FIELD TRIALS: XYWAY™ BRAND FUNGICIDES
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GET SYSTEMIC DISEASE PROTECTION FROM THE INSIDE OUT, FROM PLANTING TO HARVEST.

New Xyway™ brand fungicides are the first and only at-plant corn fungicides to provide season-long, inside-out foliar disease protection from planting to harvest. A single application provides comparable performance and corn yield protection to that of VT/R1 foliar fungicides against diseases like gray leaf spot, Northern corn leaf blight, common rust and many more.

Active ingredient flutriafol is rapidly taken up and translocated within the plant, providing systemic and long-lasting residual protection. The ability of flutriafol to move from the soil upward through the plant for the duration of the growing season has not been demonstrated by any other fungicide active ingredient.
Delivered via our revolutionary 3RIVE 3D® application system, Xyway™ 3D fungicide allows you to maximize your efficiency. The 3RIVE 3D application system is designed with convenience in mind, allowing you to plant up to 325-450 acres between refills. Combining the right amount of product and water eliminates the need for mixing, measuring and tank agitation. The system efficiently covers more ground in less time with fewer refills, saving water, fuel, labor and time.

Designed with our Liquid Fertilizer Ready (LFR®) formula, Xyway LFR fungicide can be easily added to any liquid in-furrow application system. Our LFR formula is designed for superior mixability and stability in liquid and pop-up fertilizers and provides a uniform suspension in fertilizer for consistent delivery of products across the acre. For added flexibility, Xyway LFR fungicide is also labeled for 2X2 application.**

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**XYWAY™ BRAND FUNGICIDES**

**Active Ingredient:** Flutriafol

**FRAC Group:** 3

**Mode of Action:** Demethylation inhibitors; blocks the synthesis of ergosterol in sensitive species of fungi.

**Application Rate:** Xyway 3D fungicide: 11.8 oz./A at-plant, in-furrow; Xyway LFR fungicide: 15.2 fl. oz./A at-plant, in-furrow based on 30” row spacing.*

**Labeled Diseases:** Gray leaf spot, Northern corn leaf blight, Southern corn leaf blight, common rust, head smut, common smut; suppression of: anthracnose stalk rot, Fusarium stalk and crown rot and Physoderma brown spot.***

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*See label for row spacing conversion rates.

**This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.

***This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for suppression of anthracnose stalk rot, Fusarium stalk and crown rot and Physoderma brown spot in corn. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.
看到了就是相信。今天就去虚拟地里参观一下吧。

进入田间，看看我们的Xyway™品牌杀菌剂在全美各地的效果。访问XYWAY.AG.FMC.COM或扫描二维码，体验360度虚拟参观就在你身边。

**长季节表现有回报**

XWAY BRAND FUNGICIDES 0.228 LB. AI/A AT-PLANT, IN-FURROW

玉米平均产量超过未处理 | 2018-2020

<table>
<thead>
<tr>
<th>地区</th>
<th>平均增加量 (bu/A)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>西部玉米带和东部玉米带</td>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>种植者</td>
<td>13</td>
<td>34</td>
</tr>
<tr>
<td>中南部和南部</td>
<td>10</td>
<td>38</td>
</tr>
</tbody>
</table>

XWAY BRAND FUNGICIDES VS. UNTREATED | BALANCED DATA SET, 19 PROTOCOLS; 125 TRIALS; 2018-2020

<table>
<thead>
<tr>
<th>平均产量 (bu/A)</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>38</td>
</tr>
<tr>
<td>13</td>
<td>34</td>
</tr>
<tr>
<td>10</td>
<td>38</td>
</tr>
</tbody>
</table>

**图表数据**

- 平均增加量：+9 bu/A
- 西部玉米带和东部玉米带：n=38
- 中南部和南部：n=38
- 未处理：n=34

**图表注释**

- 平均增加量：+9 bu/A
- 西部玉米带和东部玉米带：n=38
- 中南部和南部：n=38
- 未处理：n=34

**图表解释**

- 平均增加量：+9 bu/A
- 西部玉米带和东部玉米带：n=38
- 中南部和南部：n=38
- 未处理：n=34

**表目录**

- 7天
- 10天
- 13天
- 10天
- 38天
- 34天
- 38天
- 34天
WESTERN CORN BELT & GREAT PLAINS
CORN YIELDS

![Corn Yield Chart]

