Ask a Master Gardener

Vegetable Crop Rotation

By Trish Grenfell, Placer County Master Gardener

Q I've been told to rotate the crops in my vegetable garden. Last year's garden was very successful, and I don't want to "fix it if it is not broken".

A Crop rotation, which has been around for centuries, refers to the practice of planting most annual vegetable crops of the same family in different places in the garden each year. The principle is straightforward enough—the same vegetables should not be planted in the same place year after year.

Plants that are related to each other tend to be prone to the same diseases and insect pests. The first word in the botanical name for the vegetable is the genus; if the vegetables have the same genus, they are family—consider them as the same plant in terms of rotation.

Crop rotation has many advantages: it lessens the need for pest control, reduces the spread of soil-borne disease, helps to maintain soil structure, and avoids nutrient depletion in the soil.

By removing last year's host plants, the build-up of crop-specific damaging populations of spores, eggs, and pests is greatly curtailed. For example, the squash borer larvae overwinter in the soil in a cocoon. If they wake up the next summer and the squash vines are now at the other end of the garden, the borers will have a difficult time finding the vines. And it is good to follow cabbage family plants (such as broccoli and cauliflower) next year with members of the nightshade family. These cabbage-cruciferous crops have the ability to clean the soil of diseases that attack members of the nightshade family—tomatoes, potatoes, eggplant, petunias, sweet peppers, chili peppers, etc.

Rotation also benefits the soil. Soil nutrients necessary for one plant family become depleted when the ground is occupied by that plant year after year. Also when successive crops have different root system depths, the soil structure is aerated, and nutrients are used at different depths of the soil.

Legumes, peas, beans, and lentils in your garden will leave nitrogen in their wake. These plants take nitrogen from the air and accumulate it in the above ground plant and also in the soil system below. The benefactor is the crop that occupies that space the following year.

Note: The rule of annual rotation does not apply to perennial vegetables and herbs such as rhubarb, asparagus, oregano, sorrel, artichokes, thyme, radicchio, kale, collard greens, garlic, horseradish, grapes, and sweet potatoes. Rotating crops is not complicated, and you will have better plant health.

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

PLACER COUNTY
11477 E Avenue
Auburn, CA 95603
(530) 889-7385
E-Mail: ceplacer@ucdavis.edu

NEVADA COUNTY
255 So Auburn
Grass Valley, CA 95945
(530) 273-4563
E-Mail: cenevada@ucdavis.edu