

# CONTROL OF VOLUNTEER ROUNDUP READY CROPS

	Rate	Canola - Pre	Canola - 3-leaf	Canola - 6-leaf	Canola - begin bolt	Canola - begin flower	Corn - 10-18 inches	Corn - 18-24 inches	Corn - 24-40 inches	Soybean - V2-V3	Soybean - V4-V6
<b>POST Grass Herbicides*</b>											
Assure II*	4 - 5 fl oz	N	N	N	N	N	E	E	G-E	N	N
Fusilade DX	4 - 6 fl oz	N	N	N	N	N	E	E	G-E	N	N
Select*	3 - 4 fl oz	N	N	N	N	N	G-E	P-F	P	N	N
	6 fl oz	N	N	N	N	N	E	G	F	N	N
Select Max	4 - 6 fl oz	N	N	N	N	N	F-G	P	N-P	N	N
	8 fl oz	N	N	N	N	N	E	F	P	N	N
<b>Broadleaf Herbicides</b>											
Aim	0.5 fl oz	-	P	N	N	N	N	N	N	P	P
atrazine* + oil adjuvant	0.38 lb ai	G	G	P	-	-	N	N	N	E	P
	0.5 lb ai	E	G-E	G	-	-	N	N	N	E	F
Balance Flexx	3 fl oz	E	-	-	-	-	N	N	N	-	-
Banvel*	2 fl oz	-	P	N	N	N	N	N	N	G	G
	4 - 5 fl oz	-	P	P	-	-	N	N	N	E	E
Basagran*	0.5 pt	-	G-E	F	-	-	N	N	N	N	N
Bronate*	0.8 pt	-	E	F-G	-	-	N	N	N	E	E
Cadet	0.9 fl oz	-	P	N	N	N	N	N	N	P	P
Callisto + atrazine (3/8 lb ai)	3 fl oz	E	E	G-E	-	-	N	N	N	P	P
Curtail*	0.25 - 0.5 pt	-	G-E	F-G	-	-	N	N	N	F-G	P-F
Express*	0.167 oz DF/0.25 oz SG	-	E	G-E	-	-	P	P	P	P	P
Extreme*	1.5 pt	E	E	G-E	P	P	F-G	F	P	N	N
FirstRate	0.2 - 0.3 oz	E	E	F-E	P-F	F	-	-	-	N	N
Flexstar + MSO	0.38 - 0.75 pt	-	E	E	E	E	N	N	N	N	N
Harmony*	1/12 oz DF / 1/8 oz SG	-	P-F	P	-	-	N	N	N	N	N
	0.33 oz DF / 0.5 oz SG	-	E	G-E	-	-	N	N	N	N	N
Hornet	1 - 2 oz	P-F	G-E	F-E	-	-	N	N	N	E	F
Huskie	11 fl oz	-	E	G-E	-	-	N	N	N	G	G
Ignite + AMS	22 fl oz	-	E	G-E	P-F	P	N	N	N	G	G
Laudis + atrazine (3/8 lb ai)	3 fl oz	-	E	G-E	-	-	N	N	N	G	G
MCPA*	0.5 pt	P	G-E	P	-	-	N	N	N	P	P
Option	1.5 oz	-	E	E	-	-	N	N	N	P	P
Progress*+UpBeet+MSO**	1.5 pt + 0.25 oz	-	P-F	N-P	N	N	P-F	N-P	N-P	F	N-P
Pursuit* + MSO	2 fl oz	G-E	E	G-E	P	P	G	F	P	N	N
Raptor + MSO	1 - 2 fl oz	-	E	G-E	P-F	P	P-F	P	N-P	N	N
	4 fl oz	-	E	E	G	F	G-E	F	P	N	N
Sencor*	0.25 lb	E	G-E	F	-	-	N	N	N	P-F	P-F
Sharpen + MSO + UAN	1 fl oz	E	E	E	F	G	N	N	N	P-F	P-F
Spartan	4 oz	P-F	-	-	-	-	-	-	-	-	-
Status	1 - 2 oz	-	F-G	P-F	-	-	N	N	N	E	G-E
	4 oz	-	G	F	-	-	N	N	N	E	E
Steadfast*	0.75 oz	-	E	E	-	-	N	N	N	P	P
Stinger* + oil adjuvant	1 - 2 fl oz	N	N	N	N	N	N	N	N	F-G	F
	3 - 4 fl oz	N	N	N	N	N	N	N	N	E	G-E
UpBeet + MSO**	0.5 to 1 oz	-	F	N-P	N	N	P-F	N-P	N-P	F	N-P
Valor	2.5 oz	G-E	-	-	-	-	-	-	-	-	-
WideMatch*	0.13 - 0.25 pt	-	P	P	N	N	N	N	N	F-E	P-G
Wolverine	1.7 pt	-	E	G-E	-	-	E	E	E	G	G
2,4-D*	0.25 - 0.5 pt	-	G	P	-	-	N	P	P	P	P

\*Or generic equivalent.

\*\*Two applications at 10 to 14 days interval.

Weed control ratings in this section are based on the following scale:

E = Excellent = 90 to 99% control

P = Poor = 40 to 65% control

G = Good = 80 to 90% control

N = None = No control

F = Fair = 65 to 80% control

"-" = insufficient information

## RELATIVE HERBICIDE EFFECTIVENESS ON WEEDS AND PERSISTENCE IN SOIL

The following ratings show relative herbicide effectiveness at labeled rates. Under favorable conditions control may be greater than indicated and under unfavorable conditions herbicides may give erratic results. Dry and cool weather increases herbicide persistence while wet and/or warm weather reduces herbicide persistence.

