Horticulture Tips August 2023

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GARDEN TIPS FOR AUGUST!

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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.

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.

Lawn and Turf

- Winter annual weeds like *Poa annua*, better known as annual bluegrass, chickweed and henbit 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-tolate 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 3¹/₂ inches if it grows under heavier shade. (<u>HLA-6420</u>)

- For areas being converted to tall fescue this fall, begin spraying out bermudagrass with a product containing glyphosate in early August. (<u>HLA-6419</u> & <u>HLA-6421</u>)
- 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. (<u>HLA-6420</u>)

<u>General</u>

- 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.

Growing Fall Irish Potatoes

David Hillock

If seed potatoes are available and space permits, potatoes are a desirable supplement to the fall and winter food supply. Yields are usually lower than from spring-planted potatoes, but proper storage is much easier to provide, and potato quality is excellent.

The practice of using potatoes from the fresh produce counter for planting purposes is not recommended. This kind of material frequently does not produce adequate growth and is considerably lower in yield.

One of the problems is getting a stand of plants early enough to produce a crop before fall frosts. This emphasizes the need to use matured, medium-to-large potatoes that require cutting into 1 or 1 1/2 ounce size seed pieces.

Cut potatoes should be allowed to cure three to five days before planting, and they should be stored under cool (45° to 65° F) conditions during curing. The best time to plant seed pieces is around August 1 through August 15.

To have a more favorable (cooler) soil at planting time, deep furrows may be opened in the late afternoon, seed pieces planted, covered with two inches of soil, watered, and mulched with straw or other available organic material. This should provide more favorable conditions for growth. Space potato pieces 30 to 42 inches between rows and 10 to 16 inches within rows. Days to harvest will be between 90 to 110 days depending on variety.

Six Reasons Your Tomatoes Look Bad

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The crop that is the "king of the garden" is the tomato, and unfortunately tomatoes can sometimes be the trickiest to grow. Tomatoes face several common problems that can make the fruit less than ideal.

Blossom End Rot – The first issue is called Blossom End Rot (BER). These are dark, watersoaked lesions typically at the bottom, or the blossom end, of a tomato. While this is caused by a calcium deficiency, adding more calcium doesn't necessarily fix the problem. In fact, there may be plenty of calcium in the soil, but other factors are preventing the uptake of the calcium. For example, planting too early in the season. Soil temperatures below 65°F can prevent the plant from taking up calcium. Another factor that can also lead to BER is if the soil pH is too high or there has been too much nitrogen applied.

However, probably the biggest cause is inconsistent watering. You never want to let your tomato plant get so dry that it is wilting. Calcium is water soluble and if the plant has no water to take up then obviously no calcium will be taken up either. Furthermore, under hot, windy conditions, water does not transpire out of the fruit as efficiently as it does out of the leaves, therefore the availability of calcium in outer parts of the fruit becomes limited. Additionally, watering too heavily can be just as concerning, as it can cause some of the roots to die back, reducing the ability of the root system to take up calcium.

Catface – Sometimes there are misshapen tomato fruits which possibly have scars on them. Usually, the tomatoes are distorted in shape with brown depressions or scars between healthy tissue. Overall, the fruit seems to be irregular in ripening and considered less desirable. This is often seen on the first formed fruits of large tomatoes varieties. Catface is caused by abnormal development of the flower, which in turn causes abnormal development of the fruit. Cold temperatures below 58°F during flower development and bloom, and exposure to phenoxy herbicides (like 2,4-D) can cause this.

Cracking – Another problem that might be commonly seen is fruit cracking or splitting. This is usually a result of sudden summer rains after a period of drier conditions. Even though the tomato plants are on regular irrigation, sudden conditions that are more favorable can still cause this in tomatoes. Basically, what happens is the excessive moisture and ideal conditions cause the inside to grow faster than the outside skin of the tomato. One way to help reduce cracking is to pick your tomatoes at the breaker stage (just as they start to turn pink) and let them finish ripening indoors.

Sunscald – Just like people can get sunburned this time of year, fruit can too. Sunscald usually occurs when full grown green tomatoes or tomatoes that are just starting to turn pink are exposed to direct sun. This might happen because of a recent pruning or a change in canopy that would have otherwise been shading the crop. This can look similar to blossom end rot, but instead of dark wet areas, white or bleached areas appear on the shoulders or sides of the fruit that is most exposed. These damaged areas become more pronounced as the fruit continues to ripen and the

sunken areas have just a thin skin. Having healthy foliage is not only important for the overall health of the plant, but the foliage is critical to provide some shade for the fruit as it is developing. Typically, caged tomatoes suffer less than staked tomatoes. If you are planning to alter the tomato's canopy by either pruning or staking, you might consider adding some shade cloth to protect those exposed fruit.

