

Vegetable Garden Series, Part 4: Maintaining Your Vegetable Garden

Welcome to the fourth installment of our four-part vegetable gardening series. If you're just now joining us, click [here](#) to access the archives for the last three articles on the Tulsa Master Gardeners [website](#).

Last month we covered the planting phase of a new vegetable garden, including temperature and frost tolerance, planting times for your chosen vegetables, arranging plants in the garden, and other planting tips.

To recap, the following homework tasks were assigned (did you do them all?):

- ✓ Confirm the frost tolerance of your plantings
- ✓ Consult [The Mesonet](#) for local temperature averages and frost dates
- ✓ Finalize the arrangement - grouping, companions and space requirements before planting
- ✓ Plant, mulch and water in your plantings
- ✓ Document your journal

Now that your project garden is planted, be ready to enjoy the next phase of nurturing and maintaining.



Irrigation Tips and Methods

Plants require at least one inch of water weekly (from irrigation or rainfall) during May and June, increasing to two inches weekly in July and August. One inch of water penetrates approximately one foot of soil, and should increase as the roots grow and draw water from a greater area.

To determine how long to run a sprinkler to achieve one inch, place cans (tuna cans work well) within the spray pattern, and record the time to accumulate. Since water is usable only by the growing roots of a plant, watering deeply, less frequently, at ground level is preferable to frequent top-watering and can prevent foliar fungal diseases.

Overall, hand watering is best for smaller spaces. Squeeze a handful of soil from the rootball area of your plant. If it holds together, wait...if it crumbles, irrigate. For larger gardens, drip irrigation is a more efficient, water-saving process. From simple soaker hoses to higher tech options with timers and soil probing technology - even kits to convert your sprinkler system to drip - the choices are many.

Reference [this OSU composting and irrigation presentation](#) for irrigation ideas. Remember to consult [The Mesonet](#) site for rainfall information in your location.

Weed Control

Keep competition for light, water and soil nutrition in your favor. Weeds tap these resources quickly, so weed prevention (a good layer of mulch) and early pulling or shallow hoeing are the best control methods. Consult OSU Fact Sheet [HLA-6005](#) for some great tips on mulching garden soils.

Chemical controls can be tricky, as the weeds in vegetable gardens vary almost as much as the plantings...making it difficult to exterminate weeds without also taking out your heirloom tomatoes. Take special care in reading labels if you choose to use preemergents or selective herbicides.

Disease Prevention

Diseases in the vegetable garden are best prevented rather than treated. Non-chemical methods are extremely effective but require some advance planning and action.

Disease can come from living and nonliving sources, and can be prevented by employing the methods of **exclusion**, **resistance** and **eradication**.



❖ **Pathogens:** bacteria, fungi, soil-borne parasites.

These can be **excluded** from the garden by preventing their entry. Examine transplants for root galls or swelling (possible nematode infection). **Eradicate** any present infection using proper sanitation: remove and destroy known infected plants and their parts (and don't use them for compost), don't reuse infected potting soils, clean and sanitize tools and pots. Allow area to lie fallow and utilize crop rotation, alternating leafy vegetables with corn or grains once every three to five years.

❖ **Cultural factors:** Nutrient, light and water excess/deficiency, or immunity/predisposition to disease. Select plants naturally **resistant** to disease (e.g. tomatoes resistant to Verticillium and Fusarium wilt and Southern Root-knot Nematode ('VFN')). Consult [this OSU Fact Sheet](#) for examples of resistant vegetables that grow well in Oklahoma.

Insect Control

Insect pests are an inevitability in vegetable gardening. The most effective and environmentally friendly method of insect control is a practice called [Integrated Pest Management, or IPM](#).



The IPM approach utilizes preventative and management techniques with the least impact to the environment.

- ✓ Know your plant families and the pests that attack them
- ✓ Understand the life cycles of the pests
- ✓ Utilize the best controls for your known pests...at the best time of their cycle
- ✓ Observe, consider different methods, and journal your findings

To help develop your IPM strategy, bookmark and use these three great resources: [vegetable plant families](#), [vegetable pest activity calendar](#) and the OSU Fact Sheet, [EPP-7313: Home Vegetable Garden Insect Control](#).

Digging Deeper...

Vegetable gardening is a rewarding pursuit. If your curiosity grows faster than a tobacco hornworm can eat a tomato plant, you will find success. The learning never ends, and help is always available through the [Oklahoma State University Extension Office](#) and your local Master Gardeners Organization, [TulsaMasterGardeners.org](#).

Vegetable Garden Series: Complete Resources

Fact Sheets and Resources for Part 4: Maintaining Your Vegetable Garden

[HLA-6013: Summer Care of the Home Vegetable Garden](#)

[EPP-7652: Non-Chemical Methods for Controlling Diseases in the Home Landscape and Garden](#)

[HLA-6447: Conservation Biological Control for the Home Landscape](#)

[Composting and Water Needs of Vegetable Gardens](#)

[University of California Cooperative Extension: Vegetable Plant Families and Their Characteristics](#)

[HLA-6005: Mulching Garden Soils](#)

[Vegetable Pest Activity Calendar](#)

[HLA-6032: Vegetable Varieties for the Home Garden in Oklahoma](#)

[L-429: Integrated Pest Management \(IPM\) for the Home Landscape](#)

[EPP-7313: Home Vegetable Garden Insect Control](#)

Fact Sheets and Resources for Part 3: Planting Your Vegetable Garden

[Cornell University: Companion Planting](#)

[HLA-6004: Oklahoma Garden Planning Guide](#)

Fact Sheets and Resources for Part 2: Building Your Vegetable Garden

[Tulsa Master Gardeners: Types of Gardens](#)

[HLA-6033: Raised Bed Gardening](#)

[HLA-6458: Container Gardening](#)

[PSS-2264: Straw Bale Bed: A Way to Garden While Building Soil](#)

[HLA-6436: Healthy Garden Soils](#)

[Texas A&M: Soil Preparation](#)

[Oklahoma Gardening: Container Gardening With Vegetables](#)

[University of Illinois Extension: Successful Container Gardens](#)

[HLA-6036: Soil Test Interpretations for Vegetable Crops](#)

Fact Sheets and Resources for Part 1: Planning Your Vegetable Garden

[HLA-6440: Homeowner Garden Design Series - Planning the Landscape](#)

[HLA-6004: Oklahoma Garden Planning Guide](#)

[Texas A&M: Planning a Garden](#)

[Vegetable Varieties for the Home Garden in Oklahoma](#)