

# Horticulture Tips

## August 2019

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

### **GARDEN TIPS FOR AUGUST!**

*David Hillock*

#### Vegetables

- August is a good month to start your fall vegetable garden. Bush beans, cucumbers, and summer squash can be replanted for another crop. Beets, broccoli, carrots, potatoes, lettuce, and other cool-season crops can also be planted at this time. ([HLA-6009](#)).
- Soak vegetable seed overnight prior to planting. Once planted, cover them with compost to avoid soil crusting. Mulch to keep planting bed moist and provide shade during initial establishment. Monitor and control insect pests that prevent a good start of plants in your fall garden.

#### Fruit and Nut

- Continue protective insect applications on the fruit orchard. A good spray schedule is often abandoned too early. Follow directions on last application prior to harvest. ([EPP-7319](#))

#### Flowers

- Towards the end of the month, divide and replant spring-blooming perennials like iris, peonies, and daylilies if needed.

#### Lawn and Turf

- Grassy winter weeds like *Poa annua*, better known as annual bluegrass, can be prevented with a preemergence herbicide application in late August. Water in the product after application. ([HLA-6420](#))
- Areas of turf with large brown spots should be checked for high numbers of grubs. Mid-to-late August is the best time to control heavy white grub infestations in the lawn. Apply appropriate insecticide if white grubs are a problem. Water product into soil. ([EPP-7306](#))
- Tall fescue should be mowed at 3 inches during the hot summer and up to 3½ inches if it grows under heavier shade. ([HLA-6420](#))
- For areas being converted to tall fescue this fall, begin spraying out bermudagrass with a product containing glyphosate in early August. ([HLA-6419](#))
- Irrigated warm-season lawns can be fertilized once again; apply 0.5 lb. N/1,000 sq. ft. in early to mid-August.
- Brown patch of cool-season grasses can be a problem. ([HLA-6420](#))

### Trees and Shrubs

- Discontinue deadheading roses by mid-August to help initiate winter hardiness.
- Watch for second generation of fall webworm in late August/early September. Remove webs that enclose branches and destroy; or spray with good penetration with an appropriate insecticide.

### General

- Water compost during extremely dry periods so that it remains active. Turn the pile to generate heat throughout for proper sterilization.
- Always follow directions on both synthetic and natural pesticide products.
- Watch for high populations of caterpillars, aphids, spider mites, thrips, scales and other insects on plant material in the garden and landscape and treat as needed. ([EPP-7306](#))
- Water all plants thoroughly unless rainfall has been adequate. It is better to water more in depth, less often and early in the morning.

## **Fall Gardening**

*David Hillock*

Gardening is a year-round activity. Those who garden develop an appreciation and a desire for fresh, nutritious vegetables and fruits. In many situations, the best way to obtain fresh vegetables is to grow them at home.

Some of the best quality garden vegetables in Oklahoma are produced and harvested during the fall season when warm, sunny days are followed by cool, humid nights. Under these climatic conditions, plant soil metabolism is low; therefore, more of the food manufactured by the plant becomes a high quality vegetable product.

Successful fall gardening begins much earlier than the fall season. Factors to be considered are adequate soil preparation, available garden space, crops to be grown, space for each crop, varieties to use, and obtaining the quantity and varieties of seed. Below are some tables to guide you in when and how to start and plant your favorite fall vegetables. For additional information on fall gardening see OSU Extension fact sheet [HLA-6009 Fall Gardening](#).

### Fall Gardening Suggestions

- Seeds left over from planting the spring garden may be used in planting the fall garden if the seed is stored in a cool, dry location or in a refrigerator or freezer.
- Seeds that are stored in the freezer properly should remain viable for many years. Immediately following planting, return surplus seed to the freezer.
- In order to get early established growth, supplemental irrigation is desirable. Most vegetable crops will benefit from supplemental irrigation. Information on drip irrigation may be available from garden centers and county Extension centers. This technique allows an efficient method of irrigation.