*This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.
**Missouri Farmers Association Inc.**

Cedar Creek, MO

**Planting Date:** 05/11/2020

**Hybrid:** MorCorn 4457

**Row Spacing:** 30”

**Target Population:** 32,000 plants/A

**Product & Use Rate:** Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow

---

### CORN YIELDS

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>171</td>
</tr>
<tr>
<td>Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow</td>
<td>206</td>
</tr>
<tr>
<td>Xyway LFR fungicide 15.2 fl. oz./A + Ethos® XB insecticide/fungicide 8.5 fl. oz./A at-plant, in-furrow</td>
<td>207</td>
</tr>
<tr>
<td>Headline® fungicide 6.9 fl. oz./A at-plant</td>
<td>159</td>
</tr>
<tr>
<td>Delaro® fungicide 5 fl. oz./A + VS</td>
<td>219</td>
</tr>
<tr>
<td>Trivapro® fungicide 13.7 fl. oz./A + VS</td>
<td>212</td>
</tr>
</tbody>
</table>

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*Ethos XB insecticide/fungicide is a Restricted Use Pesticide.*

*This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.*

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115 DAYS AFTER PLANTING

<table>
<thead>
<tr>
<th></th>
<th>Average Stalk Thickness</th>
<th>Average Rows/Ear</th>
<th>Average Kernels/Row</th>
<th>Estimated yield based on 32 ears per 1/1,000 A*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>0.5”</td>
<td>14.2</td>
<td>37.4</td>
<td>189 bu</td>
</tr>
<tr>
<td>Xyway 3D fungicide</td>
<td>0.75”</td>
<td>16</td>
<td>38.6</td>
<td>220 bu</td>
</tr>
</tbody>
</table>

*Yield estimate conducted 40+ days prior to harvest.

CORN YIELDS

![Graph showing corn yields comparison between untreated and Xyway 3D fungicide treated plots.]

- Untreated: 183 bu with +22 increase
- Xyway 3D fungicide: 205 bu

*Yield estimate conducted 40+ days prior to harvest.
FMC Internal Location
Bradshaw, NE

Planting Date: **04/28/2020**
Hybrid: **P1244 AM**
Row Spacing: **30”**
Target Population: **32,000 plants/A**
Product & Use Rate: **Xyway™ LFR fungicide**
15.2 fl. oz./A at-plant, 2x2*

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**150 DAYS AFTER PLANTING**

*This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.*
GRAY LEAF SPOT | 105 DAYS AFTER PLANTING

![Untreated](image1)

![Xyway 3D fungicide](image2)

<table>
<thead>
<tr>
<th>Untreated</th>
<th>Xyway 3D fungicide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11.8 oz./A at-plant, in-furrow</td>
</tr>
</tbody>
</table>
150 DAYS AFTER PLANTING

BELOW EAR LEAF:

Untreated  Xyway 3D fungicide
11.8 oz./A at-plant, in-furrow

EAR LEAF:

Untreated  Xyway 3D fungicide
11.8 oz./A at-plant, in-furrow
ROOT AND STALK COMPARISON

Xyway 3D fungicide
11.8 oz./A at-plant, in-furrow

Headline® fungicide
6.9 oz./A in-furrow

CORN YIELDS

<table>
<thead>
<tr>
<th>Corn Yield (bu/A)</th>
<th>186</th>
<th>190</th>
<th>195</th>
<th>200</th>
<th>205</th>
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</thead>
<tbody>
<tr>
<td>Untreated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>186</td>
</tr>
<tr>
<td>Xyway 3D fungicide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>201</td>
</tr>
</tbody>
</table>

