REMINDEERS

- Mulch vegetable garden.
- Pinch mums when they reach 6” tall to encourage bushier growth. [https://tinyurl.com/yb4cd4aa](https://tinyurl.com/yb4cd4aa)
- Make a vegetable garden “map” so that you remember what was planted in what spot.

VEGETABLES

Onions Developing

This is the time of year that onions grow and develop rapidly. Regular watering (if the soil ever dries out) and a light fertilization are helpful to maximize growth. If your soil tends to be alkaline, use ammonium sulfate (21-0-0) at the rate of ½ cup per 10 feet of row. Or you can use a lawn fertilizer such as a 29-5-5, 27-3-3 or anything similar but only use 1/3 cup per 10 feet of row. Make sure the lawn fertilizer does not have a weed preventer or weed killer included. Sprinkle the fertilizer 2 to 3 inches alongside the row and water in. Do not fertilize after the onions start to bulb.

Onions develop so that as much as 2/3 of the bulb remains out of the soil. There is normal and there is no need to cover the bulb with soil. (Ward Upham)

Mulching Tomatoes

Soils are warm enough now that tomatoes can benefit from mulching as long as the soils are not saturated with water. Tomatoes prefer even levels of soil moisture and mulches provide such by preventing excessive evaporation. Other benefits of mulching include weed suppression, moderating soil temperatures and preventing the formation of a hard crust on the soil. Crusted soils restrict air movement into and out of the soil and slow the water infiltration rate.

Hay and straw mulches are very popular for tomatoes but may contain weed or volunteer grain seeds. Grass clippings can also be used but should be applied as a relatively thin layer – only 2 to 3 inches thick. Clippings should also be dry as wet clipping can mold and become so hard that water can’t pass through. Also, do not use clippings from lawns that have been treated with a weed killer until some time has passed. With most types of weed killers, clippings from the fourth mowing after treatment may be used. If the lawn was treated with a product containing quinclorac (Drive), the clippings should not be
used as mulch. If the weed killer used has a crabgrass killer, it likely contains quinclorac. (Ward Upham)

**FRUIT**

‘Tip’ Blackberries, Black Raspberries and Purple Raspberries

The growth and fruiting habits of blackberries and raspberries are the same. The root system is perennial, surviving many years, but canes are biennial and only live two years.

First-year canes are called primocanes. They emerge from the soil and grow but with most varieties, the primocanes do not fruit. Primocanes become floricanes the second year. Floricanes fruit and then die. Each cane lives only two years. New primocanes are produced each year and therefore primocanes and floricanes are present each year.

Pinching (tipping) the top 2 to 3 inches of the primocanes increases branching and fruiting. Tipping can improve yield by 3 to 5 times and is vital is you wish to have good yields.

The height and frequency of tipping varies with species and whether the variety fruits on primocanes or not. Those that do fruit on primocanes are often referred to as “everbearing.” Those that only produce fruit the second year, we will call “traditional.” Below is a listing of the different methods used.

*Blackberries: Traditional* - Tip at 4 feet
*Blackberries: Everbearing* - Tip at 25 to 30 inches high. Laterals are also tipped when they reach 25 to 30 inches.
*Black Raspberries* - Tip at 3 feet
*Purple Raspberries* - Tip at 36 to 40 inches
*Red Raspberries* - Do not tip. (Ward Upham)

**TREES AND ORNAMENTALS**

Spring-Flowering Bulb Foliage can be Removed

It is important to leave spring-flowering bulb foliage in place until it “ripen” or becomes brown. The energy produced by the leaves after flowering is transferred to the bulb so that it can flower the following year. The ripening process should be near completion now for tulips, daffodils and various other spring-flowering bulbs. Use clippers, scissors or even a mower to remove dead foliage. Also, try to map out where the bulbs are planted as there will be no foliage to make the location next fall when it is time to fertilize. (Ward Upham)
There have been a number of trees that have been slow to leaf out this spring. In most cases, this is likely due to stress. This year, many trees were stressed from the abnormally dry weather last fall and winter.

So what do we do? The only thing we can do now is try to avoid any further stress. Basically that means watering during dry weather. Don’t overdo it as too much moisture can damage root systems. The goal is to keep the soil moist but not waterlogged while allowing the top of the soil surface to dry between waterings.

So how do we water trees? One inexpensive method is to use soaker hoses. Unfortunately, soaker hoses are notorious for non-uniform watering. In other words, you often receive too much water from one part of the hose and not enough from another. However, we can minimize this problem by using certain methods. On small trees, circling the tree several times with the soaker hoses will even out the amount of water applied. On larger trees, we use a different approach. Hooking both the beginning and the end of the soaker hose to a Y-adapter helps equalize the pressure and therefore provide a more uniform watering. The specific parts you need are shown in the photo above and include the soaker hose, Y-adapter and female to female connector.