- In order to conserve on water usage, water only the furrows or rows and wait for rainfall for general watering.
- Soak seeds overnight for planting (except beans and peas). This will hasten germination and seedling emergence when soil drying is most critical to plant growth.
- Cover seeded rows to reduce soil temperature and drying.

## **Fall Planting Guide**

Table 1. Tender Vegetables - (harvest before frost).\* Many varieties will do well – select varieties that are early maturing and disease resistant.

<b>Kind</b>	<b>Time to Plant</b>	<b>Method of Planting</b>	<b>Between Rows (inches)</b>	<b>In the Row (inches)</b>	<b>Depth to Cover Seed (inches)</b>	<b>Days from planting to Harvest</b>
Beans, Bush	Aug. 10-20	Seed	18-24	3-6	1	50-60
Beans, Cowpea	July 15 – Aug. 1	Seed	18-48	6-12	1.5	75
Beans, Pole	July 15-30	Seed	24-36	12-18	1	60-70
Beans, Lima	Aug 10-20	Seed	18-24	4-8	1	70-80
Cilantro	July 15–Aug 1	Seed	9	4	.5	When plant is 4-6 in. tall
Corn, Sweet <sup>3</sup>	July 15	Seed	36	12-18	1	80-100
Cucumber	Aug 10-20	Seed or Plants <sup>2</sup>	36-32	12-30	.5 to .75	60-70
Eggplant	July 15	Plants	36	18	-	80-90
Pepper	July 15	Plants	36	24	-	90-110
Pumpkin	July 15-30	Seed or Plants <sup>2</sup>	36-60	30-48	1	100-120
Summer Squash	July 15- Sept. 1	Seed or Plants <sup>2</sup>	36	24-36	1	40-50
Winter Squash	July 15-30	Seed or Plants <sup>2</sup>	36-48	30-48	1	100-120
Tomatillo	July 15	Plants	48	24-36	-	90-100
Tomato	July 1–15	Plants	48	24-36	-	70-90

1 = There may be advantages to planting earlier if soil moisture and climatic conditions are favorable

2 = Set plants into the garden 1 to 1 1/2 months after planting the seed.

3 = Be vigilant about scouting for fall armyworms in whorl of seedlings and young plants.

\* Unless using a cold frame or row covers to extend the season.

Table 2. Semi-hardy vegetables - (may continue to grow and be harvested after several frosts). Many varieties will do well – select varieties that are early maturing and disease resistant.

<b>Kind</b>	<b>Time to Plant</b>	<b>Method of Planting</b>	<b>Between Rows (inches)</b>	<b>In the Row (inches)</b>	<b>Depth to Cover Seed (inches)</b>	<b>Days from planting to Harvest</b>
Beet	Aug 1-15	Seed	12-18	3-4	.5-.75	60-70
Broccoli	July 15- Aug 15	Plants	18-30	16-20	-	70-80
Brussel Sprouts	July 15- Aug15	Plants	18-30	16-20	-	90-100
Cabbage	Aug 1-25	Plants	18-24	16-20	-	75-90
Chinese Cabbage	Aug 1-25	Seed or Plants <sup>1</sup>	12-16	10-18	.5	75-90
Carrots	July 15-Aug 15	Seed	12-18	1-2	.25	70-80
Cauliflower	Aug 1-25	Plants	18-24	16-20	-	70-80
Collards	Aug 1- Sept 1	Seed or Plants <sup>1</sup>	30-36	18-24	.5	75-85
Garlic	Sept 1-Oct. 15	Bulbs (cloves)	12	4	2	Early June the following year
Irish Potato	Aug 1-15	Seed potatoes	30-42	10-16	2	90-110
Kale	Sept. 1	Plants	24-36	18	-	50-65
Kohlrabi	Sept. 1	Plants	18-24	4-6	-	50-70
Leaf Lettuce	Aug 1-15	Seed or Plants <sup>1</sup>	12-18	2-3	.25	60-70
Leek	Sept. 1	Seed or Plants <sup>1</sup>	12-24	2-4	.5	Late spring the following year
Mustard	Sept. 10- Oct 10	Seed	12-18	2-3	.5	40-50
Onions	Sept. 1	Seed, Sets, or Plants <sup>1</sup>	12-18	4	.25	Late spring the following year
Parsnip	July 15-Aug 15	Seed or Plants <sup>1</sup>	12-18	4-6	.25	120
Peas, green	Aug 15-Sept. 1	Seed	36	2	2	60-90
Radish	Aug 15- Oct 10	Seed	8-12	.75-1	.5	20-40
Rutabaga	Aug 15- Sept 15	Seed	24-36	3-4	.5	80-90
Spinach	Sept 5-25	Seed	8-12	1-2	.5	50-60
Swiss Chard	Aug 1- Sept 15	Seed	24-30	2-3	.5	50-60
Turnip	Aug 1- Sept 15	Seed	12-24	2-3	.5	50-60

