

The Organic Philosophy

By Susan Camp

In last week's "Gardening Corner" column, I stated that organic food production includes recycling and reuse; land and wildlife conservation; and avoidance of synthetic chemicals, sewage sludge, irradiation, and genetic modification.

According to the NC Cooperative Extension publication "What Is Organic Gardening?" organic methods form a "philosophy of gardening" that attempts to improve and maintain the ecological health of the entire system. Adherence to this philosophy requires a commitment not everyone is prepared to make, for a variety of reasons. Organic food production is labor and time intensive. If the grower's goal is to produce as much food in a growing season as he or she possibly can, then creating and protecting the ecosystem might have to take a backseat.

The first step in building an organic ecosystem is to improve the soil by adding organic matter like well-rotted manure or compost made from leaves and other yard debris, grass clippings, and kitchen scraps. Avoid adding weeds and diseased material to your compost bin unless the bin temperature reaches 160° F, at which point weed seeds, microorganisms, and insect eggs will die. Work the compost or manure into the soil to discourage insects from setting up housekeeping. Try to maintain the soil pH at about 6.5, which is mildly acidic, so that plants can access the nutrients they need to thrive. This pH level also will encourage beneficial microorganisms and earthworms, both of which will further enrich the soil. Virginia Cooperative Extension (VCE) Publication 426-366 "Minimum Chemical Gardening" contains detailed information on various topics related to organic gardening, including biological and mechanical pest control and appropriate use of non-synthetic pesticides.

Planting a cover crop or "green manure" is another way to increase your soil's ability to hold nutrients. A cover crop is tilled into the soil before it reaches maturity and slowly releases nutrients like nitrogen (N), phosphorous (P), and potassium (K) as the plants decay. If the crop is left to dry on top of the soil, nutrient release will be poor. If the primary goal is to increase nitrogen in the soil, select a legume like crimson clover or alfalfa as a cover crop. VCE Publication 2906 1374 "The Organic Way—Selecting Green Manure Crops for Soil Fertility" can help you decide which cover crop to plant

Organic fertilizers do exist, and you may have applied them to your garden without realizing that they are organic. Seaweed, wood ash, and rock phosphate are derived from natural sources and are less harmful to the environment and waterways than synthetic fertilizers. Agricultural lime is used to lower soil pH.

A hot topic for organic gardeners is the unrestrained use of synthetic pesticides by many farmers and gardeners. Better choices would be to select fruits, vegetables, and other plants that are native to the region. Plants should be healthy and seeds should be certified as disease- and insect-

free. Organic farmers encourage a healthy population of predators, including birds, lizards, spiders, and bats. They may use natural pesticides like *Bacillus thuringiensis* (Bt), sulfur, and copper or neem oil. If you choose to use commercial pesticides, you must follow label directions carefully and understand that synthetic chemical use is not included in the organic philosophy.

Organic cultural practices include close observation of the garden in all seasons to prevent problems or decrease damage from disease or insect pests. Alternate types of plants in a garden row or section to help deter the spread of insects or disease. Thin young plants to prevent overcrowding and subsequent plant weakness. Rotate related crops like potatoes, tomatoes, and eggplant or cabbage, cauliflower, and broccoli so that they are not planted in the same site more than once every three or four years.

Numerous resources for the organic farmer or gardener exist online and through extension agencies in every state. Organic gardening is a commitment and not always easy or successful, but the rewards of healthy, pollutant-free crops and a cleaner environment are worth the hard work.

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