

## Horticulture 2011 Newsletter No. 29 July 19, 2011

Video of the Week: [Watering Your Garden](#)

### UPCOMING EVENTS

**KSU Research & Extension Center, Olathe Open House**

Saturday, July 30

8:00 a.m. - 3:00 p.m.

For more information, go to <http://www.johnson.ksu.edu/DesktopDefault.aspx?tabid=681>

### VEGETABLES

#### Heat Stops Tomatoes from Setting Fruit



Temperatures that remain above 75 degrees F at night and day temperatures above 95 degrees F with dry, hot winds will cause poor fruit set on tomatoes. High temperatures interfere with pollen viability and/or cause excessive style growth leading to a lack of pollination.

It usually takes about 3 weeks for tomato flowers to develop into fruit large enough to notice that something is wrong and an additional week before tomatoes are full size and ready to start ripening.

The ripening process itself can take 10 to 15 days. It normally takes up to 45 days for tomatoes to go from flower to ripened fruit.

Though there are "heat-set" tomatoes such as Florida 91, Sun Leaper, and Sun Master that will set fruit at higher temperatures, that difference is normally only 2 to 3 degrees. Cooler temperatures will allow flowers to resume fruit set. (WU)

## Orange Tomatoes and Heat



Tomato color can be affected by heat. When temperatures rise above 95 degrees F, red pigments don't form properly though the orange and yellow pigments do. This results in orange fruit. This doesn't affect the edibility of the tomato, but often gardeners want that deep red color back. Though you can't change the color of tomatoes that have completely ripened, you can pick them when they are just starting to turn and have them ripen in cooler temperatures (75 to 85 degrees F is best). Such tomatoes will develop normal coloration.

(WU)

## FRUIT

### Tan or White Drupelets on Blackberry and Raspberry Fruit



Blackberry and raspberry fruit often develop white or tan drupelets on the berry. The cause is uncertain, but two commonly given reasons are stinkbug damage and sunscald. Damage is attributed to stinkbugs if the pattern of off color (not white) drupelets is random. Stinkbug damage is caused by the insect feeding on the receptacle (white core) and often damaging the drupelets on either side. Sunscald damage will be on the side of the fruit exposed to the sun with several drupelets in a small area

being affected. Neither condition affects the eating quality of the fruit but will certainly affect marketability for commercial growers. (WU)

## TURFGRASS

### Brown Patch on Fescue

We have been receiving numerous reports of brown patch showing up on tall fescue. Though brown patch can show up as distinct spots, it often appears as a more general browning of the turf. This disease is favored by warm night temperatures and extended periods of leaf wetness. If you go outside in the morning and the lawn is covered with dew and the temperature is in the high 60s or higher, conditions are getting right for brown



patch. During severe outbreaks, the fungus may invade the lower leaf sheaths and crown and kill plants. But in most cases the turfgrass can recover from brown patch. This recovery may take two to three weeks depending on weather.

There is no way to eliminate brown patch from a lawn. It will persist indefinitely in the soil. Therefore, the disease is not carried from one lawn to another. In almost all cases, the limiting factor for brown patch development is the weather, not the amount of fungal inoculum.

Although you can't eliminate the fungus, cultural practices – especially irrigation – can help control it. Don't water in the evening; instead, water early in the morning. This will help decrease the number of hours the leaf tissue remains wet and susceptible to infection. The frequency of irrigation is not as important as the time of day you do it. Don't overfertilize, and certainly don't fertilize when brown patch is active. Also, don't seed or overseed at too high a rate.

