

## RELATIVE HERBICIDE EFFECTIVENESS ON WEEDS AND PERSISTENCE IN SOIL

The following ratings give relative herbicide effectiveness at labeled rates. Under favorable conditions control may be better 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	Field Sandbur	Foxtail, Green	Foxtail, Yellow	Quackgrass	Volunteer Cereals	Wild Oat	Wild Proso Millet	Buckwheat, Wild	Cocklebur, Common	Kochia	Lambsquarters
Acetochlor (PPI)	15	E	G-E	G-E	G-E	N	G	F	F-G	P	P	F	G-E
Acetochlor (PRE)	15	E	G	G-E	G-E	N	G	P	F-G	P	P	P-F	G
Atrazine (0.38 lb ai/A)	5	P	P	P	P	N	F-G	F-G	N	G-E	F	G-E	G-E
Atrazine (0.5 - 0.75 lb ai/A)	5	F	P	P	P-F	P	G-E	G-E	P	E	G	E	E
Authority Assist (PRE)	2,14	P	N	P	P	N	N	N	N	F-G	P	E	E
Authority First / Sonic (PRE)	2,14	N	N	P	P	N	N	N	N	P-F	E	E	E
Authority MTZ (PRE)	5,14	P-F	P-F	P-F	P-F	N	P	P	P	F-G	P-F	E	E
Balance Pro / Flexx (PRE)	27	E	G	E	F-G	P	N	N	E	N	P	E	E
Callisto (PRE)	27	N	N	N	N	N	N	N	N	N	P	P	E
EPTC (PPI)	8	E	G-E	E	E	F-G	G-E	G-E	F-G	F	P	P	F
Dimethenamid-P (PPI)	15	G-E	G	G-E	G-E	N	G	P	F	P	N	P	F
Dimethenamid-P (PRE)	15	F-G	G	G-E	G-E	N	F	P	F	P	N	P	F
Far-Go (PPI)	8	N	N	N-P	N-P	N	N	E	N	N	N	N	N
Gangster (PRE)	2,14	N	N	P	P	N	N	N	N	P-F	E	G	E
Lorox	7	F	-	G	G	P	-	-	-	E	E	-	E
Matrix (PRE)	2	G	-	G	F-G	N	G	F	P	P	F	G <sup>1</sup>	F
Metolachlor/S-meto * (PPI)	15	F-E	F-P	F-E	F-E	N	P-G	P-F	N-P	N-P	N	N-P	P-F
Metolachlor/S-meto *(PRE)	15	P-G	F-P	F-G	F-G	N	P-F	P	N	N-P	N	N-P	P-F
Metribuzin (PPI)	5	F	F	F	F	P	G	N	P	F	F	G	F
Metribuzin (PRE)	5	P-F	P-F	P-F	P-F	N	P	P	P	F	P-F	F-G	P-F
Nortron/Ethotron (PPI)	-	P	F	F-G	F-G	P	E	G	-	F-G	P	F-G	P-F
Nortron/Ethotron (PRE)	-	P	P-F	F	F	P	G-E	F-G	-	F	P	F	P-F
Paramount	4	G-E	N	E	G	N	N	N	N	N	N	F	F
Permit (PPI/PRE)	2	N	N	N	N	N	N	N	N	N	E	N <sup>1</sup>	G-E
Prowl/generics (PPI)	3	E	G	E <sup>1</sup>	E	N	G	F	P-F	P	N	P	G-E
Prowl/generics (PRE)	3	E	F	G-E <sup>1</sup>	G-E	N	F-G	P	P	N	N	P	G
Pursuit (PPI) (0.72 oz DG)	2	P	N	P	P	N	N	N	N	G	N	E <sup>1</sup>	P-F
Pursuit (PRE) (0.72 oz DG)	2	P	N	P	N	N	N	N	N	F-G	N	E <sup>1</sup>	P
Pursuit Plus (PPI)	2,3	E	G	E <sup>1</sup>	E	N	G	F	P-F	E	N	E <sup>1</sup>	E
Python (PPI/PRE)	2	N	N	N	N	N	N	N	N	F-G	P	E <sup>1</sup>	E
Ro-Neet (PPI)	8	E	G	E	E	P	G-E	G	-	P-F	P	P	F-G
Sharpen (PRE)	14	N	N	N	N	N	N	N	N	G-E	G	E	E
Sonalan (PPI)	3	E	G	E <sup>1</sup>	E	N	P	P	P-F	P	P	P-F	E
Spartan (PRE)	14	N	N	P	P	N	N	N	N	F-G	P	E	E
Spartan Advance (PRE)	9,14	E	E	E	E	E	E	G-E	E	P-G	E	F-E	F-G
Spartan Charge (PRE)	14	N	N	P	P	N	N	N	N	F-G	P	E	E
SureStart (PRE)	2, 4,15	E	G	E	E	N	G	P	F	E	E	F-G	E
Trifluralin (PPI)	3	E	G	E <sup>1</sup>	E	N	N	P-F	P-F	P	N	P	G-E
Valor/Chateau (PRE)	14	N	N	P	P	N	N	N	N	P-F	N	G-E	E

