TURFGRASS

Fertilize Irrigated Cool-Season Lawns in May

May is an excellent time to fertilize cool-season lawns such as tall fescue and Kentucky bluegrass if they will be irrigated throughout the summer. Non-irrigated lawns often go through a period of summer dormancy because of drought and do not need this fertilization.

May is a good time to fertilize because the springtime flush of growth characteristic of these grasses has tapered off, so the fertilizer you apply will be less likely to cause excessive shoot growth than if you had fertilized in April. Slow-release nitrogen sources are ideal. These nitrogen sources promote controlled growth, which is desirable as the stressful summer weather approaches. Relatively few fertilizers available to the homeowner supply ALL of the nitrogen in the slowly available form. But one such product that is widely available is Milorganite. Other such products available in the retail market include cottonseed meal, alfalfa-based fertilizers, and any other products derived from plants or animals. (Bloodmeal is an exception, and contrary to popular belief, the nitrogen it supplies is quickly available.) These products are all examples of natural organic fertilizers. They typically contain less than 10 percent nitrogen by weight, so compared to most synthetic fertilizers, more product must be applied to get the same amount of nitrogen. Translation: they are more expensive! Apply enough to give the lawn one pound of nitrogen per 1,000 square feet. For example, if the fertilizer is 6 percent nitrogen by weight, you will need to apply almost 17 pounds of fertilizer product per 1,000 square feet. Summer lawn fertilizers that contain at least a portion of the nitrogen as slow-release are fine to use as well. Be sure to follow label directions.

If cost is prohibitive, you can use the less expensive quick-release (i.e., soluble) sources, but split the application into two doses as follows: apply enough to give the lawn 0.5 lb nitrogen per 1,000 square feet in May and again in early June. (WU)
**Orchard Grass in Tall Fescue Lawns**

Orchard grass often infests tall fescue lawns. Unfortunately, orchard grass is lighter green and faster growing than tall fescue and so is very visible. Homeowners complain of the light green tufts of grass wherever this weed has become established. Even worse, there are no herbicides that will kill the orchard grass without also killing your turf. About the only good thing about orchard grass is that it is a bunch grass and does not spread.

Orchard grass often comes in as a contaminant on grass seed, especially K-31 tall fescue. Buying good grass seed is the first line of defense against this weed. Orchard grass is a pasture grass and therefore is not found in the “weed seed” portion of the seed label. Rather, orchard grass will be listed as “other crop seed.” Try to buy grass seed that has 0.0% “other crop seed.”

Control options are few and painful. Use glyphosate (Roundup, Killzall Weed and Grass Killer, Kleeraway Systemic Weed and Grass Killer and others) to spot spray orchard grass clumps. Any lawn grasses you hit will be killed so keep the spots sprayed as small as possible. Wait until the spots have turned brown and then cut out the clumps and replace with a small piece of sod. Large numbers of orchard grass clumps may mean it is more practical to kill the entire lawn and start over.

For information on identification including images, go to: [http://kswildflower.org/grass_details.php?grassID=15](http://kswildflower.org/grass_details.php?grassID=15) (WU)

**Mysterious Holes in my Lawn!**

This spring the Insect Diagnostic lab has received several phone calls regarding homeowners who are finding numerous small holes in their yards, sometimes accompanied by dying grass. The following is an example shared with me from a golf course in Hutchinson, KS. The complaint was that the Bermudagrass was dying and that there were numerous holes in the same area, which were thought to be related.

Upon closer investigation, it was determined that the dead spots in the grass were the result of a disease called spring dead spot (SDS). So what was the cause of the mounds and holes? In most cases, it is not possible to simply peak down the hole and see what is there. So, a “flushing solution” was placed in one of the holes to force the inhabitant out (see recipe below). Soon, a wet, soapy camel cricket emerged. It appears that the camel crickets, not typically associated with turf had simply moved in and exploited the "easy digging" bare spots created by SDS.

