

Horticulture Tips

February 2022

Oklahoma Cooperative Extension Service
Division of Agricultural Sciences and Natural Resources
Department of Horticulture & Landscape Architecture
Oklahoma State University

GARDEN TIPS FOR FEBRUARY!

David Hillock, Consumer Horticulturist

General

- Base any plant fertilization on a soil test. For directions, contact your county Extension Educator.
- Provide feed and unfrozen water for your feathered friends.
- Clean up birdhouses before spring tenants arrive during the middle of this month.
- Avoid salting sidewalks for damage can occur to plant material. Use alternative commercial products, sand or kitty litter for traction.
- Join *Oklahoma Gardening* on your OETA station for the start of its season beginning in February. Saturdays at 11:00 a.m. and Sundays at 3:00 p.m.

Trees & Shrubs

- Fertilize trees, including fruit and nut trees and shrubs, according to a soil test. ([HLA-6412](#))
- Most bare-rooted trees and shrubs should be planted in February or March. ([HLA-6414](#))
- Finish pruning shade trees, summer flowering shrubs and hedges. Spring blooming shrubs such as forsythia may be pruned immediately after flowering. **Do not** top trees or prune just for the sake of pruning. ([HLA-6409](#))
- Look for arborvitae aphids on many evergreen shrubs during the warmer days of early spring.
- Gall-producing insects on oaks, pecans, hackberries, etc. need to be sprayed prior to bud break of foliage.
- Dormant oil can still be applied to control mites, galls, overwintering aphids, etc. ([EPP-7306](#))

Fruit & Nuts

- Spray peaches and nectarines with a fungicide for prevention of peach leaf curl before bud swell. ([EPP-7319](#))
- Mid-February is a good time to begin pruning and fertilizing trees and small fruits.
- Collect and store graftwood for grafting pecans later this spring.
- Begin planting blackberries, raspberries, strawberries, grapes, asparagus, and other perennial garden crops later this month.
- Choose fruit varieties that have a proven track record for Oklahoma's conditions. Fact Sheet [HLA-6222](#) has a recommended list.

Turf

- A product containing glyphosate plus a broadleaf herbicide that are both labeled for this use can be used on **completely tan dormant** bermudagrass in January or early February when temperatures are above 50°F for winter weed control. ([HLA-6420](#))

Vegetables

- Cool-season vegetable transplants can still be started for late spring garden planting.
- By February 15 many cool-season vegetables like cabbage, carrots, lettuce, peas, and potatoes can be planted. ([HLA-6004](#))

Flowers

- Force spring flowering branches like forsythia, quince, peach, apple, and weigela for early bloom indoors.
- Forced spring bulbs should begin to bloom indoors; many need 10-12 weeks of cold, dark conditions prior to blooming.
- Feed tulips in early February.
- Wait to prune roses in March.

2022 Pecan Management Class Brochures Available

Becky Carroll, Associate Extension Specialist, Fruit & Pecans

The 2022 Pecan Management Course signups have begun. Brochures are available online at <http://okpecans.okstate.edu/pecan-management-course>. With expert speakers from OSU, the Noble Research Institute, and the pecan industry, class members get a well-rounded program of presentations and hands on activities.

The courses are scheduled so that management items can be addressed each month at the appropriate times. Class members have the opportunity to learn about growing pecan rootstock trees or grafting by actually participating in the process. Cimarron Valley Research Station personnel demonstrate equipment and share management techniques that are used at the site. Students learn about everything from business management to pest control to cultivar selection. Those class members with good attendance will receive a certificate of completion.

The fee for the 9-month course is \$250 per person. The classes meet north of Perkins at the research station once a month from March through October for pecan, except for June when participants are encouraged to attend the annual Oklahoma Pecan Growers' Association meeting. The meeting times are on Tuesday afternoons from 1 – 5 pm. *County extension educators are welcome to attend the course for in-service credit and at reduced cost.*

The 2022 pecan class will begin on March 1. Deadline for registration is February 18. Class size is limited to 35 students. If you would like to enroll in the class or know someone that would benefit from brushing up their management skills, please have them go to this link to access the brochure and on-line registration. <http://okpecans.okstate.edu/pecan-management-course>. If you have other questions concerning the class, please contact Becky Carroll at becky.carroll@okstate.edu.