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

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

\*Ratings are based on equivalent product rates as S-metolachlor.

\*\*Numbers represent herbicide mechanism of action from a numerical classification system found on page 82-83.

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

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

O = Often    S = Seldom    N = None

SOIL- APPLIED HERBICIDES	Lanceleaf Sage	Mallow, C (Seedling)	Mallow, Venice	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Pigweed, Redroot	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herb. Persistence
Acetochlor (PPI)	N	-	-	P	F	-	G-E	G-E	E	-	F-G	P	P	F	N	N	N
Acetochlor (PRE)	N	-	-	P	F	-	G	G	G-E	-	F	P	N	F	N	N	N
Atrazine (0.38 lb ai/A)	G	-	F	F	G	G	G	G	G	G	F	F	F	G	G	N	N
Atrazine (0.5 - 0.75 lb ai)	E	-	G	E	E	E	E	E	E	E	E	E	G	E	E	N	S
Authority Assist (PRE)	-	F	G	P-G	E	E	E	E	E	P	P	E	P	G-E	G-E	N	O
Auth First / Sonic (PRE)	E	-	E	E	E	E	E	E	E	-	E	E	E	G-E	G	N	O
Authority MTZ (PRE)	F-G	F-G	G	E	G-E	G-E	E	F-G	E	E	G-E	E	P-F	G-E	G-E	N	S
Balance Pro/Flexx (PRE)	-	-	G-E	G	E	G-E	G-E	G-E	E	G-E	G-E	G	P	G	G-E	N	S
Callisto (PRE)	-	-	-	E	E	E	E	E	E	-	G-E	E	E	-	-	N	S
EPTC (PPI)	N	F-G	N	P	P	P	F	F	G	P	F	P	N	P	N	N	N
Dimethenamid-P (PPI)	N	-	-	N	P-F	-	F-G	G	E	-	P	P	N	P-F	N	N	N
Dimethenamid-P (PRE)	N	-	-	N	P-F	-	F-G	F-G	G-E	-	N	P	N	P	N	N	N
Far-Go (PPI)	N	-	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Gangster (PPI/PRE)	E	-	E	E	E	E	E	E	E	-	E	E	E	G-E	G	N	O
Lorox (PRE)	E	-	-	-	G	G	-	-	E	-	E	E	-	-	-	N	N
Matrix (PRE)	N	-	-	N	F	-	P	P	E	-	F	P	F	P	N	N	S
Metolachlor/S-met*(PPI)	N	-	N	N	N	-	N	N	G	N	P	N	N	P	N	N	N
Metolachlor/S-met (PRE)	N	-	N	N	N	-	N	N	F	N	P	N	N	P	N	N	N
Metribuzin (PPI)	F-G	F-G	F	E	E	E	P	P	E	E	E	G	P-F	E	G-E	N	S
Metribuzin (PRE)	F-G	F-G	P	E	G-E	G-E	P	P	G-E	E	G-E	G	P	G-E	G-E	N	S
Nortron/Ethotron (PPI)	-	P	F	P	F	-	F-G	F-G	G-E	-	P	G-E	P	F-G	-	N	O
Nortron/Ethotron (PRE)	-	P	F	P	P-F	-	F	F	G	-	P	G	P	F	-	N	O
Paramount	N	-	N	N	N	N	N	N	F	E	F	N	F	F	-	P	S
Permit (PPI/PRE)	-	-	N	-	E	E	N	N	F-E	-	E	E	-	N	N	N	O
Prowl/generics (PPI)	N	-	F-G	N	N	P	N	N	E	N	P	P	N	G	N	N	S
Prowl/generics (PRE)	N	-	F	N	N	P	N	N	G	N	P	P	N	F-G	N	N	S
Pursuit (PPI) (0.72 oz DG)	-	F	N	P	E	E	E	E	E	-	N	F	P	P	N	N	O
Pursuit (PRE) (0.72 oz DG)	-	F	N	P	E	E	E	E	E	-	N	F	P	P	N	N	O
Pursuit Plus (PPI)	E	-	F-G	G-E	E	E	E	E	E	E	F	G	P	G-E	P	N	O
Python (PPI/PRE)	G-E	-	E	P-F	E	E	G-E	G-E	E	-	P	G-E	P	E	G-E	N	S
Ro-Neet (PPI)	N	F-G	F	P	P	P	F-G	F-G	G	P	P	P	N	P	-	N	N
Sharpen (PRE)	-	G-E	G-E	-	E	E	E	-	E	G-E	G-E	E	G-E	E	E	F	O
Sonalan (PPI)	N	-	F-G	N	N	P	P	P	E	P	P	P	N	G-E	N	N	S
Spartan (PRE)	N	-	G	P-G	P	P	E	F-G	E	P	P	E	N	G-E	G-E	N	S
Spartan Advance (PRE)	E	P-G	E	G-E	G-E	G-E	P-G	P-G	E	P-G	G-E	F-G	G-E	G-E	G-E	G-E	S
Spartan Charge (PRE)	N	-	G	P-G	P	P	E	G	E	P-F	P	E	P	G-E	G-E	N	S
SureStart (PRE)	G	-	G-E	E	E	E	E	E	E	G-E	E	E	E	F-G	E	F	O
Trifluralin (PPI)	N	-	F-G	N	N	P	N	N	E	N	P	P	N	G	N	N	S
Valor/Chateau (PRE)	N	E	E	P	G	G	E	E	E	F-E	F	F	P	F-G	G	N	N