SOIL- APPLIED HERBICIDES*	Mode of Action**	Barnyardgrass	Brome, Downy	Foxtail, Green	Foxtail, Yellow	Quackgrass	Volunteer Cereals	Wild Oat	Buckwheat, Wild	Cocklebur, Common	Horseweed (Marestail)	Kochia	Lambsquarters
Atrazine* (0.38 lb ai/A)	5	P	G	P	P	N	F-G	F-G	G-E	F	P-F	G-E	G-E
Atrazine* (0.5 - 0.75 lb ai/A)	5	F	G-E	P	P-F	P	G-E	G-E	E	G	F	E	E
Authority Assist (PRE)	2,14	P	F-G	P	P	N	N	N	F-G	P	P	E	E
Authority First / Sonic (PRE)	2,14	N	F-G	P	P	N	N	N	P-F	E	G-E	E	E
Authority MTZ (PRE)	5,14	P-F	F-G	P-F	P-F	N	P	P	F-G	P-F	G	E	E
Balance Flexx (PRE)	27	E	-	E	F-G	P	N	N	N	P	F-E	E	E
Boundary (PRE)	5,15	F-G	-	F-E	F-E	N	P	P	P	P	F-G	P	E
Callisto (PRE)	27	N	-	N	N	N	N	N	N	P	G-E	P	E
Camix (PRE)	15,27	P-G	PG	F-G	F-G	N	P-F	P	P-F	P-F	G-E	F	E
Dual* (PPI/PRE)	15	P-E	P-F	F-E	F-E	N	P-G	P-F	N-P	N	N	N-P	P-F
Eptam (PPI)	8	E	-	E	E	F-G	G-E	G-E	F	P	N	P	F
Fierce (PRE)	14,15	G	G-E	E	G-E	N	N	P	G-E	P	G-E	E	E
Gangster (PRE)	2,14	N	F-G	P	P	N	N	N	P-F	E	G-E	G	E
Harness/Surpass* (PPI/PRE)	15	E	P-F	G-E	G-E	N	G	P-F	P	P	N-P	F	G-E
Lumax (PRE)	5,15,27	G	G	G-E	G-E	N	P	P	G-E	F-G	E	G-E	G-E
Matrix/Resolve* (PRE)	2	G	-	G	F-G	N	G	F	P	F	P <sup>1</sup>	G <sup>1</sup>	F
Nortron/Ethotron (PPI/PRE)	-	P	-	F-G	F-G	P	E	G	F-G	P	-	F-G	P-F
Outlook* (PPI/PRE)	15	G-E	P-G	G-E	G-E	N	F-G	P	N	N	N	N	F-G
Paramount	4	G-E	-	E	G	N	N	N	N	N	-	F	F
Permit (PPI/PRE)	2	N	-	N	N	N	N	N	N	E	P <sup>1</sup>	N <sup>1</sup>	G-E
PrePare (PRE)	2	P-F	N-P	G-E	P-F	N	N	F-G	-	P	N	F-G <sup>1</sup>	F
Prequel (PRE)	2,27	E	-	G-E	G-E	N	G-E	G-E	N	G-E	G-E	G-E	G-E
Prowl* (PPI)	3	E	F-G	G-E <sup>1</sup>	E	N	N	P-F	N-P	N	N	P	G-E
Pursuit (PRE - 2 fl oz )	2	P	-	P	P	N	N	N	F-G	N	P <sup>1</sup>	E <sup>1</sup>	P-F
Pursuit Plus (PPI)	2,3	E	G	E <sup>1</sup>	E	N	G	F	E	N	P	E <sup>1</sup>	E
Python (PPI/PRE)	2	N	-	N	N	N	N	N	F-G	P	F-E <sup>1</sup>	E <sup>1</sup>	E
Ro-Neet (PPI)	8	E	-	E	E	P	G-E	G	P-F	P	-	P	F-G
Sencor* (PPI/PRE)	5	P-F	F-G	P-F	P-F	N-P	P-G	N	F-G	P-F	F	F-G	P-F
Sharpen (PRE) (1 fl oz/A)	14	N	N	N	N	N	N	N	P-G	P	P-G	P-G	P-G
Sharpen (PRE) (2-3 fl oz)	14	N	N	N	N	N	N	N	G-E	G	G-E	E	E
Sonalan (PPI)	3	E	F	E <sup>1</sup>	E	N	P	P	P	P	N	P-F	E
Spartan (PRE)	14	N	F-G	P	P	N	N	N	P-F	P	F-G	E	E
SureStart/TripleFlex (PRE)	2,4,15	E	-	E	E	N	G	P	E	E	G-E	F-G	E
Treflan* (PPI)	3	E	F-G	E <sup>1</sup>	E	N	N	P-F	P	N	N	P	G-E
Valor/Chateau (PRE)	14	N	F-E	P	P	N	N	N	P-F	N	F-E	G-E	G-E
Verdict (PRE - 10-18 fl oz)	14,15	F-G	P-G	G-E	G-E	N	F	P	G-E	G	G-E	E	E
Warrant (PRE to weeds)	15	E	-	G-E	G-E	N	N	P	N	N	P	F	G-E

PPI = Preplant Incorporated, PRE = Preemergence, POPI = Post plant incorporated.

