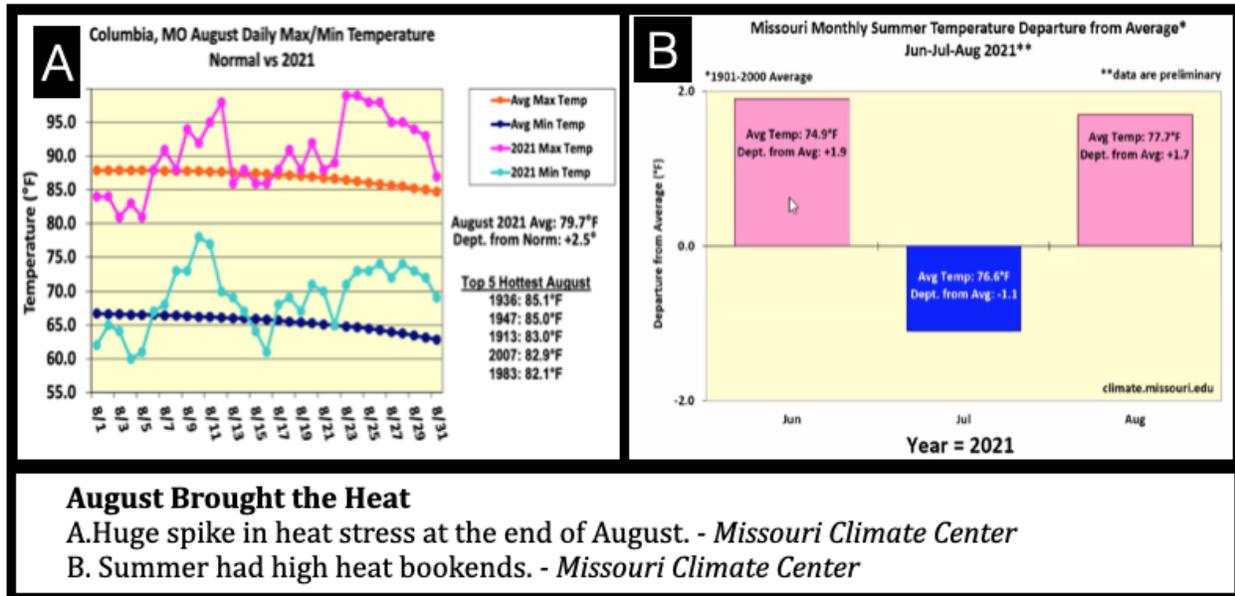


# It's Still Brown Patch on Tall Fescue

## Weather



### August Brought the Heat

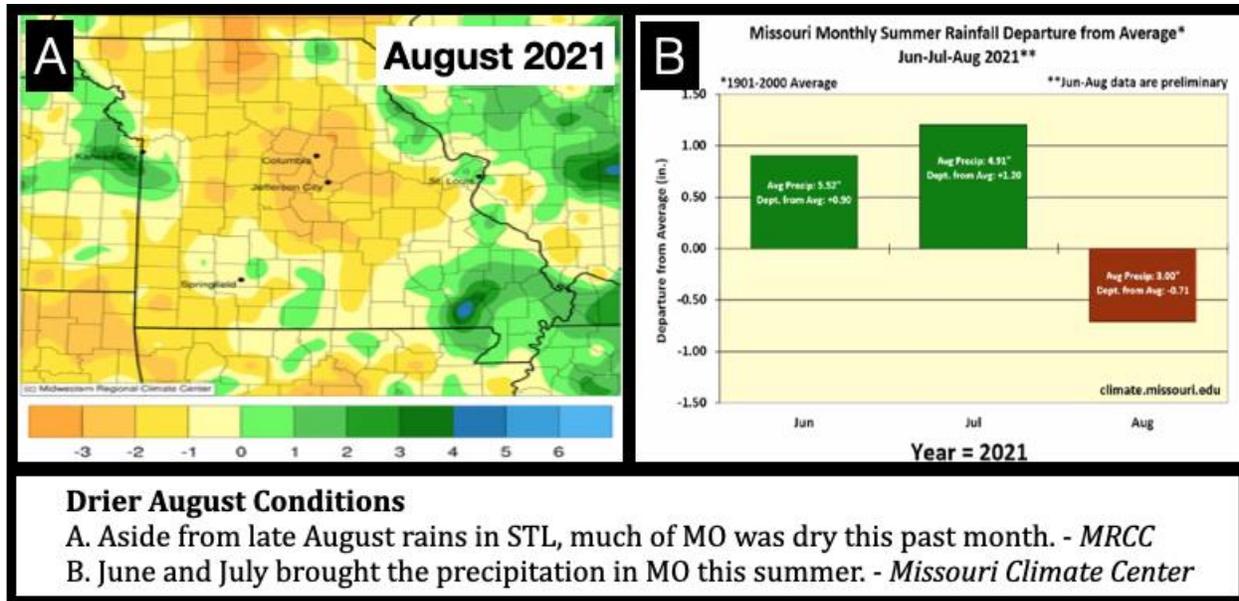
A. Huge spike in heat stress at the end of August. - Missouri Climate Center

