



## IPM in Sugar Beets: Cercospora Management & More!

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## 2020, USDA Nursery



For information on management trials, see the 2024 REACH Research Results at:  
<https://www.michigansugar.com/growing-production/resources/research-information/>

## 2024, MSU Nursery

CR+ inoculated      Non-CR+ inoculated



For information on management trials, see the 2024 REACH Research Results at:  
<https://www.michigansugar.com/growing-production/resources/research-information/>

# 2025, MSU Nursery

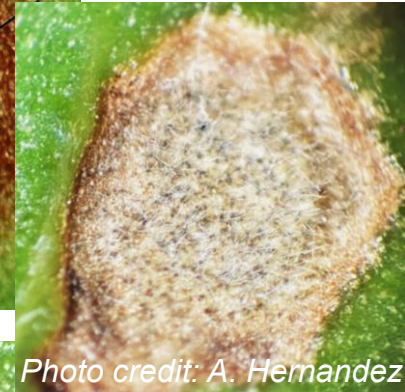
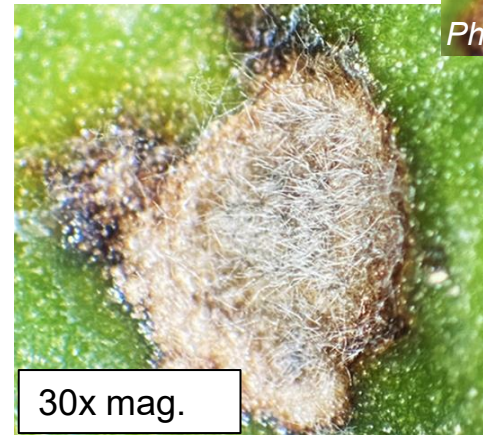
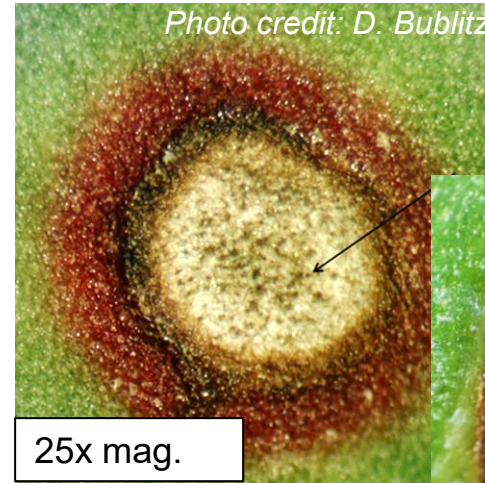
**CR+    Non-CR+**  
**Non-inoculated    Non-inoculated**



For information on management trials, see the 2025 REACh Research Results at:  
<https://www.michigansugar.com/growing-production/resources/research-information/>

# Typical CLS lesions

- Circular, unless stopped by vein
- 1/8" to 1/4" diameter
- Tan or gray center with darker red to brown border
- **Black pseudostromata**
- **Silver, needle-like conidia (spores)**



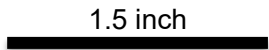
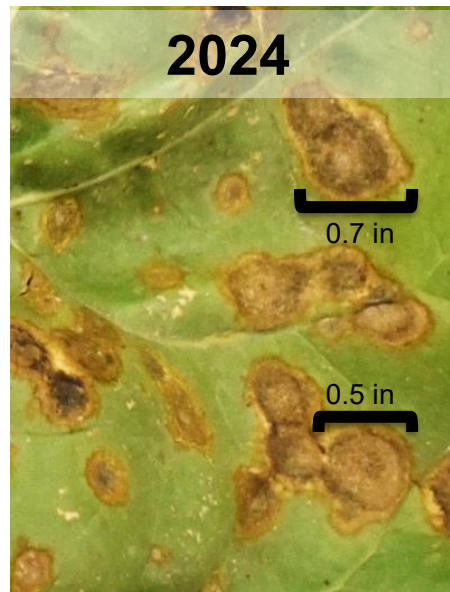
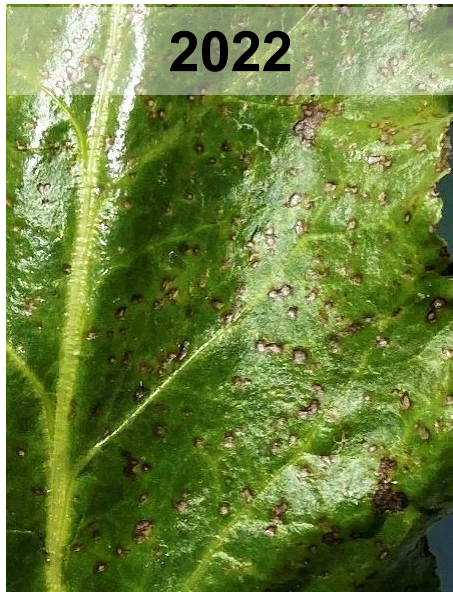


