



HORTICULTURE TIPS



Division of Agricultural Sciences & Natural Resources * Oklahoma State University

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GARDEN TIPS FOR APRIL!

David Hillock

Vegetables

- Wait a little longer for it to warm up before planting cucurbit crops and okra.
- Plant vegetable crops in successive plantings to ensure a steady supply of produce rather than harvesting all at once.
- Cover cucurbit crops with a floating row cover to keep out insect pests. Remove during bloom time.
- Watch for cutworm damage and add flea beetle scouting to your list of activities in the vegetable garden.

Garden Planting Guide for Warm-Season Vegetables

<u>Vegetable</u>	<u>Time to Plant*</u>	<u>Days to Harvest</u>	<u>Method of Planting</u>
Bean, Lima	April 15-30	90-120	Seed
Beans, Green or Wax	April 10-30	50-60	Seed
Beans, Pole	April 10-30	60-90	Seed
Cantaloupe	May 1-20	80-100	Seed or Plants
Cucumber	April 10-30 or later	50-70	Seed or Plants
Eggplant	April 10-30	80-90	Plants
Okra	April 10-30 or later	60-70	Seed
Pepper	April 10-30 or later	90-110	Plants
Pumpkin	April 10-30	90-120	Seed
Southern Pea	May 1-June 10	85-100	Seed
Squash, Summer	April 10-30 or later	40-60	Seed or Plants
Squash, Winter	May 15-June 15	110-125	Seed or Plants
Sweet Corn	Mar. 25-April 30	80-100	Seed
Sweet Potato	May 1-June 10	100-120	Plants
Tomato	April 10-30	70-90	Plants
Watermelon	May 1-20	90-120	Seed

*These dates indicate planting times from southeast to northwest Oklahoma. Specific climate and weather may influence planting dates. For Cool-Season Vegetables, the soil temperature at the depth where the seeds are planted should be at least 40°F.

Fruit and Nut

- Don't spray insecticides during fruit tree bloom or pollination may be affected. Disease sprays can continue according to schedule and label directions. ([EPP-7319](#))
- Control cedar-apple rust. When the orange jelly galls are visible on juniper (cedar), following a rain, begin treating apple and crabapple trees with a fungicide. ([HLA-7319](#), [EPP-7611](#))
- Fire blight bacterial disease can be controlled at this time. Plant disease-resistant varieties to avoid diseases.
- Continue spray schedules for disease prone fruit and pine trees.

Tree and Shrub

- Proper watering of newly planted trees and shrubs often means the difference between success and replacement.
- Remove any winter-damaged branches or plants that have not begun to grow. Prune spring flowering plants as soon as they are finished blooming. ([HLA-6404](#), [HLA-6409](#))
- Control of powdery mildew disease can be done with early detection and regular treatment. Many new plant cultivars are resistant. ([EPP-7617](#))
- Leaf spot diseases can cause premature death of foliage and reduce plant vigor.

Flowers

- Most bedding plants, summer flowering bulbs and annual flower seeds can be planted after danger of frost. This happens around mid-April in most of Oklahoma. Hold off mulching these crops until spring rains subside and soil temperatures warm up. Warm-season annuals should not be planted until soil temperatures are in the low 60s.
- Harden off transplants outside in partial protection from sun and wind prior to planting.
- Let spring flowering bulb foliage remain as long as possible before removing it.

Lawn

- Warm-season grass lawns can be established beginning late April from sprigs, plugs or sod. ([HLA-6419](#))
- Fertilizer programs can begin for warm-season grasses in April. The following recommendations are to achieve optimum performance and appearance of commonly grown species in Oklahoma.
 - Zoysiagrass: 3 lbs N/1,000 sq. ft.
 - Bahiagrass: 3 lbs N/1,000 sq. ft.
 - Buffalograss: 2 - 3 lbs N/1,000 sq. ft.
 - Buffalograss/grama mixes: 3 lbs N/1,000 sq. ft.
 - Bermudagrass: 4-6 lbs N/1,000 sq. ft.
 - Centipedegrass: 2 lbs N/1,000 sq. ft.
 - St. Augustinegrass: 3-6 lbs N/1,000 sq. ft.

