin

Hair-tearing

fun – make it as simple or as complex as you wish; but do rotate your crops. Whether you use a spreadsheet, or paper and pencil, work out a workable plan for your plot.

Why?

Unlike

most gardens, an allotment usually has relatively large "blocks" of crops – which can cause two problems. Growing the same vegetable in the same place, year after year, creates an ideal environment in which

- the pests and diseases for that crop will survive and thrive
 - the crop exhausts the specific micro-nutrients it needs
- Put the two together, and you have a recipe for epidemics striking down ever more sickly plants! At its simplest, all you need to do is keep the crops moving. Leave at least a year, or better a 2/3 years gap, before a crop returns to the same bed.

Working it out Being a bit more systematic, you can manipulate your crops so that they help each other out. As most vegetables in a single botanical family are vulnerable to similar pests, you need to plan using plant families, not individual crops; start with the families, and green manures should fit in fairly easily too. An allotment rotation will probably include the Solanums (potatoes, tomatoes, peppers, and aubergines) "must" rotate, as they are highly susceptible to soil-borne infections and pests damage; they should not return to the same bed for three years, better still four or five. Brassica (broccoli and calabrese, Brussels sprouts, cabbage, cauliflower, kale, kohlrabi, swede, turnips, and rocket; also includes mustard and radishes – as crops or green manures) "must" rotate, as for the solanums. Umbellifers (carrots, parsnip, celery and a number of herbs) are "keen on" rotation, as carrot fly overwinters in the soil. Alliums (chives, garlic, leeks, onions, and shallots) are also "keen on" rotation to avoid encouraging white rot on your plot; if you already have white rot, the family "must" rotate, with a gap of 8 years. Legumes (broad beans, French beans, runner beans and peas; also includes green manure crops such as alfalfa, field beans, clovers, fenugreek, lupins, tares, trefoil) are generally not that fussy; “worth humouring" with rotation more to keep things easy! Many an older gardener grows his runner beans in a permanent, very rich bed. The second group of crops, bless their cotton socks, are just "eager to please"; they can go anywhere in your plot, at any time in your rotation plan. Beet (beetroot, leaf beet, spinach, perpetual spinach) Asters - the daisy family (lettuce, salsify and scorzonera) Cucurbits (cucumber, marrow and courgette, pumpkin and squash) Others (sweetcorn; also green manures such as buckwheat, phacelia, rye and ryegrass). If you are planning a new plot, you will need to allow space for a third group, “permanent" beds (actually beds with very long rotation needs) – strawberries (2-3 years), rhubarb (4-5 years), raspberries (10 years), asparagus (15-20 years), and then the herbs, comfrey, and fruit bushes. Next step? - Which family helps which?

- Beans and peas fix nitrogen - so let nitrogen-hungry brassica follow them;
- Potatoes don't like lime, so follow them with liming in the winter; next season, plant the crops that like lime most (brassica, or beans/peas);
- Peas and beans like the rich deep well-dug soil left behind after the potatoes;
- Brassica like a firm soil, so don't follow potatoes very happily;
- The onion family are generally happy in the firm soil left by the brassica.
- Roots dig deep and break up the soil - so follow them with potatoes; Fit the permutations together, and you'll get a 5 year sequence like this – each year, a bed “takes one step to the right" ”. Include “winter treatments" ”:
- Dig in manure in the winter before the potatoes;
- Add lime before the peas and beans;
- Add compost before the brassicas;
- Grow a winter cover of green manure as preparation for the onion, and roots crops. Reality time – tain" ”: a strait-jacket!
- Start with what you want to eat, and separate the list into the plant families.
- (Set aside an area on your plan for the "permanent" beds.)
- Juggle the crop families you've chosen into a workable rotation plan. Feel free to have two or more families in one bed – just as long as they move – it may cut the five years to four, or even three.
- Slip in the "friendly" vegetables that can go in any bed – I usually have lots of space in the legume and the roots beds, so the beetroot, spinach, lettuce, corn and squashes go in there.
- And commit your rotation to paper, as well as the ground. A few examples I've used, or seen friends use

– adaptations to fit space available (and what you want to eat!). "Traditional" three year rotation – but you don't want potatoes

1. Brassicas
2. Onions, roots and beets
3. Legumes and tomatoes

Four-year rotation I've used in the past

1. Potatoes
2. Legumes
3. Brassicas
4. Onions and roots

Four year rotation on a plot with white rot (making onions difficult)

1. Potatoes followed by leeks
2. Broad beans and brassicas
3. Roots, beet and spinach
4. Squashes and sweetcorn

Four year rotation, where you can let some land lie fallow every fourth year

1. Potatoes
2. Legumes and brassicas
3. Roots, squashes and sweetcorn
4. Onions and a green manure

Gavin has kindly allowed Downsizer.net to publish this article; he has a range of other very handy guides on all aspects of vegetable growing on his allotment diary site at <http://www.keirg.freeseve.co.uk/diary/indextec.html> If you'd like to ask any questions do visit the Grow Your Own forum