It is also helpful if the Y-adapter has shut off valves so the volume of flow can be controlled. Too high a flow rate can allow water to run off rather than soak in.

On larger trees, the soaker hose can circle the trunk at a distance within the dripline of the tree but at least ½ the distance to the dripline. The dripline of the tree is outermost reach of the branches. On smaller trees, you may circle the tree several times so that only soil which has tree roots will be watered.

Soil should be wet at least 12 inches deep as 80% of a tree's roots are in the top foot of soil. Use a metal rod, wooden dowel, electric fence post or something similar to check depth. Dry soil is much harder to push through than wet and your probe will stop when it hits dry soil. How long it takes water
to reach a 12 inch depth varies depending on the rate of water flow and soil. Record the amount of
time it takes to reach 12 inches the first time the tree is watered. After that, simply water for that same
amount of time. Watering every 2 to 3 weeks during dry weather should be sufficient. (Ward Upham)

MISCELLANEOUS

Flooding Damage

Waterlogged soils push out oxygen that roots need to
survive. Every living cell in a plant must have oxygen
or it dies. Some plants have mechanisms to provide
oxygen to the roots even under saturated conditions
but most of our vegetables and flowers do not. The
longer these plants are subjected to saturated soils, the
more likely damage will occur.

Usually, as long as water drains away within 24 hours,
the impact on plant health is minimal. However,
shallow, stagnant water under hot, sunny conditions
can literally cook small plants, reducing survival time
to as little as a few hours.

Vegetables: What about safety regarding eating produce from a garden that has been flooded? Standing
water should not cause a safety problem as long as the aboveground portions of the plant remain
healthy. Do not use produce from plants that have yellowed. Also, using produce flooded with water
contaminated with sewage (lagoon) or animal manure can also be dangerous.

The safest approach is to discard all garden crops that have been in contact with such water. Certainly,
leafy vegetables should always be discarded. However, you may eat fruit from such crops as tomatoes,
peppers, eggplants, sweet corn, squash, cucumbers, and similar vegetables that develops after the
waters have subsided as long as the fruit is not cracked or soft. Always wash vegetables thoroughly
before eating.

Lawns: Under the cool conditions of early spring, turfgrasses can often survive several days of
flooding. However, during hot, sunny conditions with shallow, stagnant water, lawns may be damaged
quickly, sometimes in a few hours. This situation often occurs when shallow depressions in a lawn
allow water to pool. Note such areas and fill in with additional soil once the waters have subsided.

Trees: Trees differ markedly in their ability to withstand flooding. Some trees have mechanisms in
place to provide oxygen to the roots of plants with water saturated soils and others do not. However,
most trees will maintain health if flood waters recede in 7 days or less. It also helps if water is flowing
rather than stagnant as flowing water contains more oxygen. If the roots of sensitive trees are flooded
for long periods of time, damage will occur including leaf drop, iron chlorosis, leaf curl, branch
dieback, and in some cases, tree death. Another danger of flooding is the deposition of sediment. An
additional layer of silt 3 inches or more can also restrict oxygen to the roots. If possible, remove deep
layers of sediment as soon as conditions permit. This is especially important for small or recently
transplanted trees.

Try to avoid any additional stress to the trees this growing season. Ironically, one of the most important
practices is to water trees if the weather turns dry. Flooding damages roots and therefore the root
system is less efficient in making use of available soil water. Timely waterings are vital to a tree’s recovery. Also be diligent in removing any dead or dying branches which may serve as a point of entry for disease organisms or insect pests. The following information on tree survival came from the US forest Service.

**Trees Tolerant of Flooding:** Can survive one growing season under flooded conditions. Red maple, silver maple, pecan, hackberry, persimmon, white ash, green ash, sweetgum, sycamore, eastern cottonwood, pin oak and baldcypress.

**Trees Moderately Tolerant of Flooding:** Can survive 30 consecutive days under flooded conditions. River birch, downy hawthorn, honeylocust, swamp white oak, southern red oak, bur oak, willow oak and American elm.

**Trees Sensitive to Flooding:** Unable to survive more than a few days of flooding during the growing season. Redbud, flowering dogwood, black walnut, red mulberry, most pines, white oak, blackjack oak, red oak and black oak.

**After the Flood:** Soils often become compacted and crusted after a heavy rainfall. This also can restrict oxygen to the roots. Lightly scraping the soil to break this crust will help maintain a healthy root system and therefore, a healthy plant. Be careful not to cultivate too deeply as shallow roots may be damaged. If you think the excessively wet weather will continue, bedding up the rows before planting even just a couple of inches, will improve drainage and allow for better aeration. (Ward Upham)

**Three Steps to Choosing Potting Media for Outdoor Use: Part 2**

I have had several questions this spring on potting soils and how to choose the best potting media. Dr. Cheryl Boyer, our Nursery Crop and Marketing Specialist, has done extensive studies on potting soils and has written the following to help homeowners make a good choice. We will present her material in three parts or steps with one step each week.

