

April Hort Tips

Garden Tips for April

David Hillock

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. ([EPP-7319](#), [HLA-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.

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

Vegetable
Time to Plant*
Days to Harvest

Method of Planting

Bean, Lima
April 15-30
90 to 120
Seed
Beans, Green or Wax
April 10-30
50 to 60
Seed

Beans, Pole
April 10-30
60 to 90
Seed
Cantaloupe
May 1-20
80 to 100
Seed or Plants

Cucumber
April 10-30 or later
50 to 70
Seed or Plants
Eggplant
April 10-30
80 to 90
Plants

Okra
April 10 - 30 or later
60 to 70
Seed
Pepper
April 10 - 30 or later
90 to 110
Plants

Pumpkin
April 10 - 30
90 to 120
Seed
Southern Pea
May 1 - June 10

85 to 100
Seed

Squash, Summer
April 10 - 30 or later
40 to 60
Seed or Plants
Squash, Winter
May 15 - June 15
110 to 125
Seed Plants

Sweet Corn
March 25 - April 30
80 to 100
Seed
Sweet Potato
May 1 - June 10
100 to 120
Plants

Tomato
April 10 - 30
70 to 90
Plants
Watermelon
May 1 - 20
90 to 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.

Landscape - General

- Hummingbirds arrive in Oklahoma in early April. Get your bird 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.

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./year
Bahigrass: 3 lbs N/1,000 sq. ft./year
Buffalograss: 2 - 3 lbs N/1,000 sq. ft./year
Buffalograss/grama mixes: 3 lbs N/1,000 sq. ft./year
Bermudagrass: 4-6 lbs N/1,000 sq. ft./year
Centipedegrass: 2 lbs N/1,000 sq. ft./year
St. Augustinegrass: 3-6 lbs N/1,000 sq. ft./year

When using quick release forms of fertilizer, use 1 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 1 ½ 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.

Tomato Varieties - How to Choose?

Casey Hentges, *Oklahoma Gardening* Host

The tomato...it is the king of the vegetable garden. It is something we eat year round, but when we eat one fresh from the garden each year, we are reminded that what we have been eating all winter just isn't the same.

Tomatoes are the one plant we are more likely to plant in the garden ahead of time in hopes to get fruit a little sooner. But how do you choose which variety of tomato to grow in your garden?

Choosing a tomato variety depends on a few factors – function, forum, flavor, and resistance.

For function, think about how you are going to use the tomato fruit. Do you want a large tomato to make slices for your sandwich or burger such as 'Big Beef' or 'Brandywine', or do you want small cherry tomatoes that you can nibble on in the garden or add to a salad such as 'Sungold' or 'Super Sweet 100'? Keep in mind though these smaller tomatoes are going to require more picking but are also great if you like to snack in the garden. There are also tomatoes such as Milano and Roma that are better suited if you intend to make tomato paste.

Next consider the forum or location you plan to grow these tomatoes. Perhaps you want something that will stay small, one that will be perfect for a whiskey barrel or patio garden. In this case, you want to make sure you are getting a tomato that is a determinate tomato or a bush tomato. This means the size of the

plant will stay relatively smaller and in check. However, it also means they have a set harvest period and will eventually quit producing fruit. ‘Celebrity’ is a determinate, slicing tomato.

Indeterminate tomatoes are plants that appear to be more of a vine as they continue to grow throughout the season. These often require staking or some form of trellis support. However, they will continue to produce for you as long as they are in a favorable environment. ‘Better Boy’ would be an example of one that is a vining, indeterminate tomato.

If you read seed catalogue descriptions about various tomatoes, you may think you are reading wine description and it is true each tomato has its own unique flavor and only you can determine which you like. If you are looking to find your favorite, you might try adding a new type to garden this year, or you might visit your local farmers market to check out the varieties and reap the rewards of their hardwork. This is a great way to quickly narrow down what you might like or not like without investing all the effort of growing the plants. I can guarantee there are many more varieties available to grow than what you will find available to purchase at the supermarket.

