

Post Emergent Weed Control in Non-GMO soybeans

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Successful post emergent weed control is influenced by weed size, density and moisture. Large weeds, a whole lot of them and dry environmental conditions can make the best of herbicides look unspectacular. Of these three factors, timing applications to the appropriate weed size and matching the right product for the right weed are the only variables that we have control of. Tables 1 and 2 provide an overview of weed control ratings for post emergent conventional soybean herbicides. These weed control ratings consider information on the product label, data generated from University of Guelph research trials along with field experience. It assumes that the products were applied at the appropriate rate and weed stage. Table 3 provides the maximum weed stage that a herbicide at a specified rate will control.

Top 5 Perennial Weed Questions in Non-GMO soybeans

Canada Thistle: You're best option is a pre-harvest glyphosate application. There are some post-emergent herbicides like Basagran Forté, Blazer or Reflex that do provide some top-growth control, but their effectiveness can be extremely variable and inevitably the weed grows back.

Perennial Sow Thistle: Herbicide effectiveness is once again quite variable. Basagran Forté (at the 900 ml/ac rate) has offered the most consistent level of perennial sow-thistle control in University of Guelph research trials, while other herbicides can provide suppression. Classic, at times, has provided impressive control of perennial sowthistle. However, results with Classic have been inconsistent. The most effective way to slowly reduce perennial sow-thistle populations is to apply glyphosate following a cereal crop, typically in mid to late September.

Field Horsetail: A back hoe.... Reflex probably has the greatest post emergent activity, but consider yourself lucky if you suppress this weed.

Volunteer Alfalfa: Pretty difficult to control a weedy legume in a legume crop. Limited University of Guelph research has shown that Reflex provides the most amount of visual activity on volunteer alfalfa, but not enough to be acceptable.

Milkweed and Dogbane: Classic does a nice job of top growth control on milkweed. Dogbane because of its woody stem requires a wick application with a 2% glyphosate solution to achieve acceptable results.

IMPORTANT NOTES ON WEED CONTROL RATING TABLES: Weed control ratings in the two tables provided are subjective values based on the best available information from the product label, from public research trials and from grower and agronomist experience in the field. Efficacy of products on weeds that are at growth stages larger than what is specified on the product label, are at very high densities and are subjected to adverse weather conditions (i.e. dry soil conditions) will be lower than what is presented in the rating tables. The product profile summaries in this document will provide insight into the variability of their performance in University of Guelph research trials. Ratings in a **bold font** indicate that the weed is listed as being control or suppressed on the product label.

Crop tolerance ratings: E – Excellent, G – Good, F – Fair and P – Poor.

Table I. Grassy Weed Control Ratings for Post Emergent Soybean Herbicides

	barnyard grass	cereals, volunteer	corn, volunteer *	crabgrass, Large	fall panicum	foxtail, giant	foxtail, giant (group 2 resistant)	foxtail, green	foxtail, green (group 2 resistant)	foxtail, yellow	proso millet	quackgrass **	sandbur	stinkgrass	witch grass	wire stem muhly **	Crop tolerance
ASSURE II	9	9	9	8	9	8	8	9	9	9	8	9	9	9	9	7	E
CLEANSWEEP	8	3	3	7	6	8	0	9	0	9	6	2	8	?	9	?	G
EXCEL SUPER	9	9	9	9	6	8	8	9	9	9	9	4	9	9	9	6	E
POAST ULTRA	9	8	8	8	8	8	8	9	9	9	9	7	7	9	9	6	E
PURSUIT	8	3	3	7	6	8	0	9	0	9	7	2	9	?	9	?	G
SELECT	9	9	8	8	6	8	8	9	9	9	8	7	7	7	9	5	E
VENTURE L	9	9	9	8	8	8	8	9	9	9	8	8	9	9	9	8	E

Footnotes:

* Volunteer corn ratings based on a 100 ml/ac rate of Assure II, the 130 ml/ac rate of Poast Ultra and the 243 ml/ac rate for Venture.