+15
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MID-SOUTH & SOUTH
LATE-SEASON DISEASE CONTROL | 128 DAYS AFTER PLANTING

Planting Date: 04/07/2020
Hybrid: DKC67-44 RIB
Row Spacing: 30"
Target Population: 30,000 plants/A
Product & Use Rate: Xyway™ 3D fungicide 11.8 oz./A at-plant, in-furrow

CORN YIELDS | YIELD ADJUSTED TO 15.5% MOISTURE

Scan this QR code on your mobile device camera to step into the field for a virtual 360 tour of this location.
Garland Williams and Sons Farms
Hickman, KY

Planting Date: 04/18/2020
Hybrid: DKC70-27 RIB
Row Spacing: 20”
Target Population: 36,000 plants/A
Product & Use Rate: Xyway™ 3D fungicide 11.8 oz./A at-plant, in-furrow

ROOT COMPARISON | 40 DAYS AFTER PLANTING

```
<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Farm</td>
<td>Average Dry Yield: 228 bu/A</td>
<td>Average Dry Yield: 243.1 bu/A</td>
</tr>
<tr>
<td>Total Area</td>
<td>106 acres</td>
<td>25.7 acres</td>
</tr>
</tbody>
</table>
```

NDVI 128 | DAYS AFTER PLANTING

```
<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Farm</td>
<td>Average Dry Yield: 227.3 bu/A</td>
<td>Average Dry Yield: 243.1 bu/A</td>
</tr>
<tr>
<td>Plot Area</td>
<td>2.4 acres</td>
<td>25.7 acres</td>
</tr>
</tbody>
</table>
```

CORN YIELDS | YIELD ADJUSTED TO 15.5% MOISTURE

- **Untreated**: 227 bu/A +16 243 bu/A
- **Xyway 3D fungicide**: 243 bu/A
Scan this QR code on your mobile device camera to step into the field for a virtual 360 tour of this location.

**NORTHERN CORN LEAF BLIGHT | 136 DAYS AFTER PLANTING**

![Northern Corn Leaf Blight Chart]

**CORN YIELDS**

![Corn Yield Chart]
Planting Date: 05/12/2020
Hybrid: DKC62-08 RIB
Row Spacing: 30”
Target Population: 35,000 plants/A
Product & Use Rate: Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow

GRAY LEAF SPOT | 94 DAYS AFTER PLANTING

CORN YIELDS

TABLE OF CONTENTS
89 DAYS AFTER PLANTING

Untreated

Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow

CORN YIELDS

Corn Yield (bu/A)

230
210
209
190
170
150

Untreated

Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow

+9

218

Mississippi State University
Stoneville, MS
Dr. Tom Allen

Planting Date: 05/06/2020
Hybrid: LS-AV8614YHB
Row Spacing: 38"
Product & Use Rate: Xyway® LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow
Planting Date: 04/08/2020
Hybrid: Pioneer® 1916
Row Spacing: 40”
Target Population: 32,000 plants/A
Product & Use Rate: Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow

NORTHERN CORN LEAF BLIGHT | AREA UNDER DISEASE PROGRESS CURVE

CORN YIELDS
104 DAYS AFTER PLANTING

UNTREATED

XYWAY LFR FUNGICIDE 15.2 FL. OZ./A AT-PLANT, IN-FURROW

CORN YIELDS

*This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.
SOUTHERN CORN LEAF BLIGHT | AREA UNDER DISEASE PROGRESS CURVE

![Graph showing the area under the disease progress curve for untreated, Trivapro® fungicide, and Xyway LFR fungicide treatments.]

CORN YIELDS

![Graph showing corn yield for untreated, Trivapro fungicide, and Xyway LFR fungicide treatments.]