PPI gives greater and more consistent weed control compared to PRE.

\*Or generic equivalent.

\*\*Numbers represent herbicide mode of action from a numerical classification system found on page 104-105.

<sup>1</sup>Except where resistant populations have developed.

Weed control ratings in this section are based on the following scale:

E = Excellent = 90 to 99% control      P = Poor = 40 to 65% control  
 G = Good = 80 to 90% control          N = None = No control  
 F = Fair = 65 to 80% control          "-" = insufficient information

Herbicide persistence ratings are for residues present 12 months after application:

O = Often    S = Seldom    N = None

SOIL- APPLIED HERBICIDES*	Lanceleaf Sage	Mallow, Common	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Pigweed, Redroot	Pigweed (Waterhemp)	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herb. Persistence
Atrazine* (0.38 lb ai/A)	G	-	F	G	G	G	G	G	F	G	F	F	F	G	G	N	N
Atrazine*(0.5 - 0.75 lb ai)	E	-	E	E	E	E	E	E	G	E	E	E	G	E	E	N	S
Authority Assist (PRE)	-	F	P-G	E	E	E	E	E	G-E	P	P	E	P	G-E	G-E	N	O
Auth First / Sonic (PRE)	E	-	E	E	E	E	E	E	G-E	-	E	E	E	G-E	G	N	O
Authority MTZ (PRE)	F-G	F-G	E	G-E	G-E	E	F-G	E	E	E	G-E	E	P-F	G-E	G-E	N	S
Balance Flexx (PRE)	-	N	G	E	G-E	G-E	G-E	E	G-E	G-E	G-E	G	P	G	G-E	N	S
Boundary (PRE)	F	F	G-E	G-E	G-E	P	P	G-E	E	G-E	G-E	G	P	G-E	G-E	N	S
Callisto (PRE)	-	-	E	E	E	E	E	E	G-E	-	G	E	E	-	-	N	S
Camix (PRE)	-	-	E	E	E	E	E	E	E	-	G	G-E	G	-	-	N	S
Dual* (PPI/PRE)	N	-	N	N	-	N	N	F-G	F-G	N	N	N	N	P	N	N	N
Eptam* (PPI)	N	F-G	P	P	P	F	F	G	F-G	P	F	P	N	P	N	N	N
Fierce (PRE)	-	-	P	E	E	E	E	E	E	G-E	G	G	P	G-E	G-E	N	N
Gangster (PRE)	E	-	E	E	E	E	E	E	G-E	-	E	E	E	G-E	G	N	O
Harness/Surpass*	N	N	P	F	-	G-E	G-E	G-E	G-E	-	P	P	N-P	F	N	N	N
Lumax (PRE)	G	-	E	E	G-E	E	E	E	E	G-E	G-E	G-E	G-E	G-E	G-E	N	O
Matrix/Resolve* (PRE)	N	-	N	F	-	P	P	E	P <sup>1</sup>	-	F	P	F	P	N	N	S
Nortron/Ethotron	-	P	P	P-F	-	F-G	F-G	G-E	F-G	-	P	G-E	P	F-G	-	N	O
Outlook* (PPI/PRE)	N	N	N	P-F	-	F-G	F-G	G-E	G	-	N	N	N	P-F	N	N	N
Paramount	N	-	N	N	N	N	N	F	P	E	F	N	F	F	-	P	S
Permit (PPI/PRE)	-	-	-	E	E	N	N	F-E	P-G <sup>1</sup>	-	E	E	-	N	N	N	O
PrePare (PRE)	N	F	-	-	G	G	G	G	P <sup>1</sup>	P	N	F-G	N	F	P	N	S
Prequel (PRE)	-	-	F-G	E	E	G-E	G-E	E	G-E	G-E	G-E	F-G	P-F	P-F	G-E	N	S
Prowl* (PPI)	N	-	N	N	P	N	N	G	F-G	N	N-P	P	N	F-G	N	N	S
Pursuit (PRE - 0.72 oz)	-	F	P	E	E	E	E	E	F-G <sup>1</sup>	-	N	F	P	P	N	N	O
Pursuit Plus (PPI)	E	-	G-E	E	E	E	E	E	G	E	P	G	P	G-E	P	N	O
Python (PPI/PRE)	G-E	-	P-F	E	E	G-E	G-E	E	G <sup>1</sup>	-	P	G-E	P	E	G-E	N	S
Ro-Neet (PPI)	N	F-G	P	P	P	F-G	F-G	G	F-G	P	P	P	N	P	-	N	N
Sencor* (PPI/PRE)	F	-	E	G-E	G-E	P	P	G-E	F-G	G-E	F-G	G	P-F	G-E	G-E	N	S
Sharpen (1 fl oz/A)	-	P-G	-	P-G	P-G	P-G	-	P-G	N-F	P-G	P-F	P-G	P-G	P-G	P-G	N	N
Sharpen (2-3 fl oz/A)	-	G-E	-	E	E	G-E	-	E	G-E	G-E	G-E	E	G-E	E	E	N	S
Sonalan (PPI)	N	-	N	N	P	P	P	E	G-E	P	N	P	N	G-E	N	N	S
Spartan (PRE)	N	-	P-G	P	P	E	F-G	F-G	F-G	P	P	E	N	G-E	F-G	N	S
SureStart/TripleFlex	G	-	E	E	E	E	E	E	G	G-E	E	E	E	F-G	E	F	O
Treflan* (PPI)	N	-	N	N	P	N	N	E	G-E	N	P	P	N	G	N	N	S
Valor/Chateau (PRE)	N	E	P	G	G	E	E	E	G-E	F-E	P-F	F	P	F-G	G	N	N
Verdict (PRE - 10-18 fl oz)	-	G-E	-	E	E	E	-	E	E	G-E	G-E	E	G-E	E	E	P	S
Warrant (PRE to weeds)	N	-	N	P	-	F-G	F-G	G-E	G-E	-	N	N	N	N	N	N	N

PPI = Preplant Incorporated, PRE = Preemergence, PoPI = Post plant incorporated.

