2012 Foliar Fungicide Product Comparison on Corn

South Central Agriculture Laboratory
Clay Center, NE

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University of Nebraska - Lincoln
2012 Diseases

Although at very low severity, gray leaf spot was the predominant foliar disease during the growing season at this location. Gray leaf spot severity level was < 1% in the non-treated control.
2012 Diseases

Common rust was the foliar disease first observed in this trial & was initially seen in late June. Disease severity was very low at this location and did not exceed trace amounts ($\leq 0.1\%$) for any treatment.
Southern rust was present and was first identified in this trial on August 2\textsuperscript{nd}. This disease was observed in trace amounts (≤0.2\%).
Eyespot, common smut, and Physoderma brown spot were observed sparsely in this trial, thus not justifying ratings for these diseases at this location in 2012.
2012 Foliar Fungicide Trials

- Last year’s crop was soybean
- Planting date: 4/26/12
- Target plant population of 30,600 plants/A
- Corn hybrid: DKC 64-83 (GLS rating 6/9, ”good”, CR rating 4/9, “very good”, & SR rating 5/9, “good”)  
- Eleven foliar fungicide treatments and a non-treated control replicated six times  
  - NIS added at 0.25% v/v
  - High clearance sprayer used at 20 gpa at 40 psi
  - Alley width & row spacing = 30 inches
  - Overhead sprinkler irrigated
2012 Fungicide Product Comparison Trial in NE
Gray leaf spot disease severity (%)

- Foliar fungicide application was made July 5\textsuperscript{th} at silking (R1).
- NIS added to each fungicide treatment at 0.25% v/v.
2012 Fungicide Product Comparison Trial in NE
Area Under the Disease Progress Curve (AUDPC) for gray leaf spot

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* Treatments with different letters are statistically different. Coefficient of variation is 30.6%.
2012 Fungicide Product Comparison Trial in NE
Common rust disease severity (%)

- Foliar fungicide application was made July 5th at silking (R1).
- NIS added to each fungicide treatment at 0.25% v/v.
2012 Fungicide Product Comparison Trial in NE
Area Under the Disease Progress Curve (AUDPC) for common rust

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* No statistical differences between treatments. Coefficient of variation is 0%.
2012 Fungicide Product Comparison Trial in NE
Southern rust disease severity (%)

- Foliar fungicide application was made July 5th at silking (R1).
- NIS added to each fungicide treatment at 0.25% v/v.
2012 Fungicide Product Comparison Trial in NE
Area Under the Disease Progress Curve (AUDPC) for southern rust

- Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
- Treatments with different letters are statistically different. Coefficient of variation is 57.5%.
2012 Fungicide Product Comparison Trial in NE
Stay green % assessed on September 4th, 2012
Kernel dent stage (R5.8)

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* No statistical differences between treatments. Coefficient of variation is 14.3%.
2012 Fungicide Product Comparison Trial in NE
Push lodging % assessed on September 25th, 2012
Physiological maturity stage (R6)

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<th>Treatment &amp; application rate</th>
<th>23.0</th>
<th>5.8</th>
<th>5.0</th>
<th>5.0</th>
<th>8.3</th>
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<th>9.2</th>
<th>7.0</th>
<th>6.7</th>
<th>14.2</th>
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<tbody>
<tr>
<td>Non-treated control</td>
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<td>Headline AMP 10 fl oz/A</td>
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<td>Priaxor 4 fl oz/A</td>
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<td>Quilt Xcel 10.5 fl oz/A</td>
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<td>Stratego YLD 4 fl oz/A</td>
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<td>Vertisan 24 fl oz/A</td>
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</table>

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* Treatments with different letters are statistically different. Coefficient of variation is 78.8%.
**2012 Fungicide Product Comparison Trial in NE**

500 count kernel weight (g)

<table>
<thead>
<tr>
<th>Treatment &amp; application rate</th>
<th>500 Count Kernel Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-treated control</td>
<td>185.9</td>
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<tr>
<td>Headline SC 6 fl oz/A</td>
<td>187.9</td>
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<tr>
<td>Headline AMP 10 fl oz/A</td>
<td>189.2</td>
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<tr>
<td>Priaxor 4 fl oz/A</td>
<td>187.7</td>
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<tr>
<td>Quilt Xcel 10.5 fl oz/A</td>
<td>186.8</td>
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<tr>
<td>Stratego YLD 4 fl oz/A</td>
<td>189.9</td>
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<tr>
<td>Evito 2 fl oz/A</td>
<td>187.7</td>
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<tr>
<td>Aproach 6 fl oz/A</td>
<td>187.9</td>
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<tr>
<td>Evito T 5 fl oz/A</td>
<td>188.2</td>
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<tr>
<td>Domark 4 fl oz/A</td>
<td>187.2</td>
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<tr>
<td>Quadris 9 fl oz/A</td>
<td>186.4</td>
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<tr>
<td>Vertisan 24 fl oz/A</td>
<td>188.0</td>
</tr>
</tbody>
</table>

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* No statistical differences between treatments. Coefficient of variation is 1.4%.
2012 Fungicide Product Comparison Trial in NE
Yield (bu/A) on September 28th, 2012

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* No statistical differences between treatments. Coefficient of variation is 3.6%.
2012 Fungicide Product Comparison Trial in NE
Grain moisture % at harvest on September 28th, 2012

* Foliar fungicide applications made at silking (R1). NIS added at 0.25% v/v.
* No statistical differences between treatments. Coefficient of variation is 2.5%.
Acknowledgments

• Casey Schleicher, Technologist
• UNL South Central Ag Lab (SCAL) Staff & Student Workers
• UNL Student Workers