Fungicides can be effective in preventing brown patch, but the two most commonly used products (Heritage and ProStar) are expensive and not available in small quantities to the general public. Homeowners do have access to some effective products including triadimefon (Bayer Fungus Control for Lawns and Green Light Fung-Away), propiconazole (Fertilome Liquid Systemic Fungicide) and myclobutanil (Immunox). Of the three, triadimefon may be the fungicide of choice because it protects the turf longer (3 to 5 weeks rather than 2 weeks). But my suggestion is not to use fungicides unless you want to maintain a blemish-free yard and are willing to pay for it. In those cases, you would need to be on a preventative spray program, which is very expensive, rather than waiting for symptoms and applying as a curative. That is because these products do not cure an infection already present but are only effective as a preventative. Preventative applications should begin in mid-June and continue through August. Remember that more often than not the turf will recover from brown patch. (WU)

### Questions About Which Cool Season Grass to Plant



With the large number of lawns that were damaged in 2010 and the heat of this summer setting in hard, I've been getting a few questions about which grass to plant. First let me point you to a list of recommended varieties of grasses for Kansas at <http://tinyurl.com/6g7o64a> . Now, let me give you some recommendations in two different ways; by desired level of appearance and/or maintenance and by types of grass.

#### **By level of expectation of appearance and/or maintenance for the yard.**

**High** (regular irrigation available): Use Kentucky bluegrass a summer patch resistant cultivar, check the list above or tall fescue or a tall fescue/Kentucky bluegrass blend. Regular irrigation is required and preventive applications for brown patch in tall fescue may be needed. Scout for

other pest problems.

**Medium** (irrigation to prevent severe stress): Same as above. Expect some damage on tall fescue from brown patch if fungicides not used (usually the turf will recover from brown patch in the fall). Tall fescue will have the best drought resistance and will maintain quality longer during drought, particularly on lawns where soil is pretty good. But Kentucky bluegrass might be able to recover from long droughts better than tall fescue.

**Low** (no irrigation will be applied): Kentucky bluegrass will go dormant and then recover. Tall fescue will maintain color longer into hot and dry periods. Kentucky bluegrass will enter dormancy earlier. Both should enter dormancy and recover, but if the heat and drought are excessive and/or prolonged, tall fescue may not recover.

Each grass species has pros and cons. Kentucky bluegrass creates the most attractive lawn, but it will require more water to maintain green color all summer long. On the flip side, many of the newer varieties have less disease and because of its rhizomes, Kentucky bluegrass is better able to recover. It will handle dormancy longer than tall fescue. Pros: attractive, survives dormancy longer, fewer disease issues, rhizomes help it to recover from damage and fill in small bare spots. Cons: enters dormancy quicker than tall fescue and may require more water to prevent dormancy.

A mixture of tall fescue and Kentucky bluegrass (90/10 or 85/15) creates an attractive lawn. Lawn exhibits the benefits of Kentucky bluegrass and tall fescue and fewer cons of both, i.e., green color longer into the summer than a nonirrigated Kentucky bluegrass lawn, less brown patch than a pure tall fescue lawn, recovers from damage. Pros of the mix: attractive, less disease than tall fescue alone. Cons: can appear clumpy if not seeded properly, can still suffer from brown patch.

Tall fescue can be a nice lawn when seeded thickly enough. But seeding too heavily increases chances of getting brown patch disease. Irrigation should be applied to maintain color, but soil needs to stay on the drier side to prevent brown patch. Pros: requires less water to maintain summer color compared to Kentucky bluegrass, has decent traffic tolerance. Cons: can be clumpy if not seeded properly, can be very susceptible to brown patch if irrigated or subject to frequent rains, limited recoverability. It can't fill in bare spots but must be reseeded to recover from damage.

Generally, for high maintenance, high expectation, irrigated lawns, use Kentucky bluegrass. But a properly irrigated and possibly fungicide treated tall fescue lawn is a nice lawn, too.

For lawns with moderate expectations and a little less maintenance, use a tall fescue/Kentucky bluegrass blend.

For lawns with low appearance expectations, use tall fescue, Kentucky bluegrass, or a mixture of the two. Tall fescue will stay green longer into the summer than Kentucky bluegrass, but there will be summers every once in a while when it will be too hot and dry for tall fescue to survive dormancy. Then you will need to reseed. Kentucky bluegrass, on the other hand, will turn brown

quicker in the summer without irrigation, but may survive and recover during bad years.