B. Summer had high heat bookends. - Missouri Climate Center

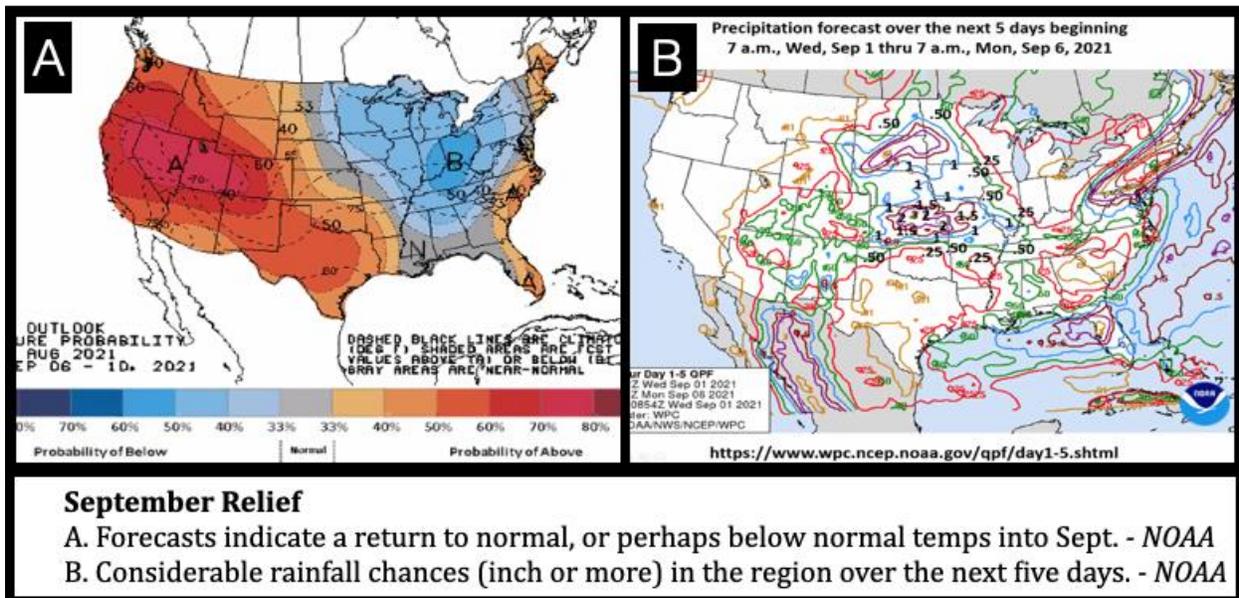
Summer left with a bang last week. Early Wednesday morning (8/24), my head turned when our local Columbia weatherman commented that the low temperature in St. Louis only got down to 83°F. A quick email exchange with our state climatologist revealed the last time STL had a minimum temp of 83°F or higher was 85°F on July 22, 2017. The last 15 days of August in STL had low temps  $\geq 70^\circ\text{F}$ , with an average monthly temperature 2.3 degrees above normal. Remember it's the high lows that fill the heat stress bus, and mid-August loaded up the students early. Looking at summer as a whole, the average temperature was just shy of a degree above normal, with the major heat stress occurring at the beginning in June and at the end in August.



