Video of the Week:  
When to Pick Tomatoes

UPCOMING EVENTS

Kansas Turfgrass Field Day - August 2 (Manhattan)

The field day program is designed for all segments of the turf industry - lawn care, athletic fields, golf courses, and grounds maintenance. Included on the program are research presentations, problem diagnosis, commercial exhibitors, and equipment displays. There will be time to see current research, talk to the experts and get answers to your questions. To register or download a copy of the program, go to http://2018turfday.eventbrite.com

The Commercial Vegetable Research Field Day - August 27 (K-State Olathe Research & Extension Cntr.)

Bring your walking shoes for this event as we will take a comprehensive tour of all our specialty crop research. Projects include tomato grafting, organic sweet potato, high tunnels, postharvest quality, variety trials, cover cropping techniques, and the effects of light on high tunnel crops. Stay for a cookout in the shade hosted by the staff and students. To register, contact growers@ksu.edu

TURFGRASS

Is My Lawn Still Alive?

Normally, a healthy lawn can stay dormant for a good 5 weeks and still recover. After the five weeks are up, it is important to keep the crown hydrated because if the crown dies, the plant dies.

The recommendations differ for a lawn that was overwatered or received so much rain this spring that it produced a limited root system. Such a lawn may die unless allowed to slowly enter dormancy. This is done by shutting off the water gradually. For example, instead of
watering several times a week, wait a week before irrigating. Then don’t water again for two weeks. Thereafter, water every two weeks as described below.

Apply about 1/4 inch of water every two weeks to hydrate the crown. This will be enough to hydrate the crown but not enough to encourage weed germination and growth.

If you are wondering if the turf is still alive, pull up an individual plant and separate the leaves from the crown. The crown is the area between the leaves and the roots. If it is still hard and not papery and dry, the plant is still alive. When rains and cooler weather arrive, the turf should come out of dormancy. However, we will probably have to deal with weeds that germinate before the turfgrass grows enough to canopy over and provide enough shade to keep weed seeds from sprouting. (Ward Upham)

How Much to Water a Lawn

We have received several questions on how much to water a lawn. Homeowners usually want to know how much and how long to leave the sprinklers on. There are too many variables to give a solid answer. You will need to do some experimentation to determine what is needed for your lawn.

The key is to make sure water reaches about 8 inches deep. This can be checked with a wooden dowel or a metal rod (rebar or electric fence post). Pushing it into the soil will tell you how deeply water has reached as it will stop when it hits dry soil.

Start by watering for 15 minutes and check the depth of watering. If the soil is only moist 4 inches deep, then you will need to water another 15 minutes. Check again after the second watering to be sure moisture reaches your desired depth. Watch for runoff. If you see any before the soil is wet to the desired depth, you may have to water each area twice with some time in between to allow the water to soak in.

If there is still runoff before water reaches the desired depth, more waterings per week may be needed to make up for the shallow depth the water is reaching. On such lawns, core aeration during September would be highly recommended to help increase the rate at which the soil absorbs water.

That brings up how often should we water. During most of the growing season, once per week will be adequate. However, during extreme heat or on heavy soils where runoff occurs quickly, twice a week may be needed. (Ward Upham)

VEGETABLES

Tomato Cracking

Tomatoes often have problems with cracking caused by pressure inside the fruit that is more than the skin can handle. Cracks are usually on the upper part of the fruit...
and can be concentric (in concentric circles around the stem) or radial (radiating from the stem). We don’t know everything about cracking but here is what we do know.

Tomatoes have a root system that is very dense and fibrous and is quite efficient in picking up water. Unfortunately, the root system can become unbalanced with the top of the plant. Early in the season it may be small in relation to the top growth resulting in blossom-end rot during hot, dry weather. Later it may be so efficient that it provides too much water when we get rain or irrigate heavily after a dry spell. This quick influx of water can cause the tomato fruit to crack.

Therefore, even, consistent watering can help with cracking. Mulching will also help because it moderates moisture levels in the soil. However, you can do everything right and still have problems with cracking in some years.

We have evaluated varieties for cracking during our tomato trials at K-State. It takes several years worth of data to get a good feel for crack-resistant varieties but we have found some real differences. Some varieties crack under about any condition and others are much more resistant. The difference seems to be pliability of skin rather than thickness — the more pliable the skin the more resistance to cracking.

The old variety Jet Star has been the most crack resistant of any we have tested including the newer types. Unfortunately, Jet Star is an indeterminate variety that puts out rampant growth. Newer varieties with more controlled growth are often more attractive to gardeners. Mountain Spring, Mountain Pride, Mountain Fresh, Floralina and Sun Leaper are smaller-vined types that have shown good resistance to cracking. (Ward Upham)

FRUIT

Watering Fruit Plants During the Summer

When temperatures exceed 90 degrees F, fruit plants lose water quickly. When this happens, moisture is withdrawn from the fruit to supply the tree. Stress from high temperatures, along with a moisture deficit in the root environment, may cause fruit to drop or fail to increase in size. The stress may also reduce the development of fruit buds for next year's fruit crop. If you have fruit plants such as trees, vines, canes, and such, check soil moisture at the roots. Insert a spade or shovel or a pointed metal or wood probe -- a long screwdriver works well for this. Shove these into the soil about 8 to 12 inches. If the soil is hard, dry, and difficult to penetrate, the moisture level is very low, and plants should be irrigated to prevent drooping and promote fruit enlargement. Water can be added to the soil using sprinklers, soaker hose, drip irrigation, or even a small trickle of water running from the hose for a few hours. The amount of time you irrigate should depend upon the size of plants and the volume of water you are applying. Add enough moisture so you can easily penetrate the soil in the root area of the plant with a metal rod, wooden dowel or other probe. When hot, dry weather continues, continue to check soil moisture at least once a week.