When using quick release forms of fertilizer, use one pound of actual nitrogen per 1,000 sq. ft. per application; water in nitrate fertilizers. ([HLA-6420](#))

- Mowing of warm-season lawns can begin now ([HLA-6420](#)). Cutting height for bermudagrass and zoysiagrass should be 1 to 1½ inches high, and buffalograss 1½ to 3 inches high.
- Damage from Spring Dead Spot Disease (SDS) becomes visible in bermudagrass ([EPP-7665](#)). Perform practices that promote grass recovery. Do not spray fungicides at this time for SDS control.
- Grub damage can be visible in lawns at this time. Check for the presence of grubs before ever applying any insecticide treatments. Apply appropriate soil insecticide if white grubs are a problem ([EPP-7306](#)). Water product into soil.

Landscape - General

- Hummingbirds arrive in Oklahoma in early April. Get your feeders ready using 1 part sugar to 4 parts water. Do not use red food coloring.
- Keep the bird feeder filled during the summer and help control insects at the same time.
- Lace bugs, aphids, spider mites, bagworms, etc. can start popping up in the landscape and garden later this month. Keep a close eye on all plants and use mechanical, cultural and biological control options first.
- Be alert for both insect pests and predators. Some pests can be hand-picked without using a pesticide. Do not spray if predators such as lady beetles are present. Spray only when there are too few predators to be effective.
- Schedule a group tour of The Botanic Garden at Oklahoma State University in Stillwater between the first of May and late October.

How Many Bedding Plants Do I Need?

David Hillock

Here is a simple way to avoid overbuying or underbuying the number of bedding plants you need for your flower beds. All it takes is some simple arithmetic.

First, measure the area of your garden and calculate its square footage (width x length = square feet). If the area is irregularly shaped – oval, round or long and winding – a rough estimate is good enough.



Next, use the chart below to estimate the number of plants you will need. You will probably want to get at least a few more than you will need, just in case some are damaged by weather, animals or pests.

Recommended Spacing	Number of Plants per Sq. Ft.
6 inches	4
8 inches	2.25
10 inches	1.44
12 inches	1
18 inches	.44
24 inches	.25

To figure out how many you actually need multiply the square footage of your bed times the number of plants per square foot based on the recommended spacing. For example, let's say your flower bed is 125 sq. ft. and the recommended spacing for the plants you are buying is 10 inches. Multiply 125 (sq. ft.) x 1.44 (number of plants per sq. ft. for 10 in spacing) = 180. You will need to buy approximately 180 plants for your bed.

Lawn Fertilizer Tips

Michael Kress and Justin Quetone Moss

April should be a good lawn and garden prep month with plenty of planting, weeding, and fertilizing. The actions you take now will pay off later for your garden and the environment. So, when you get ready to fertilize your lawn and landscape, remember the big do's and don'ts.

- Don't** guess.....**Do** soil test
- Don't** use heavy fertilizer treatments**Do** split fertilizer applications
- Don't** over fertilize acidic soil.....**Do** lime
- Don't** fertilize dormant grass.....**Do** fertilize growing grass
- Don't** fertilize walkways**Do** fertilize soil

Keep fertilizer in the soil and out of waterways. This will help minimize algal blooms later in the summer. Enjoy your green lawn, your fruitful garden, and your clear pond. For additional help, contact your county extension office; we're here to help.

Summer Weed Control: Preventing Unnecessary Mowing

Dustin Harris and Justin Quetone Moss

Although you may have already noticed annual weeds popping up in your landscape, it is not too late to prevent the troublesome grassy weeds that cause homeowners to mow more frequently in order to maintain a manicured lawn. Pre-emergent herbicides such as prodiamine, oxadiazon, and pendimethalin will prevent most grassy weeds from infesting lawns. Many broadleaf weeds have already emerged. These weeds can be treated throughout the growing season with a selective herbicide. Broadleaf herbicides often include dicamba, 2,4-D (2,4 dichlorophenoxyacetic acid or a related chemical), and/or MCPP (mecoprop). Proper application timing is necessary to prevent slow green up of bermudagrass lawns due to herbicide injury. As always, read the herbicide label and only apply according to directions. Grassy weeds can be more expensive and difficult to treat once emerged. Grassy summer weeds such as crabgrass and goosegrass are very difficult to control after emergence. Furthermore, the more mature the target plants are, the more difficult they are to control.