\*Or generic equivalent.

<sup>1</sup>Except where resistant populations have developed.

POST- APPLIED HERBICIDES*	Mode of Action	Barnyardgrass	Brome, Downy	Foxtail, Green	Foxtail, Yellow	Quackgrass	Volunteer Cereals	Wild Oat	Buckwheat, Wild	Cocklebur, Common	Horseweed (Marestail)	Kochia	Lambsquarters
Accent*	2	E	-	E	F-G	G-E	G-E	E	P	P	N	F <sup>1</sup>	P
Achieve	1	F	N	G-E	G	N	N	E <sup>1</sup>	N	N	N	N	N
Affinity BS* (1:1) + 2,4-D	2,2,4	N	N	N	N	N	N	N	G-E	G	F <sup>1</sup>	E <sup>1</sup>	E
Thifen&Triben* (2:1) + 2,4-D	2,2,4	N	N	P	P	N	N	N	G-E	E	F <sup>1</sup>	E <sup>1</sup>	E
Audit* (3:1) + 2,4-D	2,2,4	N	N	P	P	N	N	N	G-E	E	F <sup>1</sup>	E <sup>1</sup>	E
Affinity TM* (4:1) + 2,4-D	2,2,4	N	N	P	P	N	N	N	G-E	E	F <sup>1</sup>	E <sup>1</sup>	E
Aim	14	N	N	N	N	N	N	N	P	P	N	F-E	F-G
Ally*/Amber + 2,4-D	2,4	N	N	P	P	N	N	N	F-G	F	G <sup>1</sup>	E <sup>1</sup>	E
Ally Extra* + 2,4-D	2,2,4	N	N	N	N	N	N	N	G	F-G	G <sup>1</sup>	E <sup>1</sup>	E
Assert	2	P	N	P	P	N	N	F-G <sup>1</sup>	F-G	P	N	N	P
Assure II / Targa	1	E	P-E	E	F-G	E	E	G-E <sup>1</sup>	N	N	N	N	N
Atrazine (0.38 lb ai/A)	5	F	F-G	F	F	N	F	F	G-E	F	G	E	E
Atrazine (0.5 - 0.75 lb ai/A)	5	F-G	G	F	F-G	P	F-G	F-G	E	G	E	E	E
Axial XL	1	G-E	N	E	G-E	N	N	E <sup>1</sup>	P	P	N	P <sup>1</sup>	P-F
Axial TBC	1,2	G-E	N	E	G-E	N	N	E <sup>1</sup>	N	N	-	N	N
Banvel*	4	N	N	N	N	N	N	N	E	E	F-E	E	G
Banvel* + MCPA	4,4	N	N	N	N	N	N	N	G-E	E	G-E	E	E
Basagran*	6	N	N	N	N	N	N	N	P	G-E	P	P-F	F-G
Betamix / Phen-Des 8+8	5,5	P	N	F	F	N	N	N	F	P-F	-	F-G	G
Betanex / Alphanex	5	P	N	P-F	P-F	N	N	N	P-F	P	-	F	G
Beyond	2	E	G-E	E	G-E	F	G-E	E <sup>1</sup>	P	G-E	P <sup>1</sup>	E <sup>1</sup>	F
Bronate*	4,6	N	N	N	N	N	N	N	G-E	E	F-G	G-E	E
Buctril*	6	N	N	N	N	N	N	N	G-E	E	F	G-E	G
Cadet	14	N	N	N	N	N	N	N	P-F	-	N-P	P-F	F-G
Callisto	27	N	-	N	F	N	N	N	F	E	G	P-F	E
Callisto Xtra (+ atrazine)	5,27	N	F-G	N	F	N	N	N	G-E	E	E	E	E
ClearMax	2,4	E	F-E	E	G-E	F	G-E	E <sup>1</sup>	P	E	G	E <sup>1</sup>	E
Cobra/Phoenix	14	N	N	P-F	P-F	N	N	N	P	G	N-P	P-F	F
Colt + MCPA/Salvo*	4,4	N	N	N	N	N	N	N	F-G	G-E	G-E	E	E
Curtail* / M*	4,4	N	N	N	N	N	N	N	G	E	G	P	G
Discover NG	1	E	N	E	G-E	P	N	E <sup>1</sup>	N	N	N	N	N
ET	14	N	N	N	N	N	N	N	P	P	N-P	P-G	F-G
Everest 2.0	2	F-G	P-F	E	P-G	P	N	G-E <sup>1</sup>	F	N	N	N	P
Express*	2	N	N	N	N	N	N	N	P-F	F	P <sup>1</sup>	E <sup>1</sup>	F-G
Express* + 2,4-D	2,4	N	N	N	N	N	N	N	F	G	G <sup>1</sup>	E <sup>1</sup>	E
Extreme*	2,9	E	G-E	E	E	E	E	E	G-E	E	G-E <sup>1</sup>	E	G-E
FirstRate	2	N	-	N	N	N	N	N	P-F	E	G-E <sup>1</sup>	P <sup>1</sup>	P
FirstStep	9	E	G-E	E	E	E	E	G-E	G	E	G-E <sup>1</sup>	F-E <sup>1</sup>	G-E <sup>1</sup>
Flexstar	14	N	N	P-F	P-F	N	N	N	P	G-E	N-P	G-E	P-F
Flexstar GT	14	E	G-E	E	E	E	E	E	P-G	E	E	E	F-E
Fusilade DX	1	E	F-G	G-E	G-E	G	E	E <sup>1</sup>	N	N	N	N	N
Glean*/Finesse + 2,4-D	2,4	N	N	P-F	N	N	N	N	E	G	G <sup>1</sup>	E <sup>1</sup>	E
Goal	14	P	N	P	P	P	P	F-G	G-E	E	-	G-E	G
GoldSky	2,4	F-G	F-E	F	G	-	-	G-E	G-E	-	-	E	G-E
Halex GT	9,15,27	E	G	E	E	E	E	E	P-G	E	G-E <sup>1</sup>	E	E
Harmony* (1/12 oz)	2	N	N	N	N	N	N	N	P	N	N	N	G
Harmony* (0.3 to 0.6 oz)	2	N	N	N	N	N	N	N	E	P	N	N	E
Hornet	2,4	N	-	N	N	N	N	N	F-G	E	E	F-G <sup>1</sup>	P-F
Huskie	6,27	N	N	N	N	N	N	N	E	E	G-E	G-E	E
Ignite 280	10	E	-	E	G	P	F-G	G-E	E	E	F	E	F-G
Impact + atrazine (3/8 lb ai)	5,27	E	F-G	G-E	G-E	-	-	-	E	E	G	E	E

