

All Natural Vegetable Gardening – Wells Brothers Class 2.11.17

Location: Vegetables need at least 6 hours of sunlight, preferably morning sun.

Soil Preparation is key to getting results at harvest time. Productive soil should ball up or be too crumbly. Add compost to our native clay soil. Wells Brothers Custom Mix contains lava and green sand and compost. Mushroom compost is too high in sodium. All cotton grown in U.S. is GMO so cotton bur compost does not meet true organic standards. Organic Manufacturer Research Institute OMRI certifies products. (Texas Pure products have this certification.) Add dry molasses every time you plant as a carbohydrate for the micro-organisms. (Can be purchased in smaller quantities to avoid caking problem.) Cornmeal, wheat or rice bran are also carbohydrates. Humate is crushed lignite (coal). It is very messy, like black four, but enhances the uptake of nutrition by the plants. Our local soil generally has a pH of 8. Compost and sulfur help reduce the acidity to more desirable high 6 for a year. Takes about 6-8 weeks to make take effect. Azomite is a mineral supplement but should only be added if you've done a soil test and know that specific minerals are lacking. Prep soil 2-4 weeks before planting.

Fertilization: Always add slow release (not water soluble) fertilizer along with compost for long term feeding of the plants. Number ratings indicate nitrogen for plant growth (especially important for growing greens), phosphate and potash important for blooms and production. Bat guano had the highest natural N level, 10-3-1. Don't use corn gluten meal 9-0-0 as it is a pre-emergent and will prevent seeds from sprouting. Wells Brothers sells Planting Booster, a medium to give transplants extra support. Liquid fertilizer is immediately used through leaves (foliar spray) or roots. Garrett Juice is one example. Wells Brothers sells an enhanced compost tea for \$4.99/gal. if you bring your own container Friday mornings. It has a 48 hour shelf life. To make use of fresh chicken manure, install worm tubes: 6' PVC 6" diameter, drill holes in bottom 2' and bury 2' in the soil. Add chicken manure at the top and worms will compost it and make it usable to the plants.

Be proactive in the garden, not reactive: Consistency in watering and fertilizing (no spikes) will keep the plants healthy. Fertilize every 2 weeks during growing season. Check plants and soil regularly for signs of pests or disease. Remove diseased or infested parts or choose to leave as a bait plant, then rotated crop placement the following year. Scout every day and treat when needed. None of the organic pest products are selective. They will impact both pest and beneficial insects.

Squash vine bores: There is nothing natural to treat them. Squash the bugs as soon as them appear. Rotate plantings.

Tomato blight: Cut yellowed limbs off to re-direct the plant's energy rather than investing in an expensive copper-based fungicide.

Tomato blossom-end rot: Place 1 dried, crushed eggshell in the hole before planting the tomato to provide calcium to the plant.

Don't plant tomatoes where you've planted potatoes the previous year. Make a 3 year rotation.

2' fence best rabbit deterrent. Some have had luck by hanging or posting pieces of green Irish Spring Soap.

Try marking plot with fox urine as a rat deterrent.

Hang pie pans or old CDs or string fishing line above plants to deter birds.

Basil and mint (planting in pots) help repel mosquitoes.

Neem oil will smother insects.

Spinoza can be used for chewing insects.

Cedar mulch repels pest and beneficial insects.

Nutsedge: In the fall treat with dried 10 pounds of molasses for every 100 sq. ' , cover with 2-3 sheets of newspaper, mulch. In the spring the heat created from the compost will have killed the nutsedge.

Mulch 2.5" to help with moisture retention, 5" for weed suppression.

Additional resources: land grant college websites TX A&M, OU

Watering: Use drip irrigation to keep water off the leaves. Water based on moisture needs. If the soil is damp to the 2nd knuckle when inserting your finger, no additional water is needed.

Planting: Place 2-3 seeds per hole. Thin as needed.

Tomatoes: Determinate plants are bush plants that provide one crop and set fruit faster. Stagger the plantings. Indeterminates are vines that need support and provide continuous production and can be cut back mid-summer for additional vigorous fall harvests. Best tomato production from Celebrity, semi-determinate, and Sweet 100, an indeterminate cherry. Large tomatoes (sizes over 10 oz.) don't do well as they grow more quickly internally and create cracking in the skin.

Sweet potato slips can be purchased at North Haven Gardens.

Planting asparagus assume it will be a dedicated plot for 20 years.