

NEW SOYBEAN HERBICIDES FOR 2014

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There are a lot of new herbicide names for soybean weed control in 2014, yet there is only one new active ingredient. The sole new active ingredient, pyroxasulfone, can be best described as a sibling to Dual II Magnum or Frontier Max but generally has more activity on broadleaf weeds, specifically anything in the pigweed family. Preliminary research in Ontario has demonstrated that pyroxasulfone has good residual control of bluegrass species, which is becoming an increasing concern on heavier clay soils. You cannot buy pyroxasulfone on its own (in the U.S. you can and it's sold under the trade name [Zidua](#) by BASF) it is one of two active ingredients that is found in both Fierce and Focus herbicides.

As far as the other new herbicides are concerned, once you examine what's inside the container, you start to realize that most contain active ingredients that we are all familiar with. Below, I have provided an overview of each program.

Freestyle co-pack

Sold by: E.I. Dupont Canada

What's in it? Dupont Imazethapyr (a generic to Pursuit) at 126 mL/ac and Classic at 14.4 g/ac

Mode of Action: both active ingredients are from group 2

Application timing: Pre-emergence or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report:

Two well-known active ingredients put into one package. This combination controls a wide range of annual grass and broadleaf weeds.

Unfortunately there are populations of pigweed, ragweed, lamb's-quarter, eastern black nightshade and foxtails that are resistant to both active ingredients.

Canopy Pro co-pack

Sold by: E.I. Dupont Canada

What's in it? Classic at 14.4 g/ac and Tricor (a generic to Sencor) at 220 g/ac

Mode of Action: Classic is from group 2, Tricor is from group 5 (triazine)

Application timing: Pre-emergence or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report:

Two well-known active ingredients put into one package. The rate of metribuzin in this co-pack is only labelled to control the susceptible weeds listed in Table 1 on coarse textured soils with 2 to 4% organic matter. Heavier soils or soils with higher levels of organic matter will require a higher rate of metribuzin in order to control the susceptible weeds listed in Table 1. Unfortunately there are populations of pigweed, ragweed, lamb's-quarter, and foxtails that are resistant to both active ingredients. This product will not control eastern black nightshade.

Optill (released in 2013)

Sold by: BASF

What's in it? Eragon (saflufenacil) at 10.68 g/ac + Pursuit (imazethapyr) at 85 ml/ac

Mode of Action: saflufenacil is from group 14, while imazethapyr is from group 2.

Application timing: pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report: A reduced rate of Pursuit is what will provide the lion's share of residual weed control with this product, so it should not be relied upon for season long weed control. This product is one of the more effective ones at controlling glyphosate resistant Canada fleabane. The saflufenacil portion of this herbicide will provide quick burndown of sensitive broadleaf weeds. If dandelion is the target weed, Optill mixed with glyphosate will provide an impressive burn within days of application, but my experience has been that over the long haul (6-8 weeks later), slower acting products like Guardian work better at getting rid of dandelion. However, if your goal is to get as clean seed bed quickly, this product does the job better, but it would be worth bumping the rate of glyphosate up to the 2X rate to achieve more consistent control of larger dandelions.

Boundary LQD

Sold by: Syngenta

What's in it? Almost the full rate of Dual II Magnum (0.69 L/ac), metribuzin at a rate equivalent to 200 g/ac of Sencor 75DF. The typical rate range for Sencor 75DF is 300 – 600 g/ac, depending on soil type.

Mode of Action: Dual II Magnum (s-metolachlor) is from group 15, while metribuzin (Sencor) is from group 5 (triazine).

Application timing: Pre-emergence, pre-plant incorporated or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report: The high rate of Dual II Magnum in this pre-mix will provide more consistent control of grassy weeds and tougher to control species like eastern black nightshade. If yellow nutsedge is a target weed, this product must then be pre-plant incorporated. The rate of metribuzin in Boundary LQD is low, which means very limited broadleaf weed control based on soil type, but it allows you to use this product on almost any soil type with the flexibility to add as much additional metribuzin as needed. To control a wider range of broadleaf weeds you will need to tank-mix Boundary with a suitable broadleaf herbicide or plan to control escaped weeds with a post-emergent herbicide program.

Focus co-pack

Sold by: UAP

What's in it? Pyroxasulfone 85 (similar to Dual II Magnum and Frontier Max) and Aim EC (carfentrazone)

Mode of Action: pyroxasulfone is from group 15 and Aim EC is from group 14.

Application timing: Pre-emergence or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report: Pyroxasulfone can be best described as a sibling to Dual II Magnum or Frontier Max but generally has more activity on broadleaf weeds, specifically anything in the pigweed family. It also has better activity on bluegrass species based on preliminary data and a comparison of U.S. labels. The Aim EC component of this tank-mix offers control of some small emerged broadleaf weeds but the reality will be that if there are a lot of emerged weeds at the time of application, then this co-pack should be tank-mixed with glyphosate. Data generated in Ontario has shown that Aim EC does not provide control of emerged glyphosate resistant Canada fleabane or giant ragweed.

Cautions: If growing food grade identity preserved (IP) soybeans, check with your seed supplier to ensure that this herbicide can be used.

Fierce

Sold by: NuFarm

What's in it? Pyroxasulfone/flumioxazin

Mode of Action: pyroxasulfone is from group 15 and flumioxazin (Valtera) is from group 14.