# Typical variability of CLS across varieties



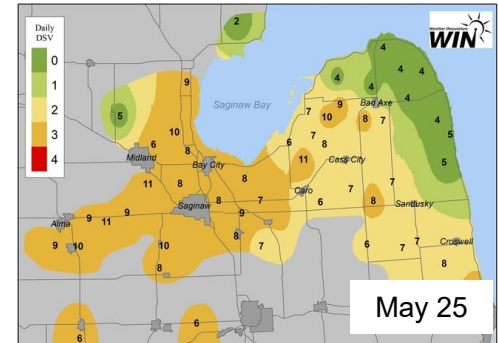
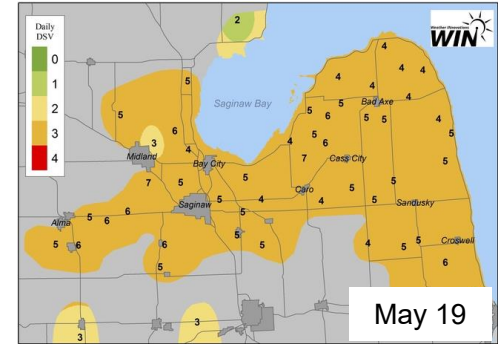
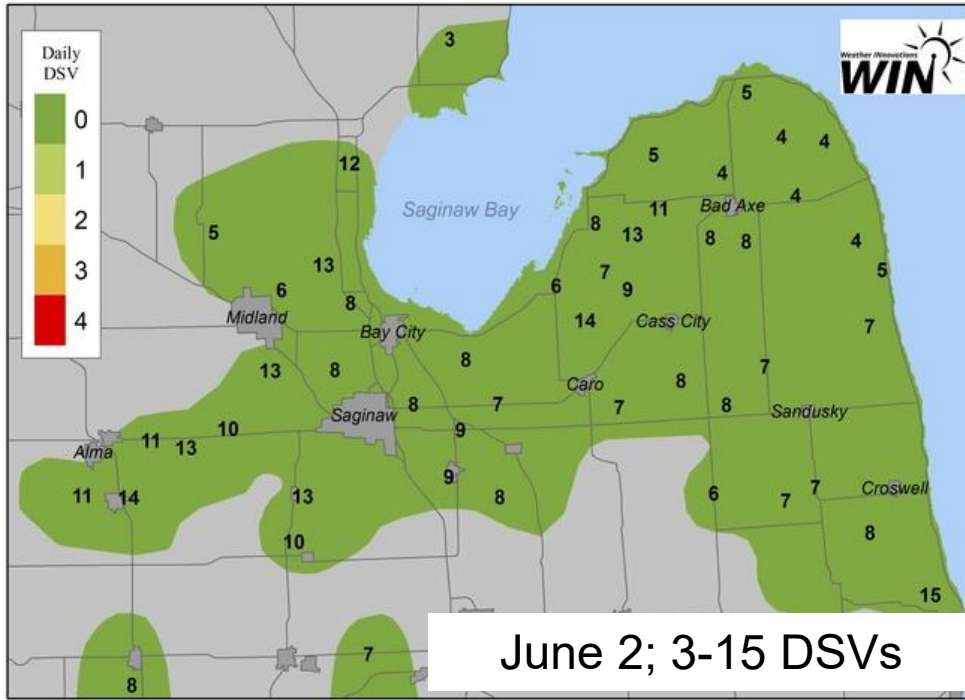
(USDA Nursery 2022)

# Comparison in size



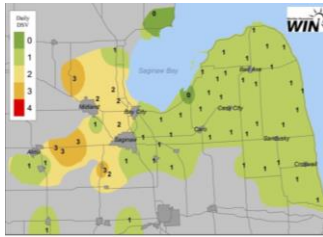
(USDA Nursery 2022, MSU PSBP samples 2024)