Strawberries have a shallow root system and may need to be watered more often – maybe twice
a week during extreme weather. Also, newly planted fruit trees sited on sandy soils may also need water twice a week. (Ward Upham)

Pear Rust

Many people are noticing spots on the leaves of their ornamental or fruiting pear. Though these spots resemble the cedar-apple rust spots on apple leaves, they are actually caused by a different organism. Pear leaves are infected with cedar-hawthorn rust rather than cedar-apple rust. Though this disease is different than cedar-apple rust it works just the same and the control is exactly the same as well. This disease is usually more of a nuisance rather than a disease that causes significant harm. Therefore, control is optional unless you see substantial leaf drop.

It is too late to do anything about “pear rust” once the month of May is over. It is only active in April-May time period. If you would like to control it next year, use myclobutanil (Immunox, Immunox Plus or Fertilome F-Stop Lawn and Garden Spray). There are other fungicides that will work but those with myclobutanil have an advantage. Most fungicides must be present on the foliage before the disease spore germinates or they are ineffective. Myclobutanil will kill the rust spore up to 4 days after it germinates. Big deal. What does that mean in the real world.

Normally, we would recommend that trees be sprayed every 7 to 10 days starting at the beginning of April until the end of May. However, since we have this 4-day kickback with myclobutanil, we can wait until we actually see evidence of spores being released before we spray. How do we do that? First of all remember that cedar-apple rust and cedar-hawthorn rust must go back and forth between junipers (cedars) and apples (or pears in this case). The spores from junipers can only infect apples or pears and those from apples or pears can only infect junipers. Therefore we look at the juniper to see when to spray either apples or pears.

When you see the orange globs (galls) on the junipers, you know you have 4 days to spray the apples and/or pears. These orange globs are actually cedar-apple rust but cedar hawthorn rust develops under the same conditions. We key off of cedar-apple rust because it is much more noticeable on the juniper. If you see cedar-apple rust, cedar-hawthorn rust is likely present. It is also important to note that the orange galls only develop during rainy weather.

So, this is what you do. During any rainy period during April and May, watch the cedars. When they bloom (orange galls appear) get ready to spray. You have 4 days to apply your myclobutanil fungicide. Once May is over, you are done. (Ward Upham)

Netting Grapes

If you have grown grapes before, you have likely discovered that birds like grapes as much as you do. There are two methods homeowners can use to protect the fruit. The first is bagging where a paper bag is placed over the cluster and secured with a twist tie or staple. The bag can be left until it is time for harvest as flavor and
color are determined by sunlight hitting the leaves rather than the cluster.

The second method is to net the crop. The most common and least expensive netting is the lightweight, black, polypropylene type with a square mesh size of ½" x ½". This can be difficult to install and remove as it tends to stick to itself and to the vines. However, it is effective. Woven mesh bird netting is also effective and easier to work with but is more expensive.

If your trellis has a wire at six feet high, purchase a net that is at least 14 feet wide so that it can be draped over the grapes and secured along the bottom edge with clothes pins. Nets that are 17 feet wide are less common but give more material to work with and are therefore easier to secure. (Ward Upham)

**PESTS**

**Elm Leaf Beetle**

There are two insects that are feeding on elms this year; the elm leaf beetle and the elm flea weevil. Both insects feed on the leaves, giving them a brown appearance. This article discusses the elm leaf beetle.

There are normally two generations of this insect in Kansas with this being the second generation. All species of elms are attacked, but Siberian elms (often referred to as Chinese elms) are preferred. Elm leaf beetles are serious nuisance pests of elms. Both adults and larvae feed on the elm leaves. Adult beetles are green-and-yellow striped and about 1/3-inch long. Young larvae are black and hairy but become yellow with two longitudinal dark stripes as they mature. The larvae cause most of the injury by window-feeding on foliage, resulting in a skeletonized appearance.

Heavily infested leaves turn brown as if scorched by fire and often will drop prematurely. After several weeks of feeding, the larva crawl down the trunk or fall to the ground where they pupate. Elm leaf beetles overwinter as adults.

Active larvae can be controlled with a number of insecticides. However, check to make sure that larvae are still active before spraying. In many cases, the larvae have dropped from the trees and are pupating. Spraying is ineffective and unnecessary once pupation starts. Effective sprays for larvae (and adults) include carbaryl (Sevin), acephate (Acephate, Orthene), spinosad (Conserve; Captain Jack’s Dead Bug Brew, Borer; Bagworm, Leafminer & Tent Caterpillar Spray) lambda-cyhalothrin (Scimitar, Spectracide Triazicide, Bonide Beetle Killer). (Ward Upham)
Elm Flea Weevil

As mentioned in the previous article, this insect also causes browning of the leaves. Though this weevil does feed on other elms including American and Chinese elms, Siberian elm is preferred. The adult of this insect is a very small (1/8 inch) brown weevil with dark spots on the back. It sports a short, curved snout and has the ability to hop.

Eggs from overwintering adults hatch on newly formed leaves. The larva produces a serpentine pattern in the leaf that terminates on a leaf edge. Adults emerged some time ago and are feeding on the leaves. Adult feeding damage produces a shot hole pattern in the leaves. Heavily fed upon leaves appear lacy. Feeding can continue for a long period of time. There is one generation per year and so when the adults disappear, there should be no further damage this year.

I have not seen any control strategies for this insect. Trees typically recover from spring defoliations. (Ward Upham)

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