Application timing: Pre-emergence or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report: Pyroxasulfone can be best described as a sibling to Dual II Magnum or Frontier Max but generally has more activity on broadleaf weeds, specifically anything in the pigweed family. It also has better activity on bluegrass species based on preliminary data and a comparison of U.S. labels. Flumioxazin is the active ingredient found in Valtera, which controls mainly broadleaf weeds such as pigweed, lamb's-quarter and eastern black nightshade. Data generated in Ontario has shown that flumioxazin does not provide control of emerged glyphosate resistant Canada fleabane or giant ragweed.

Cautions: If growing food grade identity preserved (IP) soybeans, check with your seed supplier to ensure that this herbicide can be used.

TriActor co-pack

Sold by: NuFarm

What's in it? Nu-Image (a generic Pursuit) at 126 mL/ac + Tricor (a generic Sencor) at 220 g/ac and Valtera at 75 g/ac

Mode of Action: Nu-Image is from group 2, Tricor is from group 5 and Valtera is from group 14.

Application timing: Pre-emergence or as a pre-plant burndown with glyphosate tank-mixed

Weed Control Scouting Report: A treatment that has performed very well in University of Guelph comparative trails. Its three modes of action help mitigate herbicide resistant weed escapes and has very few weaknesses in terms of efficacy, with the exception of glyphosate resistant giant ragweed and Canada fleabane.

WEEDS CONTROLLED ACCORDING TO THE PRODUCT LABEL

Herbicide Name	Active ingredients	Weed Staging	broadleaf plantain	Buckwheat, wild	chickweed	cocklebur	fleabane (Canada)	dandelion	Lamb's-quarter	Lady's thumb	Lettuce, prickly	Nightshade, eastern black	Nightshade, hairy	Mustard, wild	pigweed	Ragweed, common
BOUNDARY LQD	s-metolachlor/metribuzin	emerged										NC			NC	NC
		unemerged										C			C ^R	C ^R
CANOPY PRO co-pack	chlorimuron-ethyl + metribuzin	emerged		C	C	C		C	C	C				C	C ^R	C ^R
		unemerged		C	C	C		C	C	C				C	C	C ^R
FIERCE	Pyroxasulfone/flumioxazin	emerged		NC				NC	NC			NC	NC	NC	NC	NC
		unemerged		C				C	C			C	C	C	C	C
FOCUS co-pack	Pyroxasulfone + carfentrazone	emerged							C			C			C	
		unemerged							NC			NC			C	
FREESTYLE co-pack	Imazethapyr + chlorimuron-ethyl	emerged		C		C		C	S ^R	C		C ^R		C	C ^R	C ^R
		unemerged		C		C		C	C ^R	C		C ^R		C	C ^R	C ^R
OPTILL + glyphosate	Saflufenacil/dimethenamid-p	emerged	C	C	C	*	C	S	C	C	C	*	*	C	C	C
		unemerged	C	NC	C		C	S	C ^R	NC	C			C	C ^R	C ^R
TRIACTOR co-pack	Imazethapyr + metribuzin + flumioxazin	emerged		C	C	C			C	C				C	C	C
		unemerged		C	C	C			C	C				C	C	C

C = CONTROLLED, NC = NOT CONTROLLED, S = SUPPRESSION, * glyphosate controls these weeds if emerged.

^R resistant populations exist and will not be controlled, ¹Large crabgrass only, ²Green foxtail only, ³Must be pre-plant incorporated to get control.

YELLOW SHADING = 2 modes of action are effective on that species.

GREEN SHADING = 3 modes of action are effective on that species.

WEEDS CONTROLLED ACCORDING TO THE PRODUCT LABEL - CONTINUED

Herbicide Name	Active ingredients	Weed Staging	Ragweed, giant	Shepherd's purse	Sow-thistle, perennial	stinkweed	velvetleaf	waterhemp	Barnyard grass	Cheat grass	Crab grass	Fall panicum	foxtails	Proso millet	Nutsedge, yellow	Witch grass
BOUNDARY LQD	s-metolachlor/metribuzin	emerged							NC		NC	NC	NC		NC	NC
		unemerged							C		C	C	C		C ³	C
CANOPY PRO co-pack	chlorimuron-ethyl + metribuzin	emerged		C			C		C	C	C	C	C		C	C
		unemerged		C			C		C	C	C	C	C		S	C
FIERCE	Pyroxasulfone/flumioxazin	emerged					NC	NC			NC		NC			
		unemerged					C	C			C ¹		C ²			
FOCUS co-pack	Pyroxasulfone + carfentrazone	emerged									NC		NC			
		unemerged									C ¹		C ²			
FREESTYLE co-pack	Imazethapyr + chlorimuron-ethyl	emerged						C	C		S ¹		C	S		
		unemerged						C	C		C ¹		C	S		
OPTILL + glyphosate	Saflufenacil/dimethenamid-p + glyphosate	emerged	C	C	TG	C	*	*	*	*	*	*	*	*	*	*
		unemerged	S ^R	C	NC	C			S		S		S			
TRIACTOR co-pack	Imazethapyr + metribuzin + flumioxazin	emerged		C					C	C	C	C	C	S		
		unemerged		C					C	C	C	C	C	S		

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