POST- APPLIED HERBICIDES*	Lanceleaf Sage	Mallow, Common	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Pigweed, Redroot	Pigweed - Waterhemp	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herbicide Persistence
Accent*	P	-	P	E	E	N	N	E	P <sup>1</sup>	-	P	G-E	P	P	P	N	O
Achieve	N	-	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Affinity BS*(1:1) + 2,4-D*	F-G	F	E	E	E	F-G	F-G	G	F-G <sup>1</sup>	G-E <sup>1</sup>	G	G	G	E <sup>1</sup>	F-G	G-E	N
Thif & Trib*(2:1) + 2,4-D*	G-E	F	E	E	E	F-G	F-G	E	F-E <sup>1</sup>	E <sup>1</sup>	E	E	G-E	E <sup>1</sup>	F-G	G	N
Audit* (3:1) + 2,4-D*	G-E	F	E	E	E	F-G	F-G	E	F-E <sup>1</sup>	E <sup>1</sup>	E	E	G-E	E <sup>1</sup>	F-G	G	N
AffinityTM*(4:1) + 2,4-D*	G-E	F	E	E	E	F-G	F-G	E	F-E <sup>1</sup>	E <sup>1</sup>	E	E	G-E	E <sup>1</sup>	F-G	G	N
Aim	-	-	P	P	P	N-P	N-P	G-E	F-E	P	N	N	P	F	-	N	N
Ally*/Amber + 2,4-D	F-G	F	G-E	E	E	F	F	E	G-E	E	E	F	G-E	E	F-G	G	O
Ally Extra* + 2,4-D	F-G	F	E	E	E	F	F	E	G-E	E	E	F-G	G-E	E	F-G	G	O
Assert	N	N	N	E	G-E	N	N	P	N	N	N	P	N	P-F	N	N	S
Assure II / Targa	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Atrazine (0.38 lb ai)	E	-	G-E	P-G	P-G	G-E	G-E	E	F	E	P	G	F-E	E	-	N	S
Atrazine (0.5 - 0.75 lb ai)	E	-	E	G-E	G-E	E	E	E	G	E	F-G	E	G	E	-	P	S
Axial XL	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Axial TBC	N	P	-	F-G	-	-	-	F-G	-	-	F	F	P	-	-	P	S
Banvel*	P-F	P	E	P	P	E	E	G	F-G	G-E	E	E	G-E	G	G-E	F-G	S
Banvel* + MCPA	G-E	P	G-E	E	F-G	E	E	G	F-G	E	E	E	E	G	G-E	F	S
Basagran*	P	P	G-E	E	E	N	F-G	F	N-P	G	P-F	E	E	G	G-E	F-G	N
Betamix / Phen+Des 8+8	P	P	G	G-E	-	F-G	F-G	G	F-G	-	F	F	P	P	P	N	N
Betanex / Alphanex	P	P	G	G-E	-	F-G	F-G	G-E	G	-	F	F	P	P	P	N	N
Beyond	E	P	G-E	E	E	E	E	E	P-G <sup>1</sup>	E <sup>1</sup>	P	G-E	E	G-E <sup>1</sup>	P	N-P	S
Bronate*	E	P	E	E	G-E	E	E	G	F-G	F-G	E	G	E	E	F	P-F	N
Buctril*	E	P	E	F-G	F-G	E	E	F	P-F	F-G	E	G-E	G-E	E	P-F	P	N
