May 9, 2018  Early Post Weed Control

Planting conditions were favorable across the majority of Illinois and Indiana for the past few weeks. This has allowed a tremendous amount of corn and soybean acres to go in the ground. In some cases, difficulty keeping up with the planter and windy conditions made preemergence herbicide applications a challenge. The critical weed-free period should be examined in both crops. Weeds compete for available space, water and nutrients. If a preemergence corn herbicide was not applied, it will be essential to remove weed competition prior to V2 or 2’ weeds. In soybeans, research from the University of Nebraska has demonstrated that allowing weeds to compete beyond V3 can reduce crop yield rapidly, especially when a preemergence herbicide was not applied. Weed growth rate and resistance profiles create additional challenges with postemergence tactics. Many of our driver weed species have evolved resistance to multiple sites of action. It will be pivotal to determine the resistance profile across species before employing a herbicide treatment. Herbicide traits such as LibertyLink® and Roundup Ready® Xtend enhance flexibility in terms of cleaning up escapes. However, weed height will be crucial for effective management. Furthermore, removing materialized vegetation with glufosinate or dicamba will not address subsequent weed flushes and a broad-spectrum residual herbicide program will be necessary. When employing post plus residual herbicide tactics it will be vital to consider the impact it has on selection pressure. Allowing herbicide exposure to multiple individual weeds will increase selection pressure and is a recipe for resistance. Hopefully this principle will motivate us to decelerate next year and make sure we get the preemergence herbicides on prior to planting.

Influence of Early-Season Weed Competition on Corn Yield

<table>
<thead>
<tr>
<th>Removal at 2” Weeds</th>
<th>Removal at 4” Weeds</th>
<th>Removal at 6” Weeds</th>
<th>Check</th>
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</thead>
<tbody>
<tr>
<td>Corn Yield</td>
<td>Corn Yield</td>
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<td>Corn Yield</td>
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<tr>
<td>140</td>
<td>126</td>
<td>111</td>
<td>18</td>
</tr>
</tbody>
</table>

Dr. Stevan Knezevic: University of Nebraska – Haskell Ag Lab: 2015

Contact your local FMC representative for more information:

- **Technical Service Manager**
  Nick Hustedde 618-978-2268

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Early Post + Residual Herbicide Options

Program selection will vary by post technology, but the key deliverables will be to adequately remove established vegetation and institute a base residual to address subsequent flushes. Keep in mind that a one-shot treatment providing effective, season-long weed management is likely not going to happen, particularly in soybeans. It will be important to continue scouting and employing successive management strategies to address subsequent weed flushes.

**Soybeans**

**Conventional:**
Anthem® MAXX herbicide 3.25–4 oz. NIS 0.25% v/v + AMS 8.5–17 lb./100 gal.* Add clethodim or other graminicide to control emerged grasses.

Add Flexstar® herbicide 14–16 oz. or Cobra® herbicide 10 oz. if PPO-susceptible waterhemp, Palmer amaranth or giant ragweed has emerged. The addition of Firstrate® herbicide 0.3 oz. will improve foliar and residual control of ALS-susceptible large-seeded broadleaves, including cocklebur and giant ragweed.

OR
Marvel™ herbicide 7.25 oz. + Group 15 (Warrant® herbicide 3 pt., Dual II Magnum® herbicide 1–1.3 pt., Outlook® herbicide 10–12 oz., Zidua® herbicide 85 WG 1.5–2 oz.) + NIS 0.25% v/v + AMS 8.5–17 lb./100 gal. *Add clethodim or other graminicide to control emerged grasses.

Followed by: Flexstar herbicide 16 oz., Cobra herbicide 10 oz. or Ultra Blazer® herbicide 1–1.5 pt. + clethodim or other graminicide + NIS, COC or MSO (based upon cuticle thickness and relative humidity) prior to new weed emergence reaching four inches. *If Flexstar or Marvel herbicide was used in the early post treatment use Cobra or Ultra Blazer herbicide in sequential application. Be mindful of rotation interval to corn with fomesafen-containing products, particularly when applied later in the season. Add labeled Group 15 herbicide to extend small-seeded broadleaf and grass residual in heavy pressure.

If marestail has emerged, or pigweeds are glyphosate + PPO-resistant, the best option will likely be to till and replant with LibertyLink® or Roundup Ready 2 Xtend® Soybeans.

**Roundup Ready®:**
Anthem MAXX herbicide 3.25–4 oz. + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

Add Flexstar herbicide 14–16 oz. OR Cobra herbicide 10 oz. if PPO-susceptible waterhemp, Palmer amaranth or ragweed is emerged and resistant to glyphosate. The addition of Firstrate herbicide 0.3 oz. will improve foliar and residual control of ALS-susceptible large-seeded broadleaves, including cocklebur and giant ragweed.

OR
Marvel herbicide 7.25 oz. + Group 15 (Warrant herbicide 3 pt., Dual II Magnum herbicide 1–1.3 pt., Outlook herbicide 10–12 oz., Zidua 85 WG herbicide 1.5–2 oz.) + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal. Prior to new weed emergence reaching four inches and per label specifications of tank mix partner.