# 2026 Current Status: BEETcast DSVs

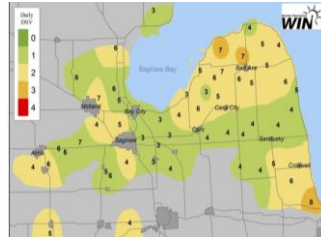


# Comparison of Risk to Last Year

**2025**



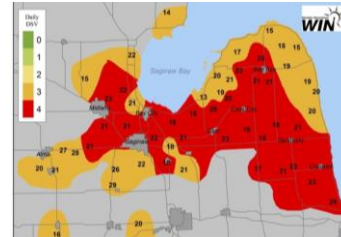
**May 15**  
(0-3 DSVs)



**May 29**  
(3-8)



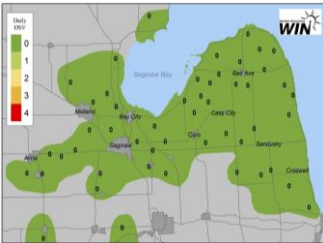
**June 1**  
(3-10)



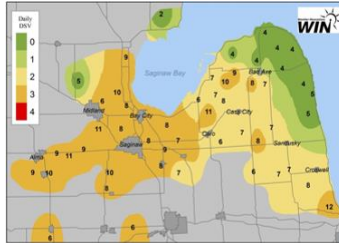
**June 19**  
(13-29)

