

CHEMICAL FALLOW

For Future Planting of Registered Crops.

Herbicide	Product/A (ai/A)	Weeds	When to Apply	Remarks and Paragraphs																																								
Glyphosate ⁹	0.75 to 1.5 lb ae See Remarks.	Annual and perennial grass and broadleaf weeds.	Weeds: Less than 12 inches tall. See label.	<table border="1"> <thead> <tr> <th>lb ae/gal</th> <th>lb ai/gal</th> <th>0.75 lb ae</th> <th>1.125 lb ae</th> <th>1.5 lb ae</th> </tr> <tr> <th colspan="2"></th> <th colspan="3">fl oz -----</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>= 4</td> <td>= 32</td> <td>48</td> <td>64</td> </tr> <tr> <td>3.75</td> <td>= 5</td> <td>= 25.6</td> <td>38.4</td> <td>51.2</td> </tr> <tr> <td>4/4.17</td> <td>= 5.4/5.1</td> <td>= 24/23</td> <td>36/35</td> <td>48/46</td> </tr> <tr> <td>4.5</td> <td>= 5.5</td> <td>= 21.3</td> <td>32</td> <td>42.6</td> </tr> <tr> <td>4.72</td> <td>= 6.3</td> <td>= 20.3</td> <td>30.5</td> <td>40.7</td> </tr> <tr> <td>5</td> <td>= 6.1</td> <td>= 19.2</td> <td>28.8</td> <td>38.4</td> </tr> </tbody> </table> <p>Non-selective, non-residual, translocated, foliar herbicide. Apply with AMS fertilizer at 8.5 lb/100 gal. Glyphosate will not control resistant volunteer crops. Apply with 2,4-D or Banvel/dicamba for improved broadleaf weed control. Refer to label of tank-mix partner for rates, application information, and other restrictions. A4-7 B1 B8</p>	lb ae/gal	lb ai/gal	0.75 lb ae	1.125 lb ae	1.5 lb ae			fl oz -----			3	= 4	= 32	48	64	3.75	= 5	= 25.6	38.4	51.2	4/4.17	= 5.4/5.1	= 24/23	36/35	48/46	4.5	= 5.5	= 21.3	32	42.6	4.72	= 6.3	= 20.3	30.5	40.7	5	= 6.1	= 19.2	28.8	38.4
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Sharpen + MSO adjuvant (saflufenacil ¹⁴)	1 to 2 fl oz SC + 1 to 1.5 pt/A (0.36 to 0.72 oz)	Small broadleaf weeds.	Fallow and post-harvest.	Provides burndown control of small emerged broadleaf weeds. Apply when weeds are small and actively growing. Add UAN at 2 gal/100 gal. Sharpen has no grass activity. Planting interval is dependant on soil texture and OM. Refer to label for tank-mix options. A1-2 B1-2 B12 S1 S4-12																																								
Spartan Charge (carfentrazone ¹⁴ & sulfentrazone ¹⁴)	3.75 to 5.75 floz SE (0.16 to 0.25 oz & 1.48 to 2.26 oz)	Small-seeded broadleaf weeds.		Do not use on coarse texture soils or soil with <1.5% OM. Adjust rate for soil type and soil pH. Rainfall required for activation. A1-2 E11 F1 S6-12 Y14-15																																								
Aim + MSO adjuvant (carfentrazone ¹⁴)	0.5 to 1 fl oz EC + 1 qt/A (0.128 to 0.256 oz)	Broadleaf weeds including pigweed and ALS kochia.	Weeds: Less than 2 inches tall.	Non-residual, contact herbicides that require >15 gpa and full sunlight. Apply paraquat with NIS at 1 qt/A. Do not use AMS replacement or water conditioner adjuvants with Liberty. B4 B9-10 D7																																								
Paraquat ²² + NIS	1.5 to 4 pt 2SL 1 to 2.7 pt 3SL (0.375 to 1 lb)	Emerged annual grass and broadleaf weeds.	Weeds: Small.																																									
Liberty 280 + AMS (glufosinate ¹⁰)	32 to 43 fl oz SL + 3 lb/A (0.58 to 0.79 lb)																																											
Thifen ² & Triben ² 4:1 ratio - Affinity T/M 3:1 ratio 2:1 ratio 1:1 ratio - Affinity B/S 1:4 ratio - Panoflex	0.4 to 0.67 oz 75DF 0.6 to 1 oz 50SG 0.3 to 0.5 oz 75DF 0.3 to 0.66 oz 75DF 0.25 to 0.5 oz 75DF 0.4 to 0.8 oz 50SG 0.3 to 0.6 oz 50SG	Provides a broader spectrum of control than either a.i. alone. Choose ratio based on prevalent weeds.	Any time after harvest until 60 days prior to planting crop.	Add NIS at 2 qt/100 gal water unless restricted by the tank-mix partner. Products containing tribenuron give season-long Canada thistle and perennial sowthistle control. A3 A5-8																																								
2,4-D ⁴	1.5 to 4 pt 4EC/SL (0.75 to 2 lb)	Broadleaf weeds and suppression of Canada thistle.	POST.	Use the higher rate for perennial weeds. A3 A6 B3																																								
Dicamba ⁴	0.5 to 1 pt 4SL 3.2 to 6.4 fl oz 5SL (0.25 to 0.5 lb)			Soil residual from fall application may damage broadleaf crops seeded the next year. See page 6 for crop rotation restrictions. A3 A5-8 B6 C3 Y9 Y15																																								
Distinct (dicamba ⁴ & diflufenzopyr ¹⁹)	6 oz WDG (3 oz ae & 1.2 oz) Distinct at 6 oz WDG/A = 6 fl oz/A Clarity.			Add oil adjuvant at 1 to 2 pt/A + 28% UAN at 1.25 qt/A or AMS at 8.5 lb/100 gallons. Refer to label for tank-mix options. Allow 120 days before rotation to crops. Alfalfa, cereal grain crops, and soybeans may be planted 30 days after 1 inch of rain for rates at 4 oz/A or less. A3 A5-8 B6 C3 Y9 Y15																																								