Cadet	-	-	-	-	-	-	-	G-E	F-G	-	-	-	-	-	-	N	N
Callisto	-	-	E	E	E	E	E	E	G-E	-	P-F	E	E	-	-	N	S
Callisto Xtra (+ atrazine)	E	G-E	E	E	E	E	E	E	E	E	E	E	E	E	E	P	S
ClearMax	E	P	E	E	E	E	E	E	P-G	E <sup>1</sup>	G	G-E	E	G-E	F-G	P-F	S
Cobra/Phoenix	E	G-E	G	E	-	G	G	E	G-E	-	F-G	G	P-F	P	P	N	N
Colt + MCPA/Salvo*	P-E	F-G	G-E	E	G	F-G	F-G	F-E	F-G	E	G-E	F-G	G-E	P-G	F-G	F	N
Curtail* / M*	F-G	F-E	E	E	E	E	E	P	P-F	E	E	E	E	G	E	G-E	S
Discover NG	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
ET	-	-	P	P	-	P	P	G	F-G	P	N	N	P	P	-	N	N
Everest 2.0	N	N	N	E	E	E	-	G-E	G <sup>1</sup>	P	N	E	P-F	N	-	N	S
Express*	N	P-F	E	E	E	F-G	-	F-G	P-G <sup>1</sup>	E <sup>1</sup>	P	F-G	F	E <sup>1</sup>	N	G	N
Express* + 2,4-D	F-G	F-E	E	E	E	F-G	F-G	G	G <sup>1</sup>	G-E	G	G	F-G	E	F-G	G-E	N
Extreme*	E	G-E	E	E	E	E	E	E	G-E <sup>1</sup>	E	G <sup>1</sup>	E	E	E	G-E	G	O
FirstRate	P	-	E	G-E	P	N	N	P	N	-	E <sup>1</sup>	E	E	-	P	N	O
FirstStep	E	P-G	G-E	G-E	G-E	P-G	P-G	E	G-E <sup>1</sup>	P-G	G-E <sup>1</sup>	P-E	G-E	G	F-E	G-E	N
Flexstar	E	G-E	G-E	E	E	G-E	F-G	E	E	-	G-E	G-E	F	-	P	N	O
Flexstar GT	E	F-E	E	E	E	G-E	G	E	E	P-G	G-E	G-E	G-E	G	F-E	F-G	O
Fusilade DX	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Glean*/Finesse + 2,4-D	F-G	F	E	E	E	F	F	E	G-E	E	E	E	E	E	F-G	G	O
Goal	E	-	-	F	F	G-E	G-E	E	G-E	G-E	G	F	F-E	G-E	G	N	N
GoldSky	-	F-G	-	E	E	G	G	E	G-E	G	F-G	G	E	G-E	-	P-F	N
Halex GT	E	P-G	E	E	E	E	E	E	E	F-G	E	E	E	G	E	G-E	S
Harmony* (1/12 oz)	N	N	N	E	P	N	N	E	P-E <sup>1</sup>	P <sup>1</sup>	N	G-E	P	P <sup>1</sup>	N	N	N
Harmony* (0.3 - 0.6 oz)	N	F	G-E	E	G-E	N	N	E	P-E <sup>1</sup>	G-E <sup>1</sup>	N	E	G-E	G-E <sup>1</sup>	N	N	N
Hornet	E	-	E	E	E	G-E	G-E	P-F	P	E	E	F-G	E	F-G	E	G-E	O
Huskie	E	G	E	E	G-E	E	E	E	G-E	F-G	E	G-E	E	E	G	F-G	S
Ignite 280	E	G	E	E	G-E	G-E	G-E	E	F-G	G-E	G-E	E	E	G-E	E	P	N
Impact + atrazine	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	G	S