The moral of the story is that, while the answer may not always be simple or straight forward, a little
investigation may explain a lot. Here are some arthropod (and other) culprits to consider.

**Earthworms** – If the soil in the yard has a significant population of earthworms, there may be piles of small, granular pellets of soil. If these piles are pushed aside, there is other no hole in the top. This is most common in spring and fall when soil is moist and earthworms are active.

Ground bees and Cicada killers – There are several species of ground bees that will create cylindrical tunnels in lawns, creating egg chambers. The holes are typically about ½ inch wide. Cicada killers may produce a hole that is up to 1 inch in diameter. Both of these insects may leave mounds of dirt near the entrance of holes and prefer looser, sandy soil with sparse vegetation.

**Crayfish** – These are only found in areas with consistently wet soil. They create 2-4 inch high piles of mud balls surrounding 1 inch wide holes.

**Emerging insects** – Many insects, such as June beetles and cicadas, overwinter in the soil in immature life stages. As temperatures begin to warm, they will complete development and emerge as adults. They may leave holes in lawns of various sizes and may be accompanied by small mounds of dirt pushed off to one side.

So how do you determine what is in the holes? Bob Bauernfeind, Extension Specialist, recommends a flushing solution. Mix 1 Tablespoon of Lemon Joy into 1 gallon of water and pour it down one or several “mystery holes” and watch to see what comes up. When the holes are created by emerging insects, there will be no insects, but it is possible that a cast skin may float up to give some clue to what was there. It is important to stress that large sections of dying or yellow yard may be the result of a disease rather than the resident of the holes in your yard. (HD)
Rhubarb Harvest and Seedstalks

Rhubarb, like asparagus, is a perennial vegetable. It is harvested for the leaf stem, which is also called a petiole. Some years, especially those with long, cool springs, rhubarb will produce large, hollow-stemmed seedstalks that arise from the center of the plant. These should be broken or cut out as they appear so that energy will go into plant vigor rather than seed production. It will take several weeks for all the seedstalks to appear so be vigilant in removing them. Newer varieties of rhubarb are selected for vigor, bright red-colored stalks and less of a tendency to produce seedstalks than the older types. (WU)

Sweet Corn Primer

It used to be simple to decide which sweet corn to plant. You simply chose a cultivar and planted when the soil temperature reached 55 degrees. Now it has become more complicated due to genetic advances in sweet corn. Breeders have found certain genes that improve “standard” sweet corn. Below is an overview of the types commonly available to homeowners.

Standard (su): This is our “normal” sweet corn and contains a “sugary gene” (su). Standard sweet corn should be isolated from field corn, popcorn, supersweets and ornamental corn. To isolate one type of corn from another, do not plant one type within 200 to 250 feet or be sure to have a difference of 12 to 14 days in time to maturity. Plant when the soil temperature reaches at least 55 degrees. Recommended varieties include Honey and Cream, Silver Queen, Sterling Silver, Jubilee or Merit.

Supersweet (sh2): Though supersweets have up to three times the sweetness of standard sweet corns and hold their sweetness longer after harvest due to the sh2 gene, they do have some drawbacks such as tougher kernels and a lack of some of that good “corn” flavor. They also need to be isolated from other sweet corn types and are very sensitive to cooler soils. Wait until the soil temperature reaches 65 degrees before planting. Try Candy Store, Florida Staysweet, Sugar Loaf, Sweet Time or Sweetie.