**1st spots:  
July 2**

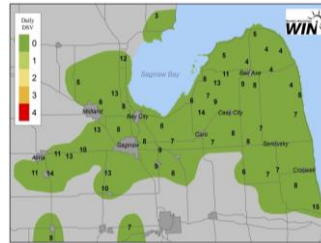
**2026**



**May 15**  
(0 DSVs)



**May 25**  
(2-12)



**June 1**  
(3-15)

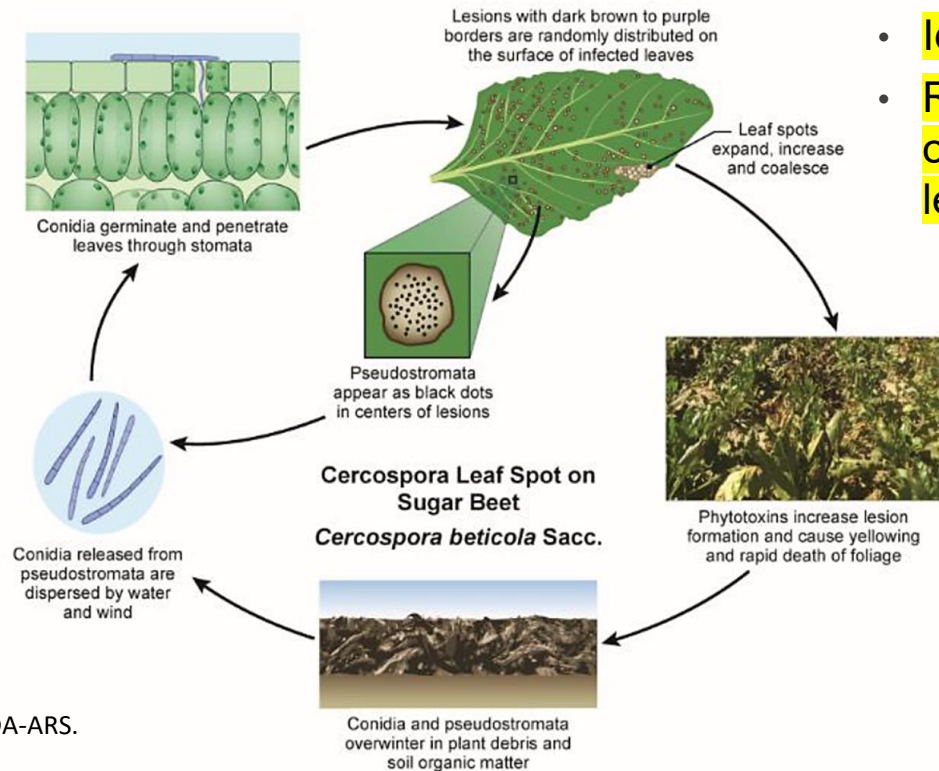


**June XX**  
(XX-XX)

**1st spots:  
???**

# Life Cycle

- **1st spores**
  - April-May
- **Dispersal**
  - Rain or wind
  - Cloud cover

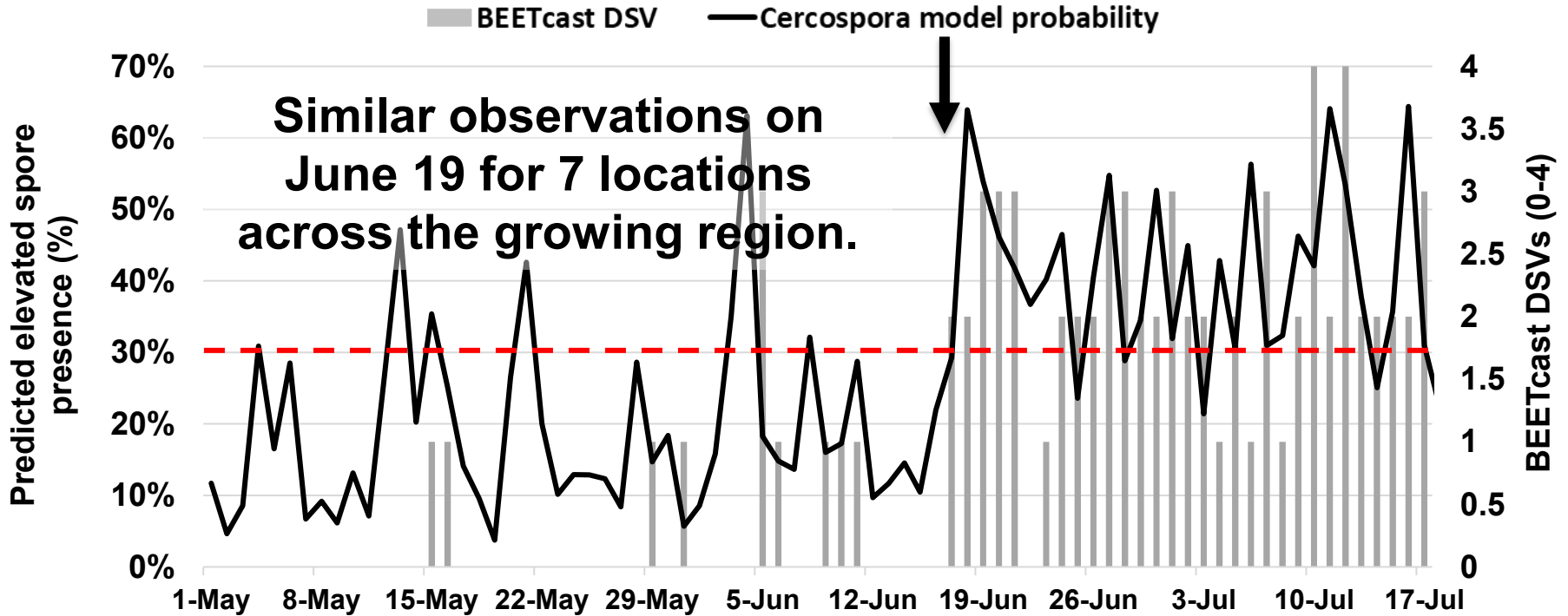


## • Infection

- **Ideal 65-89F (55-95F)**
- **Relative humidity:  $\geq 90\%$  or free moisture on leaves for several hours**