Pecan Graftwood Source List Available

Becky Carroll

Pecan grafting season usually begins in Oklahoma during late April and through May but securing graftwood should begin earlier. To be able to find the cultivars that growers need, ordering from a supplier may be necessary. Getting their order in early will help the supplier to know what inventory they will need to collect and what types of cultivars are wanted. Sometimes they can collect other cultivars not listed if contacted early.

Here is a link to the updated 2022 graftwood source list – <http://okpecans.okstate.edu/PDFs/graftwood-source>. If you know of others that would like to be added to the list, please email becky.carroll@okstate.edu.

Soil Testing...the Right First Step

David Hillock

We all appreciate thick green lawns and lush productive gardens around the home. After all, attractive lawns and gardens add to both the aesthetic value and real value of our homes.

To achieve a high level of lawn quality and garden productivity, it is necessary to add fertilizer on a timely basis. When lawns and gardens don't receive the amount of fertilizer that they need, they never achieve the quality or productivity we anticipate. When too much fertilizer is applied, nutrients are wasted and pose a threat to the environment.

The true value of a soil test is to help ensure that only needed nutrients are added in quantities which don't adversely affect environmental quality.

The best time to test the soil is during a time when plants aren't growing, although any time of year is satisfactory. In any case it is better to have the soil tested rather than guess which fertilizers to use and how much to apply. To make sure the test is accurate, sample the soil before fertilizer has been applied and follow proper collection procedures.

A soil test is only as good as the sample submitted for testing. Samples collected should represent the lawn or garden as a whole. The following steps will help in collecting good samples for submission.

- Scrape plant debris from the soil surface before sampling.
- Sample lawns to a depth of 3-4". Sample gardens to a 6" depth.
- Use a clean bucket or other container and a soil probe or spade; collect cores or slices of soil from at least 15 different areas scattered throughout the lawn or garden and mix them together in the container.
- Mix soil thoroughly and fill the sample bag (bag can be obtained from your OSU County Extension Office) with a pint of the mixture.

- Submit samples and completed information sheet to your OSU County Extension Office. They will send samples into the OSU Soil, Water, and Forage Laboratory for testing and then help you interpret the results.

The benefits of soil testing are many – it takes advantage of nutrients already in the soil, identifies nutrients that are lacking, reduces fertilizer applications, provides a proper balance of plant nutrients, allows adjustment of soil pH to an optimum level, and reduces chances of excess nutrients getting into the water sources.

For more information about soil testing contact your OSU County Extension Office or pick up the leaflet [L-249](#) – Soil Testing...the First Right Step.

Planting Bare-Root Trees and Shrubs

David Hillock

Bare-root plants can be purchased in winter and should be planted in February or March. Bare-root or packaged plants should be dormant (not showing new growth). The bare-root plant is often prepackaged in a colorful bag. Open the bag immediately and dampen the roots until planting. At planting remove all bags, strings or wires.

Never leave roots exposed to air. Very fine root hairs, which are not visible to the naked eye, are responsible for moisture and nutrient uptake and are killed when exposed to dry air for even a very short period. Keep the roots damp and covered while preparing the planting hole to protect the fine root hairs.

Trees and shrubs should be planted at the same depth at which they were growing in the container or field nursery. There is a texture and color change between the trunk or stem and the roots. The base of the plant should not be covered with more than about one inch of soil. Planting too deep is a major cause of plant failure, especially in poorly drained clay soil.

Holes for bare-root plants should be dug large enough to accommodate the roots without crowding or twisting. The hole should be no deeper than the original root depth and at least twice the spread of roots. Broken and badly damaged roots should be removed. A mound or cone may be made in the center of the hole to accommodate the spread of roots and allow the tree or shrub to rest at the proper depth while backfilling the hole.

Weed and Feed Products

David Hillock

The concept of combining an herbicide and a fertilizer to “kill two birds with one stone” may be good in theory but may not work in every situation. Several potential problems exist when using this approach.

The first is that the timing for herbicide application and fertilizer application are usually not in sync. Some weed and feed products contain preemergence herbicides that control weeds as they germinate and are best applied before late February depending on weather conditions. Fertilizer applications for warm-season grasses such as bermudagrass should not go on until the first of May. See the problem?! The two really need to be applied at different times; so, using a weed and feed blend on bermudagrass in later winter/early spring is not advised.