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**GRAY LEAF SPOT**

![Graph showing Gray Leaf Spot severity (%) for Untreated, Stratego® YLD fungicide 4 fl. oz./A @ VT, and Xyway LFR fungicide 15.2 fl. oz./A at-plant, 2x2*]

**CORN YIELDS**

![Graph showing Corn Yield (bu/A) for Untreated, Stratego YLD fungicide 4 fl. oz./A @ VT, and Xyway LFR fungicide 15.2 fl. oz./A at-plant, 2x2*]

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Northern and Southern Corn Leaf Blight | Fungicide Efficacy in Sweet Corn

*T his Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for 2x2 placement at-plant in corn (field, corn grown for seed, popcorn and sweet corn) in all registered states except Texas. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025.
Trial: SWEET CORN
Planting Date: 08/03/2020
Hybrid: Silver Queen
Row Spacing: 40”
Product & Use Rate: Xyway™ LFR® fungicide
15.2 fl. oz./A at-plant, in-furrow

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EASTERN CORN BELT
100 DAYS AFTER PLANTING

PLANT STANDS | 28 DAYS AFTER PLANTING

CORN YIELDS

Planting Date: 05/27/2020
Hybrid: DKC 62-05
Row Spacing: 30"
Target Population: 34,000 plants/A
Product & Use Rate: Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow
MARKETING, MANAGEMENT, AND ECONOMICS

100 DAYS AFTER PLANTING

Ohio State University Western Agricultural Research Station
South Charleston, OH

Table of Contents

Planting Date: 05/27/2020
Hybrid: DKC 62-05
Row Spacing: 30"
Target Population: 34,000 plants/A
Product & Use Rate: Xyway™ LFR® fungicide
15.2 fl. oz./A at-plant, in-furrow
111 DAYS AFTER PLANTING

Untreated

Xyway 3D fungicide
11.8 oz./A at-plant, in-furrow

STALK SPLITS

Untreated

Xyway 3D fungicide
11.8 oz./A at-plant, in-furrow
Kinsler Farms
Frankfort, IN

Planting Date: 05/27/2020
Hybrid: NON-GMO
Row Spacing: 30”
Product & Use Rate: Xyway™ 3D fungicide
11.8 oz./A at-plant, in-furrow

GRAY LEAF SPOT

Number of Gray Leaf Spot Lesions per 20 Leaves (Ear Leaf)

- Untreated: 136
- Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow: 34

CORN YIELDS

Corn Yield (bu/A)

- Untreated: 185
- Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow: 199 (+14)

TABLE OF CONTENTS
Fulton Farms
Troy, OH

Planting Date: 05/12/2020
Hybrid: Beck’s 5140HR
Row Spacing: 30”
Target Population: 32,000 plants/A
Product & Use Rate: Xyway™ 3D fungicide
11.8 oz./A at-plant, in-furrow

Scan this QR code on your mobile device camera to step into the field for a virtual 360 tour of this location.

PLANT STANDS | 28 DAYS AFTER PLANTING

![Bar chart comparing plant stands.

- Untreated: 31,333 plants/A
- Xyway 3D fungicide: 32,000 plants/A

GRAY LEAF SPOT

![Bar chart comparing gray leaf spot lesions.

- Untreated: 230 lesions per 20 leaves (Ear Leaf)
- Xyway 3D fungicide: 18 lesions per 20 leaves (Ear Leaf)
Fulton Farms
Troy, OH

Planting Date: 05/12/2020
Hybrid: Beck’s 5140HR
Row Spacing: 30”
Target Population: 32,000 plants/A
Product & Use Rate: Xyway™ 3D fungicide
11.8 oz./A at-plant, in-furrow

CORN YIELDS

<table>
<thead>
<tr>
<th>Corn Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Xyway 3D fungicide</td>
</tr>
<tr>
<td>248</td>
</tr>
<tr>
<td>+8</td>
</tr>
</tbody>
</table>

Fulton Farms
Troy, OH

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**STALK DISEASE**

![Graph showing stalk disease index score comparison between untreated and treated corn.](chart)

*Fusarium spp. and anthracnose stalk rot were both isolated from the UTC.*

**CORN YIELDS**

![Graph showing corn yield comparison between untreated and treated corn.](chart)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Corn Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>193</td>
</tr>
<tr>
<td>Xyway LFR fungicide</td>
<td>201 (+8)</td>
</tr>
</tbody>
</table>