Elimination of these weeds before they fully mature enables landscapes to be maintained less rigorously, more efficiently, and with more aesthetic value. Save yourself from unnecessary mowing during the heat of the year by performing an easy task now.

Are My Peaches Going to Make This Year?

Becky Carroll

I often hear people say “my peach tree still has nice blooms so I think we missed the freeze damage”. Having pretty petals after a freeze event doesn’t mean that you will have pretty peaches or perhaps, any peaches. Peaches and other stone fruits bloom early and are often susceptible to damage caused by freezing temperatures. The temperatures that the fruit can withstand is dependent on the stage of the fruit development and also the health of the tree.

A dormant peach bud is more cold hardy than a fully open bloom. A fully dormant bud can withstand 30 minutes of temperatures at -12°F and have a loss of about 10% buds; at -18°F, 90% of dormant buds will be lost. This is when the tree is healthy and going into the winter under ideal conditions. On February 10, 2011, temperatures plummeted to -13°F at the Cimarron Valley Research Station. The peach trees had been under drought conditions for 2010 and 2011 and were stressed. After the freeze event, buds were killed and the entire crop was lost.



As the buds develop, they become more sensitive to freezing temperatures. At full bloom 10% kill will occur at about 27°F; and 90% crop loss at 24°F. Average full bloom at the research station at Perkins is March 20-25. The frost free date at that location is about April 15. That is 3-4 weeks for potential damage after bloom. We’ve lost crops even into early May with an extremely late freeze event. This year, Oklahoma has experienced very warm winter and spring temperatures, advancing the bud development even earlier than the normal mid-late March timeframe. Full bloom at Perkins this year was about March 7 almost 2 full weeks ahead of schedule. This opens up the possibility for more exposure to potential damaging temperatures. Looking at Mesonet temperature data, Perkins has recorded 29°F three times since the 7th, but damage may have occurred from a low temp of 23°F in late February.

Peach trees typically set far more buds than can be produced properly. Some bud loss will benefit with the need to crop load thin, but the ability to select the number of fruit to remain on the tree is best left up to us rather than hope the freeze does a good job but not too good. A peach about every 4-6 inches or even spaced at 8-10 inches will make for a full crop of well sized peaches.

About 24 hours after a freeze event, fruit buds or blooms can be assessed for damage. If the flower bud is dissected, you can see the different parts. If any of the parts are damaged, the fruit will not produce properly. If any part of the pistil (stigma, style or ovary) or stamen (anther, filament) show browning or if the ovary is soft instead of firm, the fruit will not make. I've seen some with ovaries that are bright green but the stigma and style are dried up. A good indicator is by cutting the flower in half and looking at the color of the ovary. A bright green or white is good, slight browning or dark brown is bad. You can assess the damage by cutting a number of flowers and determine the percentage alive. Remember if you have 10 - 20% of the good flowers, that may be enough to have a full crop.

I've included a link to CRITICAL SPRING TEMPERATURES FOR TREE FRUIT BUD DEVELOPMENT STAGES - <http://msue.anr.msu.edu/uploads/files/PictureTableofFruitFreezeDamageThresholds.pdf>. This page shows the development stages and temperatures that are important for each growth stage for apples, pears, apricots, peaches, plums, sweet and sour cherries. This is from Michigan State and Washington State publications.

Planting Trees

David Hillock

To ensure successful tree establishment, the following planting techniques and methods should be used.

When to Plant – The best time to plant most trees is spring or fall; however, many containerized trees can be planted any time if handled properly. Plants installed during the growing season are susceptible to high transpiration rates leading to drying of plant tissues.

- Early fall - best time for container-grown and balled & burlapped (B&B) trees.
- Mid-February through early April - bare-root.

Handling Trees before Planting – Avoiding unnecessary damage and stress to trees prior to planting will insure better success.