Second, the selection of formulations for weed and feed blends is much more limiting than if one were choosing only a fertilizer. Fertilizer formulations are much more diverse because fertilizer companies make many more types. Most companies that produce weed and feed products only make one type, not allowing one to consider special nutrient needs that may have shown up in a soil test, i.e., a need for less or more phosphorus. Once again it is obvious that the best approach would be to apply weed killer and fertilizer separately. (Note also: Types of weed killer used in weed and feed blends is also limited compared to the many formulations available without fertilizer.)

Third, there is more chance of over-application or misapplication of the weed killer. Because tree and shrub roots can also absorb many of the herbicide products, care in applying the herbicide is very important. In fact, many of the herbicide products state that they should not be applied where roots of desirable trees or shrubs are growing. Research has shown that the roots of many tree species extend well beyond the dripline of a tree. So how does one apply an herbicide to turf areas with trees growing in or near them? By using separate fertilizer and herbicide products and avoiding weed and feeds. Another common problem is overthrow of the product into areas that have sensitive plants growing in them such as flower and shrub beds. This is usually a result of using the wrong equipment such as the use of a broadcast spreader rather than a drop or gravity spreader. Once again, it makes good sense to apply products separately allowing for more accurate rates and distribution.

And fourth and last, why treat healthy grass with something it does not need and could potentially weaken it? By the way, a weakened turfgrass is more likely to have weed problems. Spot treat only the weed prone areas.

The real way to address weed problems is to start with improving turf management. A vigorous, healthy lawn can choke out most weeds. For information on recommended turfgrass management practices see [HLA-6420](#) – Lawn Management in Oklahoma.

Applying Dormant Oils for Winter Insect Control

David Hillock

For home gardeners and fruit growers an important insect management tool is dormant oil application. Dormant oil is a refined petroleum product formulated for use on trees and shrubs. This refers to the time of application which should be late winter or early spring. Applications should be made when temperatures are above freezing and before bud swell and bud break before new growth forms. Ideal temperatures are between 40 and 70 degrees.

If applied too early, before hardening off, the trees can sustain winter injury. Also, if the temperature is too low the oil will not mix well in solution, and you will not get adequate coverage needed to control overwintering insects. Late February through March should be a good time to make these applications, although check the weather and make sure there will not be any freezing temperatures or rain for a few days after applications.

Dormant oils control scale insects, aphids, and mites that are overwintering on the trees. The oil must be applied with enough water to get thorough coverage (read label recommendations). Coverage is very important so that the spray can reach in between the cracks and crevices of the bark where many insects hide. The oil coats the insects and fills the spiracles. Insects use their spiracles to breathe so when they are blocked, they smother. Dormant oils will suppress insects by killing overwintering adults and eggs which will slow the seasonal build up in the spring. This is well worth the extra time.

Applications should be made to apples, pear, plum, pecan and crabapples. Peaches, nectarines, apricots and plums often do not require dormant oil sprays, but if certain insect pests have been an issue in the past, it could be beneficial. Dormant oils can also be beneficial for shade trees and woody ornamentals. Consult your label before application to make sure the plant is listed. Some plants are sensitive to dormant oil applications.

Precautions: Do not apply too early or too late. Avoid temperature extremes. Avoid using on plants that are oil sensitive. There will be a list on the label.

Dormant oils will kill annual flowers; do not make applications to trees close to annuals. Do not apply in combination with sulfur containing pesticides such as captan. This will cause plant injury.

Benefits far outweigh the negatives. It is inexpensive. Less toxic than other sprays used to control these pests with little toxicity to birds and mammals. This will provide your plants with a jump start into spring.

Dormant oils can be purchased at any garden center and are relatively inexpensive. Remember to read the label and follow all label recommendations!

Starting Seeds Indoors

David Hillock

Many gardeners choose to start their own seeds at home, rather than purchasing transplants. The advantages include savings in cost, and the availability of a much wider selection of cultivars. You can also time seed sowing according to your expected planting date so that transplants are ready when you need them. Of course, planting seeds and tending seedlings is also a great way to spend a winter day.