** Quackgrass and wire stem muhly ratings based on the highest labeled rate of all products in Table I

Table 2. Broadleaf (and Sedge) Weed Control Ratings for Post Emergent Soybean Herbicides

	atriplex, spreading	biennial wormwood	buckwheat, wild	burcucumber (P)	carrot, wild	cocklebur	fleabane, Canada	horsenettle (P)	knotweed, prostrate	lady's thumb	lamb's-quarters	lamb's-quarters (group 2 resistant)	lettuce, prickly	mustards	nightshades, annual	nightshades, annual (group 2 resistant)	nutsedge, yellow (P)	pigweeds	pigweeds (group 2 resistant)	ragweed, common	ragweed, common (group 2 resistant)	ragweed, giant	sow-thistle, annual	velvetleaf	waterhemp	Crop tolerance
BASAGRAN FORTÉ (900 ml/ac)	4	6	5	3	2	9	5	?	2	8	8	8	4	9	5	5	4	6	6	8	8	6	6	9	3	G
BLAZER	1	?	7	4	1	3	2	?	1	8	5	5	5	9	9	9	2	9	9	8	8	7	7	7	9	F
CLASSIC	1	6	4	5	8	7	8	?	7	4	3	0	5	9	0	0	8	9	0	8	0	6	8	8	2	G
CLEAN SWEEP	6	7	8	4	5	9	5	?	3	9	8	7	2	9	9	5	6	9	6	8	6	6	6	9	2	G
FIRSTRATE	1	6	7	5	5	9	9	6	7	4	2	0	5	9	0	0	?	2	0	9	0	9	8	9	2	G
PINNACLE	6	?	6	4	1	1	2	?	8	8	9	0	3	8	0	0	2	9	0	3	3	1	4	8	2	G
PURSUIT	1	?	8	4	6	8	2	?	5	9	8	0	3	9	9	0	6	9	0	7	0	7	4	9	1	G
REFLEX	1	?	8	2	1	5	2	?	6	8	6	6	7	9	9	9	?	8	8	8	8	6	6	6	9	G

Footnotes:

(P) = Perennial life cycle.

TABLE 3. MAXIMUM WEED STAGE FOR POSTEMERGENCE SOYBEAN HERBICIDES

TRADE NAME	ANNUAL GRASSES									ANNUAL BROADLEAF									PERENNIALS					
	barnyard grass	crabgrass	fall panicum	green foxtail	yellow foxtail	witchgrass	proso millet	volunteer corn	volunteer wheat	buckwheat, wild	cocklebur	jimsonweed	lady's-thumb	lamb's-quarters	wild mustard	nightshade	pigweed	common ragweed	giant ragweed	velvetleaf	quackgrass control	quackgrass suppression*	wirestem muhly	
ASSURE II rate mL/ac	2-ET 200	2-ET 200	2-ET 150	2-ET 200	2-ET 200	2-ET 200	2-6 150	2-ET 150													300	200		
EXCEL SUPER rate mL/ac	1-6 268	1-6 268	1-6 268	1-6 268	1-6 268	1-6 268	1-6 268	1-6 268																
POAST ULTRA rate mL/ac	1-6 130-190	1-6 130-190	1-6 130-190	1-6 130-190	1-6 130-190	1-6 130-190	1-6 130-190	1-6 130-190														1-3 450		
SELECT rate mL/ac	2-6 75	2-6 75	2-6 75	2-6 75	2-6 75	2-6 75	2-6 75	2-6 75	2-4 50													150	75	
VENTURE L rate mL/ac	2-5 320	2-5 400	2-5 400	2-4 400	2-4 400	2-5 400	2-4 400	2-4 240	2-5 320													3-5 800	3-5 400	3-5 800
BASAGRAN ² rate L/ac										10 0.9**	10 0.9	10 0.9**	8 0.9	10 0.9**			4 0.9	6 0.9	4 0.9	6 0.9**				
BLAZER ²										4	10	8	2	10	6	4-6	8							

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	barnyard grass	crabgrass	fall panicum	green foxtail	yellow foxtail	witchgrass	proso millet	volunteer corn	volunteer wheat	buckwheat, wild	cocklebur	jimsonweed	lady's-thumb	lamb's-quarters	wild mustard	nightshade	pigweed	common ragweed	giant ragweed	velvetleaf	quackgrass control	quackgrass suppression*	wirestem muhly	
rate L/ac										1	1	1	1	1	1	0.5-1	0.5-1							
CLASSIC ²																	2-8	2-6		2-4				
CLEANSWEEP	6		4	4						6		6	6	6	4	12	6		4					
FIRSTRATE										4-8	2-4						4-8	4-6	2-4					
rate g/ac										8.5	8.5						8.5	8.5	8.5					
PINNACLE ²													2-8	2-6	2-8		2-8		2-4					
rate g/ac													2.2	3.2	2.2		2.2		3.2					
PURSUIT ²	6		4	4	2					2	2				2	2	12	2	8					
REFLEX ²										4		4	3*	4	4	4	4		3*					