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Herbicide	Product/A (ai/A)	Weeds	When to Apply	Remarks and Paragraphs
Curtail / generic clopyralid ⁴ & 2,4-D ⁴	4 pt SL (0.19 lb & 1 lb)	Broadleaf weeds including Canada thistle.	Canada thistle: Prior to bud stage.	Apply after a majority of rosettes have emerged. A3 A6 C5 T3 T5-6 Y15
Tordon 22K (picloram ⁴) RUP	0.25 to 0.5 pt SL (0.063 to 0.125 lb)	Annual weeds.	Weeds: Actively growing.	Refer to label for grazing and rotational restrictions. Do not rotate to corn or sorghum the following year. Rates greater than 0.5 pt/A should be used post-harvest when rotating to fallow the following year. T2-6 T17 Y1 Y15
Tordon 22K (picloram ⁴) + 2,4-D ⁴ RUP	0.5 to 1 pt SL + 1 to 2 pt EC/SL (0.125 to 0.25 lb + 0.5 to 1 lb)	Perennial weeds.	Canada thistle: Prior to bloom. Field bindweed: Actively growing.	
Facet L + MSO adjuvant (quinclorac ^{4,26})	1.33 pt L + 1.5 pt/A (0.25 lb)	Field bindweed: Runners at least 4 inches long. May control foxtails, barnyardgrass, and volunteer flax.	Postharvest or in the spring prior to seeding of wheat including durum.	Add AMS at 2.5 lb/A or UAN at 1 gal/A. Apply after harvest but prior to frost. Use in a 3-year program with 0.33 lb DF/A the first year and 0.17 to 0.33 lb DF/A in following years. B10 T1
Valor SX Valor EZ (flumioxazin ¹⁴)	2 to 4 oz WDG 2 to 4 fl oz SC (1.02 to 2.04 oz)	Most small-seeded broadleaf weeds. May suppress downy brome at 3 oz in no-till.	Post-harvest in fall until 30 days prior to planting. Refer to page 6.	Apply in fall with glyphosate or 2,4-D for control of emerged vegetation. A1-2 B1-2 E12

