



Cercospora Leaf Spot Fungicide Trial

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While SMBSC had much better control of CLS in 2017, there was still an estimated loss of \$7 million due to this disease. There is still a large amount of inoculum out in the fields and it remains very important that we tank mix and get the applications out in a timely manner. This will protect the remaining fungicide families and provide the best control for the 2018 growing season. Without a good fungicide program and other good management practices we could easily have an experience similar to the 2016 season this coming year.



The pictures on the left show two treatments in the CLS program trial in 2017. The bottom treatment followed our CLS fungicide recommendations for 2017 and the top treatment did not use any tank-mix partners.

Fields that received a tank-mix partner (copper or EBDC) in every application had excellent control of CLS in 2017.

Timely applications were also important for good disease control in 2017. We will continue to recommend using a spray interval of 10-12 days.

It is vital that we continue to use two fungicide families in every application to prevent resistance development in our remaining chemistries. We cannot afford a repeat of what happened to the strobilurins!



	Sugar	Tons/Acre	Ext. Sugar/Acre	Cost of Treatment	Revenue/Acre Above Check
Check	14.2 a	23.3 a	5418 a	\$0	\$0 a
<ul style="list-style-type: none"> • 1. Tin • 2. Triazole • 3. Tin • 4. Triazole • 5. Tin • 6. Triazole 	15.6 b	27.9 b	7298 b	\$52	+\$345 b
<ul style="list-style-type: none"> • 1. Tin + Topsin • 2. Triazole + Copper • 3. Tin + EBDC • 4. Triazole + EBDC • 5. Tin + Copper • 6. Triazole + EBDC 	16.4 bc	32.8 c	9126 c	\$96	+\$669 c

Spending the extra time and money to tank-mix could be worth \$324 per acre!

Fungicide Tank Mixing

Tank mixing two modes of action is very important for good disease control and decreasing selection pressure to delay fungicide resistance. However, if done incorrectly this can lead to decreased disease control and plugged nozzles. To avoid issues when tank mixing remember the following guidelines:

- Make sure spray booms and lines are adequately flushed between fields or sprayer loads.
- It is important to have each ingredient uniformly mixed in the tank before adding the next ingredient.
- Mixing order is important and is dependent upon product formulation. In the absence of specific mixing instructions provided by the label use the A.P.P.L.E.S. method (Zollinger, 2017):
 - Agitate
 - Powders soluble (dry fertilizers, SG, SP)
 - Powders dry (DF, WDG, WP)
 - Liquid flowables and suspensions (ASC, F, ME, SC, SE)
 - Emulsifiable concentrates (EC, EW, OD)
 - Solutions (S, SL)
- Read the label! There may be more specific mixing instructions provided.
- Do not tank mix glyphosate or any other herbicide with the fungicide application. This will lead to reduced efficacy for both the weed and disease control.

Information Credit:

Mark Bloomquist – Director of Research
Zollinger, Rich. 2017 North Dakota Weed Control Guide.
2017. North Dakota State University. p. 75.

