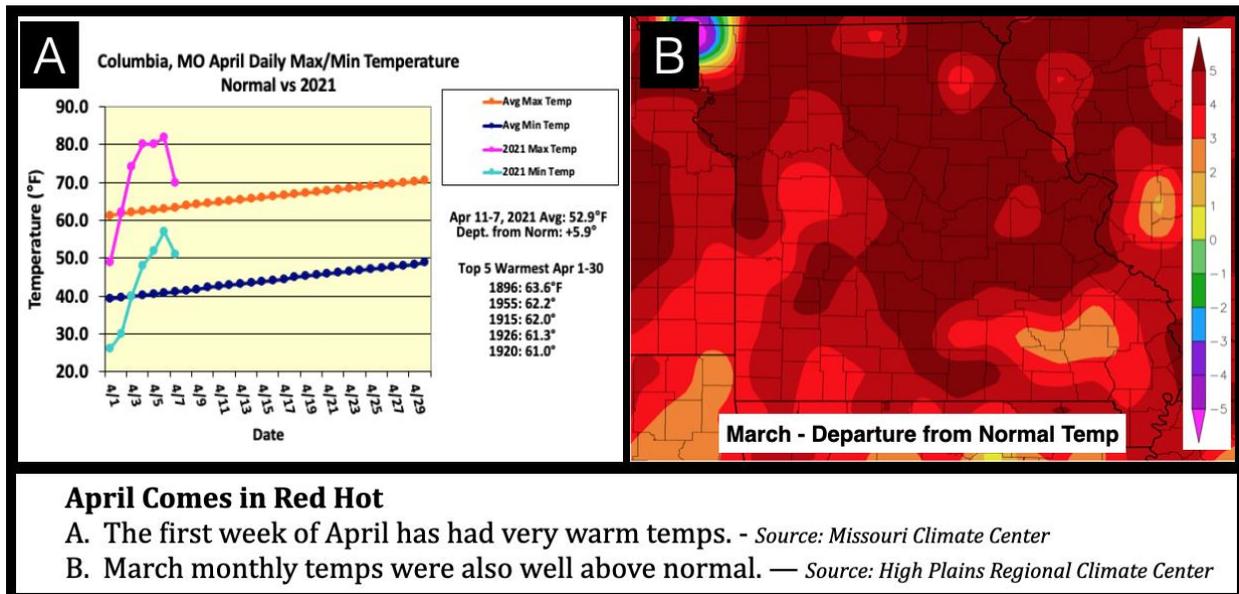


Go Time

Weather

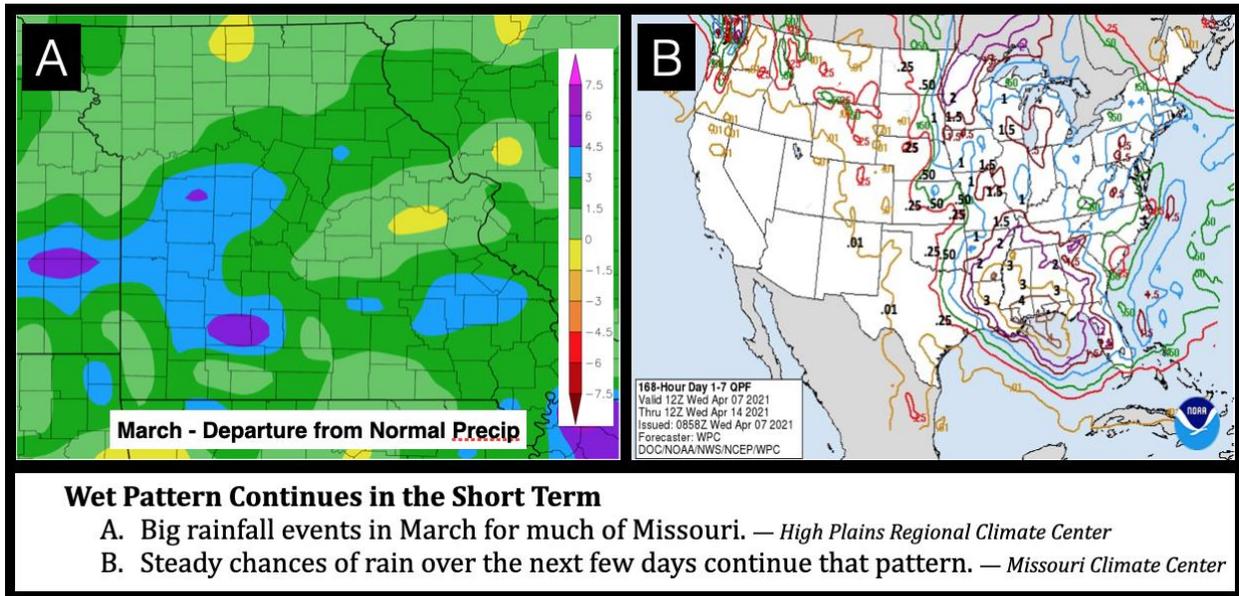


March started warm and stayed that way for much of the month, with most of the state experiencing 4-5+ degree above normal temperatures. Spring grinded to a brief “April fools” halt with sub 30 degree lows on April 1-2, before rebounding quickly to much above normal temperatures again through the first week of the month. Degree days are well above last year ([see MSU's gdd tracker](#)), and nearly everything is in bloom, including the pesky pears mentioned below. In many locales, forsythias are shedding their flowers, meaning crabgrass preemergents