CRP

Herbicide	Product/A (ai/A)	Weeds	When to Apply	Remarks and Paragraphs																																																						
Glyphosate ⁹	0.75 to 1.5 lb ae See Remarks.	Annual and perennial grass and broadleaf weeds.	Preplant or any time prior to crop emergence.	<table border="0"> <tr> <td></td> <td></td> <td></td> <td>0.75 lb ae</td> <td>1.125 lb ae</td> <td>1.5 lb ae</td> </tr> <tr> <td></td> <td></td> <td></td> <td>-----</td> <td>fl oz</td> <td>-----</td> </tr> <tr> <td>lb ae/gal</td> <td>lb ai/gal</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>= 4</td> <td>=</td> <td>32</td> <td>48</td> <td>64</td> </tr> <tr> <td>3.75</td> <td>= 5</td> <td>=</td> <td>25.6</td> <td>38.4</td> <td>51.2</td> </tr> <tr> <td>4/4.17</td> <td>= 5.4/5.1</td> <td>=</td> <td>24/23</td> <td>36/35</td> <td>48/46</td> </tr> <tr> <td>4.5</td> <td>= 5.5</td> <td>=</td> <td>21.3</td> <td>32</td> <td>42.6</td> </tr> <tr> <td>4.72</td> <td>= 6.3</td> <td>=</td> <td>20.3</td> <td>30.5</td> <td>40.7</td> </tr> <tr> <td>5</td> <td>= 6.1</td> <td>=</td> <td>19.2</td> <td>28.8</td> <td>38.4</td> </tr> </table> <p>Add AMS fertilizer at 8.5 lb/100 gal. A3-7 B8</p>				0.75 lb ae	1.125 lb ae	1.5 lb ae				-----	fl oz	-----	lb ae/gal	lb ai/gal					3	= 4	=	32	48	64	3.75	= 5	=	25.6	38.4	51.2	4/4.17	= 5.4/5.1	=	24/23	36/35	48/46	4.5	= 5.5	=	21.3	32	42.6	4.72	= 6.3	=	20.3	30.5	40.7	5	= 6.1	=	19.2	28.8	38.4
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2,4-D ⁴	1.5 to 4 pt 4EC/SL (0.75 to 2 lb)	Annual broadleaf weeds, biennial thistles, and suppression of perennial broadleaf weeds.	Weeds: Emergence to bud stage. Pasture grasses: After 5-leaf stage.	Apply only registered brands in CRP. Do not graze animals for 7 days after application or within 3 days of slaughter. Do not apply after boot stage on grasses for seed production. Use 2 pt/A on annuals and gumweed and 4 pt/A on sages and other perennials. Controls buckbrush/western snowberry. A3 A5-6 T5 T11																																																						
Dicamba ⁴	0.5 to 4 pt 4SL 3.2 to 12.8 floz 5SL (0.25 to 2 lb)		Grasses: After 3-leaf stage of seedling grasses. Weeds: Prior to bud stage for thistles and knapweeds.	Add NIS for new seedings and oil adjuvant at 1 to 2 pt/A on mature stands. Rates greater than 1 pt/A may injure newly seeded grasses. Refer to label for grazing restrictions and tank mixtures with other herbicides. A3 A5-6 B6 D3 T2-6																																																						
Dicamba ⁴ + 2,4-D ⁴	1 to 4 pt SL+ 2 pt 4EC/SL (0.5 to 2 lb + 1 lb)		Biennial thistles: Rosette stage.	Add NIS at 1 to 2 qt/100 gal water. A3 A5-6 B6 T2-6 T11 T13																																																						
Overdrive (dicamba ⁴ & diflufenzopyr ¹⁹)	6 oz WDG (3 oz & 1.2 oz)		Prior to bud stage for thistles and knapweeds.	Add NIS at 1 qt/100 gal water + 28% UAN at 1.25 qt/A or AMS at 17 lb/100 gallons. Canada thistle suppression only. A3 A5-6 B6 T1 T3 T5 T13 Y9 Y13																																																						
Metsulfuron ²	0.1 to 1 oz DF (0.06 to 0.6 oz)		Season-long control of perennial sowthistle.	Fall or spring to early summer. Weeds: Less than 4 inches tall. Add phenoxy type herbicide to small annual weeds or before thistle plants bolt. Add oil adjuvant at 1 to 2 pt/A. Add 2,4-D for Russian thistle control. Use Cimarron X-tra/generics for control of buckbrush and perennial species. T3 X1 Y3 Y15																																																						
Starane / generic fluroxypyr ⁴	0.5 - 0.67 pt 1.5EC 0.25-0.35 pt 2.8EC 3.75 - 5 oz 40WDG (1.5 to 2 oz)	Kochia and some broadleaf weeds.	Spring: Kochia less than 6 inches tall. Will kill desirable legumes but controls kochia, including herbicide resistant kochia. A3 A6 C5 S6																																																							
Stinger / generic clopyralid ⁴	1/3 to 2/3 pt SL (2 to 4 oz)	Broadleaf weeds including Canada thistle and knapweeds.	Weeds: Actively growing and prior to bud stage for thistles and knapweeds.	Apply after most thistle shoots have emerged but before bud stage. Do not apply Curtail/generics to new grass seedings. Use lower rate for annual broadleaf weeds and higher rate for perennial thistles and knapweeds. Do not cut treated grass for hay within 30 days after application. A3 A6 T3 Y15																																																						
Curtail / generic clopyralid ⁴ & 2,4-D ⁴	4 to 8 pt SL (1 to 2 oz & 0.19 to 0.38 lb)																																																									
Crossbow (triclopyr ⁴ & 2,4-D ⁴) 	1 to 6 qt SL (0.25 to 1.5 lb & 0.5 to 3 lb)	Trees, brush and broadleaf weeds.	Spring: Prior to bud stage for thistles and knapweed. Fall: To rosettes.	Provides more consistent musk thistle and brush control (except buckbrush and western snowberry) than 2,4-D alone. Use highest rate for elm and Russian olive. Observe grazing and haying restrictions. T12																																																						

