



Many in the agricultural community were surprised to hear that the 9th Circuit Court overturned the EPA's decision on sale of low volatility dicamba products like XtendiMax[®], FeXapan[®], Tavium[®] and Engenia[®] herbicides.

With no certainty about the future of this product, many retailers, agronomists and growers may be looking for alternatives to dicamba for their weed control needs.

While dicamba was a welcomed tool in soybean weed management, there are options with historical success that are viable for growers today. In fact, there is a plethora of research that strongly condemns the over-reliance on systemic POST herbicides like dicamba and glyphosate.

PPOs have long dominated the weed control market in soybeans. It was the simplicity, complete crop safety and efficacy of glyphosate in GT soybeans that started the recent trend toward systemic chemistries but, alas, resistance and legal issues have prompted us to consider legacy options.

The Foliar PPO Conversation

Common Perception

Reality

PPOs are great PRE herbicides, but they are not good POST.

Certain PPOs do make great PRE residual herbicides. Authority[®] brands continue to be the market leader in soybean chemistries. However, PPOs are comprised of several chemical families and, like all chemistries, they must be utilized and managed differently. Applied correctly, PPO chemistry can be utilized POST to control pigweeds, nightshades, ragweeds, lambsquarters, velvetleaf and many others.

Foliar PPOs hurt soybeans

Foliar PPO chemistries are considered photodynamic and can result in some necrotic speckling on the leaves. This is purely cosmetic. Plants will recover in a short time, and yields will not be negatively impacted.

PPOs cannot be used as a rescue treatment effectively

No herbicide should be considered a "rescue treatment." The data is clear that overlapping residual herbicides and controlling weeds before they emerge is the best method of obtaining optimal control and slowing resistance. Using PPO's as an early post (2-4" tall weeds) is the most effective way to get the desired control.

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Use of Foliar PPOs in the Absence of Dicamba

Anthem[®] MAXX, Cadet[®], and Marvel[™] herbicides

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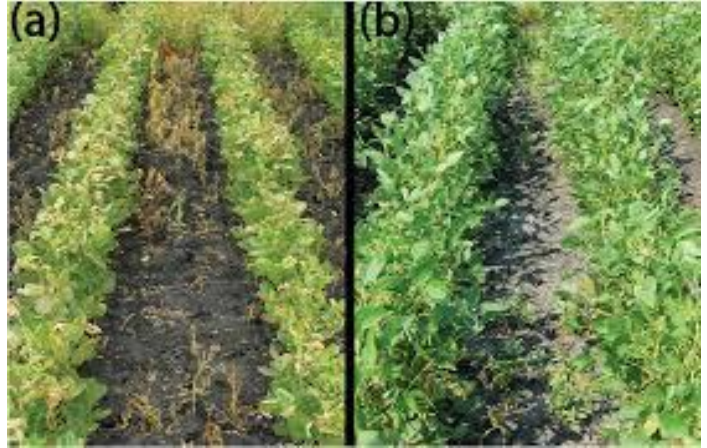
Polk, Nebraska – July 8, 2019



Cadet[®] herbicide 0.5 fl. oz. + Anthem MAXX[®] herbicide 2.5 fl. oz. + Roundup PowerMAX[®] herbicide 32 fl. oz. @ EPOST



Nontreated



Soybean injury after lactofen application (14 DAA) and soybean recovery 30 days later (b). Courtesy of Amit Jhala, UNL.



- Pyroxasulfone (15) + fluthiacet-methyl (14)
- Residual and contact control
- Preplant – V6
- 2.5 fl. oz. – 5.5 fl. oz./A



- Fluthiacet-methyl (14)
- Contact control with low use rate
- Preplant – (full flowering) R2
- 0.9 fl. oz./A



- Fomesafen (14) + fluthiacet-methyl (14)
- Residual and contact control
- Preplant – full flowering stage of development (prior to R3 stage)
- 7.25 fl. oz./A

Hero[®] insecticide can be added to any of the above post herbicide products at 5 fl. oz./A for control of stink bugs, podworms, thistle caterpillar, grasshoppers, Japanese beetles, bean leaf beetles, and others.

THE FMC ANSWER TO WEED CONTROL ON XTEND SOYBEANS IN THE ABSENCE OF DICAMBA POST

Which Authority[®] Herbicide Brand Did You Apply PRE?



Marvel™ herbicide 7.25 fl. oz./A**

+ Roundup PowerMAX[®] herbicide 32 fl. oz./A

+/- grass herbicide e.g., Select™ herbicide

OR Anthem[®] MAXX* herbicide

+ Cadet[®] herbicide* or Flexstar[®] herbicide 1 pt./A**

Roundup PowerMAX herbicide 32 fl. oz./A

+/- grass herbicide e.g., Select herbicide



Anthem MAXX herbicide 4 fl. oz./A

+ Cadet herbicide 0.35 fl. oz./A or

Flexstar herbicide 1 pt./A**

+ Roundup PowerMAX herbicide 32 fl. oz./A

+/- grass herbicide e.g., Select herbicide

*Anthem MAXX and Cadet herbicides' rates will vary based on soil type and rate of Authority[®] Supreme and Authority[®] Edge herbicides used. Always consult the label for specific application restrictions.

**Flexstar and Marvel herbicides are not registered for use in all areas. Consult label for restrictions, crop rotations and other requirements.

Adjuvants: Avoid adding MSO/COC 1% v/v if Roundup[®], Select Max[®] or Poast[®] herbicides are included in the application. AMS can be added to improve weed control with treatments including glyphosate.

Tips for Optimal Results With Anthem MAXX, Cadet or Marvel Herbicides

- Shake product well before mixing
- Respect proper mixing order
- 15 GPA minimum for optimal coverage
- Medium droplet sizes (Flat Fan, XR, AIXR nozzles)
- Avoid applications during cool, overcast & wet conditions
- Apply when foliage is dry

Hero insecticide, XtendiMax, FeXapan, Tavium and Engenia herbicides 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. Authority Edge herbicide 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, Flexstar, Cadet, Hero and Marvel are trademarks and HatchTrak is a service mark of FMC Corporation or an affiliate. Flexstar and Tavium are trademarks of Syngenta Group Company. Roundup, Roundup PowerMax and XtendiMax are trademarks of Bayer CropScience or an affiliate. Engenia and Poast are trademarks of BASF. FeXapan is a trademark of DuPont, Dow AgroSciences and Pioneer and affiliated companies or their respective owners. Select and Select Max trademark of Valent U.S.A. Corporation. ©2020 FMC Corporation. All rights reserved. 20-FMC-2843 06/20