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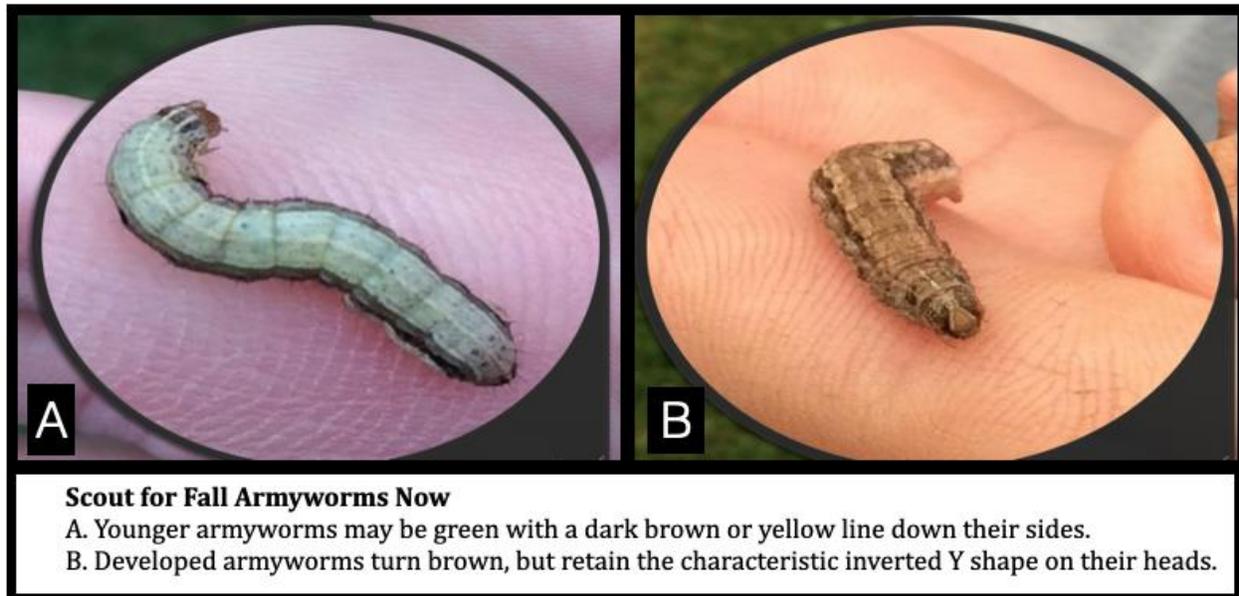
June and July brought significantly above average rainfall to continue the spring trend, but August had the well run dry for much of the state. The exception was along the Illinois border, including St. Louis. This region received an inch or more above normal for the month of August, fueled by intense rainfall events in the past five days. The heat stress combined with these heavy rainfall events has led to a significant spike in declining bentgrass putting greens in STL.



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The extended run of warm temperatures leveled off today, and is expected to continue in a normal to mild pattern through the first portion of September. Over the next five days, consistent chances for rainfall are present in the region with an inch or more expected over the span. Hopefully, this cues the band for cool season putting green recovery, and should open the fall window for fertilization and overseeding of lawn height cool season grasses.

## Quick Hits



**Fall armyworm** – This issue has been all the rage this summer and we are no different. Numerous calls in Springfield and the southern portion of the state, and now starting in STL, are reporting high populations and damage. Fall armyworms (*Spodoptera frugiperda*) are one of several armyworm species (i.e. true, yellowstriped, beet) that cause plant damage with fall armyworms being most common. They have a wide host range but prefer grasses, including pastures which have been decimated in the region along with some lawns. They will feed on most cool season turfgrasses including tall fescue, Kentucky bluegrass and bentgrass, preferring them over zoysiagrass and bermudagrass.

Scouting is key, particularly in untreated lawns and rough areas, to catch the pest early and intervene. Fall armyworms have lines that run lengthwise down either side of their body, and are light green when immature but



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develop into a musty brown as adults. The fall armyworm also has a characteristic inverted Y shape on their head as shown in the above photos. We noticed our first few armyworms on our research putting green this morning where Acelepryn (a.i. chlorantraniliprole) had been previously applied in April. No damage was surrounding the area, and the worms appeared to be trying to truck on through rather than nibble. Other insecticides in this anthranilic diamide class (i.e. Ference and Tetrino) should also provide this type of residual control. Spinosad, carbaryl and trichlorfon will provide knock down activity, but may need to be reapplied if another generation occurs later this fall. The pyrethroids (i.e. bifenthrin) are not recommended since resistance development and larval size may be impeding factors to control.

Dr. Rick Brandenburg from North Carolina State University has been on top of this issue from the onset and just posted some more important information today on fall armyworms. I encourage you to follow his [Facebook group called Turf, Bugs and Rock n' Roll](#).



**Grub Season** – To keep the bugs rolling, our first report of grub activity has been reported in the STL region. In [this previous report in July](#), this same site reported a masked chafer congregation on the fairway. Annual white grubs, or “land shrimp” as Dr. Brad Fresenburg called them, are the larval stage of several scarab beetle species including Japanese beetle, May/June beetle, and

