Large Patch Prevention & Fall Bugs

Weather

September ended just about average temperature-wise, and a little drier than normal precipitation-wise. In Columbia, temperatures were just a tick above normal, and in general seesawed around the average temperature line throughout the month. Precipitation numbers ranged from just over 1” to 3” throughout the state, with most areas ending up about 1-1.5” below normal. The northern portion of the state is still in a moderate to severe drought situation as the corn and soybeans are getting picked.

Weather information was a little harder to come by as the government shutdown has impacted the NOAA website. Forecast-wise, I did get a glance at the NOAA predictions before the shutdown Tuesday, which indicated normal precipitation and normal temperatures in the first few weeks of October. This seems to ring true as other website forecasts show a weekend temperature dip (first sub 40 degree lows?) and a temperature rise back into mid 70 highs. In the central part of the state the first frost date averaged on Oct. 15 between 1971-2000, but in St. Louis over the last six years the first fall freezes have been considerably later - 11/2 (2007), 10/28 (2008), 11/27 (2009), 11/5 (2010), 11/10 (2011), and 11/4 (2012).

Quick Hits

- Related to the above frost date discussion, the turf seeding window is only open for another week or two now. So get it out. Additionally, if not seeding, this next

[Graph showing temperature and precipitation data]
Large Patch Prevention & Fall Bugs

two week window is the best time to control broadleaf weeds as they suck carbohydrates (and hopefully herbicide) down to the base of the plant for winter.

- Soil temperatures are still hovering in the upper 60's, but a forecasted cool down next week makes it imperative that large patch prevention is applied soon. As shown in the previous update, if only one fall preventive shot is used, it may be best to apply earlier rather than later.

- A report came in from the Kansas City area last week of significant annual white grub outbreaks (and associated animal damage) observed in the region. Preventive insecticide application timing can vary from year to year based on the egg-laying period, and if that period is later than some insecticides may not carry enough residual activity to capture the full grub outbreak. Additionally, it’s likely there are just more grubs to control this year than last, since AWG beetles prefer green grass and moist soils to oviposit. The drought of 2012 maybe wasn’t all bad... For curative control, Dylox and Sevin can be used but if the grubs have reached their full size seldom reduce populations by more than 50%. Make sure to water in the insecticide with a quarter to half inch of irrigation immediately after application.
In Columbia last week, I visited a zoysia lawn that had been having issues since late August. Some of the sod had already been replaced, but the damage was still steadily advancing. Large patch was a potential cause in late September, but initial damage occurred too early, there were no distinct patch patterns, and symptoms were advancing too quickly. In this case, a large chinch bug infestation was to blame and the bugs were still very active. The infestation was detected after disturbing the turf along the concrete barriers (driveway or sidewalk) and noticing many of the small (~0.1 inch long) black bugs with white wings scurrying out from the turf canopy.

Chinch bugs (*Blissus* spp.) feed by piercing the turfgrass stems, leaves, and crowns and sucking the sap, but what causes rapid damage is the toxin in their saliva that gets injected into the plant. There are a few different species (southern, common, and hairy) that may form a species complex in the Missouri transition zone and be difficult to differentiate. As in this case, zoysiagrass grown in full sunlight (as it ought to be) is more often infested and damaged, whereas turfgrass grown in shade is not a preferred environment for chinch bugs. Nitrogen application (which was also done in this case) also can also shorten development time and increase egg laying which will build damaging populations quicker rather than outgrowing the damage.

At this time, chinch bug outbreaks require an insecticide treatment. Many zoysiagrass lawns are not routinely treated preventively with insecticides for annual white grubs, which may be contributing to the increased number of chinch bug and hunting billbug problems we’ve observed over the last few years.
Large Patch Prevention & Fall Bugs

Most insecticides are labeled for chinch bug control, but during an active outbreak, a contact insecticide like bifenthrin, carbaryl or trichlorfon may act more quickly. Granular insecticides will need to be watered in to release the active ingredient. If a lawn needs treatment, it should only be necessary to treat the damaged area plus a 2-3 foot border. As always, follow all label directions. Be particularly careful around pavement or impervious surfaces as some insecticides are toxic to fish and other aquatics, and restrict entry until the material has dried. For more information on chinch bugs, click here, or click here.

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