You can start seeds in flats purchased from a plant supply company or garden center, you can use expandable peat pots, or you can use a variety of household items. When selecting a container to

start your seeds, consider drainage. You do not want water sitting in the bottom of the container. You also want to make sure the container holds enough media that it will not dry out too quickly and will have plenty of room for roots to develop.

The potting media you use is also important. Often you can find a media labeled specifically for seeding. Look for media with both good drainage and high water holding capacity. These things seem contradictory, but you want your soil to hold adequate moisture for seeds to germinate without drying out too quickly, but you also want excess water to freely drain from the medium.

Light is often a limiting factor with starting seeds indoors. To produce hardy seedlings, you need 12 to 14 hours of light per day. Natural lighting is generally not enough. Supplement natural light using a shop light with alternating cool- and warm-white fluorescent bulbs.

To plant the seeds, sow in rows 2 to 3 inches apart. Use a fairly tight spacing within the row. As a rule, sow seeds to a depth of approximately 3 times the diameter of the seed. Most seeds will germinate well at a temperature around 70 degrees F held constant during day and night. After germination, temperatures can be lowered according to the type of plant you are growing. Refer to OCES Fact Sheet [HLA-6020](#) – Growing Vegetable Transplants for ideal growing temperatures. For many tomatoes, a day temperature between 70 and 80 degrees F and a night temperature between 60 and 65 degrees F is ideal.

Managing water in seed trays can be tricky. Over-watering is a common problem. The seeds do not use much water until they have germinated, and seedlings are actively growing. However, the seeds need moisture to germinate. Misting the soil until it is thoroughly damp is a good way to provide moisture. Then, cover the seed tray loosely with plastic, checking soil moisture periodically. Remove the plastic once you see seedlings emerge.

Though fertilizer labels recommend weekly fertilizer applications, an application every two to three weeks is usually sufficient. The first application is not needed until seedlings are ready to be transplanted, two to three weeks after sowing.

Fresh Spring Vegetables

David Hillock

The days for fresh vegetables to be picked right from the garden are soon coming. The cold winter temperatures will soon be leaving allowing us to return to the garden and begin growing our favorite vegetables again. By February 15 many cool-season vegetables like cabbage, carrots, lettuce, peas, and potatoes can be planted (see chart below). The exact time to plant will vary slightly depending on the winter and where you live in the state. The south/southwest region could be as much as two weeks ahead of the northwest and panhandle areas of the state. The thing to remember though is that soil temperatures at planting depth should be at least 40°F.

The ease with which one can grow plants is greatly influenced by characteristics of the soil. Modifying or improving the soil prior to and during the gardening season is important.

Various fertilizer elements are necessary for plant growth, and many can be easily applied. However, other aspects of soil improvement may not be as easily and readily accomplished. In a very sandy soil, the incorporation of organic matter would reduce rapid drying of the soil and improve nutrient availability. In a very heavy clay soil, organic matter would improve soil aeration, water absorption, and drainage.

Soil should absorb water readily, not form a crust upon drying, and drain sufficiently so that it does not become waterlogged. A porous soil contains more air, which is necessary for vigorous root growth. As organic matter decomposes, soil texture improves, and nutrient availability should increase. More information on garden soil improvement is given in fact sheet [HLA-6007](#) – Improving Garden Soil Fertility.

The soil must contain a supply of water and available fertilizer nutrients. Soils that produced a vegetable crop the previous year will be more easily managed than those with established grasses and weeds.

Additional fertilizers may be beneficial to stimulate growth and production. These might be incorporated in the soil prior to planting or applied on the soil surface later.

