Using Principles of Organic Gardening in the Home Garden

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As I teach classes in the community about gardening and horticulture in general, there is one topic that will always draw strong emotions from people on both sides of the discussion. This is the organic production of fruit, vegetables, and our food supply in general.

There are many misconceptions about organic food production, both in support and against this method of gardening. I will focus on substantiated facts of organic food production, and will highlight the points of organic production that are applicable to general home fruit and vegetable production.

The first principle of organic production is to feed the soil rather than trying to just feed the plant. A “healthy” biologically active soil is your best tool in having a successful crop. Plants that perform poorly due to an unhealthy soil are also prone to disease and insects. You create a healthy soil by increasing the organic matter, and by doing this it automatically increases the microbial activity in the soil.

There are many beneficial microorganisms for plants in the soil, and having adequate organic matter gives them something to decompose, and make the nutrients available to our vegetables. Sources of organic matter include composted manure, peat moss, composted tree leaves, and garden residue.

Ensure that you have good water drainage, as a wet stagnant garden is also a dead garden. Good drainage can be accomplished through adding a small amount of sand with your organic matter. Too much sand added in place of organic matter can turn your garden surface like concrete. This mixture of sand and lots of organic matter will create a good balance of drainage, nutrient holding capacity, and still be loose enough for plant roots to take hold.

Another option for increasing organic matter is putting your garden into a green manure crop for a season. A green manure crop is simply a crop of plants that you plant, grow up, and then till into the soil before it goes to seed. You can take this one step further and grow a green manure crop in the fall after your garden has pretty much finished its production. In our area, a good fall green manure crop would be peas or beans.

The next principle of organic food production is growing crops that insects naturally avoid or that are disease resistant. This preemptive step will reduce the use of chemicals to control pest issues later on in the season. Use mulches to hold moisture around your plants, and reduce evaporation as well as keep weeds at bay, and reduce your work load. You can also till small weeds up before you plant to help reduce their numbers. Do not over-till your soil as you will develop a hard pan in your garden, and also do not till when your garden is wet as this leads to compaction.

To help reduce insect numbers or insect problems, try introducing beneficial insects which you can buy through local nurseries or online. An example is controlling aphids with lady bugs. If you want beneficial bugs to help you in your garden, and are trying to grow organically, then you would be wise not to use insecticides as they do not kill just the undesirable insects, but all bugs in the area.

Later in the season, populations of bad bugs can multiply, and without the natural predators around in sufficient numbers, they can devastate your garden. This can lead to having to apply insecticides again, and increases your work load, so use your beneficial insects to your advantage.
On the other hand certain insects may not have potent natural predators that keep them under control, and may require control via a mechanical or non-organic chemical control method. It is a balancing act, but learning about specific bugs in your garden and their life cycles will help you to maintain a healthier and more successful garden.

Scout often in your garden for problem bugs, and create an environment that invites predatory bugs to come and live in your garden. Certain plants attract these beneficial insects, and interplanting them in your garden helps to balance insect populations.

Rotate crops every year in your garden to prevent a buildup of soil born diseases, and practice good sanitation in the garden area. Good sanitation means removing infected or diseased plants from the site, and composting any residues rather than just leaving them laying around and being an incubus for future insects or diseases.

For further garden questions please contact Lance at the Fremont County Extension Office at 624-3102.