<b>POST- APPLIED HERBICIDES* (cont.)</b>	<b>Mode of Action</b>	<b>Barnyardgrass</b>	<b>Brome, Downy</b>	<b>Foxtail, Green</b>	<b>Foxtail, Yellow</b>	<b>Quackgrass</b>	<b>Volunteer Cereals</b>	<b>Wild Oat</b>	<b>Buckwheat, Wild</b>	<b>Cocklebur, Common</b>	<b>Horseweed (Marestail)</b>	<b>Kochia</b>	<b>Lambsquarters</b>
Laudis + atrazine (3/8 lb ai)	5,27	E	F-G	F	G-E	-	-	P-F	E	E	G	E	E
Lightning	2,2	E	-	E	E	F	G-E	G-E	E	G	P <sup>1</sup>	E <sup>1</sup>	E
Lumax (3 pt)	5,15,27	N	F-G	N	F	N	N	N	E	G	G	E	E
Maverick	2	-	F-G	P-F	P-F	G	N	E	N	-	F	P <sup>1</sup>	P
MCPA	4	N	N	N	N	N	N	N	N	G	F-G	P	E
Olympus	2	P	F-E	P-F	P-F	F-G	N	G-E <sup>1</sup>	-	-	P	-	-
Option	2	E	-	E	F-E	G-E	E	E	N	G	P	E <sup>1</sup>	G
Orion	2,4	N	N	N	N	N	N	N	G	F-G	-	G <sup>1</sup>	E
Paramount	4	G-E	-	E	G	N	N	N	N	N	-	F	F
Paraquat	22	G	-	G	G	P	F-G	G	F	F-G	F-G	G-E	E
Peak + 2,4-D	2,4	N	N	N	N	N	N	N	F-G	G-E	G	G-E <sup>1</sup>	G
Permit	2	N	N	N	N	N	N	N	P	E	-	P <sup>1</sup>	N
Poast	1	E	P-G	E	E	F	G-E	G-E <sup>1</sup>	N	N	N	N	N
PowerFlex	2	F-G	F-E	F	G	-	-	G-E	F-G	-	-	F <sup>1</sup>	G-E
Progress / BNB Plus	5,5	P	N	F-G	F-G	N	N	N	F-G	F	-	F-G	G-E
Pulsar	4	N	N	N	N	N	N	N	G-E	E	G-E	E	G-E
Puma*	1	E	N	E	E	N	N	E <sup>1</sup>	N	N	N	N	N
Pursuit*	2	G	-	G	F-G	N	G	F <sup>1</sup>	P	G-E	N	E <sup>1</sup>	P-F
Rage D-Tech	4,14	N	N	N	N	N	N	N	P-F	G-E	F-G	P-F	E
Raptor	2	E	F-E	E	G-E	F	G-E	E <sup>1</sup>	P	G-E	N	E <sup>1</sup>	P-F
Rave	2,4	N	N	N	N	N	N	N	E	E	G	E	G-E
Raze	2,4	G	F-G	E	G	N-P	N	E <sup>1</sup>	F-G	E	N	E	P
Reflex*	14	N	N	N	N	N	N	N	P	G	N-P	F-G	P
Require Q	2,4	G-E	-	G-E	G-E	G-E	G-E	G-E	G-E	E	F-G	G-E <sup>1</sup>	F-G
Resolve*/ Matrix*	2	G-E	-	G-E	G-E	G-E	G-E	G-E	N	N	N	E <sup>1</sup>	F
Resolve Q	2	G-E	-	G-E	G-E	G-E	G-E	G-E	P-F	N	-	E <sup>1</sup>	F-G
Resource	14	N	-	N	N	N	N	N	-	F	N-P	-	F-G
Rezult	1,6	E	P-F	E	E	F-G	E	G-E <sup>1</sup>	P	G-E	P	P	F-G
Rimfire Max	2,2	G	P-F	P-F	P-F	F	N	G-E <sup>1</sup>	N	-	P	N	-
Roundup*/glyphosate <sup>2</sup>	9	E	G-E	E	E	E	E	G-E	P-G	E	G-E <sup>1</sup>	F-E <sup>1</sup>	P-E <sup>1</sup>
Select*	1	E	P-E	E	E	G	E	E	N	N	N	N	N
Select Max	1	E	P-E	E	E	G-E	E	E	N	N	N	N	N
Sencor*	5	F	N	F	F	P	P	-	G	P	F-G	F-G	E
Starane*	4	N	N	N	N	N	N	N	P	E	-	E	N
Starane Flex	4	N	N	N	N	N	N	N	P-G	E	-	E	P-G
Starane NXT*	4,6	N	N	N	N	N	N	N	E	E	G-E	E	E
Status / Distinct	2,19	P-F	N	P-F	P-F	N	P	P	E	E	G-E	E	E
Steadfast	2,2	E	-	E	G-E	G-E	E	E	P	P	-	P <sup>1</sup>	P
Stinger* (<0.061 lb ai/A)	4	N	N	N	N	N	N	N	F	G-E	G	N	P
Stinger* (>0.061 lb ai/A)	4	N	N	N	N	N	N	N	F-G	E	G-E	N	P-F
Supremacy	2,2,4	N	N	P	P	N	N	N	E	E	F <sup>1</sup>	E	E
Ultra Blazer	14	N	N	P-F	P-F	N	N	N	P	F-G	N-P	P-F	G
UpBeet (0.125 to 0.25 oz/A)	2	N	N	F-G	F-G	N	N-P	N	F	N	-	P-E <sup>1</sup>	P
UpBeet+B-nex/B-mix/Progress	2,5,5	P	N	F-G	F-G	N	P	N	F-G	F-G	-	E <sup>1</sup>	G-E
WideMatch*	4,4	N	N	N	N	N	N	N	E	E	G-E	E	N
Wolverine	1,6,27	E	N	E	E	N	N	E <sup>1</sup>	E	E	G-E	G-E	E
2,4-D	4	N	N	N	N	N	N	N	P	G-E	G-E	P	E
2,4-DB/Butyrac	4	N	N	N	N	N	N	N	P	E	-	P	G-E

