**Organic Vegetable Gardening: A Five-Part Series in Growing Your Own Food**

Wed, February 13th, 2018, 6pm to 8:30pm

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**Workshop Description:**

Have you ever wanted to have swoon-worthy garden but just don’t know where to start? The five sessions included in this extended course have been selected to provide you with all the organic gardening fundamentals you need at an amazing bundled price. You’ll get the best of the basics in these classes including building great soil, knowing what to plant when, where and how fertilizing, site planning and much more.

**Workshop Objectives:**

* Have fun over a one month period and learn the best of the basics in organic vegetable gardening
* Empower you to improve your vegetable gardening through a better understanding of:
  + Wednesday, February 13, 6-8:30
    - Understanding & building great soil
    - Compost
    - Basic crop terminology
  + Wednesday, February 20, 6-8:30
    - Warm vs. cool-season crops
    - How to choose seeds and transplants
  + Wednesday, February 27, 6-8:30
    - Intensive planting methods including vertical gardening, succession planting & crop rotation
    - Elements of ongoing garden care, including fertilizing, thinning, and maintenance
  + Wednesday, March 6, 2018, 6-8:30
    - Problems in the garden/organic pest management
    - Gardening resources and ongoing learning opportunities
  + Saturday, March 9, 2-4pm (at Grateful Tomato Garden, 615 E 800 S)
    - Site visit at Grateful Tomato Garden
    - Garden planning and design

**Why do we want to grow veggies?**

What are your dreams and goals for your garden?

**Understanding and Building Great Soil**

**Soil – it’s not just “dirt”**

Soil is a living, dynamic substance. Healthy soil is fertile, deep, well-drained, loose, non-compacted, and full of billions of living and decaying organisms.

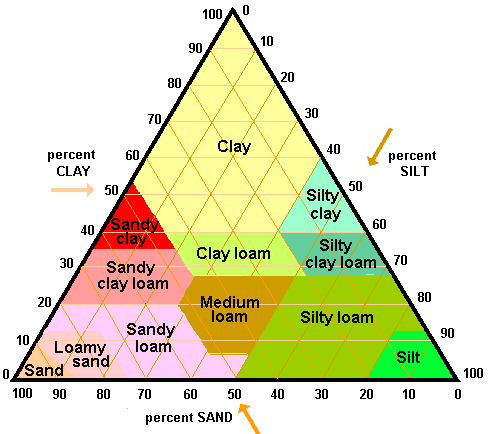
**Soil texture** refers to the size of the mineral particles (sand, silt and clay) that make up your soil.

Two main ways to get a sense of your soil’s texture: jar shake test or professional soil test

## Using the “Textural Triangle” to calculate your soil’s texture based on a jar shake test:

Soil classification is typically made based on the relative proportions of silt, sand and clay. Follow any two component percentages to find the nominal name for the soil type. For example, 30% sand, 30% clay and 40% silt:

Find 30% along the bottom (sand) line, and follow the slanted line up and to the left. Stop at the horizontal line for 30% clay, and find the soil type: **clay loam**



**Other components of soil (besides sand, silt and clay)**

* Air! Why do you think air is important in soil?
* Moisture
* Organic matter
* Cover (over the top of the soil). Why do you think cover is important?

**Soil Structure**

Soil structure is the combination of mineral particles and organic matter and how they are arranged.

The arrangement (structure) directly affects the amount of air, water and nutrients in the soil.

We CANNOT change our existing soil texture, but we CAN alter (and protect) our soil structure.

How? By doing all of the following:

* adding soil amendments such as compost and other organic matter
* not stepping on/compacting our soil
* not tilling wet soil (use a broad fork or spading fork to work in amendments & fertilizer instead)
* planting cover crops

**Soil Testing**

* USU Soil Testing at USU Analytic Laboratory ([www.usual.usu.edu)](http://www.usual.usu.edu))
* (435) 797-2217
* Routine soil test tells soil texture, pH, salt content, phosphorus and potassium levels, $25 plus $6.95 S/H
* Organic matter analysis available by request for additional $11.50
* Micronutrient analysis available for additional $9 ($32 for Routine Plus Micro)

We will be performing soil tests at the Grateful Tomato Garden this spring in our “Soil Basics” workshop with Celia Bell on Saturday, April 20th from 10-12.

See attached soil test report. Test results will include recommendations for adding fertilizer (usually only nitrogen, which should be added EVERY YEAR) and may include recommendations for adding compost. If excessively high in salt content, will also recommend leaching. USU fact sheets available to explain all these topics and more.

[www.garden.usu.edu](http://www.garden.usu.edu)

“Preparing Garden Soil,” “Understanding Your Soil Test Report,” “Frequently Asked Questions About Soil Testing,” etc.

Article about high phosphorus in Utah soils, limiting the amount of compost we should add, and remediating with cover crops:

<https://organicforecast.org/2016/03/soil-test-questions-answered-by-our-expert-dr-jennifer-reeve/>

**Building Soil for Raised Beds**

Square Foot Gardening “recipe” called Mel’s Mix

* 1/3 peat moss
* 1/3 perlite or vermiculite (they are different products with different characteristics but both work in this recipe)
* 1/3 good-quality (multi-ingredient, if possible) compost

**Composting**

Composting is the “aerobic, microbial degradation of organic waste,” per Utah DEQ. Composting creates a humus-like product that physically resembles soil. Used as a soil amendment to improve soil’s water retention, filtration and aeration. Also can be used to top-dress/side-dress (i.e., mulch) and to make compost extract to use as a soil drench (liquid fertilizer).