Finally, resistance – specifically disease resistance. When it comes to tomatoes, I think part of what makes them taste so good, is the effort that goes into them. Some years this is more effort than other years, but nevertheless, we do have some diseases that can attack our precious plants. If you want to reduce the risk of your plants succumbing to these diseases, then you might look at some of the popular hybrids that have been bred for resistance. Often this will be right on the label, when you are purchasing the seed or plants. You will see the plant name and some letters and numbers follow it. For example, ‘Big Beef’ will have VNF₂AST after the name. This means it has resistance to verticillium wilt (V), nematodes (N), fusarium wilt (F) races 1 and 2, alternaria stem canker (A), gray leaf spot (S), and tobacco mosaic virus (T).

What really sets a homegrown tomato apart from commercially produced ones is that you get to determine which factors are most important to you. Many commercially produced tomatoes are grown based on disease and fungus resistance, how they handle transportation, and the end products aesthetics – after all we all learn at an early age that a tomato is red. But they aren’t always supposed to be. When you grow your own, you can make flavor your number one priority if that is what you are most concerned with and I know many people who would argue their favorite tomatoes are not necessarily red, but instead yellow, purple, green or even striped.

Oklahoma Gardening Video - <https://youtu.be/BCw2WIWJLjQ>

Fact sheet [HLA-6012](#) – Growing Tomatoes in the Home Garden

Using Bedding Plants in the Landscape!

David Hillock

Bedding plants or annuals continue to be a garden favorite because they can provide a full season of color and interest. They also have many uses, to name a few – temporary ground covers, hanging baskets, containers, dried flowers, cutting gardens, wildflower gardens, bedding plants, etc. The following tips will help to ensure a successful and stunning display.

Bed Preparation: The real key to a successful planting is proper bed preparation. Remove all debris and gain control of weeds before planting. Choose a suitable site: i.e. – sun, shade, close to a water source, and away from shallow rooted trees and shrubs which compete for water and nutrients. Soil tests are recommended to determine proper amounts of fertilizer to apply. Often gardens need only applications of nitrogen. Amend soil by incorporating 3 - 4” of composted organic matter into the area; this improves soil aeration, improves drainage, encourages healthier root systems, and is easier to plant and manage. Spade or

till in the organic matter at least 6" deep. After planting, apply a light mulch a couple inches thick if necessary. Mulches can aid in shading out weed seed as well as moderating soil temperatures and moisture.

Timing: In Oklahoma, planting times will vary some depending upon which part of the state you live in. In the north central portion of the state the middle to latter part of April is the time to begin planting many of the annuals available in your garden center or nursery. Southeast residents may be a week earlier and northwest residents may be about a week later. Remember that these planting times are based on average last frost dates. The planting of flowers like *Catharanthus roseus* (Annual Vinca) should be delayed until warmer weather is sure to stick around and the soil temperatures are at least 65°F or better.

Design - A Living Bouquet: While the following are not necessarily hard and fast rules and may create a bit of a challenge for some of us, it is certainly worth the time and effort when the right "combination" is achieved. Take time to plan the design properly. Take into consideration cultural requirements, principles of color, and placement of different species. Also, don't be afraid to copy what others have already proven to be successful.

Avoid planting monocultures (beds with all of the same species e.g. – all vinca or all marigold, etc.) or monochromatic gardens (all one color). Instead, try combining several annual species into one design. The benefits of mixing several species together are twofold: 1) it adds interest (height, color, and texture differences) to the garden and is pleasing to the eye. While the flower and color in themselves are beautiful, using just one flower and/or color will not hold ones interest for very long. 2) At the same time, you protect yourself from total failure due to a pest particular to one species that could wipe out the whole bed. Mixing species and/or cultivars provides genetic diversity, which reduces the chances of an insect or disease to become well established in a bed.