should be down, and it's late for Proxy/Primo seedhead applications. Five-day two-inch soil temperatures have even eclipsed 55 F for most of Missouri, so soilborne disease prevention should also be in the works. The grass is growing and most of the state is mowing. It's go time.

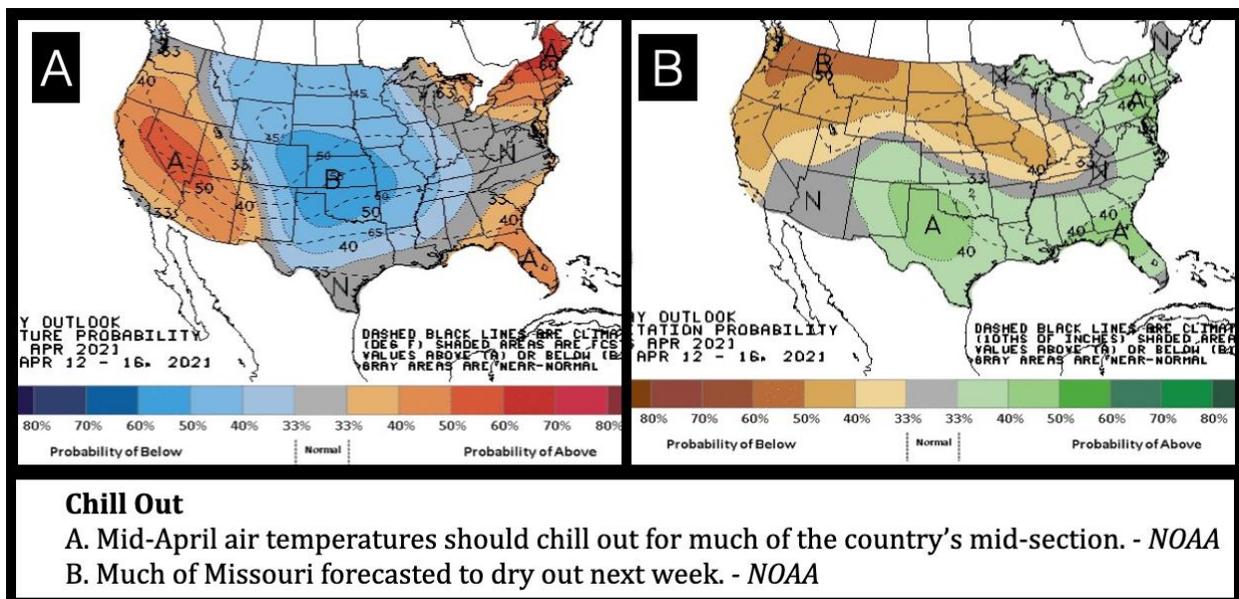
Rainfall has been getting in the way of go the last few days. Columbia received over 1.5 inches yesterday (4/7) in some severe thunderstorms, with not one, but two, hail events in the morning and early afternoon. Spattering of rain is forecasted today and through the weekend to bring many totals near 2-3” in the short term.



