

Gardening 101 - June 4, 2020

Online Class Outline with Resource Links

Today's Topics

- Great garden soil and healthy plants
- What to plant and when in OKC
- Pests and problems - how to deal naturally
- Your Questions

Starting from scratch

- Choosing a location
 - Minimum light requirements – 6 hours.
 - Access to water – Be sure your garden is close to a water source.
 - Resources on starting a garden from scratch:
 - <https://www.blackgirlswithgardens.com/start-a-garden/>
 - Local gardener Lia Woods talks about starting from scratch: <https://youtu.be/FORyQcNSukl>
 - Local outlets for materials listed on our website: <https://www.okcbeautiful.com/programs/oklahoma-city-harvest/march-2020-gardening-resources/m.blog/826/okc-resources-for-setting-up-a-garden-at-home>
- Type of gardens to consider:
 - Raised bed
 - Allows one to start with rich, friable soil
 - More ergonomic
 - Provides easier ways to exclude pests
 - Higher costs up front
 - Complete discussion of pros and cons: <https://homesteadandchill.com/raised-garden-beds-pros-cons/>
 - In-ground garden
 - Nothing to build
 - Requires time and inputs to improve soil
 - Less costs up front
 - Weed control may be more of an issue
 - Container gardening
 - Excellent option for small spaces
 - Smart Pot
 - Recycled materials
 - A container gardening Q and A plus many helpful links: https://www.youtube.com/watch?v=EsKqWyu_YnA
 - Videos about building various garden types:
 - Wooden frame: <https://youtu.be/ixEG1Kh-YjE>
 - Wooden frame: https://youtu.be/xC_Wa7Ovulq
 - Cinder block: https://youtu.be/MqFY_X0ltTc
 - Strawbale: <https://youtu.be/X56Fs5UT5uY>
 - Smartpots: <https://youtu.be/-LH0vGESZpQ>
 - Elevated gardens: <https://youtu.be/ZDe3Yxc0nZc>

Great garden soil → Healthy plants

- Healthy soil has good “structure” which means:
 - Lots of air pockets – don’t walk on your soil if you can help it.
 - Workable.
 - Retains moisture and allows good drainage.
 - Contains ample organic matter.
- Low quality soil has bad soil structure.
 - Compacted – Try not to walk on your soil.
 - Contains zero or low levels of organic matter.
- Healthy soil contains organic matter which is previously living plants and insects, ie. leaves, straw, mulch, compost.
 - Organic matter feeds soil microbes and decomposers which in turn improve “soil structure”.
 - Soil microbes and decomposers help the soil structure by adding glues that bind soil particles together into clumps.
 - Soil clumps (aggregates) allow for good air and water flow in soil.
 - Soil microbes and decomposers turn nutrients locked inside organic matter into food for plants
- How to build healthy soil.
 - It is an ongoing process of adding organic matter after every season to replenish what is taken from the garden.
 - Types of organic matter:
 - Compost
 - Benefits of compost:
 - Slow release of available nutrition for plants
 - Waste = Resource
 - Improves soil
 - Soil retains moisture AND drains better
 - Naturally fixes pH imbalances
 - Replaces conventional fertilizers
 - Fixes soil problems regarding moisture, pH, fertility
 - Come to our other compost classes
 - [Coffee + Compost DIY Worm Bin](#) June 17 at Dunlop Coddling on Film Row
 - [Composting 101](#) July 2 at 7 pm
 - Buying Compost in OKC
 - [CommonWealth Urban Farm](#) – locally made worm compost – \$11/1 gallon bags
 - [Fertile Ground](#) – locally made compost \$50/ cu. yard
 - [Minnick Materials](#) – locally made composts in bulk and more \$40 - \$50/cu. yard
 - [TLC](#) – Humalfa Nature’s Prescription ~\$12/1 cu. foot bag
 - [Organics OKC](#) – wide range of bagged options
 - [Home Depot](#) – Kellogg Brand \$8 bag. 2 cu. Feet/bag
 - Mulch – Never have bare soil if you can help it!
 - Cover crops – crops grown to be turned into the soil or at least keep soil covered.