**Michigan State University**

East Lansing, MI

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**Planting Date:** 05/09/2020

**Hybrid:** DKC 52-61

**Row Spacing:** 30"

**Target Population:** 35,000 plants/A

**Product & Use Rate:** Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow
100 DAYS AFTER PLANTING

Untreated

Xyway LFR fungicide
15.2 fl. oz./A
at-plant, in-furrow

100 DAYS AFTER PLANTING

Untreated

Xyway LFR fungicide
15.2 fl. oz./A
at-plant, in-furrow
GRAY LEAF SPOT | 99 DAYS AFTER IN-FURROW, 62 DAYS AFTER V7,
53 DAYS AFTER V10, 42 DAYS AFTER R1

Ethos XB insecticide/fungicides is a Restricted Use Pesticide.
*Sample taken from one leaf above ear leaf to have viable leaf rate.

CANOPEO GREEN LEAF TISSUE MEASUREMENTS | 102 DAYS AFTER PLANTING AND
108 DAYS AFTER PLANTING
Gray Leaf Spot Incidence and Severity on Ear Leaf

Veltyma™ fungicide
7 fl. oz./A + NIS @ R1

Xyway LFR fungicide
15.2 fl. oz./A at-plant, 2x2

Xyway LFR fungicide
15.2 fl. oz./A + Ethos® XB insecticide/fungicide 4 fl. oz./A at-plant, in-furrow

Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow

Untreated

Corn Yields

Veltyma fungicide
7 fl. oz./A + NIS @ R1

Xyway LFR fungicide
15.2 fl. oz./A at-plant, 2x2

Xyway LFR fungicide
15.2 fl. oz./A + Ethos® XB insecticide/fungicide 4 fl. oz./A at-plant, in-furrow

Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow

Untreated

Ethos XB insecticide/fungicides is a Restricted Use Pesticide.

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PUSH TEST AND STAYGREEN | 107 DAYS AFTER PLANTING

![Graph showing Push Test and Staygreen % comparison]

- **Untreated**: 10% Push Test, 31% Staygreen
- **Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow**: 5% Push Test, 43% Staygreen

ROOT COMPARISON | 107 DAYS AFTER PLANTING

![Image of root comparison]

- **Untreated**
- **Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow**

**Additional Details**
- **Planting Date**: 04/20/2020
- **Row Spacing**: 30”
- **Target Population**: 32,000 plants/A
- **Product & Use Rate**: Xyway™ 3D fungicide 11.8 oz./A at-plant, in-furrow
STALK COMPARISON | 151 DAYS AFTER PLANTING

- Untreated
- Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow
- Untreated
- Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow
- Untreated
- Xyway 3D fungicide 11.8 oz./A at-plant, in-furrow

Planting Date: **04/20/2020**
Row Spacing: **30”**
Target Population: **32,000 plants/A**
Product & Use Rate: **Xyway™ 3D fungicide 11.8 oz./A at-plant, in-furrow**
Planting Date: 04/20/2020  
Row Spacing: 30”  
Target Population: 32,000 plants/A  
Product & Use Rate: Xyway™ 3D fungicide  
11.8 oz./A at-plant, in-furrow

151 DAYS AFTER PLANTING

| Untreated | Xyway 3D fungicide  
11.8 oz./A at-plant, in-furrow |

EAR COMPARISON | 151 DAYS AFTER PLANTING

| Untreated | Xyway 3D fungicide  
11.8 oz./A at-plant, in-furrow |
**PLANTING DATE:** 05/12/20

**Hybrid:** P9998AM

**Product & Use Rate:** Xyway™ LFR® fungicide
15.2 fl. oz./A at-plant, in-furrow

**Gray Leaf Spot | 106 Days After Planting**

**Untreated**

**Xyway LFR fungicide**
15.2 fl. oz./A at-plant, in-furrow

**Pysoderma**

*This Xyway LFR fungicide recommendation is made as permitted under FIFRA Section 2(ee) for suppression of Physoderma brown spot in corn. This recommendation has not been submitted to or approved by the EPA. The 2(ee) expiration date is 12/31/2025. All treatments included NIS 0.25% v/v.
Staygreen (%)

