

Ds Notes
03/21/22

Important notice for all poultry owners: Avian Influenza has been found in Kansas.

Anyone involved with poultry production from the small backyard chicken owner to the large commercial producer should review their biosecurity activities to assure the health of their birds. Find guidance on biosecurity on the KDA Division of Animal Health webpage at agriculture.ks.gov/AvianInfluenzaAvianInfluenza. More biosecurity resources as well as updates on the current HPAI status nationwide can be found on the APHIS website at:

<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian/avian-influenza/2022-hpai>.

Attentively monitor your birds for symptoms of HPAI which include: coughing, sneezing, nasal discharge, and other signs of respiratory distress; lack of energy and appetite; decreased water consumption; decreased egg production and/or soft-shelled, misshapen eggs; incoordination; and diarrhea. Avian influenza can also cause sudden death in birds even if they aren't showing other symptoms. Highly pathogenic avian influenza (HPAI) is a highly contagious viral disease that can infect chickens, turkeys and other birds and can cause severe illness and/or sudden death in infected birds.

If these symptoms are observed in your birds, immediately contact your veterinarian. If you don't have a regular veterinarian, contact KDA's Division of Animal Health office toll-free at 833-765-2006.

REMINDERS

1. Plant peas.
2. Cut back ornamental grasses.
3. Plant potatoes.
4. Prune fruit trees.
5. Remove mulch from strawberries when growth begins or when soil temperature reaches 40 degrees.

Remove Fern on Asparagus

If you haven't removed last year's growth from asparagus plants, now is a good time. Old growth can be removed from the site and discarded or composted. Another option is to mow the asparagus patch. Burning can also be used but only if it is safe and legal to do so. A light tilling (or hoeing) that is shallow enough to avoid the crowns may help work in the old growth into the soil as well as control weeds.

Asparagus comes up in early- to mid-April in Manhattan but will be earlier in southern Kansas and a bit later further north.

Asparagus benefits from a fertilizer application after harvest but not now. Fertilize according to a soil test or add 1 to 2 pounds of a 10-20-10 or 11-15-11 fertilizer per 20 feet of row immediately after harvest. If a soil test shows that only nitrogen is needed,

apply 1 pound of a 16-0-0 product or ½ pound of a 30-4-5, 27-3-3 or similar fertilizer per 20 feet of row. Most of these high nitrogen fertilizers are lawn fertilizers but will work well for this purpose if they do not contain a weed preventer or weed killer. The fertilizer should be watered in with 1/4 inch of water. (Ward Upham)

Controlling Weeds in Home Garden Asparagus Beds

The best time to control weeds in asparagus is early spring before the asparagus emerges. A light tilling (or hoeing) that is shallow enough to avoid the crowns will eliminate existing weeds. Many gardeners like to mix in organic matter during the same operation.

Herbicides can be used before asparagus emerges as well. Glyphosate (Roundup, Killzall) will kill weeds that are actively growing, and the preemergence herbicide trifluralin can be used to kill weed seeds as they germinate. Trifluralin is found in several products, but not all of them list asparagus on the label. Those that do have asparagus on the label include Miracle-Gro Weed Preventer Granules and Monterey Vegetable and Ornamental Weeder. Mulch can also be used to keep weeds from invading.

No herbicides can be used during harvest. The end of harvest presents another opportunity. Remove all fern and spears and apply glyphosate (Roundup) to control virtually all of the weeds present. After the harvest season is past and the asparagus starts to regrow, options are limited. Products that contain sethoxydim can be applied to asparagus to kill annual grassy weeds such as crabgrass. Sethoxydim has no effect on broadleaves including asparagus. Two sethoxydim products available to homeowners and labeled for asparagus are Monterey Grass Getter and Hi-Yield Grass Killer. With broadleaves, the only option is to pull them and look forward to next year. (Ward Upham)

Help for Vegetable Gardeners

Kansans that are new to vegetable gardening often don't know how much of each crop to plant. K-State Research and Extension has a publication that can help. The "Vegetable Garden Planting Guide" gives information on the size of planting needed per person and the average crop expected per 10 feet. Also included is a garden calendar highlighting suggested planting dates and expected harvest dates. Crop specific information is detailed including days to germinate, plants or seeds needed per 10 feet of row, depth of planting, spacing within the row and spacing between rows. You can find the publication at your local county extension office or online at:

<http://www.ksre.ksu.edu/bookstore/pubs/mf315.pdf> . If you don't know the location of your county extension office, see <http://www.ksre.ksu.edu/Map.aspx>.