**LibertyLink®:**
Anthem MAXX herbicide 3.25–4 oz. + Liberty 280 herbicide 29–32 oz. + AMS 17 lb./100 gal.

Add Firstrate herbicide 0.3 oz. to improve foliar and residual control of ALS-susceptible large-seeded broadleaves, including cocklebur and giant ragweed.

OR
Marvel herbicide 7.25 oz. + Group 15 (Warrant herbicide 3 pt., Dual II Magnum 1–1.3 pt., Outlook herbicide 10–12 oz., Zidua 85 WG herbicide 1.5–2 oz.) + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

Followed by XtendiMAX® herbicide with VaporGrip® Technology 22 oz. OR Engenia® herbicide 12.8 oz. + Approved glyphosate 0.98–1.125 lb. ae + DRA 14 days after the early post treatment or prior to new emergence reaching four inches in height, prior to R1. *Add approved Group 15 herbicide to address subsequent pigweed flushes in heavy pressure.

**Roundup Ready 2 Xtend®:**
Anthem MAXX herbicide 3.25–4 oz. + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

Add Flexstar herbicide 14–16 oz. OR Cobra herbicide 10 oz. if PPO-susceptible waterhemp, Palmer amaranth or ragweed have emerged and are resistant to glyphosate.

OR
Marvel herbicide 7.25 oz. + Group 15 (Warrant herbicide 3 pt., Dual II Magnum 1–1.3 pt., Outlook herbicide 10–12 oz., Zidua 85 WG herbicide 1.5–2 oz.) + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

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**Early Post + Residual Concepts in Roundup Ready 2 Xtend® Soybeans**

**Mt. Vernon, IL 2017 – 16 DAT**

![Graph showing crop injury and weed control efficacy](image)

- Anthem® MAXX herbicide 4 oz. + Flexstar 16 oz.
- Anthem® MAXX herbicide 4 oz. + Cobra herbicide 12.5 oz. + Select MAX herbicide 10 oz.
- All Treatments included Roundup PowerMAX® 32 oz. + COC 1% v/v

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Early Post + Residual Herbicide Options

Field Corn

**Conventional:**

Anthem® MAXX herbicide 3.25–4 oz. + Mesotrione 4SC 3 oz. + atrazine 1.5–2 lb. + NIS 0.25% v/v + AMS 8.5–17 lb./100 gal.

If fall panicum is present or grasses are larger than two inches at application, add Accent® Q herbicide 0.9 oz., OR substitute Impact® herbicide 0.75 oz. for Mesotrione and substitute MSO 1% v/v for NIS.

Apply prior to 12 inches or V4 corn, whichever comes first.

See label for Anthem MAXX herbicide rate selection by soil type.

**Roundup Ready®:**

Anthem MAXX herbicide 3.25–4 oz. + Mesotrione 4SC 3 oz. + atrazine 1.5–2 lb. + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

OR

Anthem MAXX herbicide 2 oz. + Solstice® herbicide 2.5 oz. + atrazine 1.5–2 lb. + loaded glyphosate 1.125 lb. ae + AMS 8.5–17 lb./100 gal.

Apply prior to 12 inches or V4 corn, whichever comes first.

See label for Anthem MAXX herbicide rate selection by soil type.

**LibertyLink®:**

Anthem MAXX herbicide 3.25–4 oz. + Mesotrione 4SC 3 oz. + atrazine 1.5–2 lb. + Liberty® 280 herbicide 32 oz. + AMS 17 lb./100 gal.

OR

Anthem MAXX herbicide 2 oz. + Solstice herbicide 2.5 oz. + atrazine 1.5–2 lb. + Liberty 280 herbicide 32 oz. + AMS 17 lb./100 gal.

Apply prior to 12 inches or V4 corn, whichever comes first.

See label for Anthem MAXX herbicide rate selection by soil type.

**Anthem® MAXX herbicide & Solstice® herbicide Evaluations in Corn**

Purdue Univ. – TPAC West Lafayette, IN – 2017

June, 13 2017

Check
**Anthracnose Leaf Blight:**
Anthracnose inoculum survives on soil surface residue after corn emergence. Rainfall will splash inoculum on young leaves and if conditions are favorable for development, symptoms of the pathogen may follow. No-till or minimum till fields, particularly corn on corn, are most at risk for pathogen development. The disease encompasses three phases: 1) Leaf blight, 2) top die back, and 3) stalk rot. Leaf blight lesions typically appear in early to mid-June, however, the infection takes place earlier in the season. For corn hybrids susceptible to anthracnose in environments conducive for disease, consider adding a fungicide to the post herbicide pass to mitigate early-season leaf infection. Finish with a VT treatment targeting later infecting diseases to optimize crop yield and bushels in the bin.

**Management Strategies:**
Apply Preemptor® SC Fungicide 4–6 oz. or in combination with early post herbicide on susceptible hybrids planted in fields with heavy surface residue.  
• For optimal results use high end of the use rate when disease pressure is high and conditions are favorable for development.  
• Min. 10 GPA by ground.

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