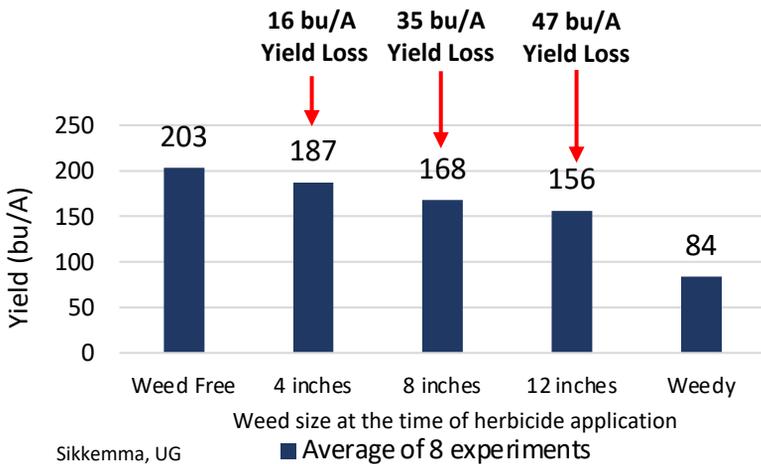




Early POST Weed Control

When considering early postemergence plus residual herbicide programs, the critical weed-free period should be examined in both corn and soybeans. Weeds compete for available space, light, 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 fact, research from the University of Guelph has demonstrated a 16 bu/A reduction in yields if weeds are allowed to reach the 4" height before removal. For soybeans, the University of Nebraska revealed that allowing weeds to compete beyond V3 can reduce crop yields 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 vital to determine the resistance profile across species before employing a herbicide treatment. Herbicide traits such as LibertyLink®, Roundup® Ready Xtend® / Xtendflex® and Enlist® herbicides enhance flexibility in terms of cleaning up escapes. However, weed size will be crucial for effective management, and applications must occur prior to 4" weed heights. Furthermore, removing materialized vegetation with glufosinate or auxin chemistries will not address subsequent weed flushes, and tank mixing broad-spectrum residual herbicides will be necessary.

Corn Yields Decrease as Weed Size Increases at Time of Application



Note weed competition and inevitable yield loss



APRIL 2021

INSIDE THIS ISSUE

- **EPOST Weed Control**
- **Black Cutworm Monitoring**

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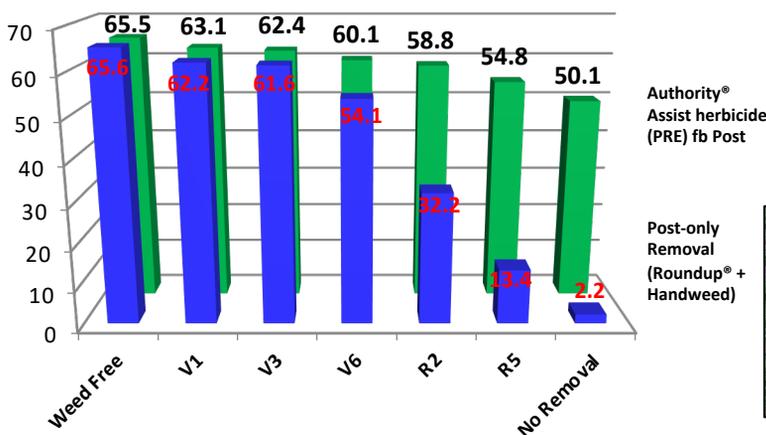
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Critical Time for Weed Removal & Yield Loss in Soybeans PRE + Post vs. Post-Only Weed Removal.

Dr. Stevan Knezevic: University Of Nebraska – Haskall Ag Lab : 2015





Early Post + Residual Herbicide Programs (Field, Seed Corn)

Non- GMO

- Preplant – V4 or 12" corn:
Anthem[®] MAXX herbicide 3-4 oz. + mesotrione 4SC 3 oz. + atrazine 1.5-2 lbs. + NIS + AMS 1.5-3 lbs./A.
- If fall panicum is emerged (2" or less), substitute mesotrione 4SC with Impact[®] herbicide 0.75 oz. OR add Accent[®] Q herbicide 0.7-0.9 oz.
- Alternative options to mesotrione: Capreno[®] herbicide, DiFlexx[®] DUO herbicide, Laudis[®] herbicide, Impact herbicide, Armezon[®] herbicide, Status[®] herbicide etc.

Herbicide Tolerant

- Preplant – V4 or 12" corn:
Anthem MAXX herbicide 3-4 oz. + mesotrione 4SC 3 oz. + atrazine 1.5-2 lbs. + Roundup PowerMAX[®] 22-32 oz. OR Liberty[®] herbicide 29 oz. (depending upon trait package) + AMS 1.5-3 lbs./A.
- Alternative options to mesotrione: Capreno herbicide, DiFlexx DUO herbicide, Laudis herbicide, Impact herbicide, Armezon herbicide, Status herbicide etc.



