

Crop Rotation and Succession Planting

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Crop Rotation: What It Is and Why Do It

- It is developing a plan for your vegetable garden that avoids planting the same crop in the same place year after year.
- Typically, the plan would be to rotate certain families of vegetables every year so that you do not plant in the original space for 3-4 years.
- Why?
- To avoid pests and diseases that build up in the soil, to limit use of chemicals on your crops, to improve soil health, and to provide needed nutrients for the incoming plant family, all of which should improve crop outcomes and harvest.

What Are the Plant Families and What Do They Require From or Add To the Soil

- (1) Legumes – peas, beans, peanuts, lentils, clover, alfalfa – these are “nitrogen fixers,” meaning they add lots of nitrogen to the soil for the nitrogen loving plants that follow.
- (2) Leafy Vegetables – cabbage, broccoli, cauliflower, kale, spinach, swiss chard, lettuce – some of these crops are heavy feeders and need nitrogen in the soil. They are not fruiting plants so they leave potassium in the soil, which benefits the potassium loving plants that follow.

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- (3) Fruit – tomatoes, peppers, cucumbers, melon, squash, white potatoes – these use potassium to produce their fruits and leave phosphorus in the soil.
- (4) Root Crops – carrots, radishes, parsnips, celery, sweet potatoes, onions – most of these are phosphorus lovers and some tend to be light feeders, tending not to deplete the soil as much as other crops, making them the best plants to end the crop rotation cycle.

Yes I Know There Are Other Names for Crop Families!

To be formal about it, the major plant families are:

Alliums – onions, leeks, garlic, etc.

Legumes – as discussed already

Brassicas – broccoli, cauliflower, kale, turnips, cabbage, etc.

Nightshades – tomatoes, eggplant, peppers and white potatoes

Umbellifers – carrots, parsley, dill, fennel

Cucurbits – summer squash, cucumbers, pumpkins, winter squash, melons

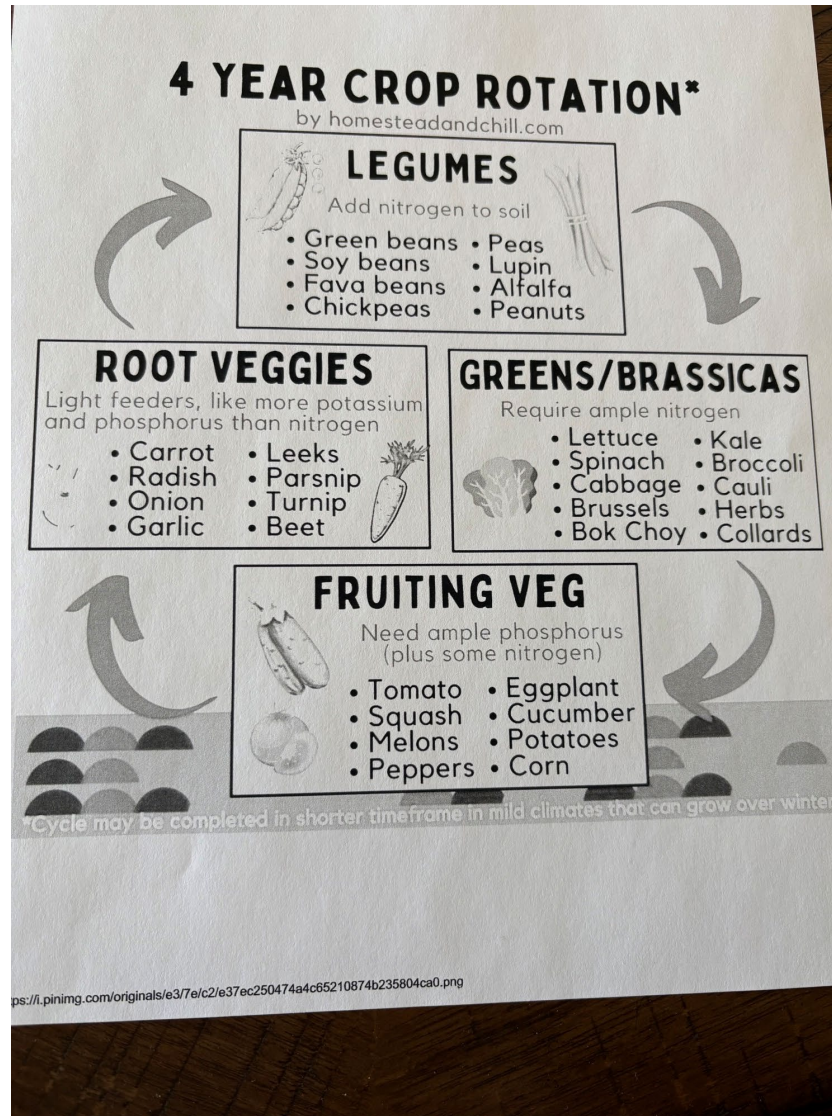
Formal Plant Families cont'd

BUT, some of these can be planted together, so I summarized all of these into just four groups for the sake of simplicity.

Basics of Crop Rotation: How to Plan

- (1) Rotate plants with different root depths – vegies like tomatoes and carrots break up the soil and aerate it, bringing needed minerals from the soil closer to the surface, where short root vegies like lettuce can better use them.
- (2) Rotate heavy and light feeders – heavy feeders (corn, broccoli, cucumbers, tomatoes) needs lots of nitrogen to produce fruits. So next plant carrots, potatoes or onions which don't need as much. OR to add more nitrogen naturally to the garden bed, plant from the legume family. In fall, just snip these off at soil level and let the roots compost into the soil, depositing nitrogen.

Example of Crop Rotations



You Need to Keep Track of What and Where You Plant From Year to Year

You do have to keep track of what you have planted each year in your garden beds. You can find an easy tool to use at backyardfarmingconnection.com.

What If You Don't Have Four Beds to Rotate?

If you only have one or two garden beds, how do you rotate crops?

Simply divide them into sections and rotate plants in each section.

Cover Crops to Improve Soil During Winter

The other easy way to improve the soil in your vegetable beds is to plant a cover crop over the winter, cutting it down and turning it under in early spring. Not only do cover crops improve the soil, they are sown very thickly and crowd out the weeds.

Cover crops to consider: buckwheat, rye, hairy vetch, clover.

Succession and Companion Planting

Succession Planting – planting early (cool), summer (hot) and fall (coolish) plants in sequence. You can utilize crop rotation when succession planting, ie, after early peas, plant cabbage or greens.

Companion Planting – Planting herbs and flowers around your veggies also improves the harvest and helps to keep bugs at bay. Basil with your tomatoes, radishes in between any veggies, marigolds and nasturtiums throughout the veggie garden. See farmersalmanac.com for a wonderful chart of companion plants (and what not to plant near some vegetables).