1 = Set plants into the garden 1 to 1 1/2 months after planting the seed.

Note: If planting or sowing into cold frames, plant two weeks later than date indicated. With our abundant winter sunshine, be sure to allow for ventilation. Also, check frequently for pests – especially aphids.

## **Alternative Insect Control**

*David Hillock*

Instead of reaching for a synthetic insecticide to control those unwanted pests in the garden, try some more environmentally friendly options first. One pest management technique that is easier on our environment is mechanical control. Mechanical control is the use of hands-on techniques as well as simple equipment, devices, and natural ingredients that provide a protective barrier between plants and insects.

Exclusion Devices – Examples of exclusion devices include row covers, nets to keep birds away from ripening fruit, paper collars placed around stems of plants to prevent cutworm damage, and proper fencing or barriers to halt the spread of bermudagrass or to prevent pets and wild animals from damaging the garden.

Handpicking – Hand destruction or removal of insects and egg masses insures quick and positive control. This method is especially effective with foliage-feeding insects such as squash bugs, hornworms, and bean beetles. Excluding labor, handpicking is the least expensive of all organic or natural control practices.

Disadvantages are that handpicking must be performed long before insect damage is noticeable and at the key stage of development of the insect. Gardeners must actively monitor their crops, watching for the first sign of damage before insect populations get too high.

Traps and Attractants – Mechanical traps and attractants are used in two ways: to trap enough insects to lower crop damage or to monitor how many and what species of insects are in the garden. Traps and attractants often appeal to an insect's needs for food, shelter, and reproduction.

A disadvantage of traps or attractants is that they may trap beneficial insects. Also, while some traps may be homemade using simple, inexpensive materials, others are expensive and must be cleaned or replaced periodically.

Water Pressure Sprays – A forceful stream of water will sometimes dislodge insects such as aphids and spider mites from foliage and plant stems. This practice must be repeated since many of the insects are likely to return.

Water pressure should be used only on sturdy plants to avoid plant damage. This method may also be a problem since frequent applications of water could increase diseases or could cause root problems if the soil is already too wet. Therefore, use water sprays in the morning so plants will dry out during the day.

Insect Vacuums – The use of vacuums to remove certain kinds of insects from plants is another method. These tools may contain a disposable cartridge lined with a non-toxic, sticky gel to trap insects sucked up by the machine. Hand-held, battery powered vacuums are available, some of which have a small hose attachment to use when reaching across a row or bed.

Diatomaceous Earth – Diatomaceous earth is composed of finely ground skeletons of fossil diatoms. Sharp edges of the ground diatoms scratch the waxy or oily outer layer of soft-bodied insects, which reportedly die eventually from dehydration.

The formulation of diatomaceous earth sold for swimming pool filters does not help control insects.