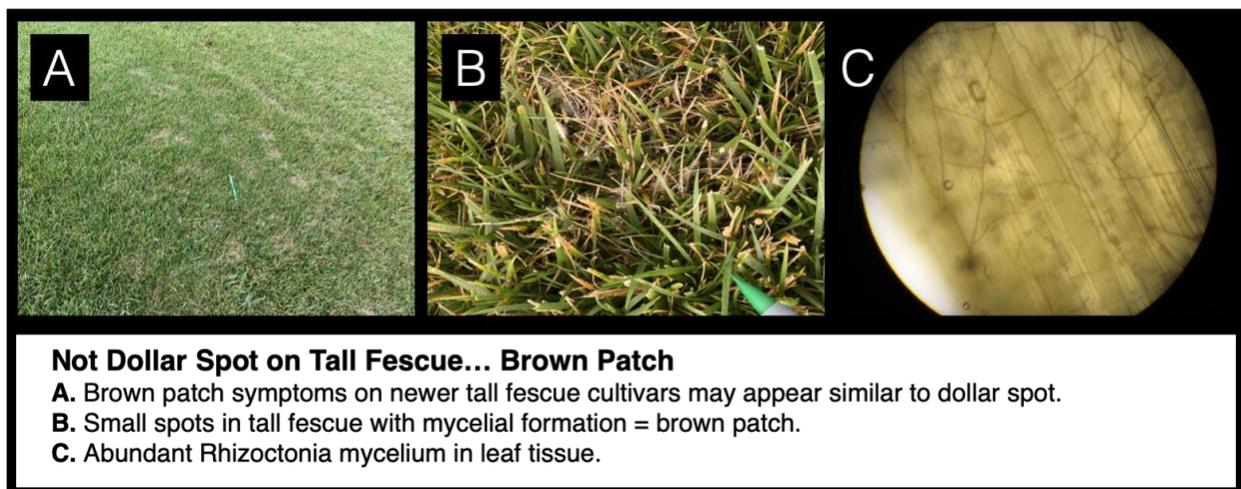


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masked chafer. While Japanese beetles get much of the press, the native masked chafers are most often found associated with annual white grub populations (got to examine those rasters!). If lawns or other turfgrass areas are not responding to irrigation and fertilizer, give them a tug and make sure grubs aren't feeding on the roots. Another, perhaps more unfortunate tell-tale sign of a grub infestation is when fine diners such as armadillo, skunk or possums tear up the area in search of the "land shrimp" delicacy.

**Summer Patch on Bentgrass Putting Greens** – This disease came in number one this past week in the diagnostic lab. Several putting green samples were diagnosed with this disease as the primary cause of decline, and several others at least had noticeable infection as part of the problem. Since much less Pythium root rot has been noted this season, my anecdotal take away is that supers may have shifted soilborne disease management towards Pythium and away somewhat from summer patch prevention. As noted previously, a watered in (0.2 – 0.25 inches) application of Briskway or similar is recommended. As we begin to cool off, consider ammonium sulfate again on greens diagnosed with this disease, particularly if drainage is adequate. This fall, and next spring consider ammonium-based fertilizers and an extra supplement of manganese to build an IPM framework to manage this disease.

## Not Your Father's Brown Patch



This season, and particularly over the last few weeks, we've observed tall fescue symptoms that appear as 5-6 inch white or tan spots with abundant mycelium formation in early morning dew. These symptoms have been typical



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on newer tall fescue cultivars, either experimentals in our NTEP tall fescue trial or in our 'RTF' tall fescue block. If on Kentucky bluegrass, one would glance at these symptoms and immediately think dollar spot, and some homeowners and lawn care operators in the last few months have reported it as either that or gray leaf spot. Unfortunately, these incorrect diagnoses demonstrates that symptoms alone can mislead.

These areas are still good ole' brown patch on tall fescue. In many cases, we see brown patch symptoms as a larger patch with the prototypical smoke ring. However, in conducive environmental conditions brown patch can be observed alone or in association with *Pythium* as a more widescale blight, or in these newer cultivars as small spots with active mycelium. Diagnostic evidence includes abundant pathogen (*Rhizoctonia solani*) presence aerially and in leaf tissue and the characteristic lesions shown above. Also importantly, these 'spot' cases do not occur in plots treated with a strobilurin.

So what's the difference if it's misdiagnosed on a lawn? If gray leaf spot, the suggestion is to apply thiophanate-methyl, which is not an effective fungicide for brown patch. If dollar spot is the target, azoxystrobin does not control it. The recommendation for dollar spot control turns towards propiconazole or myclobutanil, which again are not as effective on brown patch. A more expensive combination product combining one of these DMIs with azoxystrobin may also be suggested to cover more bases, but if the problem is truly brown patch alone, the azoxystrobin is doing the heavy lifting.

All this talk of tall fescue should be a reminder that it is thankfully September, the recovery month. Instead of concentrating effort on fungicide applications now, plan on rejuvenating a tall fescue or Kentucky bluegrass lawn with seed, cultivation if necessary, and fertilizer. Remember, most plants win so consider overseeding. As Dr. Leah Brilman commented on [a recent episode of the Frankly Speaking podcast](#), seed prices may be going up considerably, so you might want to grab the seed now rather than later.