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

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

\*Ratings are based on equivalent product rates as S-metolachlor.

<b>POST- APPLIED HERBICIDES</b>	Mode of Action	Barnyardgrass	Field Sandbur	Foxtail, Green	Foxtail, Yellow	Quackgrass	Volunteer Cereals	Wild Oat	Wild Proso Millet	Buckwheat, Wild	Cocklebur, Common	Kochia	Lambsquarters
Accent	2	E	G-E	E	F-G	G-E	G-E	E	G-E	P	P	F <sup>2</sup>	P
Achieve	1	F	G	G-E	G	N	N	E <sup>2</sup>	E	N	N	N	N
Aim	14	N	N	N	N	N	N	N	N	P	P	F-E	F-E
Amber + 2,4-D	2, 4	N	N	N	N	N	N	N	N	F-G	F-G	E <sup>2</sup>	F-G
Assert	2	P	N	P	P	N	N	F-G <sup>2</sup>	N	F-G	P	N	P
Assure II	1	E	E	E	G-E	G-E	E	G-E <sup>2</sup>	E	N	N	N	N
Atrazine (0.38 lb ai/A)	5	F	P	F	F	N	F	F	P	G-E	F	E	E
Atrazine (0.5 - 0.75 lb ai/A)	5	F-G	F	F	F-G	P	F-G	F-G	P-F	E	G	E	E
Axial XL	1	G-E	-	E	G-E	N	N	E <sup>2</sup>	E	N	N	N	N
Basagran / generics	6	N	N	N	N	N	N	N	N	P	G-E	P-F	F-G
Betamix / Phen-Des 8+8	5	P	N	F	F	N	N	N	P	F	P-F	F-G	G
Betanex / Alphanex	5	P	N	P-F	P-F	N	N	N	P	P-F	P	F	G
Beyond	2	E	F-G	E	G-E	F	G-E	E <sup>2</sup>	G-E	P	G-E	E <sup>2</sup>	F
Bromoxynil	6	N	N	N	N	N	N	N	N	E	E	G-E	G
Bromoxynil & MCPA	4, 6	N	N	N	N	N	N	N	N	E	E	G-E	E
Cadet	14	N	N	N	N	N	N	N	N	P-F	-	P-F	F-G
Callisto	27	N	N	N	F	N	N	N	N	F	E	P-F	E
Callisto + Atrazine (3/8 lb ai)	5, 27	N	N	N	F	N	N	N	N	G-E	E	E	E
Chlorsulfuron + 2,4-D	2, 4	N	N	P-F	N	N	N	N	N	E	G	E <sup>2</sup>	E
ClearMax	2, 4	E	F-G	E	G-E	F	G-E	E <sup>2</sup>	G-E	P	E	E <sup>2</sup>	E
Clethodim	1	E	E	E	E	G	E	E	E	N	N	N	N
Clopyralid (0.5 to 1 oz ai/A)	4	N	N	N	N	N	N	N	N	F	G-E	N	P
Clopyralid (>1 oz ai/A)	4	N	N	N	N	N	N	N	N	F-G	E	N	P-F
Clopyralid & 2,4-D/MCPA	4	N	N	N	N	N	N	N	N	G	E	P	G
Cobra	14	N	P	P-F	P-F	N	N	N	P	P	G	P-F	F
Dicamba <sup>1</sup>	4	N	N	N	N	N	N	N	N	E	E	E	G
Dicamba + MCPA	4	N	N	N	N	N	N	N	N	G-E	E	E	E
Discover NT	1	E	-	E	G-E	P	N	E <sup>2</sup>	-	N	N	N	N
ET	14	N	N	N	N	N	N	N	N	P	P	P-G	F-G
Everest	2	F-G	N	E	P-G	P	N	G-E	-	F	N	N	N
Extreme	2, 9	E	E	E	E	E	E	E	E	G-E	E	E	G-E
FirstRate	2	N	N	N	N	N	N	N	N	F	E	P <sup>2</sup>	P
Flexstar	14	N	N	P-F	P-F	N	N	N	N	P	G-E	G-E	P-F
Fluroxypyr	4	N	N	N	N	N	N	N	N	P	E	E	N
Fluroxypyr & 2,4-D	4	N	N	N	N	N	N	N	N	G	E	E	E
Fluroxypyr & MCPA	4	N	N	N	N	N	N	N	N	F	G	E	E
Fluroxypyr & Bromoxynil	4,6	N	N	N	N	N	N	N	N	E	E	E	E
Fusilade DX	1	E	E	G-E	G-E	G	E	E <sup>2</sup>	E	N	N	N	N
Glyphosate <sup>3</sup>	9	E	E	E	E	E	E	G-E	E	P-G	E	F-E	P-E
Goal	14	P	N	P	P	P	P	F-G	N	G-E	E	G-E	G
GoldSky	2, 4	F-G	-	F	G	-	-	G-E	-	G-E	-	E	G-E
Halex GT	27	E	E	E	E	E	E	E	E	P-G	E	E	E
Hornet	2, 4	N	N	N	N	N	N	N	N	F-G	E	F-G <sup>2</sup>	P-F
Huskie	6, 27	N	N	N	N	N	N	N	N	E	E	G-E	E
Ignite / Liberty	10	E	G	E	G	P	F-G	G-E	E	E	E	E	F-G
Impact	27	E	-	G-E	G-E	-	-	-	G-E	P	E	E	E
Impact + Atrazine (3/8 lb ai)	5, 27	E	-	G-E	G-E	-	-	-	E	E	E	E	E
Laudis	27	E	P-F	P-F	G	-	-	P	E	P-F	E	E	E
Laudis + Atrazine (3/8 lb ai)	5, 27	E	F	F	G-E	-	-	P-F	E	E	E	E	E
Lightning	2	E	E	E	E	F	G-E	G-E	G-E	E	G	E <sup>2</sup>	E