- Keep the rootball moist.
- Handle the tree by the container, not by the trunk.

Preparing the Hole and Planting the Tree – Preparing the planting area properly before planting is very important.

- *Do not* apply amendments to backfill.
- Dig the planting hole two to three times the diameter of the tree's rootball and no deeper than the rootball itself.
- Since most Oklahoma soils are clay, plant trees 1-3" above grade. Plant trees at original grade in sandy soil.
- *Do not* put crushed stone or gravel in the bottom of the hole!

- Remove the bag, container, and all strings and wires from the trunk!
The burlap of B&B trees may be left on to decay. Be sure to lay burlap back away from trunk and cover with soil.
- If roots are excessive and circling inner walls of the pot, score the outer edge of the rootball by slightly severing or scratching the root system.
Do not cut deeply into the rootball.



Backfilling the Planting Hole – Fill in the planting hole (backfill) with native soil and tamp lightly. Soil amendments are not necessary and may result in further complications such as root rot.

Fertilizing – A new tree has a very limited capacity for utilizing fertilizer until it becomes established. Heavy fertilization is not recommended at the time of planting. Excessive fertilizer in the root zone can be damaging. If fertilizer must be used at planting or in the first growing season, apply a controlled-release or liquid fertilizer at the lowest labeled rate.

Watering the New Tree – Newly planted trees should be watered well at the time of planting and during establishment. Natural rainfall is usually not adequate to provide the moisture needs of newly planted landscape trees.

Generally, young plantings need an equivalent of one inch of rain per week. Newly planted trees may need to be watered two or three times a week in extremely hot, dry, windy weather because their root systems cannot take up the amount of water needed to replenish the water lost through the leaves. Watch for signs of wilting as an indicator that the tree needs water.

Apply water slowly at the base of newly planted trees. This is especially important for container grown plants as their soilless mixes can dry while the bed or surrounding soil remains damp. If you have several young trees and shrubs, a drip irrigation system would be wise.

Be cautious not to overwater or the amount of oxygen in the soil will be lowered to a level that will damage roots. Make certain the timing and patterns of lawn watering systems are not overlapping into plant beds and too much water is being applied.

Mulching the New Tree – New trees should be mulched using an organic mulch 2-4” deep and 5-6’ in diameter; keep mulch at least 2-4” away from trunk of tree. Do not mound mulch up against trunk of tree. The benefits of mulching are:

- Create a weed and turf-free area.
- Reduced plant competition for water and nutrients.
- Regulate soil temperature and moisture.

Pruning the New Tree – Avoid overpruning new trees. Leave the lower limbs intact if possible. Remove injured or diseased branches only. Overpruning may result in sunscald and inhibit tree growth.

Trunk Protective Materials – Protective wraps provide physical protection against lawn mower and weed-eater damage.

Protective wraps also provide protection by regulating temperatures and bark moisture for thin-barked trees such as ash, birch, linden, and maple.

If misused, however, damage may occur from trunk girdling or constriction, insects, diseases and excessive moisture.

- Protective wraps may not be necessary at planting time. Use wraps based on type of protection needed.
- Normal application of tree trunk wraps is October – March for the first two growing seasons.
- Remove wraps each spring prior to spring growth.
- Wrap loosely from the base of the tree up to the first branch by overlapping for shingle effect.
- Plastic guards should fit loosely and include holes or slits.
- Inspect for damage and insects and spray for borers when necessary.

Staking Trees – Stake young trees sparingly and briefly when possible. In fact, prolonged staking can have detrimental effects on the development of the tree. Too often, staking materials end up injuring or girdling the tree.

Stake trees when top-heavy or planted in windswept areas. The material used to attach the tree to the stake should be broad, smooth and somewhat elastic. Do not stake the tree too rigidly. Always allow for sway. Tight or prolonged staking results in an overall weaker tree that is more subject to girdling. Triple staking provides more protection against strong wind and lawn mowers. Support stakes and guy wires generally should be removed after one growing season. If staking is left in place for more than two years the tree's ability to stand alone may be reduced, and the chances of girdling injury are increased.



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