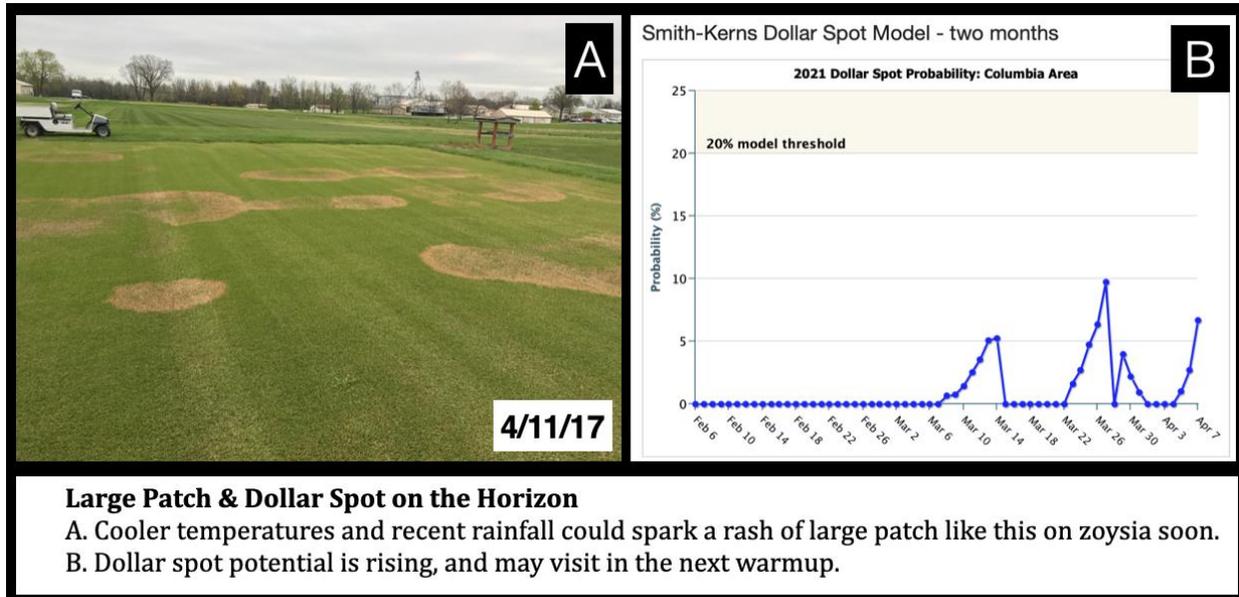
Go Time



Longer range forecasts into next week indicate a few days to cool down and dry out. No significant frost events are anticipated, and we are historically getting out of the window for any more April fools frost events to occur ([see Missouri Frost Freeze Guide](#)). The cool down should allow some of the slow tomatoes to ketchup and get out to accomplish some of the needed spring management practices. The cool down could also setup some problematic large patch outbreaks early this spring.