POST- APPLIED HERBICIDES	Lanceleaf Sage	Mallow, C. (Seedling)	Mallow, Venice	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Redroot Pigweed	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herbicide Persistence
Accent	P	-	P	P	E	E	N	N	E	-	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
Aim	-	-	N	P	P	P	G	G	G-E	P-F	N	N	P	F	-	N	N
Amber + 2,4-D <sup>1</sup>	F-G	F	-	E	E	E	F	F	E	E	E	F	E	E <sup>2</sup>	F-G	F-G	O
Assert	N	N	N	N	E	G-E	N	N	P	N	N	P	N	P-F	N	N	S
Assure II	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	E	E	G-E	G-E	E	E	F-E	G-E	F-E	E	-	N	S
Atrazine (0.5 - 0.75 lb ai)	E	-	-	E	E	E	E	E	E	E	E	E	G	E	-	P	S
Axial XL	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Basagran / generics	P	P	E	G-E	E	E	N	F-G	F	G	P-F	E	E	G	G-E	F-G	N
Betamix / Phen+Des 8+8	P	P	F	G	G-E	-	F-G	F-G	G	-	F	F	P	P	P	N	N
Betanex / Alphanex	P	P	F	G	G-E	-	F-G	F-G	G-E	-	F	F	P	P	P	N	N
Beyond	E	P	P	G-E	E	E	E	E	E	E <sup>2</sup>	P	G-E	E	G-E	P	N-P	S
Bromoxynil	E	P	G-E	E	F-G	F-G	E	E	F	F-G	E	G-E	G-E	E	P-F	P	N
Bromoxynil & MCPA	E	P	G-E	E	E	G-E	E	E	G	F-G	E	G	E	E	F	P-F	N
Cadet	-	-	-	-	-	-	-	-	G-E	-	-	-	-	-	-	N	N
Callisto	-	-	N	E	E	E	E	E	E	-	P-F	E	E	-	-	N	S
Callisto + Atrazine	E	G-E	G-E	E	E	E	E	E	E	E	E	E	E	E	E	P	S
Chlorsulfuron + 2,4-D <sup>1</sup>	F-G	F	-	E	E	E	F	F	E	E	E	E	E	E <sup>2</sup>	F-G	G	O
ClearMax	E	P	F	E	E	E	E	E	E	E <sup>2</sup>	G	G-E	E	G-E	F-G	P-F	S
Clethodim	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Clopyralid (0.5-1 oz ai/A)	P	F	P	G-E	N	N	G-E	G-E	P	G-E	F-G	G	G	P	G-E	F-G	S
Clopyralid (>1 oz ai/A)	F	F-G	P	E	N	N	E	E	P	E	G-E	G-E	G-E	P-F	E	E	S
Clopyralid & 2,4-D/MCPA	F-G	G-E	G	E	E	E	E	E	P	E	E	E	E	G	E	G-E	S
Cobra	E	G-E	F-G	G	E	-	G	G	E	-	G-E	G	P-F	P	P	N	N
Dicamba <sup>1</sup>	P-F	P	F-G	E	P	P	E	E	G	G-E	E	E	G-E	G	G-E	F-G	S
Dicamba + MCPA <sup>1</sup>	G-E	P	G	G-E	E	F-G	E	E	G	E	E	E	E	G	G-E	F	S
Discover NG	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
ET	-	-	N	P	P	-	P	P	G	P	N	N	P	P	-	N	N
Everest	N	N	N	N	E	E	E	-	G-E	P	N	E	P-F	N	-	N	S
Extreme	E	G-E	E	E	E	E	E	E	E	E	E	E	E	E	G-E	G	O
FirstRate	P	-	G-E	E	G-E	P	N	N	P	-	E	E	E	-	P	N	O
Flexstar	E	G-E	G-E	G-E	E	E	G-E	F-G	E	-	E	G-E	F	-	P	N	O
Fluroxypyr	-	F-G	P	P	P	P	P	P	N	E	E	N	E	P	N	N	N
Fluroxypyr & 2,4-D	P-F	F-G	G-E	E	E	G	F-G	F-G	G-E	E	E	G	E	G	F-G	F	N
Fluroxypyr & MCPA	G-E	F-G	F	G	E	G	F	F	F	E	G	F	G	P	G	P-F	N
Fluroxypyr & Bromoxynil	E	F-G	G	E	E	E	E	G-E	P	G	E	E	E	G-E	P-F	P	N
Fusilade DX	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Glyphosate <sup>3</sup>	E	P-G	E	G-E	G-E	G-E	P-G	P-G	E	P-G	G-E	P-E	G-E	G	F-E	G-E	N
Goal	E	-	-	-	F	F	G-E	G-E	E	G-E	G	F	F-E	G-E	G	N	N
GoldSky	-	F-G	G-E	-	E	E	G	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
Hornet	E	-	E	E	E	E	G-E	G-E	P-F	E	E	F-G	E	F-G	E	G-E	O
Huskie	E	G	G-E	E	E	G-E	E	E	E	F-G	E	G-E	E	E	G	F-G	S
Ignite / Liberty	E	G	E	E	E	G-E	G-E	G-E	E	G-E	E	E	E	G-E	E	P	N
Impact	-	E	E	E	E	E	E	E	E	-	E	E	E	-	-	F	S
Impact + Atrazine	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	G	S
Laudis	-	-	F	-	E	E	E	E	E	-	E	E	E	E	G	F	S
Laudis + Atrazine	-	-	G-E	-	E	E	E	E	E	-	E	E	E	E	E	G	S
Lightning	E	G	G	E	E	E	E	E	E	E	G	E	G	E	P	F	O