Another, more in-depth publication titled the "Kansas Garden Guide" is also available. This 77-page booklet has sections on planning a garden, composting, improving soil, seeding and planting, garden care, watering, planting gardens for fall production, insect and disease control, container gardening, season extension and harvesting and storing. This is followed by an extensive section on how to grow specific vegetables and herbs. You may order the print publication at

<http://www.ksre.ksu.edu/bookstore/Item.aspx?catId=534&pubId=8219> for \$14.75. This web page also provides a link to a free PDF copy of the same publication. These publications can also be useful for experienced gardeners. (Ward Upham)

Brown Coloration on Junipers

Certain eastern redcedar and various other junipers are showing a brownish cast when viewed from a distance. This may be the male flowers. Male flowers are on the tips of the leaves and look somewhat like a cross between a miniature hand grenade and a pinecone. Shaking the branches on dry days will often result in a cloud of pollen being released.

Most junipers are dioecious, meaning they have both male and female plants. About half the junipers (the males) will have this coloration. The female flowers are much less obvious. If you have clients who are concerned about this brown coloration, have them check the plants to ensure the male flowers are the cause. If they are, assure them that this is normal and will fade with time. (Ward Upham)

Ten Rules for Planting Trees

Before you begin spring landscaping, here are some tips on planting trees.

1. Select the right tree for the site. To avoid serious problems, choose trees that are adapted to your location. Consider whether the tree produces nuisance fruit or if there are disease-resistant varieties available. For example, there are a number of crabapple varieties that are resistant to apple scab and rust diseases. Also consider the mature size of a tree to be sure you have enough room. See <https://hnr.k-state.edu/extension/info-center/recommended-plants/index.html> or ask a local nurseryman for suggestions for trees adapted to your area.

2. Keep the tree well watered and in a shady location until planting. When moving the tree, lift it by the root ball or pot and not by the trunk.

3. Before planting, remove all wires, labels, cords or anything else tied to the plant. If left on, they may eventually girdle the branch to which they are attached. The root flare (point where trunk and roots meet) should be visible. If it isn't, remove enough soil or media before planting so that it is.

4. Dig a proper hole. Make the hole deep enough so that the tree sits slightly above nursery level. Plant the tree on solid ground, not fill dirt. In other words, don't dig the hole too deep and then add soil back to the hole before placing the tree.

The width of the planting hole is very important. It should be three times the width of the root ball. Loosening the soil outside the hole so it is five times the diameter of the root ball will allow the tree to spread its roots faster.

5. Remove all containers from the root ball. Cut away plastic and peat pots; roll burlap and wire baskets back into the hole, cutting as much of the excess away as possible. If you can remove the wire basket without disturbing the root ball, do it. If roots have been circling around in the container, cut them and fluff them out so they do not continue growing so that they circle inside the hole and become girdling roots later in the life of the tree.

6. Backfill the hole with the same soil that was removed. Amendments such as peat moss likely do more harm than good. Make sure the soil that goes back is loosened - no clods or clumps. Add water as you fill to ensure good root to soil contact and prevent air pockets. There is no need to fertilize at planting.

Note: Adding organic matter to larger area than just the planting hole can be beneficial, but it must be mixed in thoroughly with the existing soil and should "feather out" toward the outside edge of the area. This should be done before the planting hole is dug. Adding amendments to just the planting hole in heavy soil creates a "pot" effect that can fill with water and drown your new tree.

7. Don't cut back the branches of a tree after planting except those that are rubbing or damaged. The leaf buds release a hormone that encourages root growth. If the tree is cut back, the reduced number of leaf buds results in less hormone released and therefore fewer roots being formed.

8. Water the tree thoroughly and then once a week for the first season if there is insufficient rainfall.

9. Mulch around the tree. Mulch should be 2 to 4 inches deep and cover an area two to three times the diameter of the root ball. Mulching reduces competition from other plants, conserves moisture and keeps soil temperature closer to what the plants' roots prefer.