Diatomaceous earth is considered a pesticide, but is non-toxic to birds and mammals. Disadvantages are that it can kill beneficial insects such as lady bugs and it is less effective against pests in humid weather. Gardeners must wear a dust mask when applying diatomaceous earth to plants.

Insecticidal Soaps – Insecticidal soaps evidently kill insect pests by penetrating the insect's outer coat cuticle or entering the respiratory system and causing cell damage or disruption.

Several insecticidal soaps are distributed for control of insects and mites. Available under a variety of trade names, the active ingredient of all is potassium salt of fatty acids. Soaps are chemically similar to liquid hand soaps. However, there are many features of commercial insecticidal soap products that distinguish them from the dishwashing liquids or soaps that are sometimes substituted. Insecticidal soaps sold for control of insects:

- are selected to control insects;
- are selected to minimize potential plant injury; and
- are of consistent manufacture.

Certain brands of hand soaps and liquid dishwashing detergents can be effective for this purpose. However, **there is increased risk of plant injury with these products.** They are not designed for use on plants. Dry dish soaps and all clothes-washing detergents are too harsh to be used on plants.

One of the most serious potential drawbacks to the use of soap-detergent sprays is their potential to cause plant injury (phytotoxicity). Certain plants are sensitive to these sprays and may be seriously injured. The risk of plant damage is greater with homemade preparations of household soaps or detergents.

A short residual action means repeat applications may be needed at relatively short intervals (four to seven days) to control certain pests. Also, application must be thorough and completely wet the pest.

Environmental factors also can affect use of soaps. In particular, soaps (but not synthetic detergents) are affected by the presence of minerals found in hard water, which results in chemical changes. Control decreases if hard-water sources are used. Insecticidal soaps may also be more effective if drying is not overly rapid, such as early or late in the day.

Horticultural Oils – Oils are petroleum-based products containing certain fatty acids that form layers on plant parts to smother insects or provide a mechanical barrier to prevent damage. There are two kinds of oils: growing season (summer) and dormant.

For more information on these and other control techniques refer to [HLA-6432](#) Earth-Kind Gardening Series: Mechanical Pest Controls.

## **Hummingbirds**

*David Hillock*

Of all of the hundreds of bird species, hummingbirds are particularly interesting and delightful to attract to the yard. These tiny, energetic birds can provide hours of enjoyment through their dazzling flying abilities, acrobatics, and bold personalities. In addition, hummingbirds are often as brightly colored as jewels.

The hummingbird is the smallest native bird in North America, length totaling about 3 1/2 inches overall. Its weight is only about 1/4 of an ounce. Hummingbirds are identified by the extremely rapid movement of their tiny wings that creates a humming sound as they fly or hover. The average wingbeat of a hummingbird in flight is 55 strokes per second.

Hummingbirds are unique in their method of feeding, which requires them to extract nectar from blossoms using their long, split, retractable tongue. Contrary to popular belief, hummingbirds do not use their tongues as humans would a straw, but rather, exhibit a licking motion at a rate of about 13 licks per second. Their tongues have tiny fringes along the split edges that help with the ingestion of small insects trapped in nectar. Hummingbirds also capture small insects flying about in the air, especially when raising their young.

Male hummingbirds exhibit their most dramatic display of color and behavior during courtship and defensive displays. In these displays, the male will ascend to varying heights and then dive straight down toward the object of his affection or irritation. His wingbeat will sometimes increase to up to 200 beats per second, which creates both a loud humming sound and a wonderful visual display of his iridescent feathers.

All North American hummingbirds are migratory except the Anna's hummingbird which remains in California. The two species of hummingbirds most frequently seen in Oklahoma are the two that migrate the farthest distance each year. These are the ruby-throated and the less frequently occurring rufous hummingbirds which may travel 2,000 miles or more. For the ruby-throat, 500 of those miles are nonstop over the Gulf of Mexico. In order for the ruby-throated hummingbird to sustain itself for the journey, it must accumulate about half of its normal body weight in fat. These trips are made individually and not in flocks or small groups. In addition to the ruby-throated and rufous hummingbirds, the black-chinned and broad-tailed hummingbirds can be seen, although rarely, in the western part of the state.