<b>POST- APPLIED HERBICIDES (cont.)</b>	<b>Mode of Action</b>	<b>Barnyardgrass</b>	<b>Field Sandbur</b>	<b>Foxtail, Green</b>	<b>Foxtail, Yellow</b>	<b>Quackgrass</b>	<b>Volunteer Cereals</b>	<b>Wild Oat</b>	<b>Wild Proso Millet</b>	<b>Buckwheat, Wild</b>	<b>Cocklebur, Common</b>	<b>Kochia</b>	<b>Lambsquarters</b>
Lumax (3 pt)	5,15,27	N	N	N	F	N	N	N	N	E	G	E	E
Maverick	2	-	N	P-F	P-F	G	N	E	-	N	-	P <sup>2</sup>	P
MCPA	4	N	N	N	N	N	N	N	N	N	G	P	E
Metribuzin	5	F	-	F	F	P	P	-	-	G	P	F-G	E
Metsulfuron + 2,4-D	2, 4	N	N	P	P	N	N	N	N	F-G	F	E <sup>2</sup>	E
Met & Chlorsulfuron + 2,4-D	2, 4	N	N	F-G	F	N	N	N	N	E	G-E	E <sup>2</sup>	E
Met & Thif & Triben + 2,4-D	2, 4	N	N	N	N	N	N	N	N	G	F-G	E <sup>2</sup>	E
Olympus	2	P	N	P-F	P-F	F-G	N	G-E	-	-	-	-	-
Option	2	E	G-E	E	F-E	G-E	E	E	G-E	N	G	E <sup>2</sup>	G
Orion	4	N	N	N	N	N	N	N	N	G	F-G	G <sup>2</sup>	E
Paramount	4	G-E	N	E	G	N	N	N	N	N	N	F	F
Paraquat	22	G	G	G	G	P	F-G	G	F-G	F	F-G	G-E	E
Peak + 2,4-D	2,4	N	N	N	N	N	N	N	N	F-G	G-E	G-E <sup>2</sup>	G
Permit	2	N	N	N	N	N	N	N	N	P	E	P <sup>2</sup>	N
Poast	1	E	E	E	E	F	G-E	G-E <sup>2</sup>	E	N	N	N	N
PowerFlex	2	F-G	-	F	G	-	-	G-E	-	F-G	-	F <sup>2</sup>	G-E
Progress / BNB Plus	5	P	N	F-G	F-G	N	N	N	P	F-G	F	F-G	G-E
Puma	1	E	E	E	E	N	N	E <sup>2</sup>	E	N	N	N	N
Pursuit	2	G	P-F	G	F-G	N	G	F <sup>2</sup>	P-F	P	G-E	E <sup>2</sup>	P-F
Rage D-Tech	4	N	N	N	N	N	N	N	N	P-F	G-E	P-F	E
Raptor	2	E	F-G	E	G-E	F	G-E	E <sup>2</sup>	G-E	P	G-E	E <sup>2</sup>	F
Rave	2,4	N	N	N	N	N	N	N	N	E	E	E	G-E