10. Stake only when necessary. Trees will establish more quickly and grow faster if they are not staked. However, larger trees or those in windy locations may need to be staked the first year. Movement is necessary for the trunk to become strong. Staking should be designed to limit movement of the root ball rather than immobilize the trunk. (Ward Upham)

Frost Tolerance of Apricots and Peaches

Growers of apricots and peaches often wonder at what temperature fruit buds are killed especially in years where we have an early spring. These two tree fruits bloom very early and are often caught by a late frost. The following will give you some guidelines but remember that the actual damage is going to be influenced by the weather before the temperature drops. An extended warm spell before the cold snap may result in more damage due to a loss in cold hardiness. The stages listed are for the fruit buds.

Apricot

Stage	10% Kill (°F)	90% Kill (°F)
First white	24	14
First bloom	25	19
Full bloom	27	22
In the Shuck	27	24
Green Fruit	28	25

Peach

Stage	10% Kill (°F)	90% Kill (°F)
Swollen bud	18	2

Half-inch green	23	5
Pink	25	18
Bloom	27	24
Petal fall	28	25
Fruit set	28	25

To check for low temperature injury to fruit buds or blossoms, use a sharp knife and cut them in half longitudinally (from top to bottom). If the tiny seed in the center is white to cream color no damage has been done. But if the seed in several buds or blossoms is dark brown or black, it has been killed.

It is possible to give some protection to blossoms from freezing by covering the tree with a bed spread, blanket or similar fabric but the material should reach the ground so that heat given off from the soil is captured. Old-fashioned Christmas lights distributed through the tree will help to give added protection. The newer, smaller Christmas lights do not give off enough heat and are not recommended. Of course the practicality of this method of protection depends upon the size and number of trees and access to electricity.

Sprinkling the tree with water throughout the freezing period can also protect the blossoms but is a dangerous option. Sprinklers should be started before the temperature drops to freezing to be sure ice does not block the garden hose or water line. Continue until the temperature warms. With this protection method, there is the potential of creating an ice storm. If temperatures remain below freezing for several hours, ice will accumulate on the branches and limbs. The weight from the ice may cause branches and limbs to break causing severe, and possibly permanent, damage to the tree structure. Also, if water drainage from the soil is slow and the water displaces oxygen from the roots, damage to trees may result. (Ward Upham)

Managing Turf in Shade

Turfgrasses differ in their capacity to grow in shade. Among Kansas turfgrasses, tall fescue is the best adapted to shade though it isn't all that good. Although the fine fescues (i.e., creeping red, chewings, hard and sheep fescues) have better shade tolerance, they lack heat tolerance and typically decline during hot Kansas summers. The warm-season grasses have poorer shade tolerance than cool-season grasses, although zoysia does better than Bermuda or buffalo. Where shade is too heavy for fescue, there are other courses of action. The most obvious but often impractical option is to either remove trees, or to prune limbs and thin the tree canopies. Grass will do better under openly spaced trees than under closely spaced trees. Pruned limbs and thinned canopies will allow more sunlight to directly reach the turfgrass. If possible, raise the mowing height in the shade to compensate for the more upright growth of the leaves, and to provide more leaf area for photosynthesis.

The thin, weak turf in the shade may tempt you to fertilize more. Remember the problem is lack of light, not lack of fertility. Too much nitrogen in the spring causes the plant to grow faster and may result in weak plants. The nitrogen rate for shaded grass

should be cut back to at least half of that for grass in full sun. Late fall fertilization after tree leaves have fallen, on the other hand, is important for shaded cool-season turfgrasses and should be applied at a full rate. Irrigate infrequently but deeply. Light, frequent irrigation may encourage tree feeder-roots to stay near the surface, which increases competition between the trees and the turf. Restrict traffic in the shade.

Another option is to reseed areas with heavy shade each fall. The turf will look good during the fall and spring and then likely fall apart when the stresses of summer hit.

None of these options is very attractive. This is one of those problems in which there is not a good answer. Many times, the best choice for shaded areas is switch from a turfgrass to a more shade-tolerant plant. For example, periwinkle (*Vinca minor*) is much more shade tolerant than any turfgrass adapted to our area. Another option is simply to mulch the area where turf doesn't grow well. The trees will love the cool, moist soil and the absence of competition. (Ward Upham)

Rhubarb

Rhubarb is a perennial vegetable that can be a bit tricky to grow in Kansas. It is native to northern Asia (possibly Siberia) and so is adapted to cold winters and dry summers. However, it is susceptible to crown rot and should not be subjected to "wet feet." It should be grown in a well-drained soil. The addition of organic matter can increase drainage as well as raise the soil level so that crown rot is less likely. Also, have a soil test done as rhubarb does best with a pH below 7.0.

