



Crop Rotation and Green Manure Fact Sheet

Crop Rotation

Crop rotation is a simple procedure that involves not planting the same crop in the same soil for two to six years. This prevents a build up of diseases in the soil which can infect and re-infect particular families of plants. Plants also absorb different quantities of soil nutrients, and repeated plantings of the same family can deplete the soil. There is some time involved initially developing your plan but it's quick and easy once in place. Consider growing a green manure crop somewhere in the cycle to replenish nitrogen stores and build up the organic matter in the soil.

Rotation can be of fruit and vegetables families or physical attributes.

Below is a list of some of the more common vegetables and their families. Rotation of families allows any disease in the soil to be broken down before that particular family is planted again.

Cruciferaea

Kale, Cauliflower, Cabbage, Broccoli, Brussels Sprouts, Kohl Rabi, Radish, Swede, Turnip, Mustard

Solanaceae

Potatoes, Tomatoes, Eggplant, Capsicum, Chillies, Tobacco

Amaryllidaceae

Chives, Garlic, Leek, Onion, Spring Onion, Shallots

Chenapodiaceae

Beetroot, Silverbeet, Spinach

Gramineae

Corn

Compositae

Globe Artichoke, Jerusalem Artichoke, Lettuce, Endive

Leguminoseae

Peas, Beans, Broad Beans, Snow Peas

Apiaceae

Carrots, Celery, Celeriac, Coriander, Dill, Parsley, Parsnip

Curcurbitaceae

Cucumber, Choko, Marrow, Melons, Pumpkin, Squash, Zucchini, Gourds





Rotation of fruit and vegetable with the same physical attributes means that plants with similar nutrient requirements such as leafy crops are planted together and then followed by crops with different requirements such as root crops.

- Legumes (peas, beans, broad beans, etc) plants high in nitrogen.
- Leaf crops (lettuce, cabbage, celery, silver beet etc)
- Fruit crops or flowers (tomatoes, zucchini, melons, squash, flowers etc)
- Root crops (carrots, onions, potatoes, beetroot, radish, turnip, etc)
- Fallow, at least 2 months. Let weeds grow and green manure crop.
- Fruit crops and flowers (tomatoes, zucchini, melons, squash, flowers etc).

Green Manure

Green Manure crops are fast growing and improve the soil by building up organic matter, nitrogen, earthworms and micro organisms while also interrupting pest and disease cycles.

Their roots are particularly good at extracting nutrients and minerals, retaining moisture, stabilising the soil, smothering weeds and improving soil structure to allow easier access for air, water and plant roots.

They can be legumes (beans) or grasses;

- Warm season green manure crops can include Buckwheat, Cowpea, Millet, Mungbean
- Cool season green manure crops can include Fenugreek, Woolly Pod Vetch, Oats, Fava Bean

Green Manure crops grow in a little over 8 weeks and are then cut down while the plant is still putting nitrogen into developing good leaves rather putting its energy into flowering. Cut leaves can be left as mulch or used as a fertiliser in a No Dig Garden. They can also be dug into the soil or put into the compost. The break down of nutrients is about 6 weeks, similar to slow release fertiliser.

Some legumes are sown with an inoculate or rhizobium (simply mix milk, seed and inoculant) to help the plant to obtain nitrogen. These should come with your order of green manure crops.

Green Manure crops can be excellent cover for vacant garden beds or if you are going on holiday.

For more information and other topics see Hornsby Council's range of Eco Gardening fact sheets. Download our other fact sheets from the Council Website!