- Untreated: 43
- Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow: 58
- Xyway LFR fungicide 15.2 fl. oz./A + Ethos XB insecticide/fungicide 8.5 fl. oz./A at-plant, in-furrow: 64

Corn Yield (bu/A)

- Untreated: 192
- Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow: 202
- Xyway LFR fungicide 15.2 fl. oz./A + Ethos XB insecticide/fungicide 8.5 fl. oz./A at-plant, in-furrow: 194

Ethos XB insecticide/fungicides is a Restricted Use Pesticide. All treatments included NIS 0.25% v/v.
FMC Internal Location
Whitestown, IN

Planting Date: 05/10/20
Hybrid: DKC 62-08
Row Spacing: 30"
Target Population: 32,000 plants/A
Product & Use Rate: Xyway™ LFR® fungicide 15.2 fl. oz./A at-plant, in-furrow

Scan this QR code on your mobile device camera to step into the field for a virtual 360 tour of this location.

GRAY LEAF SPOT | 108 DAYS AFTER PLANTING

Untreated

Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow

CORN YIELDS

Corn Yield (bu/A)

<table>
<thead>
<tr>
<th></th>
<th>Untreated</th>
<th>Xyway LFR fungicide 15.2 fl. oz./A at-plant, in-furrow</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>223</td>
<td>264</td>
</tr>
<tr>
<td></td>
<td>+41</td>
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</tr>
</tbody>
</table>

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FMC Internal Location
Whitestown, IN

Trial: POPCORN
Planting Date: 05/19/20
Cultivars: 4 unnamed cultivars tested
Product & Use Rate: Xyway™ LFR® fungicide
15.2 fl. oz./A at-plant, in-furrow

CANOPEO GREEN LEAF TISSUE MEASUREMENT | 103 DAYS AFTER PLANTING

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Green Leaf Tissue (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>61.98%</td>
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<tr>
<td>Xyway LFR fungicide</td>
<td>78.23%</td>
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</table>

GREEN LEAF AREA | 122 DAYS AFTER PLANTING

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Green Leaf Area (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xyway LFR fungicide</td>
<td>75</td>
</tr>
<tr>
<td>Untreated</td>
<td>29</td>
</tr>
<tr>
<td>Xyway LFR fungicide</td>
<td>60</td>
</tr>
<tr>
<td>Untreated</td>
<td>72</td>
</tr>
<tr>
<td>Xyway LFR fungicide</td>
<td>66</td>
</tr>
<tr>
<td>Untreated</td>
<td>23</td>
</tr>
</tbody>
</table>

TABLE OF CONTENTS
Trial: POPCORN
Planting Date: 05/19/20
Cultivars: 4 unnamed cultivars tested
Product & Use Rate: Xyway™ LFR® fungicide
15.2 fl. oz./A at-plant, in-furrow

POPCORN PLANT STANDS | 13 DAYS AFTER PLANTING

300,000
250,000
200,000
150,000
100,000
50,000
0

24,733
25,433
23,333
23,800
26,600
22,867
21,233
21,467

Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated

POPCORN PLANT STANDS | 27 DAYS AFTER PLANTING

32,000
31,500
31,000
30,500
30,000
29,500
29,000
28,500
28,000
27,500

29,167
29,983
29,400
31,733
30,450
30,217
29,867

Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
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Untreated
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15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated

GRAY LEAF SPOT & NORTHERN CORN LEAF BLIGHT | 103 DAYS AFTER PLANTING

Disease Severity (%)

10
24.7
8
12
7
14.7
16.7
32

Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated
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15.2 fl. oz./A at-plant, in-furrow
Untreated
Xyway LFR fungicide
15.2 fl. oz./A at-plant, in-furrow
Untreated

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LATE-SEASON DISEASES

With disease protection beginning at germination, Xyway™ brand fungicides provide flexibility to schedule the foliar application timing. Including Xyway brand fungicides in your foliar fungicide protocol could be the best scenario for diseases that can come in very late and significantly reduce yields such as Southern rust and tar spot.
Tar Spot

Complex with *Phyllachora maydis* and *Monographella maydis*. Sometimes associated with *Coniothyrium phyllachorae*.