Reflex	14	N	N	N	N	N	N	N	N	P	G	F-G	P
Require Q	2,4	G-E	F	G-E	G-E	G-E	G-E	G-E	F	G-E	E	G-E <sup>2</sup>	F-G
Resolve Q	2	G-E	F	G-E	G-E	G-E	G-E	G-E	F	P-F	N	E <sup>2</sup>	F-G
Resource	14	N	N	N	N	N	N	N	N	-	F	-	F-G
Rezult	1,6	E	E	E	E	F-G	E	G-E <sup>2</sup>	E	P	G-E	P	F-G
Rimfire	2	G	N	F-G	F-G	F	N	G-E	-	-	-	-	-
Rimsulfuron	2	G-E	F	G-E	G-E	G-E	G-E	G-E	F	P	N	E <sup>2</sup>	F
Select Max	1	E	E	E	E	G-E	E	E	E	N	N	N	N
Silverado	2	P	N	P	P	N	N	G	N	-	-	-	-
Status / Distinct	2,19	P-F	P	P-F	P-F	N	P	P	P	E	E	E	E
Steadfast	2	E	G-E	E	G-E	G-E	E	E	E	P	P	P <sup>2</sup>	P
Thifensulfuron (1/12 oz)	2	N	N	N	N	N	N	N	N	P	N	F-G <sup>2</sup>	G
Thifensulfuron (0.3 to 0.6 oz)	2	N	N	N	N	N	N	N	N	E	P	G-E <sup>2</sup>	E
Thifensulfuron & Rimsulfuron	2	G-E	F-G	G-E	G	F-G	F-G	F-G	F	P	P	F <sup>2</sup>	G
Thifen & Triben (1:1) + 2,4-D	2,4	N	N	N	N	N	N	N	N	G-E	G	E <sup>2</sup>	E
Thifen & Triben (2:1) + 2,4-D	2,4	N	N	P	P	N	N	N	N	G-E	E	E <sup>2</sup>	E
Thifen & Triben (4:1) + 2,4-D	2,4	N	N	P	P	N	N	N	N	G-E	E	E <sup>2</sup>	E
Tribenuron	2	N	N	N	N	N	N	N	N	P-F	F	E <sup>2</sup>	F-G
Tribenuron + 2,4-D	2,4	N	N	N	N	N	N	N	N	F	G	E <sup>2</sup>	E
Ultra Blazer	14	N	P	P-F	P-F	N	N	N	P	P	F-G	P-F	G
UpBeet (0.125 to 0.25 oz/A)	2	N	N	F-G	F-G	N	N-P	N	N	F	N	P-E <sup>2</sup>	P
UpBeet+B-nex/B-mix/Progress	2,5	P	P	F-G	F-G	N	P	N	P	F-G	F-G	E <sup>2</sup>	G-E
WideMatch/generics	4	N	N	N	N	N	N	N	N	E	E	E	N
Wolverine	1	E	E	E	E	N	N	E <sup>2</sup>	E	E	E	G-E	E
2,4-D	4	N	N	N	N	N	N	N	N	P-F	G-E	P-F	E
2,4-DB/Butyrac	4	N	N	N	N	N	N	N	N	P	E	P	G-E