1. **Step 1: What are You Using it For?**
2. **Step 2: Understanding Major, Minor, and Specialty Components**
3. **Step 3: Mixing and Managing**

Last week we covered Step 1. So, here is Step 2.

(Ward Upham)

**Step 2: Understanding Major, Minor, and Specialty Components**

These materials are regionally sourced and often composted to reduce particle size. Some materials are manufactured for the purpose of being used in potting media and many more are by-products of other industries. They are all fine as components but look at the label to understand how much of each “ingredient” is mixed, by volume, into the product you’re purchasing. If that information isn’t on the bag, be wary of purchasing.

- Major components: Bark (or “composted forest products”), peat (this might be defined by type of peat which often refers to the source material or the coarseness), soil (don’t pay for this unless it’s...
local/regional and advertised as a single-component soil amendment—not as a potting media), manure, sand. Other waste-product alternative materials such as coconut coir and wood fiber are also great to use, but they’re not seen as often in consumer-level products.

· Minor components: Perlite (little white pellets--it’s for aeration, not fertilization), vermiculite (shiny heat-expanded rock pieces), rice hulls (also for aeration with an added bonus of weed control when applied to the tops of containers). These are the most common.

· Specialty components: mycorrhizae (symbiotic fungal organism that, mixed in, can be very beneficial in a container system by expanding the root capacity to take up nutrients and water, it’s less effective in field soil where these organisms are already abundant), fungicide (some products are designed to address specific fungal growth issues).

A note about manure and compost: These are good organic materials; however, you must be careful that the source can guarantee the material that produced the manure (hay, pasture grass, etc.) was not treated with herbicide. Many herbicides used in pasture management have a very long half-life and can persist in your landscape beds, killing desired plants.

A note about organic products: While most media components are considered “natural” and are likely produced using organic practices, few will be labeled as organic simply due to the nature of the organic certification process. An organically labeled product is not inherently better than another, though if you’re looking for a bagged manure product, organic will ensure the absence of herbicide residue.

(Cheryl Boyer)

TURF

Little Barley in Lawns

Many people mistake little barley (*Hordeum pusillum*) for a little foxtail because the foxtail and little barley seedheads are similar. However, little barley is a winter annual that comes up in late September - October and spends the winter as a small plant. It thrives in the cooler spring temperatures, forms seed heads and dies out usually by July. Foxtail, on the other hand, is a summer annual that does well in hot weather. Also, foxtail will not produce seedheads until mid- to late-summer.

So, why are we talking about little barley now? Because now is NOT the time to control it unless it is in an area where a non-selective herbicide that kills everything such as glyphosate (Roundup) can be used. The best control for little barley in turf is a thick lawn that is mowed high enough that sunlight does not hit the soil. Little barley seed will not germinate in such conditions.

Overseeding in late August to early September can thicken up a tall fescue lawn and help prevent a little barley infestation. However, early germinating little barley may not be controlled. So, if you do not plan to overseed even though the lawn is a bit thin, preemergence herbicides can be used to provide at least partial control of this weed.

Dimension (dithiopyr), is labeled for barley (*Herodium spp.*) which would include little barley and therefore can be used to keep this weed under control. Because little barley is a winter annual, apply
the preemergence herbicide in mid-September and water in to activate. However, you may have to apply at least a couple of weeks earlier if you are in southern Kansas. If overseeding, do not apply any preemergence herbicide as it will interfere with the germination of tall fescue. (Ward Upham)

Sidedressing Chart Available

Gregg Eyestone, Horticulture Agent from Riley County, has put together a nice chart that covers sidedressing nitrogen on annual flowers, certain perennial flowers, vegetables and various small fruit. Sidedressing (also called topdressing) is applying nitrogen fertilizer as plants are growing to give them an extra boost. Done correctly, sidedressing can improve vegetable, fruit and flower production. This will be especially important this year in areas that have received excessive rainfall as nitrogen has likely been lost. Gregg lists the crop, the amount of fertilizer needed, and suggested time of application. Rates are given for ammonium sulfate, urea and blood meal. You may find the chart at http://tinyurl.com/hxtgres (Ward Upham)

Contributors: Cheryl Boyer, Nursery Specialist; Ward Upham, Extension Associate

Division of Horticulture
1712 Claflin, 2021 Throckmorton
Manhattan, KS 66506
(785) 532-6173

For questions or further information, contact: wupham@ksu.edu OR cdipman@ksu.edu
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