



April 10, 2017

Wheat Disease Alert - 2017

After a very dry winter and early spring, recent rainfall has greatly improved wheat prospects in the central U.S. At the same time, the extended damp conditions increase disease risk as well. Dr. Bob Hunger, Oklahoma State published a newsletter on April 5th with observations of various diseases, mostly common rust, powdery mildew and tan spot (photos from his newsletter below).

Wheat with good yield potential should be scouted regularly now as we enter the critical growth stages where effective disease control is most necessary. If evidence of disease infection and conditions for its spread are present, **Preemptor™ SC** fungicide and **Topguard®** fungicides can provide powerful protection against a wide number of diseases.

The full text of his newsletter is available here:

<https://osuwheat.com/2017/04/05/wheat-disease-update-april-5-2017/>



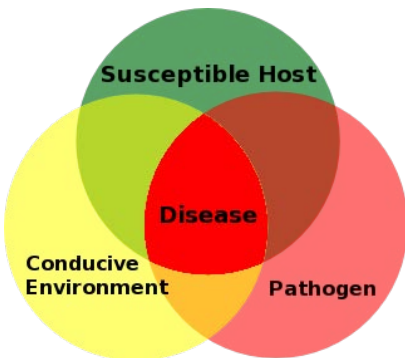
Common Rust



Powdery Mildew



Tan Spot



The familiar 'disease triangle'

1. Wheat crop worth protecting
2. Prolonged damp conditions
3. Scout to identify pathogen infection early, so an application of an effective fungicide can provide the most benefit

Inside This Issue

Wheat Disease Alert

- Oklahoma State University disease update
- Preemptor™ SC Fungicide
- Topguard® Fungicide

Technical Support Manager:

Tom Quade – MO/KS
816 225 0875

Contact your local FMC Representative for more information:

Michael Harper has been promoted – central and SW MO please call T Quade or another MO rep listed

Tom Becker – NW MO/NE KS
816 550 6021

Steve Freach South KS & OK
316 619 7486

Gary Vaupel – central/NW KS
785 826 0098

Doug Mertens – E. Central MO
573 489 5261

Amanda Lorack NE MO/SE IA
319 330 9043

FMC

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PREEMPTORTM SC

FUNGICIDE

GROUP 3 | 11 FUNGICIDE

BROAD-SPECTRUM DISEASE CONTROL FOR SPRING AND WINTER WHEAT

Product Attributes

Benefits

Dual Modes of Action

PreemptorTM SC fungicide is a combination of highly systemic, fast-acting strobilurin and triazole chemistries for maximum protection and yield. When applied preventable, it provides strong protection at critical growth stages for maximum disease control.

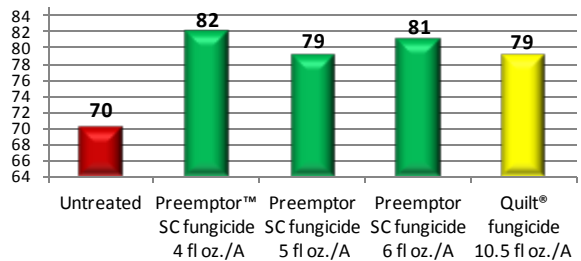
Broad-Spectrum Protection Controls yield robbing diseases in wheat: **Rusts, Powdery mildew, Septoria, Tan spot**

Application Guidelines

- Apply in a minimum of 10 gallons of spray solution per acre by ground and 2 gallons by air. (15 gpa ground recommended for thick stands and optimum leaf coverage)
- Preemptor SC fungicide may be tank mixed with other fungicides, insecticides and additives unless prohibited on the tank-mix partners label. Do not tank mix with bromoxynil-containing herbicides as crop injury could occur
- An adjuvant may be used with Preemptor SC fungicide unless otherwise stated on tank-mix partner label
- Do not apply this product through any type of irrigation system
- Use the highest labeled rate and shortest retreatment interval when disease pressure is high

Preemptor SC Fungicide Results Wheat Southern Illinois University, 2013

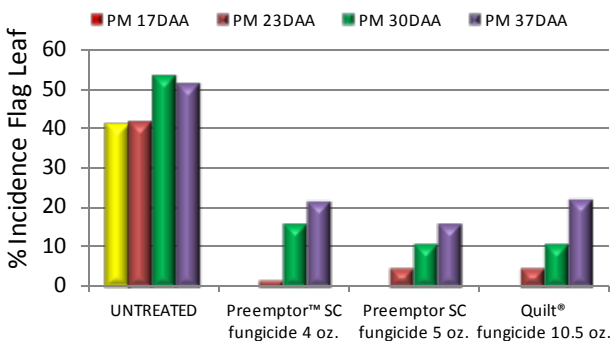
Yield Bu/A



Flag leaf application

NIS 0.25% V/V added to all treatments

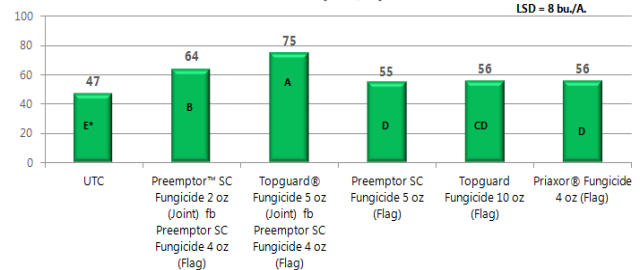
Preemptor SC Fungicide – Powdery Mildew MO: 2013



Stripe Rust Control in Wheat.