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Milestone (aminopyralid ⁴)	3 to 7 fl oz SL (0.75 to 1.75 oz)	Most annual and perennial composite weeds, including wormwood and thistles - see label.	Spring: Rosette to bolting or in fall.	Apply up to 14 oz/A for spot treatment. Milestone can leave a residue for several years following application. Legume species are very susceptible. Refer to label for crop rotation restrictions if CRP breakout into cropland is planned. T12 Y15 Z1
Tordon (picloram ⁴)	0.25 to 0.5 pt SL (0.06 to 0.13 lb)	Annual broadleaf weeds.	Weeds: Small and actively growing.	Apply 0.25 to 0.5 pt/A for small annual weeds. Apply 2 pt/A for suppression and 4 pt/A as spot treatment to control perennial weeds. Rates over 2 pt/A may suppress perennial grasses. Observe grazing restrictions. Apply with 2,4-D to provide cost-effective weed control. Tordon can leave a residue for several years following application. Refer to label for crop rotation restriction if CRP breakout into cropland is planned. T3 T17
	RUP 1 to 4 pt (0.25 to 1 lb)	Perennial broadleaf weeds and trees.	Emergence to bud stage.	
Plateau (imazapic ²)	4 to 12 fl oz SL for pasture, rangeland, native prairie restoration, and wildflower establishment. (1 to 3 oz)	Foxtail barley and annual and perennial broadleaf weeds including leafy spurge.	PRE or POST. Grasses: 7 to 10 days after planting. Weeds: Up to 6 inches tall. Early September to early October. Apply in mid-September for leafy spurge control.	Use on newly established or existing grass stands. Has PRE activity on annual weeds. Add MSO type adjuvant at 2 pt/A. 4 fl oz/A controls/suppresses annual weeds. 12 fl oz/A controls annual weeds plus leafy spurge and Russian knapweed. Rates above 8 fl oz/A can cause reduced grass production, especially cool-season grasses. Use lower rates in areas of low rainfall. High risk of injury to switchgrass. No grazing restrictions specified. Does not control absinth wormwood, Canada thistle, or spotted knapweed. T16 Y15

