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Delayed PRE Herbicide Applications in Corn

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Delayed PRE Herbicide Applications in Corn

Abstract

Given the way the season has developed, the best intentions to apply an Early Preplant (EPP) herbicide application prior to corn planting has gone out the window and it appears that applying a preemergence (PRE) application immediately after planting is also becoming a slim chance. Thus, many who intend to use a soil-applied residual herbicide treatment in corn may be forced to make the application of an early postemergence (EPOST) to the weeds and possibly the corn.

Keywords

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Delayed PRE Herbicide Applications in Corn ICM News

May 12, 2008

By Mike Owen, Department of Agronomy

Given the way the season has developed, the best intentions to apply an Early Preplant (EPP) herbicide application prior to corn planting has gone out the window and it appears that applying a preemergence (PRE) application immediately after planting is also becoming a slim chance. Thus, many who intend to use a soil-applied residual herbicide treatment in corn may be forced to make the application of an early postemergence (EPOST) to the weeds and possibly the corn.

Below is a **table** containing herbicide options available in corn modified from an **article** that appeared in the University of Nebraska CropWatch newsletter. The list likely does not include all options given the generic status of a number of these herbicide active ingredients.

The concern about the delayed PRE/EPOST herbicide treatment, regardless of whether or not residual products are included, is making the application soon enough to protect crop yield. It is typical that herbicides will kill weeds that are larger but often after potential yield has been lost.

Furthermore, some weeds (i.e. winter annuals) become extremely difficult to control as they grow larger and the potential for crop injury also increases as the crop gets larger. Thus, the best option is to make the residual herbicide application immediately after planting. If this is no longer an option, apply the treatment as soon as possible after planting.

Please recognize that some herbicides are registered for application EPOST to the crop but do not have POST activity on weeds. Also, many of these products can be applied to corn that is considerably larger than appropriate to protect the potential yield and weed control may be variable due to the uneven distribution of the spray on the weeds (the corn canopy interferes with the spray coverage).

Be sure to follow the label directions and understand the limitations of applications as the weeds and corn get larger. Also, it is highly unlikely that any of the EPOST treatments will meet expectations as a "season long, one pass treatment."

Scout the fields prior to application and use the correct product to control the weeds that are present. Recognize that some of the labels are not clear about the size of weeds that may be controlled after they emerge.

Herbicide Options Available for Corn

Herbicide	Active Ingredient(s)	Crop Stage	Weed Stage
Aatrex/Atrazine	Atrazine	0-12"	1.5"
Bicep II Magnum/Cinch ATZ	S-metolachlor, Atrazine	0-5"	2-leaf
Bicep II Lite Magnum/Cinch ATZ Lite	S-metolachlor, Atrazine	0-5"	2-leaf
Bicep II Magnum FC	S-metolachlor, Atrazine	0-5"	2-leaf
Bullet	Alachlor, Atrazine	0-5"	2-leaf
Callisto ¹	Mesotrione	0-30"	0-5"
Camix ¹	S-metolachlor, Mesotrione	0-12"	0-3"
Degree	Acetochlor	0-11"	Prior to emergence
Degree Xtra	Acetochlor, Atrazine	0-11"	~2-leaf
Dual Magnum	S-metolachlor	0-5"	Prior to emergence
Dual II Magnum/Cinch	S-metolachlor	0-5"	Prior to emergence
Dual + Atrazine	S-metolachlor, Atrazine	0-5"	2-leaf
Expert ^{1,2,3}	Atrazine, S-metolachlor, Glyphosate	0-12"	weeds < 6"
FieldMaster ^{2,4}	Acetochlor, Atrazine, Glyphosate	0-11"	weeds < 6"
Fultime	Atrazine, Acetochlor	0-11"	~2-leaf
G-MAX Lite	Dimethenamid, Atrazine	0-12"	1.5"
Guardzman Max	Dimethenamid, Atrazine	0-12"	1.5"
Harness/Confidence	Acetochlor	0-11"	Prior to emergence
Harness Xtra/Confidence Xtra	Acetochlor, Atrazine	0-11"	2-leaf
Hornet WDG	Flumetsulam, Clopyralid	0-20"	2-6"
Keystone/Breakfree ATZ	Acetochlor, Atrazine	0-11"	Prior to emergence
Keystone LA/Breakfree ATZ Lite	Acetochlor, Atrazine	0-11"	Prior to emergence
Lightning (IMI corn)	Imazethapyr, Imazapyr	corn < 8 leaf	weeds < 3"
Lumax/Lexar*	S-metolachlor, Atrazine, Mesotrione	0-5"	0-3"
Marksman	Atrazine, Dicamba	0-8"	0-4"
Me-Too-Lachlor II	Metolachlor	0-40"	2-leaf
Outlook	Dimethenamid	0-12"	Prior to emergence
Pendimax/Prowl	Pendimethalin	0-24"	Prior to emergence
Prowl H2O	Pendimethalin	0-30"	Prior to emergence
Prowl + Atrazine	Pendimethalin, Atrazine	up to 2-leaf	up to 2-leaf
Stalwart C	Metolachlor	0-40"	2-leaf
Stalwart Xtra	Metolachlor, Atrazine	0-5"	2-leaf
SureStart	Acetochlor, Flumetsulam, Clopyralid	0-11"	1-2"
Surpass/Breakfree	Acetochlor	0-11"	Prior to emergence
Topnotch	Acetochlor	0-11"	Prior to emergence
Trizmet II	Atrazine, Metolachlor	0-5"	2-leaf

1Severe injury may occur if Callisto is applied postemergence to corn that has been treated with Counter or Lorsban. Do not tank mix with any organophosphate or carbamate insecticide. Do not cultivate within seven days of application.

2Do not tank mix this product with any other herbicide when applied postemergence.

3Do not mix this product with complex fertilizer mixtures such as 10-34-0 or flowables.
Use only water or liquid nitrogen carrier.

4Apply this product to Roundup Ready™ corn only.

Mike Owen is a professor of agronomy with research and extension responsibilities in weed management and herbicide use.

Category: Crop Production

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Soybean

Tags: herbicide Corn pre-herbicide applications

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