

Crop Rotation

I've heard that you shouldn't put plants from the same family (such as cucumber and squash or tomato and eggplant) in the same spot year after year. Is there evidence for that, and if so, is it loss of nutrients, plant diseases, pests or something else?

Answer

The short answer is that plants from the same family should be rotated for all of the reasons you list. Crop rotation is one of agriculture's oldest cultural practices. There are thousands of published papers on the topic.

Each vegetable can be classified into a particular plant family. Plants belonging to the same family have similar nutrient requirements and therefore take similar nutrients from the soil.

When crops are rotated, the soil benefits from improved structure, and depending on what is planted, potentially added nutrients.

Plant families are often susceptible to similar insect pests and diseases. When these plants are grown in the same immediate area year after year, disease-causing organisms (pathogens) and insect pests have continual host plants that they can infect. Over time, the concentrations of these pathogens and pests build in the area.

For this reason, it is important to plan your crop rotation and have some familiarity with which vegetables are in what families. The first and second links below will provide the reader with an excellent overview of the vegetable families, and the third resource provides you with examples of crops to rotate over the course of a year.

Additional Resources

<https://ucanr.edu/sites/placervevadasmallfarms/files/170644.pdf>

https://sacmg.ucanr.edu/Crop_Rotation/

<https://ucanr.edu/sites/ucmgnapa/files/160975.pdf>

Hort.extension.wisc.edu/ [Using Crop Rotation in Home Vegetable Garden](#)

Master Gardener Handbook Second Edition Crop Rotation