Rhubarb should be planted from mid-March to early April in Kansas. Mix 5 to 10 pounds of well-rotted barnyard manure into the soil for each 10 square feet of bed before planting.

Rhubarb is propagated from crowns (root sections) that contain one or two buds. Plants should be spaced 2 to 3 feet apart in the row with 4 to 5 feet between rows. The crowns are planted shallow so that the buds are just one-half to 1 inch below the soil surface. Firm soil around the crowns and make sure they are not in a depression that holds water. Recommended varieties include Canada Red, Crimson Red, McDonald and Valentine.

Rhubarb needs rejuvenated at least every 5 to 10 years and should be dug and divided from mid-March to early April. Use a cleaver or ax to cut crowns into sections that each contain one or two buds. Plant as described above.

Newly transplanted rhubarb should not be harvested the first year so the plant can recover from the transplant process. Only a few stalks should be harvested the second year to allow the plant to continue to build up its energy reserves. The harvest season for plants that are three years or older usually lasts about 8 weeks. Harvest only the largest and best stalks by pulling them slightly to the side so that they break away from the plant. Never harvest over one-third of the leaf stalks at one time. Only the leaf stalk (petiole) is eaten as the leaf blade contains oxalic acid and is poisonous.

Established rhubarb should be fertilized in late March. Fertilize according to soil test or use a 10-10-10, 12-12-12 or similar fertilizer and broadcast or band at the rate of 1.5 to 2 pounds per 100 square feet or about 1/2 cup per plant.

An additional 1/4 cup of fertilizer per plant of a high nitrogen fertilizer such as a 27-3-3, 28-4-4 or something similar in late June or July after the last harvest is often helpful to stimulate recovery from the harvest season. Though most of these high nitrogen fertilizers are lawn fertilizers, each will work well for our purposes as long as they do not contain weed killers or weed preventers.

Mulches can be used to reduce moisture loss, prevent weed growth and provide winter protection. However, it should be pulled away in the spring to allow the soil to warm so that early growth is encouraged. (Ward Upham)

Time to Plant Potatoes Approaching

St. Patrick's Day is just around the corner, so it is time to think about getting seed potatoes in the ground. Actually any time from mid- to late-March is fine for potato planting.

Be sure to buy seed potatoes rather than using those bought for cooking. Seed potatoes are certified disease free and have plenty of starch to sprout as quickly as soil temperatures allow. Most seed potatoes can be cut into four pieces, though large potatoes may yield more, and small less. Each seed piece should be between 1.5 and 2 ounces. Seed pieces this size will have more than one eye.

Each pound of potatoes should yield 8 to 10 seed pieces. Cut the seed 2 to 3 days before planting so freshly cut surfaces have a chance to suberize, or toughen, and form a protective coating. Storing seed in a warm location during suberization will speed the process. Plant each seed piece about 1 to 2 inches deep and 8 to 12 inches apart in rows. Though it is important to plant potatoes in March, emergence is slow. It is often mid- to late-April before new plants poke their way through the soil. As the potatoes grow, pull soil up to the base of the plants. New potatoes are borne above the planted seed piece, and it is important to keep sunlight from hitting the new potatoes. Exposed potatoes will turn green and produce a poisonous substance called solanine. Keeping the potatoes covered will prevent this. (Ward Upham)

Bolting and Buttoning in Cole Crop Plants

Broccoli, cabbage and cauliflower are cole crops that have a tendency to bolt (go to seed) or button (produce an extremely small head) if plants are not grown properly. These crops need to be kept actively growing through their production cycle, including growing transplants from seed. If they slow down due to under-fertilization or are stunted due to overgrowing their container, buttoning or bolting is more likely. Therefore, be sure to properly fertilize plants grown from seed and ensure they have enough light. The easiest way to fertilize transplants is to use a potting soil with fertilizer already added. Light may be more of a challenge. Often natural sunlight is not sufficient unless the plants are in a greenhouse. Therefore, additional light is often needed. [Click here for a video on how to build a grow light.](#)

