

# HatchTrak<sup>SM</sup>

March 9, 2017



**TOPGUARD**  
FUNGICIDE

## Sugar Beet Cercospora Leaf Spot Resistance Management & Control Second to None

**KOVERALL**  
FUNGICIDE

FMC now has Topguard® fungicide & Koverall® fungicides for use in Sugar Beets & 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 yield and recoverable white sugar /acre.

### Topguard 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 Group 11) QoI such as a Headline® fungicide and Gem® fungicide.
- ❑ Like other fungicides, *Topguard*® fungicide needs to be sprayed preventatively, before cercospora leaf spot lesions are observed.
- ❑ Topguard fungicide use rate is 10 to 14 fl. oz./A
- ❑ Use higher rate, 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 gallons of finished spray per acre; 5 gallons finished spray by air. Studies have shown better performance by fungicides when applied in 20 to 25 gallons of finished spray at 90 PSI with 100 PSI providing best performance.
- ❑ Topguard fungicide sugar beet PHI is 21 days.
- ❑ When using strobilurins (FRAC Group 11) QoI such as a Headline fungicide and Gem fungicide or Thiophanate methyl (FRAC M1) such as Topsin® 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 most consistent, best control of cercospora leaf spot leading to top sugar yields.
- ❑ Other studies have shown Topguard fungicide + Super Tin fungicide tank mix as a good alternate spray for a one time, single application in a cercospora leaf spot spray schedule.

### Inside This Issue

- ❑ Sugar Beet Cercospora Leaf Spot Resistance Management Second to None
- ❑ Resistance Management Guidelines
- ❑ Resistance Management begins with Topguard® fungicide and Koverall® fungicide

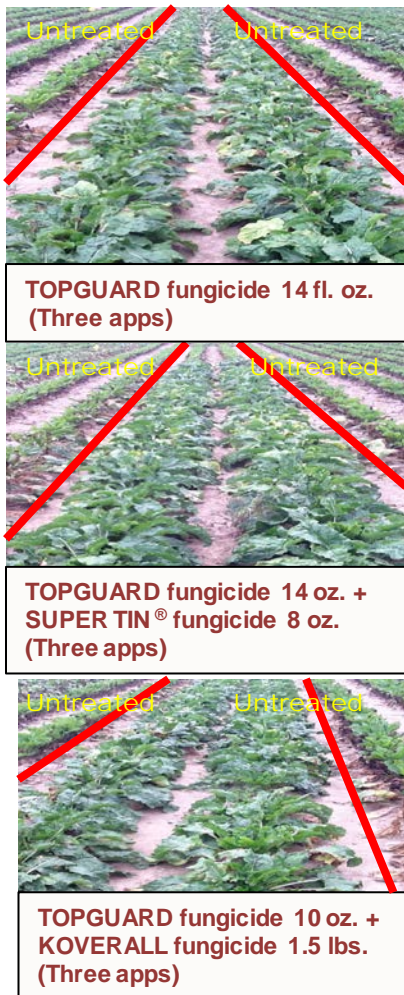
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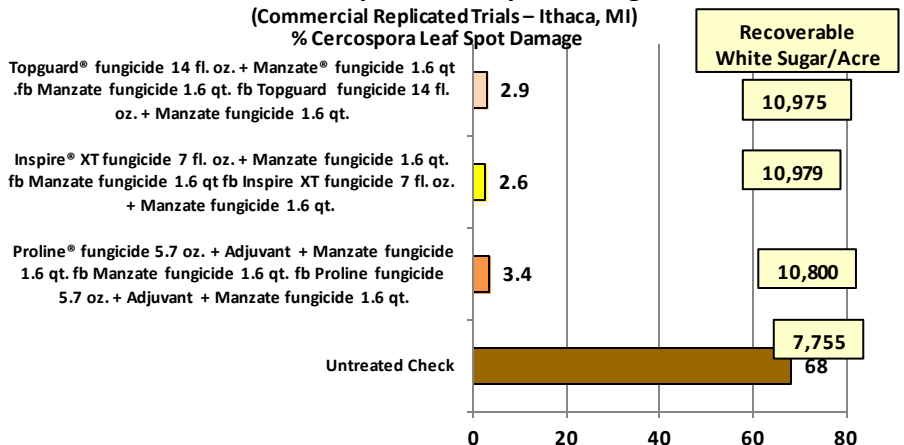
**FMC**



