



Supporting you to GET GROWING

Why garden and live organically? *Gardeners are natural environmental stewards. Organic gardening is safer for your children, grandchildren, pets, and you; it's safer for our waterways; it's safer for wildlife, butterflies, and pollinators; and it is safer for the planet. An easy way to avoid GMO's is to grow your own food or buy organic food. Fresh food from your own garden is full of vitality and one of life's most delicious pleasures.*

1. **Savings:** Saves time and money by reducing trips to the grocery or farmers market for quality food.
2. **Control:** You know what went into your soil and onto your plant. You decide what varieties to grow. Can't get fresher than homegrown. The satisfaction of eating a meal grown with your own hands and care is unparalleled.
3. **Health:** Produce picked at their peak contain more nutrients. Physical exercise. Mental and emotional benefits--stress relief. Growing your own can give you a spiritual connection making the act sacred. Physical exposure to beneficial microorganisms in the soil strengthens immune system. Might build community or strengthen your family.
4. **Positive environmental impact:** reduce waste by composting and creating your own soil, sequester carbon, reduce pollution and groundwater contamination by using organic/ natural methods.

"Garden as though you will live forever." William Kent

Site & Design Considerations

- Sunshine: 6-8 hours of full sun, look for full sun areas in your yard
- Proximity to house: The closer the better, between your car and your door if possible
- Proximity to Water: The closer the better
- Size: Start smaller than you think and consider the amount of time you have for maintenance
- Frost pockets: Avoid areas where frost will pool
- Quality of Native Soil: Look around your yard for the spot with the best soil
- Shelter from Prevailing Winds: Milder micro-climate extends growing season & invites pollinators
- Beds & Pathways: Beds max 5' wide, 4' x 8' is a good size, size paths to fit mower and wheelbarrow
- Design for maximum production and minimum disease
- Good air flow/drainage and good water drainage a must for healthy plants & disease prevention

Soil building is the Basis of Organic Gardening & Farming

- Feed your soil, not your plants
- Topsoil is precious and can take centuries to form, preserve it.

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OGS is an equal opportunity provider.

-Microbial activity is key to soil life

-Amend soil to accomplish better, more breathable soil structure. Add organic matter* routinely.

-Build good soil for more drought tolerance, better drainage, and more workability

-Start a Compost Pile

*Organic matter is derived from the breakdown of plant and animal residues. It is composed of forty-five to fifty percent carbon, along with oxygen, hydrogen, nitrogen, phosphorus, and sulfur.

Organic materials, when applied as mulches or incorporated into the soil, will slowly undergo breakdown by soil microbes into soil humus.

Examples of organic matter include plant residues such as lawn clippings, leaves, corn stalks and straw, manures, sludges, wood and food processing wastes, and [green manures](#) (plants grown for the purpose of incorporation into the soil).

Organic matter and soil humus (highly decomposed organic matter) provide the following benefits to soil health:

- Provide 90% to 95% of nitrogen in unfertilized soils; nitrogen is the key nutrient and controlling factor for plant growth.
- Supply plant-available phosphorus and plant-available sulfur when soil humus is present (25% or more).
- Improve [soil structure](#) by increasing aggregation of soil particles which in turn promotes aeration, infiltration, and percolation.
- Furnish 30% to 70% of a soil's cation exchange capacity. The higher a soil's cation exchange capacity, the greater its ability to hold onto nutrients until needed by the plant and microbes.
- Increase plant available water, or water available to plants in-between field capacity (water remaining in the soil after saturated soil has drained) and permanent wilting point (when plants wilt but cannot recover despite the addition of water).
Act as chelates which help mobilize metal micronutrients, increasing plant-availability of these nutrients.
- Reduce soil erosion.
- Organic matter is a carbon (food) supply for beneficial [soil microbes](#).
- Nutrients in organic matter are not readily leached from the soil.

