May 2017

Topguard® EQ fungicide and Hero® Insecticide offer a new opportunity in 2017 for controlling yield robbing diseases and insect pests in soybeans. This tank mixture combination of fungicide and insecticide provides residual, broad spectrum disease and insect control to protect soybean yields and seed quality.

### Soybean Use Information

- **Application Timing:** R1 to R5; R3 typically optimum
- **Use Rate:** 5 oz./A + adjuvant
  - Heavy disease pressure or where extended residual control is needed: may use up to 7 fl. oz./A
- **Diseases Controlled**
  - Alternaria Leaf Spot
  - Anthracnose
  - Brown Spot
  - Cercospora Blight
  - Purple Seed Stain
  - Frogeye Leaf Spot
  - Pod and Stem Blight
  - Aerial Blight
  - Powdery Mildew
  - Target Spot
  - Rust
- **Suppression:** Southern Blight and White Mold/Stem Rot
- **REI:** 12 hours
- **Pre-Harvest Interval (PHI):** 21 days
- **Do not feed hay or graze treated soybeans**
- **Minimum Spray Interval:** 14 days (21 days for rust)
- **Maximum Use Per Year:** 3 applications or 15.5 fl. oz./A

### Soybean Disease Control and Plant Health Benefits

#### Yield Protection From Leaf and Pod Feeding Soybean Insects

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Contact your local FMC Marketing Manager for more information

- **Michael Myers**
  - (717) 304-8957
- **Tyler Williams**
  - (270) 403-1467

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**Untreated**

**Topguard EQ fungicide 5 fl. oz./A**
### Yield Response in a Frogeye Leaf Spot Susceptible vs Tolerant Soybean Cultivar

<table>
<thead>
<tr>
<th>Fungicide</th>
<th>Yield Response</th>
<th>Susceptible</th>
<th>Tolerant</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4 fl. oz./A Approach® Prima fungicide</td>
<td>+0.7%</td>
<td>+2.1%</td>
<td></td>
</tr>
<tr>
<td>4 fl. oz./A Priaxor® D fungicide</td>
<td>-0.8%</td>
<td>+5.9%</td>
<td></td>
</tr>
<tr>
<td>4 fl. oz./A Stratego® YLD fungicide</td>
<td>+0.1%</td>
<td>+3.9%</td>
<td></td>
</tr>
<tr>
<td>7 fl. oz./A Quadris Top® SBX fungicide</td>
<td>+3.7%</td>
<td>+6.5%</td>
<td></td>
</tr>
<tr>
<td>5 fl. oz./A Topguard EQ fungicide</td>
<td>+5.5%</td>
<td>+7.5%</td>
<td></td>
</tr>
<tr>
<td>No Fungicide</td>
<td></td>
<td></td>
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</tbody>
</table>

Trial work conducted in MS compared soybean yield response to fungicide application in a FELS susceptible cultivar versus a FELS tolerant cultivar.

Both cultivars generally responded positively to a fungicide application. The tolerant cultivar yielded the largest percent increase of the 2 cultivars. Topguard EQ fungicide treated plots led all fungicides with a +5.5% and +7.5% yield increase when applied to the susceptible and tolerant cultivar, respectively.

Data Source: Southern Ag Services, Mantee, MS. 2016

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### Rates Table and Insects Controlled

<table>
<thead>
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<th>Treatment</th>
<th>Insects Controlled</th>
</tr>
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<tbody>
<tr>
<td>2.6 – 6.1 fl. oz./A</td>
<td>Beetles, Bean Leaf Flea, Cutworms, Grasshoppers, Caterpillars, Green Cloverworm, Painted Lady, Silver-spotted Skipper</td>
</tr>
<tr>
<td>4.0 – 10.3 fl. oz./A</td>
<td>Caterpillars &lt;br&gt; Alfalfa, Armyworms, Fall, Southern, True, Yellowstriped Corn Earworm, Borers, European Corn, Lesser Cornstalk</td>
</tr>
<tr>
<td>10.3 fl. oz./A</td>
<td>Lygus (Plant Bugs), Whitefly, Thrips, Mites, Two Spotted Spider</td>
</tr>
</tbody>
</table>

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### NEW Topguard EQ Performance Results

#### Frogeye Leaf Spot (FELS) and Brown Spot Control

<table>
<thead>
<tr>
<th>Treatment</th>
<th>% Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1 App. 26 DAT</td>
<td>6 fl. oz./A Priaxor® Xemium fungicide</td>
</tr>
<tr>
<td>R3 App. 21 DAT</td>
<td>6 fl. oz./A Priaxor Xemium fungicide</td>
</tr>
</tbody>
</table>

Data Source: Oscar Perez-Hernandez, Univ of Central MO. 2016

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The benefit of the Group 3 fungicide flutriafol is really apparent for FELS caused by the fungi *Cercospora*. Many populations are now resistant to the Group 11 strobilurin fungicide which is a component of both Topguard EQ fungicide and Priaxor fungicide. Priaxor fungicide does not contain a triazole, instead it contains a Group 7 SDHi fungicide which are generally inherently weak against *Cercospora*.
Across 45 on-farm demos in IL and IN in 2016, the combination of FMC’s flutriafol (Group 3) + strobilurin (Group 11) fungicide and Hero Insecticide resulted in an average increase of 3.9 bushels of soybeans per acre. The ROI at +3.9 bu/A would be approximately +$11.96/A (using $9.10/bu average 2016 soybean price and suggested list price for Topguard® EQ fungicide and Hero Insecticide).