Univ. of NE –Lincoln. 2016. "McGill" Variety.

Yield (Bu./A)



Wheat (Spring and Winter)

Diseases	Product Use Rate	Application Directions
<ul style="list-style-type: none"> Leaf Rust Stripe Rust Stem Rust Powdery Mildew Septoria Leaf & Glume Blotch Tan Spot 	<p>Split-application 2 – 3 fl. oz./A (early) 4 – 6 fl. oz./A (flag leaf)</p> <p>Single application 4 – 6 fl. oz./A (flag leaf)</p>	<ul style="list-style-type: none"> Early season leaf disease suppression: Apply Preemptor SC fungicide at 2-3 fl. oz./A at late tiller-jointing (stages 5-7) for early season septoria, tan spot, powdery mildew and suppression of rust diseases. A second application (minimum interval of 14 days) at flag leaf is recommended for maximum yield protection. For single fungicide timing, apply Preemptor SC fungicide at the flag leaf stage (Growth Stage 9-10)

Technical Information

Active Ingredients	Flutriafol + Fluoxastrobin
Formulation	SC – Suspension Concentrate
Rain fast	2 hours
PHI	Wheat, grain, straw – 40 days Wheat, hay – 15 days Wheat, forage* – 7 days
REI	12 Hours

* Do not make more than one application prior to harvest of wheat forage

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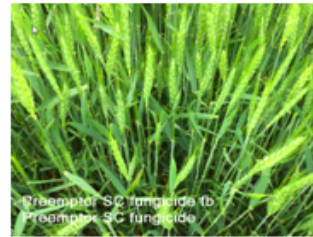
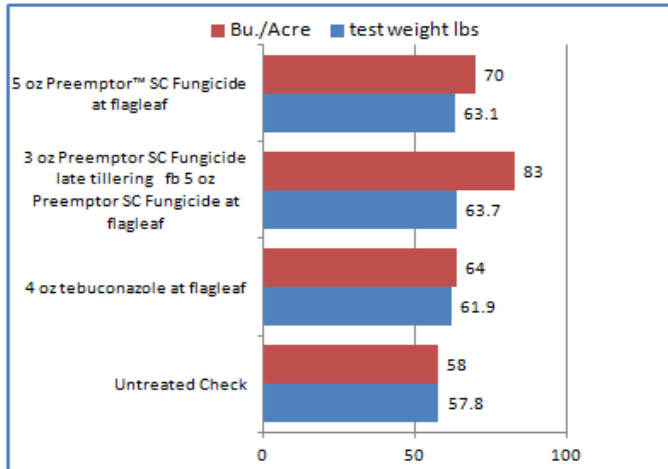
PREEMPTORTM SC
FUNGICIDE

TOPGUARD[®]
FUNGICIDE

FMC Fungicides for Stripe Rust in Wheat

PREEMPTORTM SC
FUNGICIDE

GV Farms - Salina KS 2016

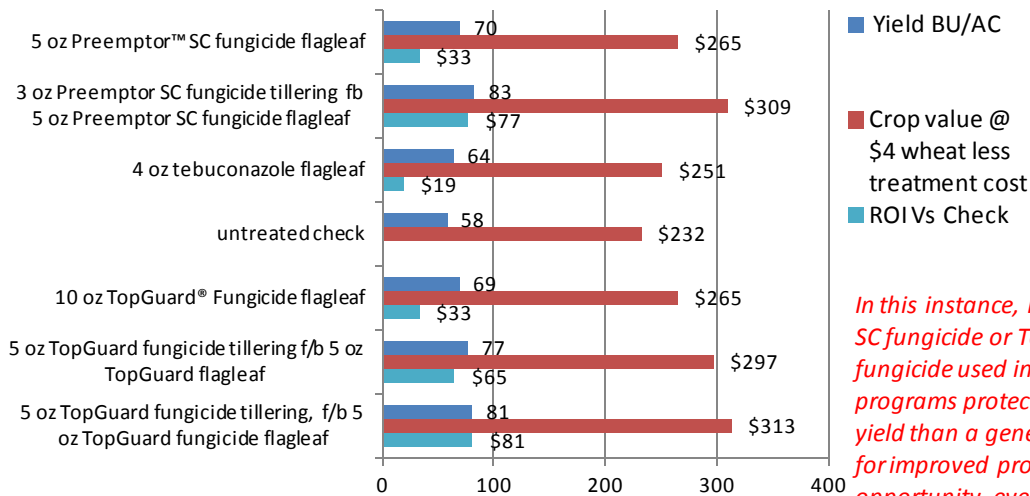


Armour wheat Planted 9/27/15
Tillering treatments Mar. 11th
Flagleaf treatments May 17th

Disease management application at tillering followed by flagleaf sequential application contributed significant extra yield over flagleaf treatment alone.