Anthem MAXX herbicide
PRE @ 3 fl. oz./A

Whitestown, IN 2020

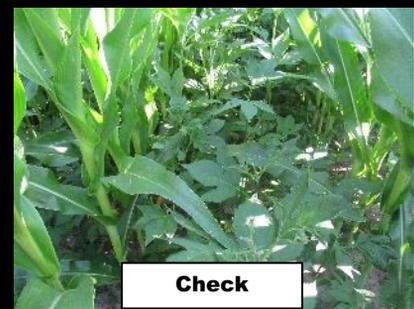


Dual II Magnum[®] herbicide
PRE @ 16 fl. oz./A

Anthem MAXX herbicide encompasses residual Group 14 and Group 15 herbicides in the pyrazole family. Pyrazole herbicide structures provide greater affinity for the binding site on key species such as lambsquarters, morning glories and velvetleaf when compared to chloroacetamides such as s-metolachlor (Dual II Magnum herbicide). A trial conducted in Whitestown, IN illustrates improved activity on these species at relative use rates. Longer soil half-life enhances in-season activity on weeds with extended emergence intervals such as waterhemp and Palmer amaranth making Anthem MAXX herbicide a reliable foundation Group 15 in corn herbicide tank mixtures.



Purdue University – TPAC 2019



Check



Anthem MAXX herbicide 4 oz. + Callisto herbicide 3 oz. + atrazine 2 lbs. + glyphosate 1.125 lbs. ae @ V1

Early POST Weed Control Comparisons

Data Pooled Over 4 Locations (U of I, Purdue, SIU, WIU) and 3 Years (2017-2019)

EPOST Treatment	Waterhemp	No. of Trials	Velvetleaf	No. of Trials	Morningglory Spp.	No. of Trials
Anthem MAXX herbicide 4 oz. + Callisto [®] herbicide 3 oz. + atrazine 1-2 lbs. + glyphosate 0.77-1.125 lbs. ae	98.3	3	98.8	4	96.5	7
Halex [®] GT herbicide 3.6 pt. + atrazine 1-2 lbs. + NIS 0.25% V/V	97.9	2	97.7	3	95.9	5
Acuron [®] Flexi herbicide 2 qt. + glyphosate 1.125 lbs. ae	99	1	99	3	95	4



Early Post + Residual Herbicide Programs (Soybeans)

Non- GMO

- Preplant – V6: Anthem[®] MAXX herbicide 3.2-4 oz. + Flexstar[®] herbicide 16 oz. + clethodim 2EC 10 oz. + COC 1% v/v + AMS 8.5-17 lbs./100 gal.
- Preplant – R2: Marvel[™] herbicide 7.25 oz. + Warrant[®] herbicide 3 pt. + clethodim 2EC 10 oz. + COC 1% v/v + AMS 1.5-3 lbs./A
- Add FirstRate[®] herbicide 0.3 oz. for giant ragweed. In fields with a history of cocklebur, replace clethodim with Pursuit[®] herbicide 4 oz.

If treatment is initial application, follow with overlapping residual material prior to canopy

LibertyLink[®]

- Preplant – V6: Anthem MAXX herbicide 3.2-4 oz. + Liberty[®] herbicide 29-32 oz. + AMS 3 lbs./A
- Preplant – R1: Marvel herbicide 7.25 oz. + Liberty herbicide 29-32 oz. + AMS 3 lbs./A
- Add FirstRate herbicide 0.3 oz. for giant ragweed OR Pursuit herbicide 4 oz. to add cocklebur activity in addition to grasses.
- If treatment is initial application, follow with overlapping residual material prior to canopy

Roundup Ready[®] Xtend

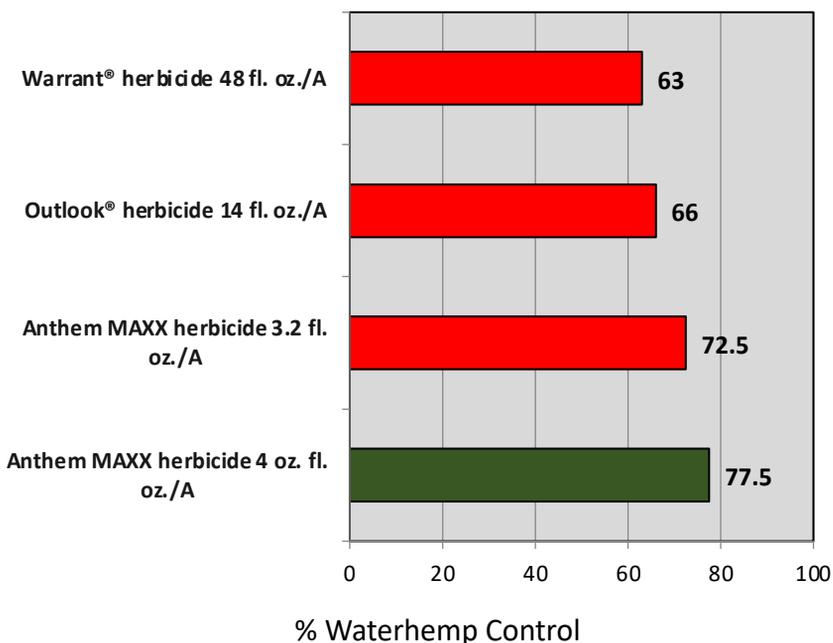
- Anthem MAXX herbicide 3.2-4 oz. + low volatility dicamba formulation See commercial and state specific labels for additional application requirements.
- Add FirstRate herbicide 0.3 oz. for giant ragweed / cocklebur soil activity.
- If treatment is initial application, follow with overlapping residual material prior to canopy