<sup>2</sup>Herbicides will not control resistant biotypes.

POST- APPLIED HERBICIDES (cont.)	Lanceleaf Sage	Mallow, Common	Mallow, Venice	Marshelder	Mustard, Wild	Mustard, W. Annual	Nightshade, E/Black	Nightshade, Hairy	Redroot Pigweed	Prickly Lettuce	Ragweed, Common	Smartweed, Annual	Sunflower	Thistle, Russian	Wormwood, Biennial	Thistle, Canada	Herbicide Persistence
Lumax (3 pt)	E	-	E	E	E	E	E	E	E	E	E	E	E	E	E	P	S
Maverick	-	N	N	-	E	E	-	-	P	-	-	-	E	-	P	N	O
MCPA	G-E	P	F	G	E	G-E	P-F	P-F	P-F	G	G	F	G	P	F-G	P-F	N
Metribuzin	-	-	-	-	E	E	P	P	G	G-E	E	E	F	-	-	N	O
Metsulfuron + 2,4-D	F-G	F	G-E	G-E	E	E	F	F	E	E	E	F	G-E	E <sup>2</sup>	F-G	G	O
Met & Chlorsulf + 2,4-D <sup>1</sup>	F-G	F	E	E	E	E	F	F	E	E	E	E	E	E <sup>2</sup>	F-G	G	O
Met & Thif & Trib+2,4-D	F-G	F	G-E	E	E	E	F	F	E	E	E	F-G	G-E	E <sup>2</sup>	F-G	G	O
Olympus	-	-	-	-	E	E	-	-	P-F	-	-	-	-	-	-	-	O
Option	N	-	-	G-E	E	E	E	E	E	-	G	P	G	-	-	P	N
Orion	F-G	P	F-G	F-G	E	E	F	F	E	E	E	G	E	F-G	G	F-G	N
Paramount	N	-	N	N	N	N	N	N	F	N	F	N	F	F	-	P	S
Paraquat	E	G	G	G	E	G	G-E	G-E	E	F-G	G-E	E	E	E	-	P	N
Peak + 2,4-D	F-G	F	-	-	E	E	-	-	E	E	E	-	E	E <sup>2</sup>	F-G	F-G	O
Permit	P	-	E	G-E	E	E	P	P	F-G	-	G-E	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	-	-	G	-	E	E	-	-	E	P-F	-	F	E	G	-	P-F	N
Progress / BNB Plus	P-F	N	F	G	G-E	-	G	G	G	-	F-G	F-G	P	P	P	N	S
Puma	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Pursuit	E	P	P	E	E	E	E	E	E	E <sup>2</sup>	P	G	G-E	G-E	P	N	O
Rage D-Tech	P-F	P	G-E	E	E	F-G	P-F	P-F	G	E	G-E	F-G	E	G	F-G	F	N
Raptor	E	P	P	G-E	E	E	E	E	E	G <sup>2</sup>	P	G-E	E	G-E	P	N-P	N
Rave	F-G	G	G	E	E	E	E	E	E	E	E	E	E	E	F-G	G	O
Reflex	E	-	G	G	E	E	G	P	G-E	-	G-E	G	P-F	-	P	N	O
Require Q	P-F	P-F	F-G	E	E	E	N	G-E	F-E	G-E	F	F-G	G-E	G	G-E	F-G	S
Resolve Q	-	-	-	-	E	E	G/N	P-F	F-E	-	F	F-G	P	P	N	N	S