Tar spot is the physical manifestation of the fungal fruiting body, the ascomata, developing on the leaf.

Black lesions may densely cover the leaf.

The ascomata looks like a spot of tar developing black oval or circular lesions.
A new disease in the United States, it was first identified in 2015 in Illinois and Indiana. Recent reports indicate it is now present in seven states: IL, IN, IA, OH, MI, WI and FL. It is native to Latin America in cool, high altitudes.

Timing and Transmission
Tar spot is formed by producing a complex with Phyllachora maydis and Monographella maydis organisms. A third organism, Coniothyrium phyllachorae, has also been associated with the complex. M. maydis is thought to be the primary contributor to yield losses in its native Latin America. However, P. maydis is the only tar spot organism in corn that has been identified in the United States and significant yield losses have been reported. Therefore, researchers are investigating other pathogens such as gray leaf spot that may be forming a complex with P. maydis. Nonetheless, it is possible that P. maydis alone is impacting yields in United States environments.

Identification and Dissemination
TS is an obligate fungal pathogen that initiates lower in the canopy as a yellow-brown spot on the undersides of leaves and forms a raised black spot resembling tar that covers the ascomata. It is capable of occupying corn leaves, sheathes and husks. Yield losses have been reported from 0-30% with an average of 8% in Central and South America. TS can influence corn yields directly by reducing photosynthetic leaf area, in addition to causing plants to redistribute photo assimilates by scavenging stalks to fill grain, resulting in lodging. Researchers are also studying P. maydis complexes with other pathogens including fusarium ear rot, which encompasses mycotoxin properties. However, TS alone is not recognized as a mycotoxin.

Management
Management tactics for TS include selecting tolerant hybrids, if available, crop rotation, tillage and fungicide applications. Selecting premixes including multiple sites of action is critical. Optimal application timing is not well understood, but field observations indicate symptoms occurring during reproductive stages. Therefore, R1 applications will likely coincide with infection, but this will vary on a yearly basis. Research has demonstrated suppression with fungicide applications and the importance of a diversified management strategy.
Southern Rust

*Puccinia polysora*

Small circular to oval pustules with orange to light brown spores.

Pustules are more abundant on the upper leaf surfaces.

Pustule size is usually smaller and less ragged than common rust.
An aggressive, yield-reducing disease if epidemics initiate early i.e., prior to or at tasseling. Spores are lighter in color, and pustule size is usually smaller compared to common rust.

Timing and Transmission
Southern rust does not overwinter in the Corn Belt. Infections in this region result from spores carried northward with prevailing weather systems from the southern United States. This is a warm-season rust as compared to common rust and usually occurs late season.

Identification and Dissemination
Southern rust appears as small circular to oval pustules with orange to light brown spores. When compared to common rust, the spores are lighter in color, and pustule size is usually smaller and less ragged looking than those produced by the common rust pathogen. Pustules are more abundant on the upper leaf surface and can also be found on the stalks, sheath and husks when disease is severe.

Management
Because Southern rust is windborne and doesn’t overwinter in the United States, the practice of rotation of crops or deep tillage are not effective in controlling this disease. Corn hybrids vary in susceptibility to Southern rust, and the least susceptible hybrid should be planted in areas with a history of early-season rust development. Since rust spores are windblown from Southern states and initial infection at later stages of corn development is less likely to impact disease, early-planted corn may avoid significant disease pressure. Fungicides are effective at suppressing Southern rust though there is no economic threshold for a fungicide application.
HARVEST STARTS HERE.

To learn more about Xyway™ brand fungicides, visit XYWAY.AG.FMC.COM.
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