Large Patch & Dollar Spot Warning



Two diseases, large patch and dollar spot are on the horizon. Current weather patterns, including the deluge of rainfall followed by cooler temperatures, could spell a significant large patch outbreak in the next 7-10 days. As indicated in [the previous report](#), we are embarking on a large trial (pun intended) to determine the most effective timing of spring preventive applications based on soil temperature. As soon as the rain gives us a break tomorrow, we will be making the third application based on a 5-day average soil temperature of 55°F. On sites with a history and hotspots, consider making a preventive fungicide application and monitoring aggressively in the next week, particularly if preventive fall applications were not made.

Our first few blips of dollar spot potential were recorded with the Smith-Kerns dollar spot model in late March and again over the last three days ([see the Smith-Kerns model throughout Missouri here](#)). Preventive fairy ring applications on putting greens based on a 5-day average soil temperature of 55-60°F may also yield residual dollar spot control, even after they've been watered in ([see research here](#)). We are expanding this research to additional fungicide classes this season.



Pare Down the Pears



A

Callery Pear Buy-Back Events April 20



B

Cut down an invasive Callery pear tree on your property, take a photo of it, and receive a free non-invasive tree in exchange. Trees are being donated by Forest ReLeaf of Missouri, and Forrest Keeling Nursery.

The Scourge of the Callery (or Bradford) Pear

A. Callery pear trees invading nearby ecosystems.

B. A fantastic free replacement tree program if you cut down your Callery pear.

The “lane” of these reports is primarily turfgrass, but as the coordinator of the Missouri IPM program, the Callery (or Bradford) pear issue must also be addressed. This common tree component of neighborhood landscapes is short-lived, susceptible to fire blight damage, and most importantly has become a detrimental invasive to our forest ecosystems. Drive nearly anywhere across Missouri, and the showy (and to me allergy inducing) white flowers of the Callery pear are apparent and obtrusive. Don’t mistake them for the white flowers of the native flowering dogwood, Missouri’s state tree, which the pears may eventually replace if not curtailed.

The [Missouri Invasive Plant Task Force](#) has identified the Callery pear as enemy #1 in Missouri. The Task Force has teamed with several other industry organizations (including the MDC, Forest ReLeaf, Forrest Keeling, and others) to have a unique free replacement tree program in Columbia and St Louis on April 20 for land owners that cut down a Callery pear on their property. The pears are obvious and easily identified now, and some true value can come from greeting their trunks with a well-greased chainsaw. Reservations are required with spots (and trees) are filling up fast.

[Click here for more information.](#)



Go Time

Spring on the Soilbornes

The 55°F soil temperature threshold has been reached ([see here for soil temperature graphs throughout Missouri](#)), therefore aggressive prevention of soilborne diseases on putting greens, such as fairy ring, take-all patch, Pythium root rot, and soon summer patch on putting greens should be on golf superintendent's plate. The preventive program for fairy ring has been discussed ad nauseum [in previous reports](#), and this strategy has some side benefits for take-all, summer patch and dollar spot control. Pythium root rot is the outlier, and with the amount of rainfall that's occurred lately in Missouri should also be prevented on greens with a previous history. In this case, cyazofamid (i.e. Segway) is the best opening salvo for preventive control of this disease, with a regimented plan throughout the season. Remember, anything nibbling at the roots now in this final month or so lessens the amount of money in the bank for paying those summer bills.

Virtual Field Day Planned

Due to current uncertainty of holding large gatherings, the MU turfgrass program has decided to present a series of virtual field day presentations later this summer. While we are disappointed not to see everyone in person, the virtual format does afford the opportunity to demonstrate field trial results throughout the season as opposed to the single snapshot afforded at an in-person event. In addition, presentations can be provided on demand later and reviewed.

The MU turfgrass pathology program is preparing four presentations revolving around our major field research trials this season. They include:

1. Evaluation of spring application timing and carrier volume on fungicide control of large patch on zoysiagrass
2. Timing of preventive fungicide applications for brown patch control on tall fescue
3. Surveying lance nematode dynamics on golf putting greens
4. Impact of fungicide applications targeting soilborne diseases on dollar spot control throughout the season