Group plants that have the same cultural requirements to increase success; make sure you select those species best suited for the site i.e. sun, shade, wet, or dry ([HLA-6425](#)). Do not place plants that thrive in cool, moist shade into a bed in full sun and little water.

Working with colors can be tricky, but by using the following principles and tips, and some practice, you will soon be creating some wonderful bouquets.

- The color wheel is divided into cool and warm hues, using three primary colors – red, yellow and blue. Cool colors such as blue, green and violet are subdued. Warm colors such as red, yellow and orange tend to catch the eye more easily.
- Color groupings can be harmonious or contrasting. Hues are particular shades of colors. Hues in any neighboring group on the color wheel are harmonious or analogous. Complimentary contrasts are formed by choosing colors opposite each other on the color wheel.
- A successful design will have a balance of analogous and complimentary contrasts.
- White, silver or gray, and yellow should be used sparingly since they have a tendency to drown out the rest of the design. These colors can be used as a "sparkle" and in general should not make up more than 10 percent of the composition.

In general, flowers need to be planted in drifts or clumps large enough to make a visual difference when viewed from the farthest vanishing point. Of course this may not be practical as dictated by the pocket book. But large masses of flowers are more dramatic and satisfying.

Color balancing and strategically placing the dominant colors in the composition or throughout the garden will lead the eye from one end of the bed or garden to the next.

Color balancing can be used to trick the eye into thinking that the garden is deeper or larger than it really is. By using bright strong colors close to the viewer, and then getting progressively bluer and grayer and lighter as you go further back, you can create the illusion of depth.

Height differences can also be used to exaggerate depth by emphasizing the height differential between the little plants in front and the tall ones in the back. The ever-increasing height allows more of each color to be seen enhancing the overall effect.

In general, small or short plants are placed in the front and tall ones in the back. However, more interest can be created by bringing some of the tall plants closer to the front and pushing short ones toward the back. Some successful combinations for partial or light shade might include: begonia, impatiens, lobelia, wishbone flower and a touch of marigolds for sparkle; for sun you might use combinations of: blue salvia, summer snapdragon, vinca, Joseph's coat, and use zinnia and dusty miller for sparkle.

How Many Bedding Plants Do I Need? – Avoid overbuying or under-buying the number of bedding plants you need. All it takes is some simple arithmetic.

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.

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 square foot

- 6 inches/4
- 8 inches / 2.25
- 10 inches / 1.44
- 12 inches / 1
- 18 inches / .44
- 24 inches / .25

Example: A 125 sq. ft. garden, using plants recommended to be spaced 10 inches apart would need approximately 180 plants.

The above information is only the tip of the iceberg. For more information and ideas look for books that discuss the principles of design and color and study them, or visit your local public gardens or retail garden centers for their expertise. Oh and don't forget, Have Fun!

Pest Control in the Landscape and Garden

David Hillock

It is not uncommon to see insects such as aphids already on plants in the landscape and garden; I usually ignore them. Most likely there will be some natural predators around, like lady beetles, and they will probably take care of the problem without having to reach for the insecticides. Doing frequent scouting through the landscape and garden is a good practice to get into. Most insect and disease problems can be handled without pesticides if you catch them early enough. Insect control can often be done by cultural and mechanical methods such as crop rotation, handpicking, a hard stream of water or using barriers like row covers and collars to protect young stems of plants. Using resistant varieties whenever they are available is highly recommended. Insecticide products that are safer for the environment are also available for different situations; use these whenever possible.

Resistance, Our First Defense to Pests: One of our best defenses to common pest problems in the garden and landscape is plants with natural resistance. By selecting varieties of plant species, or species that are inherently resistant to common pest problems, the use of pesticides needed to keep our plants looking good can be reduced.

When buying seeds or plants, try to choose those with built-in resistance to diseases, insects, and nematodes. Sources for this information include OSU Extension Fact Sheets, seed catalogs, and plant and seed packages. It may be better to forego some production capability in favor of the increased pest resistance, if you must make such a choice.

