

## What Is Organic Gardening?

Simply put, organic gardening means no synthetic pesticides or fertilizers. What's more, it means, gardening with a mind toward using sustainable practices, working with natural systems to fight pest and disease problems, and reducing inputs by adding only what plants need.

The USDA defines organic as “[...] a labeling term that indicates that the food or other agricultural product has been produced through approved methods. These methods integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation, and genetic engineering may not be used.”

Occasionally having to deal with pests and diseases is an inevitable part of having a garden. What you do to deal with these pests can have a big impact on the health of the environment, the soil, and you. The best defense against pests and diseases is to grow **HEALTHY PLANTS**. The best way to get healthy plants is to have **HEALTHY SOIL**. If you feed and care for the soil, or rather the billions of microorganisms that live in the soil, the soil will, in turn, feed you.

When you do need to give your plants an extra boost, the best fertilizer is often well-rotted compost. If you do need to use something more, use the guidelines below to help you choose the correct product.

### **Don't Over-fertilize! You are not helping your plants OR the environment.**

- **Pollution.** Adding more fertilizer than plants can use causes the fertilizer to leach past the root zone of your plants or to run off. Both are possible sources of pollution and should be avoided
- **Waste of money.** Fertilizers are expensive. When you over-fertilize you are wasting your money and you are not helping your plants.
- **Unhealthy, disease-prone plants.** When you over-fertilize, you promote unhealthy amount of growth that stresses plants and makes them more susceptible to insect attacks and disease.

### **Recommended Organic Fertilizers**

- compost from the garden (N, P, K)
- animal manures (ideally composted or aged before use)(N)
- alfalfa meal (N)
- blood meal (N)
- hoof and horn meal (N)
- kelp or seaweed (liquid or powder)(N)
- fish emulsion (N, P)
- rock phosphate (P)
- soft phosphate (colloidal)(P)
- bone meal (P)

- wood ashes (K)
- granite or feldspar dust (K)
- greensand (K)

### **Prohibited Fertilizers**

- synthetic fertilizers of any kind (e.g. Miracle Gro)
- any formulations containing sewage sludge (e.g. Milorganite)
- DAP and MAP (ammonium phosphates)
- Chilean nitrate
- superphosphate (acidulated phosphates)
- Chilean nitrate of potash (15-0-14)
- Muriate of potash, KCl (0-0-60)
- charcoal ashes (from BBQ, stove, etc.)
- cigarette ashes

**Synthetic fertilizers of any kind are prohibited.**

### **Recommended Organic Pesticides**

- beneficial insects (ladybugs, praying mantids, trichogramma wasps, lacewings, tachinid and syrphid flies, etc.)
- hand-picking
- traps (pheromone, sticky, water, food, etc.)
- row covers
- spraying with garlic, onion or vegetable oil, and pepper sprays
- insecticidal soaps (preferably biodegradable soap solutions)
- BT (bacillus thuringiensis)
- chitin
- diatomaceous earth
- bicarbonates (sodium bicarbonate-baking soda, and potassium bicarbonate)
- sulfur
- isopropyl alcohol
- hydrogen peroxide

### **Not Recommended**

- Neem
- Pyrethrum
- Quassia
- Ryania
- Sabadilla

**Synthetic herbicides of any kind are prohibited (Preen 'n Green, Roundup, Weed-B-Gon, etc.)**

**Use This**

Fish and seaweed fertilizer  
Insecticidal soap  
Clove oil herbicide  
Compost

**Not That**

Miracle-Gro  
Sevin  
Roundup  
Bagged synthetic fertilizer

Remember, not all bugs are pests, and even the ones that are play an important role in our ecosystem. There is a wealth of information on the internet for identifying and treating common garden pests. The following are some websites that offer great information on identifying garden pests and treating them organically, and on organic gardening practices in general:

Organic Gardening Magazine: <http://organicgardening.com/>

Heirloom Organics' Natural Pest Control Guide: <http://www.heirloom-organics.com/guide/naturalpestcontrolguide.html>

Northwest Center for Alternatives to Pesticides:  
<http://www.pesticide.org/solutions/home-and-garden-toolbox>

Mother Earth News: <http://www.motherearthnews.com/>

In addition to these, your local Cooperative Extension office is an invaluable resource for all things horticultural and gardening-related. Their website is: <http://www.ext.colostate.edu/>.

**A Note on GMOs:**

We have elected to adopt a policy of using only non-GMO (Genetically Modified Organism) plant varieties. The USDA's organic guidelines expressly prohibit the use of GMO crops, and as an organic garden, we strive to adhere to these guidelines as closely as possible where it makes sense. While there are many arguments either for or against this technology, our primary concern is the neighboring organic farm. We want to make sure that our crops do not, through cross-pollination, adversely affect their crops.

More generally, some of the major concerns around using GMOs are herbicide resistance (the creation of "super weeds"), pesticide resistance, antibiotic resistance, harm to beneficial organisms, loss of biodiversity, and genetic pollution caused by unintended gene transfer (via cross-pollination).

The fact is that we do not know to what long-term effects GMOs have either on human health, or on the environment.

**Mulch:**

There are few practices as easy and as beneficial as mulching. The many benefits of using mulch include:

- Conserves water and keeps soil moisture even
- Protects the soil surface from water and wind erosion
- Reduces soil crusting
- Suppresses weeds
- Keeps soil from splashing on plant leaves during irrigation, preventing disease
- Warms the soil
- Keeps the garden looking tidy

Using natural materials for mulch also improves soil health as these materials provide organic matter to the soil as they decompose.

**Plasticulture or Plastic Mulch:**

Plastic mulches provide many benefits when used under vegetable crops. They warm the soil, enabling earlier planting and extending the growing season, they are very good at conserving water and suppressing weeds, and, because of these benefits, they can greatly increase yields. Under the USDA's Organic Guidelines, synthetic plastic mulch is permitted; however, we would like to encourage our gardeners to limit the use of such products because they are petroleum based and do not decompose in the environment. If you do decide to use plastic mulches, consider using a biodegradable plastic made from cornstarch. If plastic mulches are used, they should be removed at the end of each growing season to allow the soil to breathe.

Thank you for helping us keep our garden safe. Happy gardening!