To fulfill their nutritional requirement, hummingbirds rely on the protein found in small insects trapped in the sticky nectar that they ingest from flowers. This protein is especially important for the feeding of young. Last, hummingbirds depend upon body temperature for the ability to fly. Hummingbirds cannot fly if their body temperature is below 86° Fahrenheit.

### Frequently Asked Questions about Hummingbirds:

*Question:* Should I use commercially prepared food or can I make my own? And does the food need dye to attract the hummingbird?

*Answer:* You can prepare your own as opposed to purchasing a solution already made. The solution that is closest to natural nectar is 1 part sugar to 4 parts water. Boil the water, stir in the sugar, and allow the solution to cool before filling your feeders. Store any leftover solution in the refrigerator. You don't need to add red dye. All hummingbird feeders have enough red to attract the hummers. Also, red dye may be toxic to hummingbirds. You don't need to add anything else to your solution. Hummingbirds eat insects for protein.

*Question:* When should the hummingbird feeder be taken down? I have heard that if left up too late in the year, the hummingbirds may not migrate and could die.

*Answer:* There is no evidence that leaving your feeder out too late will delay hummingbird migration. Most hummingbird experts say that migration is triggered by the changing length of daylight hours and/or by the availability of insects. (There are a few who still argue that when feeders are left up beyond normal migration time it can delay hummers while food supplies to the south diminish.)

We recommend that you take down your feeders when it becomes apparent that there are no more hummingbirds in the neighborhood.

Most hummingbirds in Oklahoma will migrate for winter, but it is possible to have a Rufous Hummingbird or some other western species show up in the fall, then linger indefinitely. If any hummingbird stays beyond the usual time, keep feeding it. It may be sick, injured, or lost. The tiny bird's survival could depend on your generosity.

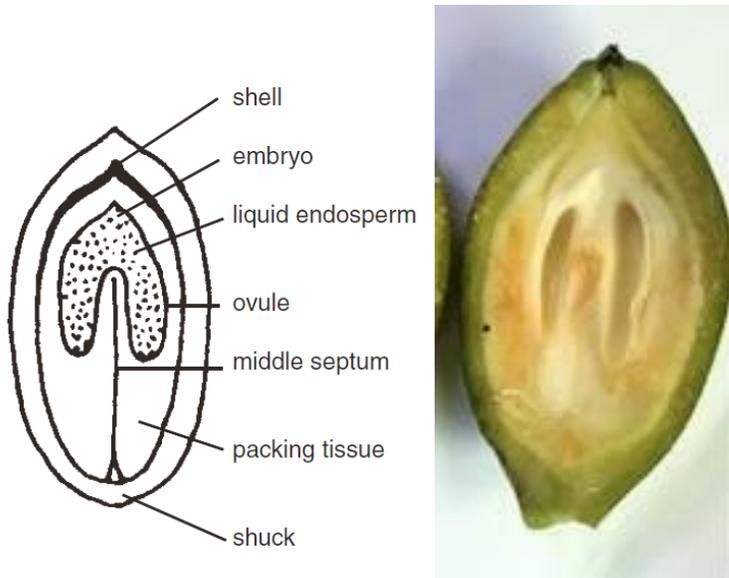
## **How Many Pecans are too Many?**

*Becky Carroll, Associate Extension Specialist*

With estimates of 28 million pounds of pecans in Oklahoma this harvest season, pecan growers with improved varieties should be checking crop loads to determine if they need to mechanically thin their pecans. On the largest fruited pecans such as Mohawk and Maramec only about 45-50% of the terminals should have clusters, medium-large sized like Pawnee, 50-60% and on smaller varieties, like Kanza, 60-70% of terminals can be fruiting. If more terminals are fruiting than recommended, the pecans should be thinned.

