

# AGRICULTURAL BEET

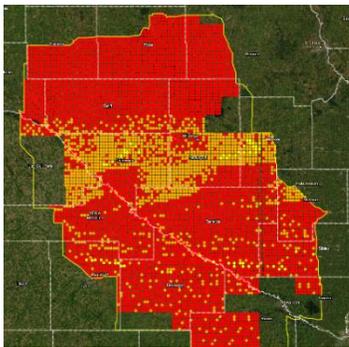
July 2nd, 2020

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## Cercospora Leafspot (CLS) spore production and reinfection: The Nature of the Beast

Regardless of how you determine your CLS program initiation, I think we can agree that the recent weather dictates that we've exceeded the 11<sup>th</sup> hour. The combination of precipitation and heat has provided all of the ingredients necessary to initiate the first wave potentially exponential CLS inoculum growth. We hope that many of you accepted the challenge to spray an early EBDC [0] application. In doing so, you've delayed early CLS inoculum buildup and can stay ahead of the disease in these conducive conditions.



The recent 2-day DIV map found to the left leaves little doubt that we are deep into our first significantly infectious period and that the clock is ticking on maintaining control of this dreadful disease. Perhaps you are wondering what is meant by the use of "the clock is ticking"? To understand this is to understand the cycle of disease development...

- CLS infections require repeated spore production & reinfections.
- This "polycyclic nature" necessitates specific conditions and a certain amount of time for the creation of spots and spores.
- If provided unimpeded time and opportunity, CLS can and will carry out logarithmic reproduction that can quickly outpace prevention measures.

**"They're Here!"** This quote is from a scary movie of the early 1980s. But, in this case I am referencing the appearance of CLS in SMBSC fields. And, just like the antagonist in the movie, once "they" invade your space, they are not easy to remove. So, the question becomes, now that the conditions are ideal for disease infection and our fields are wet, what do we do?! Unfortunately, rainfall amounts and field situations vary with all fields and this means that there is not a simple answer to this question. However, there are a few things you should be considering...



- Did your field(s) receive an EBDC application [0]? If so, you've provided yourself flexibility.
- If the rains delayed your 1<sup>st</sup> application, time is of the essence and an aerial application might be a good idea.
- How much rain did you receive and is your best opportunity to get protected through aerial application for now?
- How much rain is in the near and extended forecast that may cause additional delays?
- What are the weather windows of spray opportunity when considering your current application interval?

Wed 7/1	Thu 7/2	Fri 7/3	Sat 7/4	Sun 7/5	Mon 7/6	Tue 7/7	Wed 7/8	Thu 7/9	Fri 7/10
84°   67°F	90°   68°F	90°   69°F	89°   70°F	90°   70°F	90°   69°F	85°   66°F	89°   69°F	89°   69°F	90°   69°F
0 in	0 in	0 in	0.19 in	0.06 in	0.19 in	0.36 in	0.26 in	0.13 in	0.03 in

**Bottom Line:** 100 days of CLS control from June to the end of September may appear intimidating. However, it's essential to recognize that a clean field through the end of August is the main goal making this an achievable **65 day mission**. There are no one-size-fit-all solutions to CLS spray decisions. These choices are ultimately up to the shareholder. However, one fact is undeniable, playing catch-up with CLS is nearly always a losing proposition meaning that **a decision to delay spraying that results in over-extended intervals is a dangerous game to play with an above average crop**. Ultimately, we should **resist temptation to out-guess the weather and remain laser-focused on factors that are within our control such as choosing spray days that provide us the best opportunity possible for coverage and spore-control maximization for a particular day**. Keep this in mind when justifying a spray decision and call your agriculturist if you have questions.

Steve Roehl – Ag Strategy Manager