Garden Planting Guide for Cool-Season Vegetables

<u>Vegetable</u>	<u>Time to Plant*</u>	<u>Days to Harvest</u>	<u>Method of Planting</u>
Asparagus	Fall or Spring	-	Crowns
Beet	March	50-70	Seed
Broccoli	March	80-90	Plants
Cabbage	Feb. 15 to March 10	60-90	Plants
Carrot	Feb. 15 to March 10	70-90	Seed
Cauliflower	Feb. 15 to March 10	70-90	Plants
Chard, Swiss	Feb. 15 to March 10	40-60	Seed
Kohlrabi	Feb. 15 to March 10	50-70	Seed
Lettuce, Head	Feb. 15 to March 10	60-90	Seed or Plant
Lettuce, Leaf	Feb. 15 to March 10	40-70	Seed or Plant
Onion	Feb. 15 to March 10	60-120	Sets
Onion	Feb. 15 to March 10	60-120	Plants
Peas, green	Feb. 15 to March 10	60-90	Seed
Potato, Irish	Feb. 15 to March 10	90-120	Tuber pieces 2-3 oz.
Radish	March 1 to April 15	25-40	Seed
Rhubarb	Fall or Spring	-	Crowns
Spinach	Feb. 15 to March 10	50-70	Seed
Turnip	Feb. 15 to March 10	50-60	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.

Fertilizing Asparagus

David Hillock

Asparagus is a wonderful spring vegetable requiring minimal maintenance. To promote a good crop, fertilizer needs to be applied to the crop twice each season, once in late February or early March and again at the end of the harvest season. The first fertilization stimulates shoot development and the second feeds the growth of ferns. Promoting vigorous fern growth will replenish the energy reserves in the roots for next year's harvest.

Before applying fertilizer, remove last year's dead ferns and move those to the compost pile. Apply a side dressing of fertilizer. Side dressing means applying the fertilizer to the soil around the plant, keeping the fertilizer from contacting the plant directly. Generally, nitrogen only is needed, which is the first number listed on a fertilizer bag. Only apply phosphorus and potassium if a soil test indicates a nutrient deficiency.

The fertilizer is applied at a rate of about one half to one pound of actual nitrogen per 50 square feet. As an example, a bed about 25 square feet, would need one-quarter to one-half pound of actual nitrogen. An organic source of nitrogen in the form of blood meal has a nutrient content of 12-0-0. This means nitrogen makes up 12 percent of the fertilizer by weight, or .12 pounds of nitrogen per pound of fertilizer. If the goal is to apply ¼ pound of nitrogen to the 25 square-foot asparagus bed, 2 pounds of blood meal will need to be applied.

Proper Pruners

Casey Hentges, Oklahoma Gardening Host

Bailey Lockhart, Project Coordinator

Pruners are an essential tool for a gardener, as scissors are essential for a hairstylist or seamstress. Just like the hairstylist or seamstress has several pairs, gardeners often find the need for multiple pairs of pruners. However, not all pruners are the same. There are a few different types to be aware of when purchasing a new pair. The biggest consideration is if they are by-pass or anvil pruners, as there is a difference in what they do when cutting a plant.

Bypass pruners are typically the most common pruner used in the garden. They have a scissor like action where the cutting blade passes by another sharp blade, creating the cut. This leaves a nice smooth cut and does not do much damage to the plant tissue. This is what makes bypass pruners the go-to cutting tool in the garden. However, there are some limitations to this style of pruner.

Because it has a scissor like action, when you try to cut something that is larger or harder, such as dead wood, as the blades try to bypass one another. This often causes the blades to twist, which results in separation between the blades. Doing this too often can cause your pruners to not work properly as it will create a gap between the blades – like that awful pair of scissors that may still be in the back of a drawer somewhere.

Anvil pruners are made specifically for the job of cutting larger, harder, dead wood. With a single blade that comes down, the plant tissue is squeezed onto the anvil, the blunt piece of metal or plastic. This prevents any twisting and allows for more force to be applied to cut the branch. The branch is crushed between the two pieces of metal with this cutting action. Due to this, the anvil pruners are best suited for the removal of dead plant material and not ideal for use on live plant tissue as it can damage the remaining plant stems.

Another option to consider is ratcheting pruners. Typically, these are anvil style pruners and are used for cutting larger, harder plant debris. Without enough hand strength, regular anvil pruners can be difficult to use. Ratcheting pruners allow you to squeeze the handle, causing the ratchet to lock the blade in place. This allows you to squeeze again, cutting the branch. Similarly, having telescoping handles allow you to easily cut through larger branches as well by giving you more leverage. Additionally they can extend your reach for larger shrubs and trees.