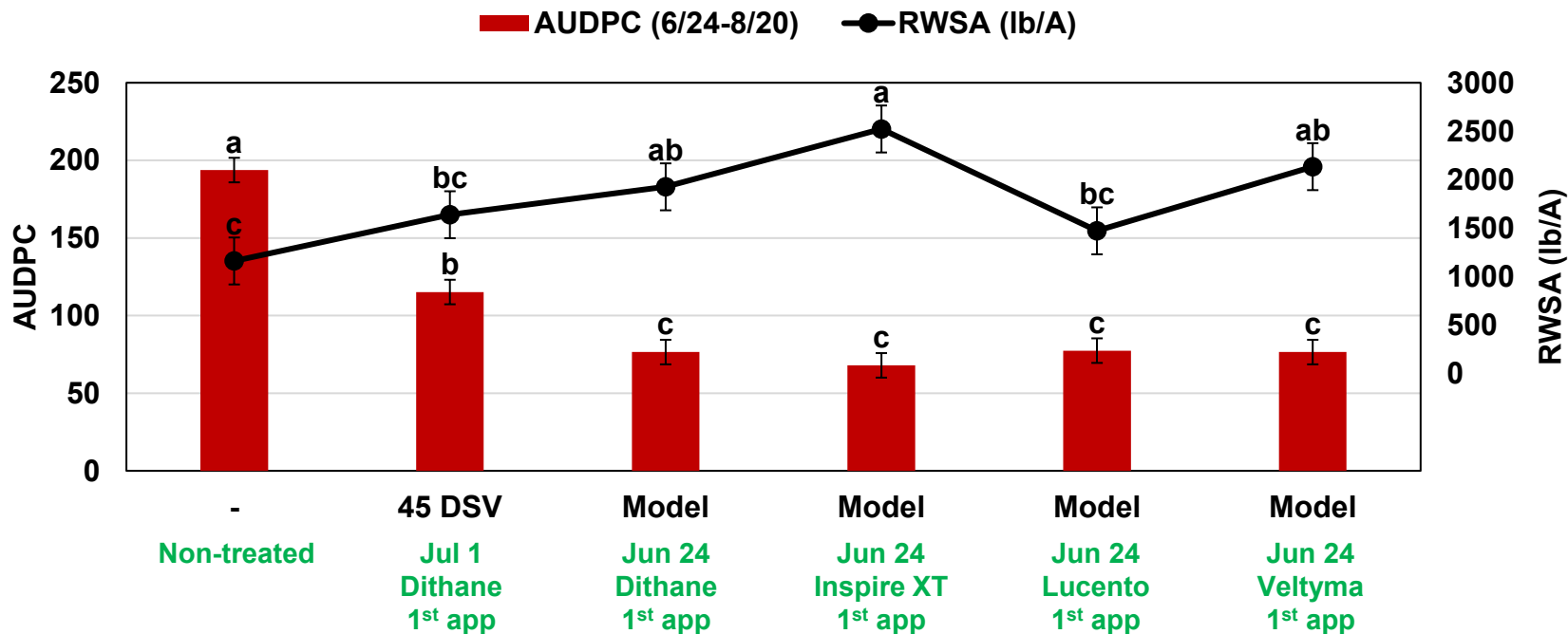
- **1st spots**
  - **Mid-June to early-July**

# 2025 Richville/Frankenmuth Early Season



Cercospora model predictions calculated from MSU Enviroweather data.

# 2025 Cercospora spore model validation

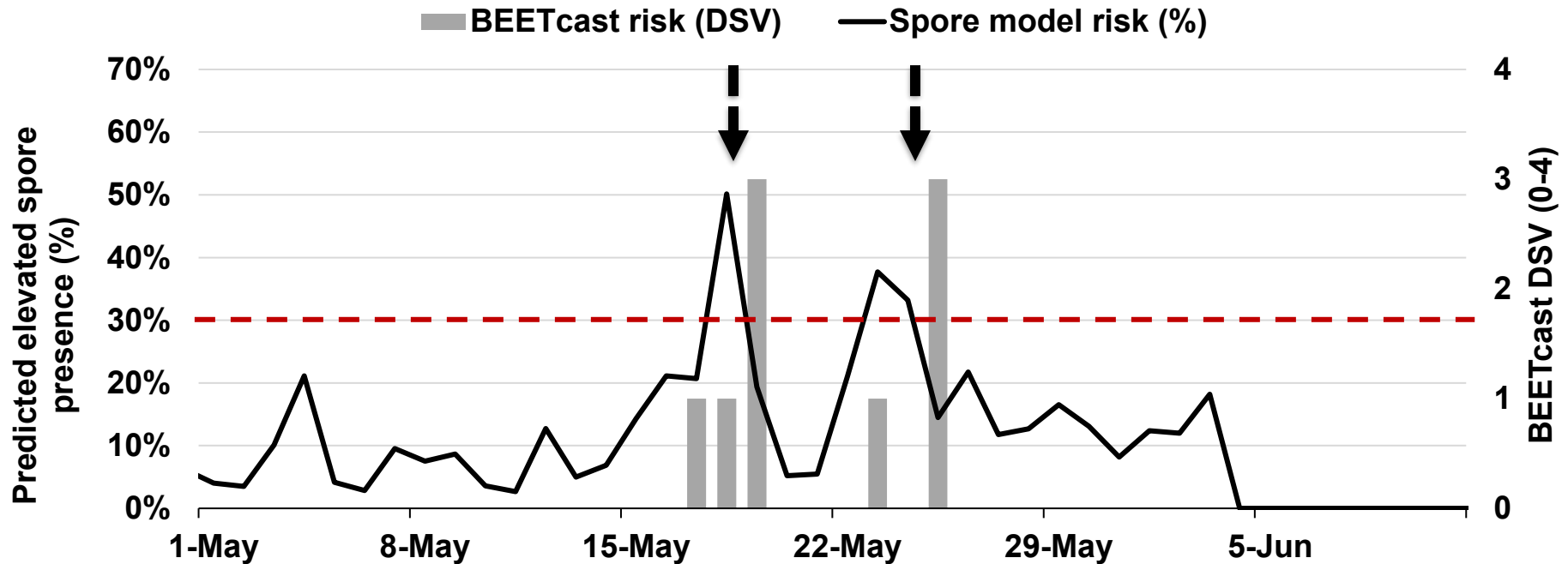


<sup>a</sup> Application at the following dates: A=Jul 1, B=Jul 15, C=Jul 29, D=Aug 14, E=Aug 26, F=Sep 9; for model-based dates: G=Jun 24, H=Jul 8, I=Jul 22, J=Aug 5, K=Aug 20, L=Sep 2. MasterLock 0.25% V/V was added to all treatments.

<sup>b</sup> Area under the disease progress curve based on disease severities collected Jun 24, Jul 29, Aug 13, and Aug 20.

<sup>c</sup> Bars and points with the same letter not significantly different based on Fisher's Protected LSD ( $\alpha=0.05$ ).

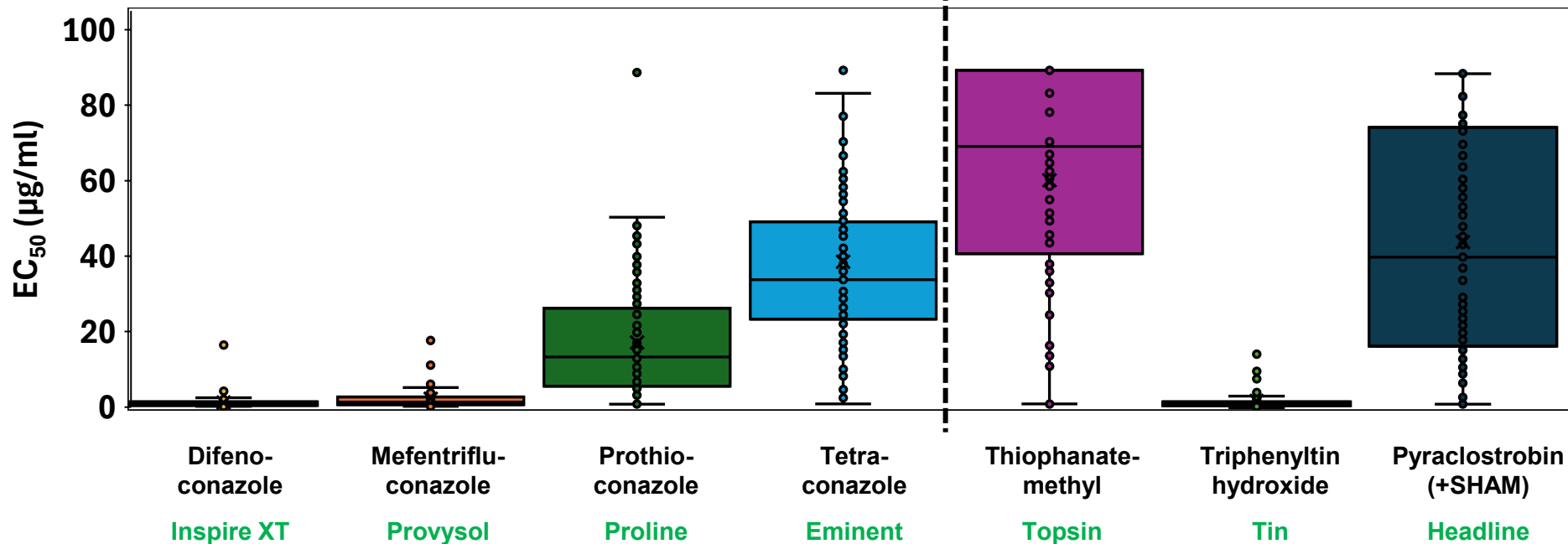
# 2026 Richville/Frankenmuth risk predictions



Cercospora model predictions calculated from MSU Enviroweather data.

# Cercospora resistance in Michigan

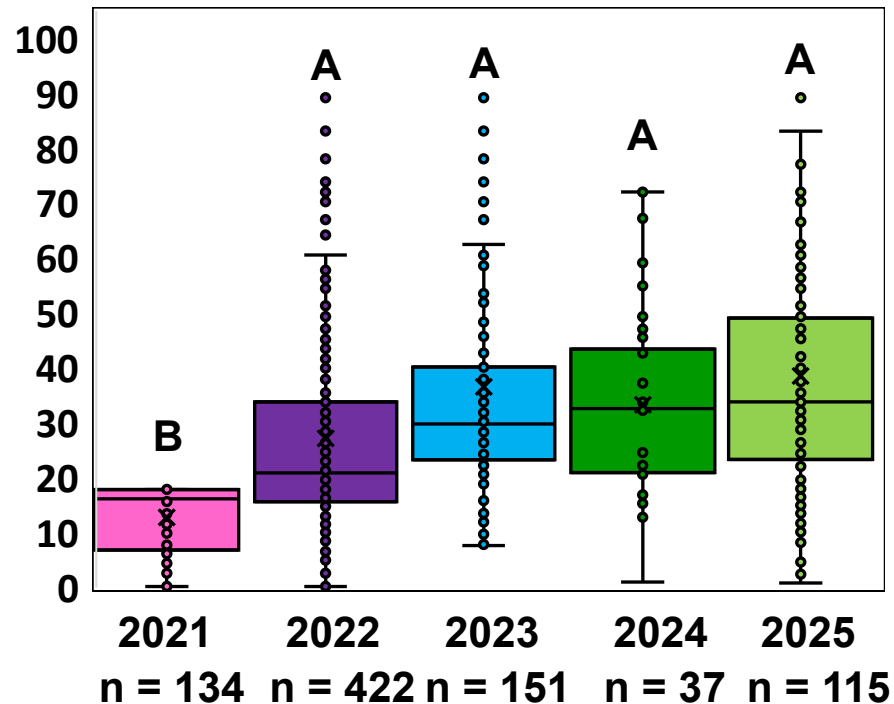
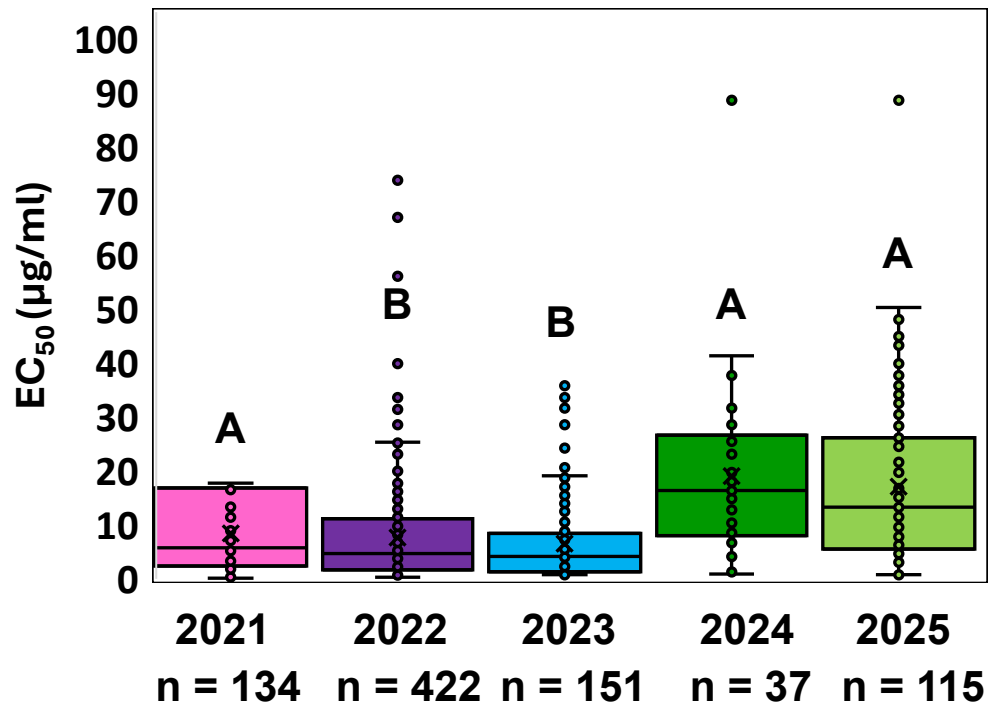
2025 *C. beticola* fungicide sensitivity (n = 98-116 isolates)



# Cercospora resistance in Michigan (2021-2025)

tetraconazole,  $P < 0.05$

prothioconazole,  $P < 0.05$



# New chemistry registered in 2026

- **Product:** Verpixo (Corteva Agriscience)
- **Active ingredient:** Adavelt = florylpicoxamid
- **FRAC group:** 21
- **Group name:** Quinone inside inhibitor (Qii)
- **Resistance risk:** assumed to be medium to high (point mutations known)



**Verpixo™**  
Adavelt™ active  
**FUNGICIDE**

**A New Tool**  
For Fungicide Resistance



Verpixo™ fungicide with Adavelt™ active provides sugar beet growers innovative technology with a new FRAC group 21 product that helps combat fungicide resistance management issues and gives growers a new management tool.

Active Ingredients	Disease Control	
Florylpicoxamid	<b>C</b> Cercospora leaf spot ( <i>Cercospora beticola</i> )	<b>S</b> Powdery mildew ( <i>Erysiphe betae</i> )
Modes of Action	Rate	Treatment Instructions
Group 21	20.5 fl oz (0.133 lb ai/A)	<b>Timing:</b> For best disease control, start applications preventatively, prior to disease development. <ul style="list-style-type: none"> <li>• Apply at the recommended timings for effective disease control.</li> <li>• Apply as a foliar spray in sufficient water to obtain thorough coverage of the plant.</li> <li>• Use as part of an Integrated Pest Management (IPM) program, following the resistance management guidelines</li> </ul>
<b>Features:</b> <ul style="list-style-type: none"> <li>• New FRAC group 21 to help extend fungicide technology</li> <li>• Protects yield and quality potential</li> <li>• Flexible tool for disease management programs throughout the growing season</li> </ul>	<b>Restrictions:</b> <b>Minimum Retreatment Interval:</b> 10 days <b>Preharvest Interval (PHI):</b> 21 days	

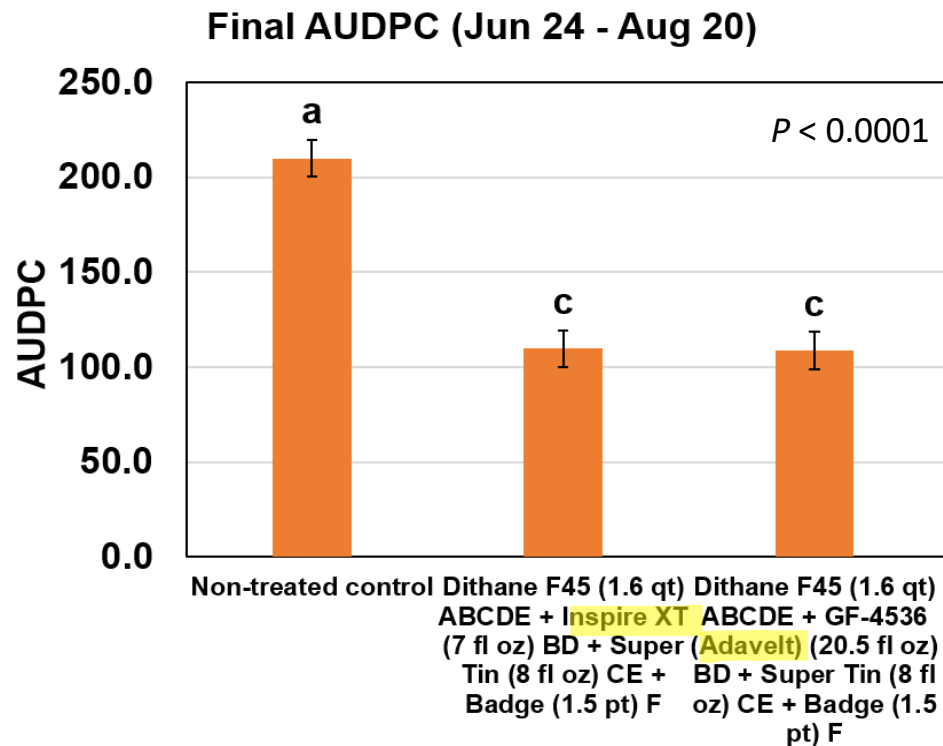
Visit us at [corteva.com/us/Verpixo](https://corteva.com/us/Verpixo)

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## \*\*\*Resistance Management:

- Always tank mix systemics with an EBDC or copper
- Use full rates at 10- to 14-day application intervals
- Rotate chemistries, limit DMI/Qii a.i. application #s

# Special thanks to our sugar beet industry support!



# Questions?

**Jaime Willbur, Ph.D.**

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