Sugar Enhanced (se): These are probably the most popular type of sweet corn grown due to their tender kernels, good flavor and less sensitivity to cool soils (60 degree soil temperature for planting). They hold their post-harvest sweetness longer than standard types but will not hold sweetness as long as the supersweets. The sweetness from the sugar-enhanced types is due to the “se gene.” If both parents were se types, the variety is known as an se+ or se se. If only one parent was an se type and the other an su type, then the variety will be listed as se. They do not need to be isolated other than from the supersweets. Suggested varieties include Bodacious, Ambrosia, Sweet Temptation, Delectable and Miracle.
Triplesweet (synergistic): The newest types of sweet corns blend the su, se and supersweet types with the goal of combining the best characteristics of each. We don’t have firm recommendations yet but you may want to try Serendipity, Polka, Avalon or Frisky. (WU)

**ORNAMENTALS**

**It’s So Galling!**

I was pretty excited over the last week or two because I found not one, not two, but three examples of different kinds of gall diseases in trees and shrubs. Gall #1, which I mentioned last week, is cedar apple rust. As a reminder, we have some information on cedar apple rust available at [http://www.plantpath.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=1154](http://www.plantpath.ksu.edu/DesktopModules/ViewDocument.aspx?DocumentID=1154).

The second disease that I found recently is Phomopsis gall on forsythia. I saw this disease in a forsythia shrub row just around the corner from my house about a week ago. I have seen this disease but don’t know too much about it, and, apparently, I am not alone. I looked up some information, and there is not much. Back when the bacterial disease crown gall was being investigated, galls were discovered on plants such as viburnum, oak, maple, elm, rhododendron, and forsythia. However, these were not caused by the crown gall pathogen but rather a fungus in the genus Phomopsis. Little is known about the life cycle, how it spreads, and we do not even have an identification to species, just to the genus. The individual galls usually live a few years then die out. The disease can cause some twig dieback, so pruning them out is a good idea. Sterilize tools in a 10% bleach solution or rubbing alcohol in between cuts.

The third gall disease I recently found is black knot. Black knot causes thick, warty, irregular growths and occurs on cherries, plums, and other members of the Prunus group. The fungus survives the winter in the knots, and in springtime spores are spread to new, succulent growth during wet weather leading to new infections. Black knot can eventually trigger severe dieback and can cause major losses in commercial plum or cherry orchards. When it comes to home plantings of fruiting or ornamental cherries, plums, etc., sanitation is key. Scout trees in the winter and prune out affected branches before bud break, cutting a few inches below the visible gall. Don’t drop the prunings to the ground—burn, bury, or discard them or they will serve as a source of spores just as if they were still in the tree. (MK)

**Right On Schedule Ash/Lilac Borer (ALB)**

The rule-of-thumb “calendar date” for the initial appearance of ALB is mid- to late April. As determined by pheromone trap catches, the goal posts are wide, with April 13 to April 24 representing the end posts, and April 18-19 being “right-down-the-center”.

Past recorded dates are April 19, 15, 20, 23, 13, 24 and 18 for 1994, 1995, 2003, 2004, 2006, 2007 and 2009, respectively. For 2010, the first ALB was captured Thursday, April 15, none over the next 4 days, 5 on Tuesday, April 20 and 1 April 21.
For individuals with concerns about ALB, now is the time to apply a protective insecticide treatment to the trunk and larger branches of ash trees. While lilac and privet also are attacked by ALB, there seems to be little concern for treating these hosts. In fact, some people regard ALB as beneficial — larger dead shrub branches (killed by ALB larvae) are simply pruned out and discarded as a normal thinning practice. (BB)

**Look Now for Pine Sawfly**

Pine sawflies have hatched in the Manhattan area. If you have had a problem with this insect before, check your pines for the beginning stages of damage. When these worms are small, they cannot consume a complete needle, so they rasp off the top layer of cells. This leaves individual needles brown and twisted. Look for this damage to pinpoint where sawfly larvae are feeding. The larvae are gregarious, so a number of larvae will be found close together. As the larvae mature, they will consume whole needles and can virtually strip a tree. This happens before new needles expand, so the tree is rarely killed. The pine sawfly prefers Scotch and Mugo pines.