For a more delicate cut, such as herbs or cut flowers, you want to look at getting a pair of snips. Snips typically have long, straight blades that look more like small scissors than traditional pruners. With two sharp blades there will be minimal damage to the living plant tissue. This is important not only to the plant you are leaving in the garden, but in the part you are harvesting. Snips are smaller and lighter, which allows you to get into tighter spaces and make more precise cuts.

While these are some of the basic styles, there are numerous brands, colors, and styles available. One size does not fit all. They are made in different sizes because people have different sized hands. There are also other features to look for. Some have a serrated upper portion on the blade for cutting rope while others have a little notch inside the blades to cut wire.

Garden pruners have very specific roles in our garden. Using the proper pruner for the job will ensure you and your plants the most success this season.

Find more information about pruners on the Oklahoma Gardening YouTube channel.
<https://youtu.be/Px5Fhk0-jBQ>

2022 Oklahoma Proven Selections

David Hillock

Each year a set of plants is chosen by horticulturists that will help consumers choose plants appropriate for Oklahoma gardens. The program began in 1999 by selecting a tree, shrub, perennial, and annual worthy of Oklahoma landscapes. The selections for 2022 are listed below:

Tree – *Ginkgo biloba*, Maidenhair tree

Ginkgo or Maidenhair tree is a unique tree in the fact there is only one species in the genus, *Ginkgo biloba*. Other unique features are the leaves generally have two distinctive lobes that are somewhat leathery, fan-shaped, and have almost parallel veins. Fossils of ginkgo leaves have

been found and the species is believed to have inhabited the earth 150 million years ago. Ginkgo has also been known to have medicinal properties.

The species can reach 50 to 80 feet high and 30 to 40 feet wide in ideal conditions, but they are very slow growers, and it takes decades for them to reach mature height. Ginkgo is not very picky of its growing conditions and is quite tolerant of a wide range of soil conditions. In fact, it is a great choice for the urban environment because of its tolerance to compacted soils, heat, and air pollution. Leaves of ginkgo are bright green in summer turning a beautiful bright yellow in fall. Ginkgo is dioecious (separate male and female trees). It is best to select males whenever possible because the fleshy covered seed of the female is a large, fruit-like cone, which can be messy and emit a noxious, foul odor after falling to the ground and splitting open.

Many cultivars exist today including some new dwarf cultivars like 'Troll', weeping forms like 'Weeping Wonder', and some variegated forms such as 'Majestic Butterfly' and 'Sunstream'. A popular male cultivar is 'Autumn Gold'. 'Saratoga' has v-shaped leaves; 'Fastigiata' is a narrow growing male cultivar which only grows to about 10-15' wide. It can also be used to create bonsai.

No serious insect or disease problems.

Exposure: Full sun to part shade

Soil: Prefers moist, sandy, well-drained

Hardiness: USDA Zone 3-9

Shrub – *Cephalanthus occidentalis*, Buttonbush

Buttonbush is a native shrub found growing throughout most of Oklahoma bordering streams and lakes, except in the panhandle. It is a medium to large shrub with a course, open-rounded habit from 5 to 12 feet tall and 4 to 8 feet wide. Leaves are dark, glossy green and lack significant fall color. Clusters of white, fragrant flowers bloom June to July and look like a pincushion. Flowers are very attractive to hummingbirds, bees, butterflies, and other pollinators and is considered a good honey plant. Ducks and other water birds consume the seed. The round, ball-like fruit structure persists on the plant and may be reddish brown.

Plants are found growing near water and tolerate wet, swampy soils. It is tolerant of heat and soil compaction but does not like very dry soil; it is a great selection for the rain garden, woodland garden, pollinator garden and native garden. Dwarf cultivars include Sugar Shack® (3-4' high with red fruit), 'Bailoptics' Fiber Optics® (5-6' high, compact); 'Sputnik' is an older variety found in a native stand in Oklahoma.

Exposure: Full sun to part shade

Soil: Moist, wet, wide variety of soil except dry

Hardiness: USDA Zones 5-9

Perennial – *Heuchera* cultivars, Coral Bells or Alum Root

Coral bells are a versatile perennial with attractive foliage and bell-shaped flowers native to North America. Foliage comes in an array of colors and forms and are evergreen to semi-evergreen, depending on winter temperatures, often providing interest year-round. The leaves are the real show of this plant, and in addition to the many colors they come in, some have marbled patterns, dramatic veining, silverly overlays, and ruffled edges. Flowers are produced on wiry stems above the foliage in the spring to early summer. Flower colors can range from pink to red and white and are favored by butterflies and bees.