--<http://www.extension.org/pages/62385/good-soil-structure>

--<https://articles.extension.org/pages/63505/what-is-organic-matter-benefit>

--<http://www.uvm.edu/vtvegandberry/factsheets/covercrops.html>

Nutrient Basics – N-P-K and more

-Nitrogen (N) = leaf growth

-Phosphorus (P) = root growth, fruiting & flowering

-Potassium (K) = plant health & vigor

-Other nutrients: Calcium, Magnesium, Sulfur, Iron, and other micro-nutrients (add seaweed!)

-pH matters! Test you soil. Veggies between 6.5 and 7 pH, blueberries about 4.5 pH; lime sweetens soil (raises the pH) very important for garden success; sulfur acidifies soil (lowers the pH)

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Planting Your Garden

- Seeds vs. transplants: How much are you planting? Transplants give you a jump start. Does it transplant well or should you direct sow? Sustainably-raised transplants and organic seeds available locally.
- Veggie Varieties/Cultivars: Plant what you like to eat. Choose varieties for flavor and disease resistance.
- Seed Types: HEIRLOOM/open-pollinated seeds harvested this year can be saved to plant next year; HYBRIDS offer added plant vigor, disease resistance or other special qualities, but do not come true to seed. Traditional Hybrids are NOT GMO's; all organic seed is GMO-FREE; GMO seed mixes genes from different families and could not occur in nature.
- Plant for space efficiency and weed prevention. Remember to thin!
- Pay attention to local weather and take appropriate action (protect from frost, etc.)
- Cool season crops enjoy cooler weather and are not as frost sensitive. Have protection available.
- Warm season crops enjoy frost-free weather. Last frost date (May 10); First frost date (Oct. 1).

Useful Tools & Supplies

- Garden Spade
- Digging Fork and Compost or Pitch Fork
- Garden Rake, Leaf and Bow
- Hoes (Korean hand hoe, scuffle hoe, grape hoe, grub hoe, etc. (*Fifth Season, Easydigging.com, or Roguehoe.com*))
- Trowel, Hori Hori Knife, Shovel, Files for Tool Sharpening, Sprayer
- Mattock, long & short handled
- Watering Can, Watering Wand, Garden Hose, Buckets, Wheelbarrow
- Pruners and folding saw (*I recommend Bahco*)
- Tomato Stakes/Cages, Trellising Supplies

**Where to purchase: Locally--Fifth Season in Asheville, Online--Bulldog Tools @Claringtonforge.com*

You have power. Bring about the changes you want to see. Lead the way to a safer, healthier, cleaner, and more delicious world with every dollar you spend.

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Links and more: *I recommend searching university sites in your region to access trustworthy information quickly. Portions of many university sites focus specifically on gardener education. For example: search for home gardener info at http://cals.ncsu.edu/hort_sci/gardening/*

Native Plant List: https://www.ncwildflower.org/native_plants/recommendations

ORGANIC GROWERS SCHOOL (a non-profit organization):

<https://organicgrowersschool.org/resources/spring-conference-library/>

<http://organicgrowersschool.org> Sign up for other OGS events under the Events menu and sign up for OGS eNews (scroll to bottom middle on right)

Books:

How to Grow More Vegetables by John Jeavons

Urban Homesteading by Rachel Kaplan and Ruby K. Blume

The Encyclopedia of Organic Gardening by Rodale Institute...many different editions

The Hidden Half of Nature: The microbial roots of life and health by David R. Montgomery and Anne Bikle

Bringing Nature Home: How you can sustain wildlife with native plants by Douglas W. Tallamy

Gaia's Garden: A guide to home scale permaculture by Toby Hemenway

Gardening at the Dragon's Gate by Wendy Johnson

Braiding Sweetgrass by Barbara Wall Kimmerer

Seed Catalogs: Our local Sow True Seeds Catalog is packed with information. They are located at 243 Haywood St., Asheville.

Special thanks to our sponsor for providing the beautiful workshop space for this program:

**LENOIR-RHYNE
UNIVERSITY**

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