Crop load thinning is usually done the first week or two of August or more specifically when the pecans are in the water stage when the ovule has expanded between 50-100%, (see figure and picture below). Just as peaches and apples are thinned, pecans will greatly benefit from crop load management. Thinning the fruit will increase fruit quality, help reduce alternate bearing, as well as reduce the possibility for and severity of winter freeze damage.

Pecans can be mechanically thinned with a conventional shaker fitted with donut pads. Be sure to keep the underneath of the flaps on the donut pads greased to help limit barking the trees. (See photo below). Fact Sheet [HLA-6251](#) Pecan Crop Load Management details the procedure.



The drawing shows a pecan cut longitudinal exposing the ovule at 50% expanded. The picture is a Kanza pecan cut on July 27, 2016 showing the ovule expanded to about 60%.



Pecan shaker equipped with donut pads to reduce damage to bark during crop load thinning.

## **Pecan Orchard Needs in August**

*Becky Carroll, Associate Extension Specialist*

Besides crop load thinning in over cropped improved orchards, pecan growers have a few other items to be aware of at this time of year.

Irrigation is a big concern during the nut filling period in August and September. Pecans need adequate moisture to fill completely for high quality nutmeats. In August pecan trees require 2 inches of irrigation per week if applied by sprinkler or 3500 gallons per acre per day if supplied by trickle.

Growers should also be placing their weevil traps in the orchard and groves now. The Circle trap is the preferred trap for monitoring weevil emergence. Fact Sheet [EPP-7190](#) Monitoring Adult Weevil Populations in Pecan and Fruit Trees in Oklahoma explains how to construct and when and where to place the traps. Traps can also be purchased to install on the trees.

With rains or irrigations, weevil will be emerging and feeding on nuts until the dough stage when they start laying eggs in the pecans. Have a plan for weevil control and be ready to spray to prevent losses. When pecan crops are small, weevil feeding will add to the reduction in the crop. When weevils feed on the nut early, the nuts usually fall to the ground. Growers will need to assess when they should start protecting their crop. Each orchard will be different. With heavy crops, weevil feeding may not be too detrimental during the water stage, but once the fruit begins to change stages, growers will want to try to eliminate the egg laying phase that will reduce quality and prices.

## **Outdoor Water Conservation Classes for the City of Edmond**

*Kevin Moore, Joshua Campbell, and Justin Moss*

The City of Edmond is partnering with the ThinkWater team at Oklahoma State University to provide monthly workshops on outdoor water use efficiency. Kris Neifing, Director of Water Resources, told The Edmond Sun, “in the winter months, water consumption is about 8 million gallons a day and that can peak up to 26 million gallons a day in the summer.” Much of this increase is related to lawn irrigation, which is why Edmond is focused on outdoor water use. Additionally, the population of Edmond has increased 35% in the past 20 years. The city is currently investing over \$400 million to upgrade and expand water and wastewater facilities to meet the needs of the growing community.

Workshops will be held in room 207 of the Edmond Downtown Community Center located at 28 E. Main. A broad range of topics will be discussed concerning efficient water use in the landscape. Each presentation will last about an hour. The workshops are free, but pre-registration is requested. Visit <http://edmondok.com/1528/2019-Outdoor-Water-Conservation-Classes> to register.

*Dealing with Difficult Shady Areas: August 15, 10 am*

Shady areas can make it difficult to grow a healthy lawn, but there are many ways to find success in the shade. Common problems and solutions will be addressed, as well as alternatives to traditional turfgrass.

*Composting: September 17, 3 pm*

Compost is a natural, dark brown, humus-rich material formed from the decomposition or breakdown of organic materials such as leaves, grass clippings, and vegetable food scraps. Composting reduces the flow of material to the landfill and provides an excellent source of nutrients for your garden. Procedures for composting will be discussed, along with options for establishing a compost container, bin or pile.