Resource	-	-	-	-	-	-	-	-	F	-	F	-	-	-	-	N	N
Rezult	P	P	E	G-E	E	E	N	F-G	F	G	P-F	E	E	F-G	G-E	F-G	N
Rimfire	-	-	-	-	E	E	-	-	P-F	-	-	-	-	-	-	-	S
Rimsulfuron	-	-	-	-	E	E	G/N	P-F	E	-	P	F	P	P	N	N	S
Select Max	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Silverado	-	-	-	-	E	-	-	-	P-F	-	-	-	-	-	-	-	N
Status/Distinct	G	G	E	E	E	G	G	G	E	E	E	E	E	E	E	G	S
Steadfast	P	-	N	P	E	E	N	N	E	-	N	F	P	P	P	N	O
Thifensulfuron (1/12 oz)	N	N	N	N	E	P	N	N	E	P <sup>2</sup>	N	G-E	P	P	N	N	N
Thifen (0.3 - 0.6 oz)	N	G-E	N	G-E	E	G-E	N	N	E	G-E <sup>2</sup>	G	E	G-E	G-E	N	N	N
Thifen & Rimsulfuron	P	N	F	G	E	-	P	P	E	-	P	E	F-G	G <sup>2</sup>	P	P	S
Thif & Trib (1:1) + 2,4-D <sup>1</sup>	F-G	G-E	G-E	E	E	E	F-G	F-G	G	G-E	G	G	G	E <sup>2</sup>	F-G	G-E	N
Thif & Trib (2:1) + 2,4-D <sup>1</sup>	G-E	G-E	-	E	E	E	F-G	F-G	E	E <sup>2</sup>	E	E	G-E	E <sup>2</sup>	F-G	G	N
Thif & Trib (4:1) + 2,4-D <sup>1</sup>	G-E	G-E	-	E	E	E	F-G	F-G	E	E	E	E	G-E	E <sup>2</sup>	F-G	G	N
Tribenuron	N	P	F-G	E	E	E	F-G	-	F-G	E <sup>2</sup>	P	F-G	F	E	N	G	N
Tribenuron + 2,4-D <sup>1</sup>	F-G	G-E	G-E	E	E	E	F-G	F-G	G	G-E	G	G	F-G	E <sup>2</sup>	F-G	G-E	N
Ultra Blazer	P-F	N	F	F	E	-	F-G	F-G	E	-	F-G	E	P-F	G	P	N	N
UpBeet (0.125-0.25 oz)	N-P	G	F	N	G-E	G	F	F	F	N	F	F	N	N-P	N	N	N
UpBeet+B-nex/mix/Prog	P-F	G-E	F-G	G	E	-	G	G	G-E	-	F-G	G	G	P	P	N	N
WideMatch/generics	P-F	F-G	G-E	E	P	P	G-E	G-E	P	E	E	G	E	P	E	E	S
Wolverine	E	G	G-E	E	E	G-E	E	E	E	F-G	E	G-E	E	E	G	F-G	S
2,4-D	P-F	P	G-E	E	E	F-G	P-F	P-F	G	E	G-E	F-G	E	G	F-G	F	N
2,4-DB/Butyrac	-	-	-	-	P	P	-	-	P	-	P	P	-	P	-	N	N

<sup>1</sup>ALS herbicides tank-mixed with dicamba controls most broadleaf weeds and reduce risk of developing resistant kochia.

<sup>2</sup>Not control resistant biotypes. <sup>3</sup>Dependant on rate, weed size, environmental conditions, and number of applications.