3’ by 3’ pile of Carbon source + Nitrogen source + Air + Water 🡪 *over time* 🡪 Compost

* 3 to 1 ratio of carbon to nitrogen
* TURN TURN TURN your compost
* Keep moist like a wrung-out sponge

Carbonaceous materials = Dry Browns

* Sawdust
* Wood chips
* Straw
* Fall leaves (NOT Black Walnut!)
* Paper products

Nitrogenous materials = Wet Greens

* Grass clippings
* Kitchen scraps
* Garden waste (non-diseased)
* “barnyard” manures (i.e., not manure from any meat-eating animal like dog or cat or human)
* fruits/vegetables

Join the Compost Club every Tuesday afternoon at WCG’s GREEN TEAM Farm, 622 W 100 S and learn how to make compost in just 18 days! Wow! Faithful attendees have been known to take home free buckets of finished compost :-o. Email James Loomis, Green Team Farm Manager, for more information: [james@wasatchgardens.org](mailto:james@wasatchgardens.org)

**Plant Families**

Knowing what family a plant belongs to helps us with plant identification

Plants in the same family usually:

* Have the same growth requirements
* Are affected by the same pests and disease
* Are often pollinated the same way, which can help us understand pollination problems

**Plant Families**

* Onion/Lily Family (*Alliaceae):* onions, garlic, leek, shallots, chives, and asparagus!
* Carrot Family (*Apiaceae):* Carrots parsnips, parsley, celery
* Sunflower Family (*Asteraceae):* Lettuce, Salsify, Endive, Sunchoke (aka Jerusalem artichoke)
* Mustard/Cabbage Family (aka Cole Crops, Brassicas, *Brassicaeae):* Broccoli, Cauliflower, Brussels Sprouts, Kohlrabi, Turnip, Radish, Baggage, Kale, Collards, Rutabaga
* Cucumber/Squash Family (aka Cucurbits, *Cucurbitaceae):* Cucumbers, Summer and Winter Squash, Melons, Gourds
* Beet/Goosefoot Family (*Chenopodiaceae):* Beets, Swiss Chard, Spinach
* Nightshade Family (aka Solanaceous Crops, *Solanaceae):* Tomato, Pepper, Potato, Eggplant
* Legume Family (*Fabaceae*): Peas, Beans, Fava Beans
* Grass Family (*Graminaceae):* Corn

**Terms**

* Hybrid: Strategically bred by humans to encourage certain characteristics, such as disease resistance (e.g., “VFNT”), flavor, texture, etc.; a purposeful crossing of two types. Hybrids CAN be organic
* Open-pollinated: Insect- or wind-pollinated, or self-pollinated; pollinated without human intervention.
* Heirloom: Open-pollinated variety created prior to 1951
* GMO: Only certain crops have been genetically modified, and these are corn, soy, canola, sugar beets, squash, papaya, some potatoes, & some apples
* GMO seeds are not available to home gardeners
  + Monsanto owns Seminis seeds, and many garden catalogs/companies do sell Seminis seeds (including Johnny’s and Territorial). Gardeners wishing to avoid purchasing Monsanto-owned products can read more at this link: <http://12160.info/profiles/blogs/a-list-of-some-seed-companies-owned-by-monsanto-or-sell-monsanto> or at this link: https://www.smallfootprintfamily.com/where-to-buy-non-gmo-seeds
* GMO crops are sold as food at some stores (and are not labeled as GMO).
  + Because GMOs and organics are mutually-exclusive, you can guarantee avoiding consuming GMO crops (if you wish) by only buying organic corn, squash, papaya, potatoes and apples (at this time)

**Annuals, Biennials and Perennials**

Annuals go from seed to seed in the first year. Examples:

Biennials: 1st year is vegetative growth, 2nd year is flower/seed formation. Examples: carrots, onions, beets, kale. Home gardeners usually grow biennial crops to consume as food in the first year (e.g., eat the carrot) rather than to grow for seed in the second year.

Perennials grow year after year from the same root system (e.g., asparagus, rhubarb).

**Cool vs Warm Season Crops**

* Cool Season Crops: vegetables that grow best when the temperatures are about 60-65 degrees. These are crops that you plant in the spring (or in the late summer), such as peas, fava beans, lettuce and other salad greens, spinach, Swiss chard, kale, onions, leeks, carrots, turnips, beets.
* Warm Season Crops: vegetables that grow best during the summer months. These crops include summer and winter squash, tomatoes, peppers, eggplants, beans, corn, okra, melons, cucumbers.
  + Stores and catalogs will continue to sell seeds for tomatoes, eggplants and peppers well into spring and summer, well past the time when they need to be planted (indoors). Don’t be tempted! Know what the correct planting dates are for each crop.

**7 Top Crops for Ease & Success**

* Peas
* Radishes
* Salad Greens
* Tomatoes
* Snap Beans
* Summer Squash
* Cucumbers

**NOTES**: