CLS Ag Beet Series

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Agricultural Department Southern Minnesota Beet Sugar Cooperative

CLS Program Frequently Ask Questions

- Why are strobulurin/QoI products being recommended again when we've been told for years that resistance levels are extremely high?
 - End of season resistance testing for strobulurin/QoI products has historically been very high. However, new testing being done in the spring and during the growing season shows a CLS population that is susceptible to QoI's during the first half of the season.
- You only have Gem 500 SC, Headline, and Priaxor on the Quicksheet for strobulurin/QoI fungicides, what about using Quadris or azoxystrobin?
 - Quadris or other azoxystrobin products historically have not been as effective against CLS as Headline or Gem 500 SC.
- Why is the strobulurin in the third spot and not at the end of the season?
 - In season testing shows resistance levels to Qol's climb as the season progresses and are at high levels by the end of the season. Dr. Wyatt has also found that the CLS population is more susceptible to control from a QoI following a DMI (triazole) application.
- Why is Topsin/T-Methyl being recommended again when we've been told for years that resistance levels are extremely high?
 - End of season resistance testing for Topsin has historically been high. However, we have not done end of season testing for this product in the past 5 years and the spring resistance testing showed low levels of resistance in 2024.
- Why is Topsin recommended with Tin at the beginning of the season and not in another spot?
 - Tin + Topsin is a good tank-mix application as they have very low levels of cross resistance. We also want to use Topsin early in the season when testing has shown susceptibility to it in the CLS population.
- Why aren't we recommending pre-mix products like Veltyma or Delaro?
 - These products combine different modes of action that we are trying to rotate in a program and instead tank mix with an EBDC. We believe that this will give us the best season long control and not drive resistance development to our fungicides.
- Why are the spray intervals the same for CR+ and traditional varieties?
 - Because we had high levels of infection in 2024 in our CR+ fields, we now have a high level of inoculum from CLS strains that can infect CR+. These strains need to be controlled with an aggressive fungicide program.

- Why are you specifically recommending Proline and not one of the other triazoles?
 - Proline has consistently shown to be more effective at controlling CLS than other triazoles in the same resistance group. Other triazoles in that group are still effective against CLS and can be used in place of Proline.
- Why use our best fungicide tank-mix in the first application and not later in the season when the pressure may be higher?
 - Preventing the first CLS spores from starting infections in the field is very important as this disease is polycyclic and can spread rapidly once it gets established.
- Why are we starting the spray program in mid June?
 - Over the past 4 years of early season CLS sampling we have consistently seen latent infection ramping up between the third and fourth week of June. Controlling this disease early is vital for season long control so the fungicide program needs to start when these first infections are occurring.
- Why do we need to spray in September?
 - The new DIV matrix being developed by Dr. Secor is showing that free water is more important for infection to occur than high humidity or high temperature alone. It is also showing that infection can occur at temperatures as low 50F. Free water can be prevalent during the month of September as we often have dew formation overnight.
- What should we be doing to control the other leaf diseases we saw in 2024 (Alternaria, bacterial, and Stemphylium)?
 - The recommended fungicide program should control Alternaria as Tin and QoIs are effective against this disease.
 - Stemphylium was only found when Alternaria was already present and is considered a secondary disease with minimal risk of economical impact.
 - Bacterial leaf spot can occur after heavy rain fall events when soil splash occurs on the leaves. There are no curative fungicide options for controlling this disease once infection occurs. Copper fungicides have the potential to prevent some infection from occurring if applied at the right time before a storm event.

For a more detailed explanation on the reasoning and data behind the answers to the FAQs please watch Dr. Nate Wyatt's video followed by David Mettler's video under the meeting info tab. <u>https://www.smbsc.com/agronomy/AgronomyDefault</u>

The CLS Quicksheet can also be found on the Agronomy tab under Agronomy Quicksheets and other Ag Beets in this series can be found under the Ag Beets tab.

If you have any questions, contact your Agriculturist or a member of the research group. We are happy to answer any questions.

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