Coral bells grow in full sun to shade but may be best planted in a part shade location or spot protected from the late afternoon sun. The light-colored foliage varieties are best in shade where they really stand out and are protected from the hot sun; dark-colored foliage forms will tolerate more sun. It prefers fertile, moist soil but is quite drought tolerant once established; however, due to their shallow roots, watering during dry spells is recommended. Avoid wet, soggy soils particularly in winter.

Coral bells are not heavy feeders and often do fine with light fertilization in the spring. Remove spent flower stalks at the base. Prune only dead or sun-scorched leaves when needed or in late winter. Division may be needed periodically to keep them vigorous and healthy. Due to the shallow root system, frost heave can result in some winter damage; be sure to add a light layer of mulch around the base of plants if the crown is exposed to avoid this problem. Pests are rarely an issue.

Exposure: Sun to part shade
Soil: Moist, well-drained soils
Hardiness: USDA Zone 4-9

Annual – *Plectranthus scuteleriodes* (synonyms – *Solonostemon* and *Coleus*), Coleus

Coleus is a time-honored plant that is quite diverse and full of character. It is well known for its foliage colors, patterns, and forms and has long been a great colorful plant for shade as well as for indoor as a houseplant. Many cultivars are now full sun tolerant and are one of Oklahoma's best full sun foliage plants.

Coleus is an upright annual or herbaceous perennial in the Lamiaceae (mint) family. Its native range is tropical and subtropical Asia to northern Australia. This plant grows best in moist, rich, loose soil in part shade, even tolerating full shade. Plants may wilt in full sun. Full shade may lead to leggy growth. Soils must not be allowed to dry out. Remove flower spikes as they appear. Pinch plant stem tips to keep plants compact and to promote bushiness. Cuttings are easily rooted in water or clean potting soil. Coleus has attractive foliage, succulent stems, and comes in many colors, providing year-round interest. Cultivars range in size from dwarf 6" tall plants to large mounded 36" tall plants. It may be used as a tender annual outdoors in a bed, a border, a hanging basket, or container. If grown as a houseplant, it requires bright light.

Aphids, whiteflies, and spider mites, especially on indoor plants can sometimes be a problem.

Exposure: Full sun to shade

Soil: Moist, well-drained soil

Hardiness: Use as an annual

Collector's Choice – *Ungnadia speciosa*, Mexican buckeye

Mexican buckeye is a native, multi-stemmed large shrub or small tree reaching 15 to 30 feet high and about 20 feet wide. Its native range is west, central Texas to Mexico and New Mexico though it is hardy to zone 7. During the deep freeze of February 2021, it was killed to the ground in Stillwater, however, it came back from the crown without any difficulty later that spring. It is rapid-growing, drought-resistant, and resistant to cotton root rot.

Its fragrant, pink flowers bloom simultaneously as it leafs out with light bronze-colored leaflets which turn pale green during the growing season. Its fall color is bright golden yellow. In its spring flowering aspect, it is thought to somewhat resemble eastern redbuds. This plant may be used as a large, coarse multi-trunk shrub or trained into a small tree. Basal pruning in late spring will maintain the tree form. As it is a tall spreading plant it makes an attractive tall background shrub or deciduous screen, but because of its spreading nature it is not well suited near the street. Mexican buckeye's round black somewhat shiny seeds are contained within a coarse, dark brown 3 valved capsule which somewhat resembles buckeye (*Aesculus* spp.) seeds. However, the two species are not related. Bees, butterflies, and other pollinators are attracted to the flowers. The seeds are eaten by birds and other mammals.

- Exposure: Full sun to part shade
- Soil: Neutral to alkaline and dry
- Hardiness: USDA Zone 7-9

To see all the plants recommended by the Oklahoma Proven Plant Selection Program, visit our website at <http://www.oklahomaproven.org/>.

For more information about Oklahoma Proven go to <http://www.oklahomaproven.org/> or contact David Hillock, 405-744-5158, david.hillock@okstate.edu.