If you are not growing your own transplants but rather selecting plants later in the month for transplanting, choose small, stocky, dark green plants. Even after transplanting, these plants need to be well-fertilized. Fertilize at transplanting with a starter solution and

continue to fertilize every 2 to 3 weeks until harvest. Both buttoning and bolting are irreversible. Once a seed stalk starts for form, nothing can be done to force the plant to produce a normal crop. (Ward Upham)

Use Wide Rows for Certain Vegetables

Lettuce, radishes and spinach are planted early enough that weeds are usually not a problem. These plants can usually be planted starting in mid-March to as late as mid-April. If space is at a premium, gardeners can plant a wide row and get more production out of a small space. How wide? Usually 12 to 18 inches is about right. Leaving aisles between wide rows allows for convenient harvesting.

Seed can be planted in several rows close together to make a wide row but it is easier to scatter seeds uniformly over the area. After seeding, tamp down the row lightly with the back of a hoe to eliminate air pockets. Then pull soil from the sides of the row with the back of a garden rake to cover the seed. One-quarter inch of soil over the seed should be good.

Be careful to not sow too densely as too much competition can stunt plants. Space seed according to the instructions on the seed packet. If you do happen to sow too thickly, plants can be thinned later.

It is best to go back to a single row for later planted crops to allow for easier weed control. (Ward Upham)

Cut Back Ornamental Grasses

March is a good time to remove dead foliage from ornamental grasses. Grasses green up earlier if foliage is removed and are more attractive without a mixture of dead and live leaves. A number of tools can be used including hand clippers, weed whips (if the foliage is of a small enough diameter), weed whips with a circular blade, or even a chain saw. Use the top of the chainsaw bar to cut so the saw doesn't pull in debris and clog.

Also, it is often helpful to tie foliage together before cutting so it doesn't interfere and is easier to dispose of. Burning is another option — but only if it is safe and legal to do so. Note that these grasses may not burn long, but they burn extremely hot. Even so, the crown of the plant is not damaged and new growth appears relatively quickly.

If the center of the clump shows little growth, the plant would benefit from division. Dig up the entire clump and separate. Then replant the vigorous growth found on the outer edge of the clump. (Ward Upham)

Pruning Raspberries and Blackberries

Raspberries and blackberries are perennial plants with biennial canes. In other words, a single plant will last many years but an individual cane will only live for two. In a cane's first year, it will grow but will not produce fruit. The second year, it will fruit and then die. Though these canes can be removed after they have finished fruiting, many gardeners wait until now to remove them.

Dead canes are not difficult to identify. They are a much lighter color than live canes and are dry and brittle. These canes should be removed and discarded. The remaining canes should be thinned but the type of growth determines exactly how this should be done.

Black and purple raspberries and thornless blackberries: These tend to grow in a clump. Remove all the canes but 5 to 7 of the largest and healthiest in each clump. Cut back the remaining canes to living tissue if there was winter damage. With black raspberries, eight to 10 buds per lateral (side shoots) are usually enough. Cut laterals back to leave the recommended number of buds. Purple raspberries and thornless blackberries are more vigorous than black, so leave a few more buds per lateral. Thornless blackberries will also produce a few suckers that come up some distance from the clump. These should be removed or dug and transplanted to increase the planting.

Red raspberries and thorny blackberries: These two sucker badly and will fill the row with new plants. Prune out small canes within the row so that there are strong canes 4 to 6 inches apart. Head back all the remaining canes to about 5 feet. There is no need to prune back any laterals present. Keep aisles free of new suckers during the summer by mowing.

Everbearing red raspberries and blackberries: We now have what is called everbearing red raspberries and everbearing thorny blackberries. These are the exception to the rule in that they will bear fruit on first-year canes. Therefore, you can cut all canes to the ground in the winter and still have fruit. Examples include Heritage red raspberry and Prime-Jim, Prime-Jan, Prime Ark 45 and Prime Ark Freedom blackberries. For more detail and line-drawings that illustrate pruning techniques, see our publication titled, "Raspberries and Blackberries" at <http://www.ksre.ksu.edu/bookstore/pubs/mf720.pdf>. (Ward Upham)