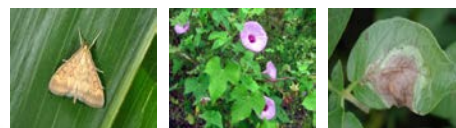


# HatchTrak<sup>SM</sup>



**FMC**

June 29, 2018

**TOPGUARD<sup>®</sup>**  
FUNGICIDE

**Sugar Beet Cercospora Leaf Spot  
Resistance Management & Control  
That's Second to None**

**KOVERALL<sup>®</sup>**  
FUNGICIDE  
**TOPGUARD EQ**  
FUNGICIDE

FMC now has Topguard<sup>®</sup> fungicide and Topguard<sup>®</sup> EQ fungicide for use in sugar beets and other crops.

Product Attributes	Benefits
Top to Bottom Leaf Protection	Translaminar foliar movement
Rapid Systemic Activity	Moves rapidly to new growth to protect and prevent new disease development
Longest Lasting Residual	Extended disease protection
Resistance Management	Fits well into sugar beet disease control programs as FRAC Group 3 DMI class
Plant Health	Greater stress tolerance translates into greener, more robust plants, increased yields and recoverable white sugar/acre.

## INSIDE THIS ISSUE

- Sugar Beet Cercospora Leaf Spot Resistance Management Second to None
- Resistance Management Guidelines
- Resistance Management begins With Topguard and Koverall fungicides

## Topguard Fungicide, Topguard EQ Fungicide and Koverall Fungicide Sugar Beet Cercospora Leaf Spot Resistance Management Guidelines

- Cercospora leaf spot has become more difficult to control due to known resistance to strobilurins (FRAC 11) QoI such as a Headline<sup>®</sup> fungicide and Gem<sup>®</sup> fungicide.
- Like other fungicides, Topguard<sup>®</sup> fungicide needs to be sprayed preventatively before Cercospora leaf spot lesions are observed.
- Topguard fungicide use rate is 10-14 fl. oz./A.
- Use higher rates of Topguard fungicide where disease pressure is known to be high. Do not use more than 14 fl. oz./A per application.
- Topguard fungicide may be applied up to two times per season in sugar beets for a maximum 28 fl. oz./A per season.
- Apply Topguard fungicide by ground at a minimum of 10 GPA or 5 GPA by air. Studies have shown better performance by fungicides when applied in 20-25 GPA at 90 PSI with 100 PSI providing the best performance.
- Topguard and Topguard EQ fungicide sugar beet PHI is 21 days.
- When using strobilurins (FRAC 11) QoI such as a Headline<sup>®</sup> fungicide and Gem<sup>®</sup> fungicide or thiophanate methyl (FRAC M1) such as Topsin<sup>®</sup> M fungicide with known resistance concerns, be sure to tank mix with an EBDC, such as Koverall fungicide.
- Studies have shown Topguard fungicide + Koverall fungicide tank mixes provided the best, most consistent control of Cercospora leaf spot leading to top sugar yields.
- Other studies have shown Topguard fungicide + Super Tin<sup>®</sup> fungicide tank mix as a good alternate spray for a one time, single application in a Cercospora leaf spot spray schedule.

Authored by

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Corn

Belt

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**TOPGUARD EQ**  
FUNGICIDE

Topguard<sup>®</sup> EQ fungicide contains flutriafol and azoxystrobin fungicides for better resistance management. Tank mixing a fungicide with an alternate mode of action is advised for fungicide resistance management. See label for use rate and info.

# HatchTrak<sup>SM</sup>



FMC

June 29, 2018

Topguard® fungicide controls CLS, manages resistance for enhanced yields.



Topguard fungicide 14 fl. oz.  
(two applications)



Topguard fungicide 14 oz. +  
Super Tin® fungicide 8 oz.  
(two applications)



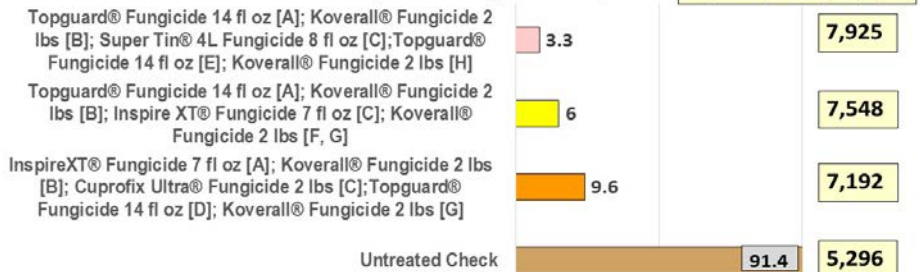
Topguard fungicide 10 oz. +  
Koverall® fungicide 1.5 lbs.  
(two applications)

2017 Selected Foliar Sugar Beet Fungicide Treatments Showing Influence of Cercospora Leaf Spot (CLS) Control as noted by % Leaf Spot Damage by CLS Upon Recoverable White Sugar per Acre (RWSA) Denoted as Pounds of Sugar per Acre [Lbs Sugar/A].

(Data Courtesy Michigan Sugar Co., Bay City, MI.)

% Cercospora Leaf Spot Damage

Recoverable White Sugar /Acre [Lbs Sugar /A]



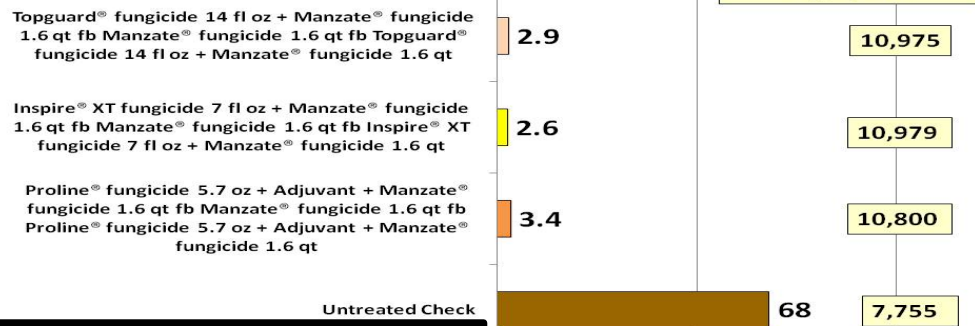
2017 Cercospora Leaf Spot (CLS) Heavy Infection  
Scale ended at 40% Leaf Spot Damage by CLS due to lack of space in chart but Untreated Check had 91.4 % Leaf Spot Damage by CLS.

2016 Selected Treatments Evaluating Fungicides for Control of Cercospora Leafspot in Sugar Beets

(Commercial Replicated Trials – Ithaca, MI)

% Cercospora Leaf Spot Damage

Recoverable White Sugar/Acre



2016 Cercospora Leaf Spot (CLS) Light Infection  
Year denoted by % Cercospora Leaf Spot damage

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