\* Or generic equivalent.

<sup>1</sup>Herbicides will not control resistant biotypes or provide minimal control in tank-mix/premixes with alternative modes of action.

POST- APPLIED HERBICIDES* (cont.)	Lanceleaf Sage	Mallow, Common	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Pigweed, Redroot	Pigweed - Waterhemp	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herbicide Persistence
Laudis + atrazine	-	-	-	E	E	E	E	E	E	-	E	E	E	E	E	G	S
Lightning	E	G	E	E	E	E	E	E	P-E <sup>1</sup>	E	G	E	G	E <sup>1</sup>	P	F	O
Lumax (3 pt)	E	-	E	E	E	E	E	E	E	E	E	E	E	E	E	P	S
Maverick	-	N	-	E	E	-	-	P	N	-	-	-	E	-	P	N	O
MCPA	G-E	P	G	E	G-E	P-F	P-F	P-F	P	G	G	F	G	P	F-G	P-F	N
Olympus	-	-	-	E	E	-	-	P-F	-	-	-	-	-	-	-	-	O
Option	N	-	G-E	E	E	E	E	E	P	-	G	P	G	-	-	P	N
Orion	F-G	P	F-G	E	E	F	F	E	-	E	E	G	E	F-G <sup>1</sup>	G	F-G	N
Paramount	N	-	N	N	N	N	N	F	-	N	F	N	F	F	-	P	S
Paraquat	E	G	G	E	G	G-E	G-E	E	E	F-G	G-E	E	E	E	-	P	N
Peak + 2,4-D	F-G	F	-	E	E	-	-	E	F-G <sup>1</sup>	E	E	-	E	E <sup>1</sup>	F-G	F-G	O
Permit	P	-	G-E	E	E	P	P	F-G	P-G <sup>1</sup>	-	G-E <sup>1</sup>	F-G	E	-	P	N	O
Poast	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
PowerFlex	-	-	-	E	E	-	-	E	-	P-F	-	F	E	G	-	P-F	N
Progress / BNB Plus	P-F	N	G	G-E	-	G	G	G	F-G	-	F-G	F-G	P	P	P	N	S
Pulsar	P-F	F-G	G-E	P-F	P	G-E	G-E	G	-	E	E	G	G-E	G	G-E	F-G	S
Puma*	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pursuit*	E	P	E	E	E	E	E	E	N	E <sup>2</sup>	P	G	G-E	G-E <sup>1</sup>	P	N	O
Rage D-Tech	P-F	P	E	E	F-G	P-F	P-F	G	G-E	E	G-E	F-G	E	G	F-G	F	N
Raptor	E	P	G-E	E	E	E	E	E	N	G <sup>2</sup>	P	G-E	E	G-E <sup>1</sup>	P	N-P	N
Rave	F-G	G	E	E	E	E	E	E	E	E	E	E	E	E	F-G	G	O
Raze	N	F-G	P	E	E	E	E	E	E <sup>2</sup>	G-E	G-E	G	G-E	F	PG	N	S
Reflex*	E	-	G	E	E	G	P	G-E	G-E	-	G-E	G	P-F	-	P	N	O
Require Q	P-F	P-F	E	E	E	N	G-E	F-E	F-G	G-E	F	F-G	G-E	G	G-E	F-G	S
Resolve* / Matrix*	-	-	-	E	E	G/N	P-F	E	P-G <sup>1</sup>	-	P	F	P	P <sup>1</sup>	N	N	S
Resolve Q	-	-	-	E	E	G/N	P-F	F-E	P-G <sup>1</sup>	-	F	F-G	P	P <sup>1</sup>	N	N	S
Resource	-	-	-	-	-	-	-	F	P-F	-	F	-	-	-	-	N	N
Rezult	P	P	G-E	E	E	N	F-G	F	P	G	P-F	E	E	F-G	G-E	F-G	N
Rimfire Max	N	N	-	E	E	-	-	P-F	P	-	-	N	-	-	-	-	S
Roundup*/glyphosate <sup>2</sup>	E	P-G	G-E	G-E	G-E	P-G	P-G	E	P-G <sup>1</sup>	P-G	G-E <sup>1</sup>	P-E	G-E	G	F-E	G-E	N
Select*	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Select Max	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Sencor*	-	-	-	E	E	P	P	G	P-G	G-E	E	E	F	-	-	N	O
Starane*	-	F-G	P	P	P	P	P	N	N	E	E	N	E	P	N	N	N
Starane Flex	-	F-G	P	G	G	P	P	G-E	G-E	E	E	P	E	P	N	N	N
Starane NXT*	E	F-G	E	E	E	E	G-E	P	P-F	G	E	E	E	G-E	P-F	P	N
Status / Distinct	G	G	E	E	G	G	G	E	G	E	E	E	E	E	E	G	S
Steadfast	P	-	P	E	E	N	N	E	F-G <sup>1</sup>	-	N	F	P	P <sup>1</sup>	P	N	O
Stinger* (<0.061 lb ai/A)	P	F	G-E	N	N	G-E	G-E	P	N	G-E	F-G	G	G	P	G-E	F-G	S
Stinger* (>0.061 lb ai/A)	F	F-G	E	N	N	E	E	P	P	E	G-E	G-E	G-E	P-F	E	E	S
Supremacy	G-E	F-E	E	E	E	F-G	F-G	E	E	E <sup>1</sup>	E	E	E	E <sup>1</sup>	F-G	G	N
Ultra Blazer	P-F	N	F	E	-	F-G	F-G	E	G-E	-	F-G	E	P-F	G	P	N	N
UpBeet (0.125-0.25 oz)	N-P	G	N	G-E	G	F	F	F	P <sup>1</sup>	N	F	F	N	N-P	N	N	N
UpBeet+B-nex/mix/Prog	P-F	G-E	G	E	-	G	G	G-E	F-G	-	F-G	G	G	P	P	N	N
WideMatch*	P-F	F-E	E	P	P	G-E	G-E	P	P	E	E	G	E	P	E	E	S
Wolverine	E	G	E	E	G-E	E	E	E	G-E	F-G	E	G-E	E	E	G	F	S
2,4-D	P-F	P	E	E	F-G	N-P	N-P	G	F-G	E	E	P-F	E	G	F-G	F	N
2,4-DB/Butyrac	-	-	-	P	P	-	-	P	N	-	P	P	-	P	-	N	

<sup>1</sup> Herbicides will not control resistant biotypes or provide minimal control in tank-mix/premixes with alternative modes of action.

<sup>2</sup> Weed control from Roundup\* is dependant on rate, size of weeds, environmental conditions, and number of applications.