Value of FMC Fungicides in Wheat

Stripe Rust control - GV Farms, Salina, KS 2016

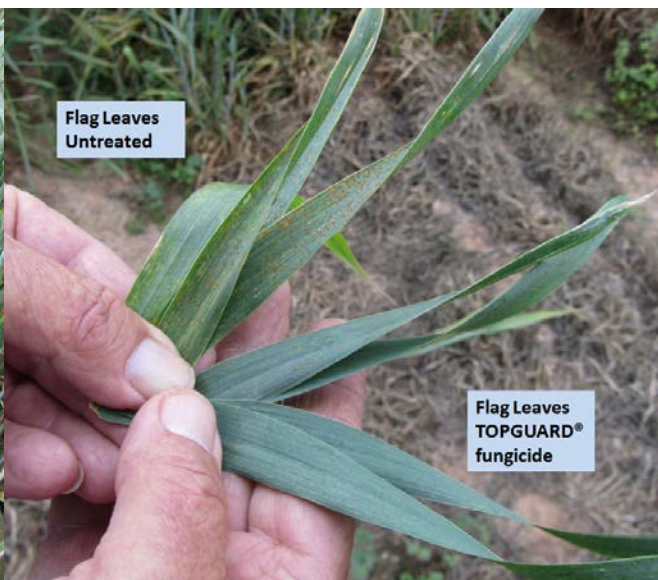


In this instance, PreemptorTM SC fungicide or Topguard[®] fungicide used in sequential programs protected more yield than a generic treatment for improved profit opportunity, even at \$4 wheat

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P. Bruno, Wharton TX 2014





Strategies for Wheat Disease Protection

PREEMPTORTM SC FUNGICIDE

Disease management - green up to flag leaf.

- Apply as a preventative spray when conditions are favorable for disease development.
- 2-3 oz./acre for early disease management. Rusts, tan spot, septoria brown spot, others Feekes 5-8
- 4 oz./acre for light to moderate leaf and stem rust at 50% flag leaf emergence or when disease development is imminent. Feekes 9-10.
- 5-6 oz./acre for moderate to heavy disease pressure.
- May be mixed with other fungicides, herbicides or insecticides unless prohibited on mix partner label. Do not mix with bromoxynil based herbicides as crop injury could result.*
- Do not apply past feekes 10.5 (flowering)
- Pre-Harvest Interval (PHI) – 40 days for grain or straw, 15 days for hay or 7 days forage. Minimum Spray interval is 14 Days. Apply no more than 6 oz. per application , nor more than 12 oz./A total per year. REI is 12 hr.

TOPGUARDTM FUNGICIDE

Economical foliar disease control , plus fusarium head blight (scab) suppression at flowering.

- 5 oz./acre for early season suppression of tan spot, powdery mildew, septoria and rust, follow with 10 oz. at flag leaf.
- 7-10 oz./acre for light to moderate leaf and stem rust at 50% flag leaf emergence. Feekes 10.
- 12-14 oz./acre for moderate to heavy disease pressure at 50% flag leaf.
- 10-14 oz./acre for suppression of fusarium head blight(scab) at feekes 10.51 (flowering). Spray nozzles should be oriented to provide maximum coverage of wheat heads.
- May be mixed with other fungicides, herbicides or insecticides unless prohibited on mix partner label.*
- Pre-Harvest Interval (PHI) – 30 days for grain, 15 days for hay or 0 days forage. Minimum Spray interval is 14 Days. Apply no more than 14oz. per application, nor more than 28 oz./A total per year. REI is 12 hr.

Utilizing PreemptorTM SC & Topguard[®] Fungicides to Maximize Wheat Yields

GOOD PLAN: Light to Moderate Disease Pressure

- 2-3 oz./acre Preemptor SC fungicide early followed by 4 oz. Preemptor SC fungicide or 7 oz. Topguard fungicide at flag leaf.

OR

- 5 oz./acre of Topguard fungicide early, green up disease suppression, follow with 5 oz. at flag leaf.

BETTER PLAN : Heavy Disease Pressure / Maximum Yield Protection.

- 2-3 oz./acre Preemptor SC fungicide early, followed by 5 oz. Preemptor SC fungicide or 10-14 oz. Topguard fungicide at flag leaf

OR

- 7 oz./acre of Topguard fungicide early, F 5-6 disease suppression, follow with 10-14 oz. at flag leaf.

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888-59-FMC-AG FMCCROP.COM

Always read and follow label directions. NOTE REGARDING RESTRICTED USE PESTICIDES: Anthem ATZ herbicide; Athena insecticide, Brigade 2EC 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, Temityr 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, Report Extra Herbicide, Solstice herbicide, Spartan 4F herbicide, Spartan Charge herbicide, Spartan Elite herbicide, Temityr 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 Miticide 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, Temityr, Topguard, 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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