Physiological Leaf Roll – Physiological leaf roll is another disorder commonly seen in tomatoes. Typically, this leaf roll begins lower on the plant on the older leaflets. They can roll upon themselves and become quite leathery and firm. Other than this unusual appearance to the leaves, the overall plant will appear normal with no yellowing and be of normal size. They should also continue to grow normally with little to no reduction in yield. This does tend to affect some varieties more than others and can be further induced by high temperatures and prolonged wet periods. While we traditionally need to support our tomatoes in some manner this leaf roll does seem to occur more on tomatoes that are staked and pruned. Unfortunately, there is little that can be done to reduce this other than to ensure the tomatoes have good drainage. Just know that this is not a pathogen and should not affect the tomatoes harvested.

Blossom Drop – The last reason tomatoes might not look good is because the plant is not producing any. Even though tomatoes are considered warm season crops, Oklahoma summers can be beyond warm to down right sweltering. Prolonged periods of high temperatures above 90°F and strong wind (also known as July and August here in Oklahoma) can cause the flower blossoms to drop. But more importantly are the evening temperatures. For proper pollination, the night temperatures need to be in the range of 55-70°F. Evening or daytime temperatures outside of these ranges can cause the pollen to be non-viable and if the flower isn't pollinated, it will simply drop off. While there are some new heat tolerant cultivars on the market, little can be done to prevent this problem, other than to avoid excessive nitrogen fertilizer which will further promote vegetative grow and reduce flower production and pollination. The good news is that if the plant continues to grow healthy, once the temperatures start to subside it should resume production of those delicious tomatoes.

So, getting that perfect red tomato can be tricky, but knowing what is going on is half the battle. This is why knowing about these potential problems, doing a soil test, and watering properly are so important.

Additional resources: Oklahoma Gardening – <u>https://youtu.be/bqOCRFIT_ZQ</u> Factsheet – <u>EPP-7627</u> – Common Diseases of Tomatoes Part III. Non-Infectious Diseases

Attracting Birds to Landscapes and Outdoor Areas

David Hillock

Attracting birds to landscapes and outdoor areas is an activity that can bring much enjoyment to the entire family. Landscaping and gardening for birds is gaining in popularity as people become more aware of the benefits of having a diverse environment around them. Bringing these

beautiful creatures near home sites also helps manage insect populations and maintain the ecological balance of outdoor environments.

Birds need three things to survive — food, water, and shelter. These elements can easily be supplied in your backyard. One of the key elements for attracting many species of birds is a wide variety of plants arranged into sheltered areas of shrubs and trees, open areas of lawns and gardens, and/or wet areas around ponds and streams.

Gardeners and landscapers should be aware that the predominant habitat type in the area will determine which bird species can be attracted to a yard. For example, if the entire neighborhood is heavily wooded, purple martins will be difficult or impossible to attract. On the other hand, areas with many tall, mature trees will have numerous birds, such as some of the owls, vireos, and warblers, that open areas may not attract. Some species such as the cardinal and mockingbird require shrub cover. If you have a new house in a recently built residential area, give the yard time to mature; as the shrubs and trees grow, so will the number of birds in your yard. New areas with few mature trees and little shelter for birds will take several years to become hospitable places for birds requiring trees and shrubs.

For more tips and detailed information on food, water, shelter, nesting boxes, and plant material recommended to attract birds, see OCES Fact Sheet <u>HLA-6435 Landscaping and Gardening</u> for Birds.

Blister Beetles

David Hillock

Blister Beetles (*Epicauta pennsylvanica*) can be a problem this time of year. These rather large native beetles (adults range from 1/2 to 1 inch long) have a characteristic narrow, elongate, soft body with a head wider than the pronotum. The flexible wing covers are rounded over the abdomen. Colors vary with species and range from black to gray to brown, some with conspicuous orange stripes or other patterns.

Their name derives from the fact that adults produce a toxin (cantharadin) that can cause blisters to form on the skin. But gardeners are more concerned about the plants whose leaves the beetles are stripping. The adult beetles feed on many different garden plants, particularly legumes, eating foliage and flowers. The adults generally appear in large groups or swarms and can be quite a problem in the garden.





Before we decide to kill off these bothersome beetles, we might consider the fact that the larvae of these beetles are predaceous and feed on grasshopper eggs. But if that is not enough to convince you to spare them, then let's look at a few management options.

Hand-picking the beetles can be rather unpleasant because the toxin in the beetles' bodies can irritate the skin. It is better to shake them into a pan or bucket of soapy water. Blister beetles often drop to the ground and play dead when disturbed, so you may have to pick up a few from the ground. Be sure to wear a pair of gloves to keep the cantharadin off your skin.

Some gardeners have grown calendula as a trap crop or left a few pigweeds (*Amaranthus* species) growing in the garden. Both these plants are highly attractive to blister beetles. If you prefer a chemical approach, there are a few insecticides labeled for control of blister beetles including those with carbaryl (Sevin), malathion and pyrethrin as the active ingredient. Multiple applications may be needed as adult blister beetles are migratory and others may visit the garden.

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. The 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 the use of soaps. 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 <u>HLA-6432</u> Earth-Kind Gardening Series: Mechanical Pest Controls.