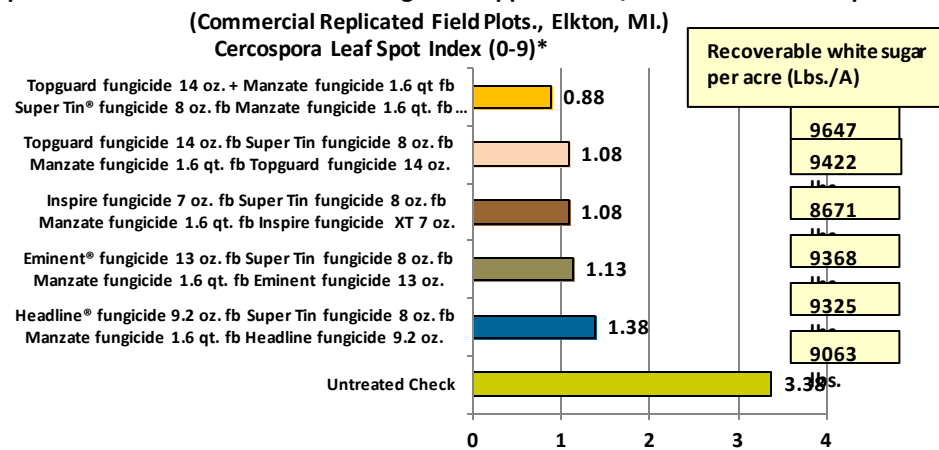
## Cercospora Leaf Spot Resistance Management Begins With Topguard® Fungicide and Koverall® Fungicide



### 2016 Selected Treatments Evaluating Fungicides for Control of Cercospora Leaf Spot in Sugar Beets



### 2015 Selected treatments from fungicide trial observing control of cercospora leaf spot with triazole and strobilurin fungicides applied with/without a tank-mix partner



\*Cercospora leaf spot Index (0-9). Lower number indicates better control by fungicide treatment. Values as follows: 2 or less = less than 1% leaf damage; 2.5 = 1% leaf damage; 3 = 3% leaf damage; 4 = 10% leaf damage; 5 = 25% leaf damage; 6 = 50% leaf damage; 7 = 75% leaf damage; 8 = 90% leaf damage; 9 = 100% leaf damage.

Always read and follow label directions. NOTE REGARDING RESTRICTED USE PESTICIDES: Anthem ATZ herbicide; Athena insecticide, Brigade2EC Insecticide/Miticide, Brigade WSB Insecticide/Miticide, Brigadier Insecticide Capture 3RIVE 3D insecticide, Capture LFR Insecticide, Declare insecticide, Hero Insecticide, Mustang Insecticide, Mustang Maxx Insecticide, Pounce 25WP Insecticide, Stallion Brand Insecticide, Temity LFR Insecticide/Fungicide, Triple Crown Insecticide, Ethos XB Insecticide/Fungicide and Gladiator Insecticide/Miticide are **Restricted Use Pesticides**. NOTE FOR CALIFORNIA: Accurate Extra herbicide, Aim herbicide, Aim EC herbicide, Aim EW herbicide, Anthem herbicide, Anthem ATZ herbicide, Anthem Flex herbicide, Anthem MAXX herbicide, Authority Assist herbicide, Authority Elite herbicide, Authority First DF herbicide, Authority MAXX herbicide, Authority MTZ DF herbicide, Authority XL herbicide, Cadet herbicide, Chisum Herbicide, Command 3ME microencapsulated herbicide, Crusher Herbicide, Edition Broadspec herbicide, Edition Tankmix Herbicide, Marvel herbicide, Nimble Herbicide, Nuance Herbicide, Preemptor SC fungicide, R Report Extra Herbicide, Solstice herbicide, Spartan 4F herbicide, Spartan Charge herbicide, Spartan Elite herbicide, Temity LFR Insecticide/Fungicide, Topguard EQ fungicide, Zeus Prime XC herbicide, Zeus XC herbicide, Capture 3RIVE 3D insecticide, Ethos XB Insecticide/Fungicide, Hero Insecticide, Mustang Maxx Insecticide, Display cotton harvest aid, Zoro Mitiicide and VGR Soil Amendment **are not registered for sale or use in California**. VGR Soil Amendment is not a pesticide. Beleaf and Carbine are trademarks of Ishihara Sangyo Kaisha, Ltd. Cercobin is a trademark of Nippon Soda Co., LTD. Sovran is a registered trademark of BASF. FMC, 3RIVE 3D, Accurate, Aim, Anthem, Athena, Authority, Brigade, Brigadier, Cadet, Capture, Chisum, Command, Crusher, Declare, Display, Edition, Ethos, Preemptor, Fracture, Fyfanon, Gladiator, Hero, Koverall, LFR, Marvel, Mustang, Nimble, Obey, Pounce, Report, Rhyme, Rovral, Shark, Solida, Solstice, Spartan, Stallion, Temity, Topguard, Terra, VGR and Zeus are trademarks and HatchTrak and Investing in farming's future are service marks of FMC Corporation or an affiliate. ©2016 FMC Corporation. All rights reserved. 11/16

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