A number of insecticides can be used for control including spinosad (Captain Jack’s Deadbug Brew; Fertilome Borer, Bagworm, Leafminer and Tent Caterpillar Spray), acephate (Hi-Yield Acephate Systemic), cyfluthrin (Bayer Lawn and Garden Multi-Insect Killer), malathion and permethrin (numerous trade names). Horticultural oils and insecticidal soaps also are effective because of the soft skin of sawfly larvae. Bob Bauernfeind, in entomology, has an excellent article on pine sawfly that gives much more detail at [http://www.entomology.ksu.edu/Doc.aspx?id=4746](http://www.entomology.ksu.edu/Doc.aspx?id=4746) (WU)

**MISCELLANEOUS**

**Field Bindweed Control**

Field bindweed is difficult to control, especially for homeowners, but there are options.

**Home Vegetable Gardens**

Weed control requires taking the treated portion of the garden out of production for a time.

Solarization - Solarization uses the energy from the sun to produce heat that pasteurizes the soil. Follow these steps to solarize a garden area:

1. Select the hottest time of year to solarize, usually mid-June to mid-August in Kansas.
2. Work the soil deeply, and smooth the surface so the clear plastic will make uniform contact with the soil.
3. Water well. Moisture encourages seed to germinate and existing bindweed to grow so the plants can be killed by the heat. The water also helps conduct the heat deeper into the soil.
4. Spread clear polyethylene film over the area. Seal the edges and seams with soil to prevent air from circulating under the plastic. One mil film is most effective at creating heat, but is likely to be torn apart by Kansas winds. Film that is 4 mil thick is more likely to last.
5. Leave the plastic in place for 4 to 6 weeks. The longer time is more effective.
6. Remove the plastic after 6 weeks. If you leave it in place longer, it may become brittle from exposure to ultraviolet radiation and be difficult to remove. You can plant the next day.

**Glyphosate** - Glyphosate is sold under a wide variety of names, the most common being Roundup. Take the garden out of production when treating.
   1. Roundup is a nonselective herbicide that will kill whatever it hits. But it is inactivated when it contacts the soil.
   2. Roundup is most effective when applied to bindweed that is at or beyond full bloom. You can treat earlier but don't skip the late summer to fall application.
   3. Do not apply to bindweed that is under moisture stress or not growing well.

**Turf**
Selective herbicides are available. A herbicide with the trade name of Drive (quinclorac) has, until recently, only been available to commercial applicators. However, there is now Drive packaged for homeowners and is available from Monterey Lawn and Garden (www.montereylawngarden.com). There are also homeowner combination herbicides that contain Drive such as Ortho Weed-B-Gon Max + Crabgrass Control and Bayer All-in-One Lawn Weed and Crabgrass Killer.

Commercial applicators can also use Drive (quinclorac) as well as Q4 (contains quinclorac). Products with Drive work about as well as glyphosate but is selective.

**Shrub Beds**
Use a spray of glyphosate between plants. Use a shield if spraying near plants to keep spray from contacting green plant material. Remember, glyphosate will hurt your shrubs if it contacts green tissue.

It is possible to control field bindweed by pulling, but you must be extremely persistent. I remember reading a study from the 1940s that found that bindweed produces enough energy to start strengthening the roots when it reached the six-leaf stage. So, if pulling, never allow plants to produce more than six leaves. (WU)

**Contributors:**
Ward Upham, Extension Associate; Megan Kennelly, Plant Pathologist, Bob Bauernfeind, Entomologist, Holly Davis, Insect Diagnostician

Division of Horticulture
2021 Throckmorton Hall, KSU
Manhattan, KS 66506

(785) 532-6173

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

This newsletter is also available on the World Wide Web at: http://www.hfrr.ksu.edu/DesktopDefault.aspx?tabid=764

The WWW version includes color images that illustrate subjects discussed. To subscribe to this newsletter electronically, send an e-mail message to: mailserv@lists.oznet.ksu.edu In the subject line, type: add. In the body of the message, type: subscribe hortnews. Then press the "enter" key twice to add one blank line following the message.

Brand names appearing in this newsletter are for product identification purposes only. No endorsement is intended, nor is criticism implied of similar products not mentioned.