During the growing season, stressed plants can lose their resistance to pests, so be sure the crop has the water and nutrients it needs. When shopping for seeds and plants, check the labels for indications of pest resistance. For example, many garden phlox and crapemyrtles are susceptible to powdery mildew fungal disease; however, several varieties are available that are resistant to powdery mildew. When purchasing vegetables, check labels or packaging for abbreviations similar to these, used to designate various types of pest resistance or tolerance:

- A—*Alternaria* stem canker
- ALS—angular leaf spot
- ANTH—anthracnose
- CMV—cucumber mosaic virus
- DM—downey mildew
- F—*Fusarium* (race 1)
- FF—*Fusarium* (races 1 & 2)
- L—leafspot
- MDM—maize dwarf mosaic
- N—nematode
- NCLB—northern corn leaf blight
- PM—powdery mildew
- SCLB—southern corn leaf blight
- St—*Stemphylium* (gray leaf spot)
- SW—Stewart's wilt
- TMV—tobacco mosaic virus
- V—*Verticillium*

Common Questions about Composting

David Hillock

What is Compost?

Compost is a natural dark brown humus-rich material formed from the decomposition or breakdown of organic materials such as leaves, grass clippings, vegetation, vegetable food scraps, and twigs. Bacteria, worms, fungi, and insects need water and air to use the organic materials as food and decompose them.

What is the Procedure to Make Compost?

Organic materials are placed in alternating green and brown layers in a container, bin, or pile. Alternating green and brown layers of material help assure the correct carbon and nitrogen amounts. With water and air, bacteria and insects use the materials as a food and energy source. The bacteria need water to live and grow. This process generates heat from 140 to 160 degrees F. Aeration is done by turning the container or

pile of material. The more turning, the more air the bacteria have available, and the faster the process works. When the temperature decreases, the process is complete.

How is a Compost Bin Made?

Bins may be made in various sizes and with a variety of materials. The following easy steps describe compost pile construction:

1. Construct a confining perimeter with 3' to 5' diameter and 4' high. Materials may be concrete blocks, railroad ties, wire mesh, boards, old pallets, other fencing material, barrel or garbage can with holes for air.
2. Layer green (wet) and brown (dry) vegetable matter (1 part green to 3 parts brown).
3. Wet thoroughly, then sprinkle with water periodically.
4. Turn every week to speed the decomposition process.

How Long Does it Take Compost to Form?

The time of completion will vary according to the type and amount of materials used, the climate, the size and type of bin or pile used, and the amount of aeration or turning of the pile. With the correct carbon to nitrogen ratio, water, and air, compost should be ready to use in 4-6 months. If the pile is turned more frequently, the compost should be ready more quickly. The smaller the individual pieces of material in the pile, the more surface area the microorganisms have to work on and the faster the materials will decompose. Shredding or chipping branches decreases the decomposition time.

When is the Compost "Done?"

Compost is ready when the temperature of the pile falls to ambient levels, the material is dark, crumbles easily, pieces are small and there is no odor.

How can the Process be Sped Up?

Mixing frequently provides more air for the bacteria. Keep the material moist with soaking about once a week. Break the materials into smaller pieces.

What can be Composted?

- Most yard waste such as grass clippings, leaves, twigs, excess vegetation
- Non-fat containing food scraps
- Twigs or chipped branches
- Coffee grounds, tea leaves

Almost any organic kitchen waste like food scraps and paper can be composted.

What cannot be Composted?

- Large branches
- Fatty foods and grease, meats, dairy products, fish
- Bones

- Synthetic products such as plastics
- Diseased plants
- Weeds and vegetables that produce abundant seeds
- Pet or human waste

Meat, bones and foods high in fats and oils can generate foul smells and attract insect and animal pests. When the compost process is done properly it should generate enough heat to kill most weeds and many weed seeds. Weeds with large storage roots like nutsedge and greenbriar should be left out or dried and chopped into small pieces to lessen chance of survival.