For XtendFlex[®] soybeans if utilizing glufosinate in the postemergence pass, refer to Liberty Link recommendations.

Enlist E3[®] Herbicide

- Anthem MAXX herbicide 3.2-4 oz. + Enlist One[®] herbicide 1.5-2 pt./A + tank-mix approved glyphosate 1.125 lbs. ae OR Enlist Duo[®] herbicide 4-4.75 pt. + AMS 8.5-17 lbs./100 gal.
- Preplant-V6.
- Add FirstRate herbicide 0.3 oz. for giant ragweed / cocklebur soil activity.
- If treatment is initial application, follow with overlapping residual material prior to canopy

Group 15 Herbicide Comparison in Soybeans
Data Pooled Over Two Locations in 2018 (Purdue University, University of Illinois)
Rating: Prior to Sequential Post





Black Cutworm Monitoring

Southerly winds are disseminating warmer temperatures and cutworm moths into the Midwest. Intense black cutworm moth flights are currently transpiring in the Midwest. Fields containing heavy winter annual weed pressure or cover crops are primary targets for egg laying moths. Minor leaf feeding will likely occur when 200 GDDs have accumulated from an intense moth flight. Cutting typically occurs with the accumulation of approximately 300 GDDs from an intense flight. Including pyrethroid insecticides with burndown/preemergence and early post applications particularly on higher risk fields will assist in deterring migrating females, knock down small larvae and reduce damage inflicted by cutworms later in the season.



Cutworm Facts:

- ✓ Do not overwinter in the Midwest.
 - Deposited from the South with spring storms.
- ✓ Undergo seven instars of growth.
 - First to third feed on leaf margins.
 - Fourth to seventh cut plants.
- ✓ Capable of cutting plants up to V6.
- ✓ Later planted corn is more susceptible to cutting.
- ✓ Feeding mostly occurs at night.
- ✓ Hide under soil surface during daylight.
- ✓ **Threshold: 2-3% of plants cut, larvae under ¾"**.

Cutworm

Recommendations:

- Mustang[®] Maxx or Hero[®] insecticides 2.6 fl. oz./A.**
- Surface applied preplant or after planting prior to corn emergence.**
- **Provides knockdown and residual activity for hatch and feeding.**



Early-Season Corn Pest Moth I.D.

Black Cutworm



- ✓ Dagger-shaped marking on forewing.
- ✓ Hind wings are light in color with light brown margin.

European Corn Borer



- ✓ Pale yellow to brown in color.
- ✓ Irregular darker wavy lines across wings.

True Armyworm



- ✓ Tan to light brown.
- ✓ Small white spot centered on forewing.

For broad-spectrum insect activity (great option on brown stinkbugs) and improved residual control of Lepidopteran pests, consider the new for 2021 Elevest[®] insect control. Combination of Rynaxypyr[®] (Group 28) and bifenthrin (Group 3A) active ingredients. Use Rate: 5-8 fl. oz./A

HatchTrakSM



FMC

Acuron herbicide, Atrazine, Mustang Maxx and Hero insecticides, and Elevest insect control are Restricted Use Pesticides. Always read and follow all label directions, precautions and restrictions for use. Some products may not be registered for sale or use in all states. Elevest insect control may not be registered for sale or use in all states. Contact your local FMC retailer or representative for details and availability in your state. FMC, the FMC logo, Anthem, Authority, Elevest, Hero, Marvel, Mustang, Rynaxypyr are trademarks, and HatchTrak is a service mark of FMC Corporation or an affiliate. Capreno, DiFlexx, Laudis, Roundup PowerMAX, Roundup Ready, Warrant, XtendFlex and XtendiMax are trademarks of Bayer Group. Armezon, Liberty, LibertyLink, Outlook, Pursuit and Status are trademarks of BASF. Impact is a trademark of AMVAC Chemical Corporation. Acuron, Callisto, Dual II Magnum, Flexstar and Halex are trademarks of a Syngenta Group Company. Accent, Enlist One, Enlist Duo, Enlist E3 and FirstRate are trademarks of Dow AgroSciences, DuPont or Pioneer and their affiliated companies or respective owners. ©2021 FMC Corporation. All rights reserved. 04/21