Ultimately, it comes down to appearance expectations and maintenance. These points should help you choose which grass to plant. (RSJ)

## PESTS

### Chiggers



We are receiving reports of people being "eaten up" by chiggers in southeast Kansas. Chiggers are mites, not insects. And like all mites, they have eight legs. Though the bright red female adult is tiny (about 1/20th of an inch) the larva is much smaller (about 1/150th of an inch). Only the larvae are parasitic and attack animals. The larva injects digestive juices into the skin, which causes a rapid swelling. In the center of the swelling is a "feeding tube" from which the chigger sucks out liquefied skin cells. Feeding usually continues for 2 to 4

days.

Protection from chiggers uses two approaches. The use of a repellent can discourage chiggers from attacking. The most effective repellents are Deet and permethrin. Both are applied to clothing. The second approach seeks to reduce chigger populations. Keeping the lawn mowed regularly can help, but large populations may require the use of an acaricide. Effective products include bifenthrin (Hi-Yield Bug Blaster II, Ortho Lawn Insect Killer Granules and Ortho Bug-B-Gon Lawn and Garden Insect Killer), cyfluthrin (Tempo 20, Powerforce Multi-Insect Killer) and carbaryl (Sevin). For more information, see the K- State Research and Extension publication titled, "Chiggers" at: <http://www.ksre.ksu.edu/library/entml2/mf2107.pdf> . (WU)

### Chinch Bugs on Turf



We are seeing a number of buffalograss turf samples showing signs of chinch bug damage. We are also seeing a related insect called the field chinch bug on zoysiagrass, and occasionally bermudagrass and bluegrass. Adult field chinch bugs are black with distinctly black-and-white patterned wings. Some adult buffalograss chinch bugs have only rudimentary wings and appear black. Nymphs of both types are red with a white waistband.

Adult field chinch bugs overwinter in bunch grasses, and buffalograss chinch bugs overwinter in buffalograss. Eggs are deposited in the spring. Nymphs begin feeding immediately after they

emerge. A second generation is produced later in the summer. Second-generation adults overwinter.

Yellow or brown lawn areas indicate a problem. Damage occurs in sunny areas. Chinch bugs feed on grass near the soil or just beneath the surface. High populations of tiny red or larger, dark-colored nymphs or adult chinch bugs indicate the possible cause of grass discoloration and dead spots.

Normally, 20 chinch bugs per square foot is considered enough to warrant treatment. The University of Nebraska tested a number of insecticides and found that carbaryl (Sevin) or bifenthrin applied in 3 to 5 gallons of water per 1,000 square feet provided up to 95 percent reduction of chinch bugs. Bifenthrin can also be found in Hi-Yield Bug Blaster II, Ortho Lawn Insect Killer Granules and Ortho Bug-B-Gon Lawn and Garden Insect Killer. After applying insecticide, water enough (1/8 to 1/4 inch) to move it into the thatch layer where most of the bugs are found. Do not apply more than a quarter-inch of water to prevent leaching the insecticide down below the zone occupied by the bugs. Follow label directions to determine dilution and application rates. Do not reenter the area until the grass has dried. (WU)

### **Green June Beetle**



Clustered Green June Beetles - Note color variations

These large beetles feed on sweet corn, blackberries, and peaches. They look much like the common May beetle, or June bug, but have a dull, velvety green color. The underside is more of an iridescent green. These beetles have poor navigational skills and seem to fly until they hit something. They also make a buzzing sound somewhat like a bumblebee. Unfortunately, they are also about the size of a bumblebee and so cause concern for many gardeners even though they cannot harm people.

As noted above, they may damage crops.

A number of general use insecticides, including Sevin and malathion, may be used to discourage feeding. Sevin has a two-day waiting period between spraying and harvest on sweet corn and a three-day waiting period on peaches. There is a seven-day waiting period for Sevin on blackberries, so malathion, with a one-day waiting period, may be a better choice. (WU)

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