Can Composted Pecan Leaves be Safely Used in the Garden?

While pecans are related to black walnut, which can secrete a compound deadly to some garden and landscape plants, any toxic substances in pecan and other plant leaves is broken down and leached out through the composting process. So there should be no reason to worry about using the compost in the garden.

Should a Compost Activator or Starter be Used?

Compost activators (packaged dehydrated bacteria) and starters (usually quick forms of nitrogen) are generally not needed to successfully compost. The organic matter and soil used in a compost pile have more than enough microorganisms present to start the compost process. Adding a scoop of garden soil to the compost will also work sufficiently as a compost activator. Small amounts of nitrogen fertilizer can be added to piles with high carbon materials, but generally are not needed. If nitrogen seems to be lacking, just add some more green material from the garden.

Why Make Compost?

- Recycle natural materials
- Reduce amount of chemical fertilizer used
- Reduce amount of material going to landfills
- Reduce landfill tipping fees for individuals or communities
- Prolong landfill life

What can Compost be Used For?

- Improve soil structure and texture
- Increase water-holding capacity of sandy soil
- Loosen clay soil and improve drainage
- Add nutrients to improve soil fertility
- Aid erosion control
- Potting soil
- Mulch around landscape plants to retain moisture

For more information about composting and improving garden soils see OSU Fact Sheets below:

- [HLA-6448](#) – Backyard Composting in Oklahoma
- [BAE-1742](#) – Vermicomposting–Composting with Worms
- [L-252](#) – Don't Bag It: Leaf Composting
- [HLA-6007](#) – Improving Garden Soil Fertility
- [HLA-6436](#) – Healthy Garden Soils

Redbud: Oklahoma's State Tree

David Hillock

Spring is a fantastic time of year as many plants begin to emerge out of their winter slumber. Spring flowering plants are particularly noticeable with their brightly colored flowers. One in particular that is found growing throughout the state that stands out because of its rosy pink flowers that appear before the leaves is the eastern redbud. Maybe this is why it is designated as the state tree.

Eastern redbuds are often found growing along the edge of forests as an understory tree where it is quite happy, but it will tolerate full sun just as well. Leaves of the redbud are heart-shaped and bright green. The tree forms a spreading, graceful crown reaching a height of about 20' to 30' with a 25 to 35' spread. It is not too picky of its soil, but does require well-drained soil.

Redbuds have wildlife value too, the early blossoms draw in nectar-seeking insects, including several species of early-season butterflies. Northern bobwhite and a few songbirds, such as chickadees, will eat the seeds. It can be used for nesting sites and nesting materials, and it also provides shelter for birds and mammals.

Native to North America and Canada with cousins in Europe and Asia, this tree was noted by Spaniards who made distinctions between the New World species and their cousins in the Mediterranean region in 1571. Centuries later, George Washington reported in his diary on many occasions about the beauty of the tree and spent many hours in his garden transplanting seedlings obtained from the nearby forest.

Several varieties or versions of the eastern redbud naturally occur, but the industry has also developed some great new cultivars too. The Oklahoma redbud (*Cercis canadensis* var. *texensis* 'Oklahoma') is a compact 10 to 12 foot tree at maturity. Flowers are deep purple and the leaves are similar to eastern redbud except they are thick, lustrous, shiny, and dark green. 'Forest Pansy' and Burgundy Hearts® are purple foliage selections; 'Covey'/Lavender Twist is a weeping redbud and 'Ruby Falls' is a purple-leaved weeper of similar size. White-variegated leaf forms such as 'Floating Clouds' and 'Silver Cloud' are available and new golden-foliage type redbuds have hit the market including 'Merlot,' 'Hearts of Gold,' and the orange-tinted Rising Sun®.

So if you are looking for a great, small ornamental tree for the landscape consider the tough and beautiful eastern redbud and its wonderful selections.