What to plant when in OKC

- What do I want to grow?
 - Make a dream list.
- When do I grow it?
 - Knowing the right climate for your crops helps you avoid defeat, ie. planting Broccoli in April.
 - Central OK has two main seasons – warm and cool. Assign crops to the correct season.
 - More info on seasonality of crops for Central OK gardens on our website: https://www.okcbeautiful.com/uploads/documents/Seasonality_Info_for_Gardening_101_Class.pdf
 - Become familiar with best dates to plant, grow and harvest your crops:
 - https://www.okcbeautiful.com/uploads/documents/Central_OK_Garden_Planning_Guide_Warm_Season.pdf
 - https://www.okcbeautiful.com/uploads/documents/Approx_Planting_Dates_for_Central_OK.pdf
- How much should I plant?
 - Think about how many people you are wanting to feed
 - https://www.okcbeautiful.com/sites/okcbeautiful2/uploads/documents/HLA_6004web_OSU_Extension_Garden_Planning_Guide.pdf
- How much space do my crops need?
 - Knowing space requirements of plants prevents many problems from weeds and overcrowding
 - The right spacing allows crops to thrive.
 - https://www.okcbeautiful.com/sites/okcbeautiful2/uploads/documents/March_April_2020_Gardening_Resources_1.pdf
 - Online planners can help. There are many to choose from.

Pests and Problems – How to deal with them naturally and organically

- Bugs can eat and destroy our garden crops, but chemical pesticides are a band aid.
 - Pesticide treadmill refers to the need to use more and more chemicals as pests become more resistant.
 - Chemicals
 - Can kill off the soil microbes that we want to build up in our soil
 - Are linked to health problems such as cancer and reproductive difficulties.
 - Can hurt aquatic wildlife and cause other environmental problems.
 - Info about chemical pesticides:
 - <https://www.beyondpesticides.org/resources/eating-with-a-conscience/choose-a-crop>
 - <https://www.ewg.org/foodnews/summary.php>
 - <https://civileats.com/2017/03/13/new-un-report-pesticides-dont-feed-the-world/>
- Alternative Pest Control Plan
 - Healthy plants resist pests and diseases.
 - Pump soil with organic matter.
 - Always use least toxic pest control methods first.
 - **Cultural** – learning to identify pests, building healthy soil, crop rotation, companion planting.
 - **Mechanical** – hand picking pests, using covers, barriers and traps.

- **Biological and Botanical** – employ ladybugs as predators, sprays made from plant oils or benign bacteria.
 - **Chemical** – last resort.
 - Come to our [pest class](#) July 23, 2020 7 pm.
- Synthetic fertilizers do damage to our garden soil and environment.
 - They are ready-to-consume nutrients that are easily absorbed by plants.
 - What is not absorbed by plants leaches out into the environment and destroys balance in waterways.
 - Extreme growth of plants can make them more attractive to pests.
 - Can “burn” soil microbes.
- Alternative Fertilizer Plan
 - Feed plants by feeding the soil too.
 - Use organic options made from animal or plant products.
 - Kelp and fish emulsion are applied to leaves and soil.
 - All-purpose organic granular fertilizers such as Espoma line can be placed in the hole at planting time.
 - “Side dress” with compost.
- Local resources for organic pest control and fertilizers:
 - <https://www.okcbeautiful.com/programs/oklahoma-city-harvest/march-2020-gardening-resources/m.blog/826/okc-resources-for-setting-up-a-garden-at-home>
- Good irrigation can help plants thrive!



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[OKC Harvest](#) is the school garden support program of OKC Beautiful which enables students to experience hands-on learning through the transformative experience of planting, growing, and eating healthy food from their own school gardens. The garden-as-outdoor-classroom provides interdisciplinary learning that has far-reaching impacts on students’ physical, mental and emotional wellness. Through school gardens we are nurturing the next generation of environmental stewards who will be involved and active in helping to make Oklahoma City a beautiful, safe and healthy place to live.