VEGETATION CONTROL FOR CRP BREAKOUT

Herbicide	Product/A (ai/A)	Weeds	When to Apply	Remarks and Paragraphs																																																
Glyphosate ⁹	0.75 to 1.5 lb ae See Remarks.	CRP vegetation and weeds.	14 to 21 days prior to tillage.	<table border="0"> <tr> <td></td> <td></td> <td></td> <td>0.75 lb ae</td> <td>1.125 lb ae</td> <td>1.5 lb ae</td> </tr> <tr> <td></td> <td>lb ae/gal</td> <td>lb ai/gal</td> <td colspan="3">----- fl oz -----</td> </tr> <tr> <td>3</td> <td>= 4</td> <td>=</td> <td>32</td> <td>48</td> <td>64</td> </tr> <tr> <td>3.75</td> <td>= 5</td> <td>=</td> <td>25.6</td> <td>38.4</td> <td>51.2</td> </tr> <tr> <td>4/4.17</td> <td>= 5.4/5.1</td> <td>=</td> <td>24/23</td> <td>36/35</td> <td>48/46</td> </tr> <tr> <td>4.5</td> <td>= 5.5</td> <td>=</td> <td>21.3</td> <td>32</td> <td>42.6</td> </tr> <tr> <td>4.72</td> <td>= 6.3</td> <td>=</td> <td>20.3</td> <td>30.5</td> <td>40.7</td> </tr> <tr> <td>5</td> <td>= 6.1</td> <td>=</td> <td>19.2</td> <td>28.8</td> <td>38.4</td> </tr> </table>				0.75 lb ae	1.125 lb ae	1.5 lb ae		lb ae/gal	lb ai/gal	----- fl oz -----			3	= 4	=	32	48	64	3.75	= 5	=	25.6	38.4	51.2	4/4.17	= 5.4/5.1	=	24/23	36/35	48/46	4.5	= 5.5	=	21.3	32	42.6	4.72	= 6.3	=	20.3	30.5	40.7	5	= 6.1	=	19.2	28.8	38.4
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Wheatgrasses may be controlled by glyphosate applied in the spring. However, smooth bromegrass requires at least fall plus preplant spring applications of glyphosate and in-crop chemical and/or mechanical control. Add AMS at 8.5 lb/100 gal for improved control. Allow 14 to 21 days prior to tillage. Glyphosate provides greater Canada thistle control when fall-applied than spring-applied. Addition of 2,4-D or will increase alfalfa and sweet clover control but decrease grass control. Always add AMS to overcome antagonism of 2,4-D on grass control and improve control of perennial weeds, such as leafy spurge and Canada thistle. CRP grasses and forbs may become a problem in planted crop. A3-7 B8

GRASS ESTABLISHMENT

Herbicide	Product/A (ai/A)	Weeds	When to Apply	Remarks and Paragraphs
Glyphosate ⁹	0.75 to 1.5 lb ae See Remarks.	Emerged grass and broadleaf weeds.	Preplant or anytime prior to crop emergence.	Non-selective, non-residual translocated, foliar herbicide. Add AMS fertilizer at 8.5 lb/100 gal. A3-7 B8
2,4-D ⁴ MCPA ⁴	0.5 to 1 pt 4EC/SL (0.25 to 0.5 lb)	Broadleaf weeds.	Grasses: After 5-leaf stage.	Use rates listed for establishing grasses. A3 A6 T11
Bromoxynil ⁶	1 to 2 pt EC (0.25 to 0.5 lb)		Grasses: Anytime after emergence.	Grass tolerance is excellent. Can be applied to grass-alfalfa mixtures. Registered CRP species include wheatgrasses (crested, tall, western, bluebunch, and intermediate), perennial ryegrass, fescue, Russian wildrye, and alfalfa. Most active in hot, sunny conditions.
Bromoxynil ⁶ & MCPA ⁴	1 to 2 pt 4EC 0.8 to 1.6 pt 5EC (0.25 to 0.5 lb & 0.25 to 0.5 lb)		POST: Grasses: 3-leaf stage or larger.	Refer to Buctril/bromoxynil section above for registered grass species. Consult label for list.
Starane Ultra / generic fluroxypyr ⁴	0.5 - 0.67 pt 1.5EC 0.25 - 0.35pt 2.8EC 3.75 - 5 oz 40WDG (1.5 to 2 oz)	Kochia and some broadleaf weeds.	Spring: Kochia less than 6 inches tall.	Will kill desirable legumes. A3 A6 C5 S6

LAWN (Grass weed control)

Acclaim Extra (fenoxaprop), **Certainty** (sulfosulfuron), **Dimension/Ultra** (dithiopyr), **Drive** (quinclorac), **Pendulum** (pendimethalin), **Weed B Gon Max + Crabgrass Control**.

LAWN (Broadleaf weed control)

	MCP	2,4-D	dic	tric	other		MCP	2,4-D	dic	tric	other
Brush Killer	D CPP	+	+	-	-	Trimec 889	MCPA	+	+	-	-
Coolpower	MCPA	-	+	+	-	Trimec 1000	MCPP	+	+	-	-
Horsepower	MCPA	-	+	+	-	T-Zone/Foundation	-	+	+	+	sulf
Q4	-	+	+	-	quin+sulf	Turflon Ester	-	-	-	+	-
Spartan Charge	-	-	-	-	carf+sulf	WBG/Chickweed, clover...	-	-	-	+	-
Speedzone	MCPP	+	+	-	carfentrazone	WBG Weed + Crabgrass	MCPP	+	+	-	quin
Tenacity	-	-	-	-	mesotrione	Weed Stop for Lawns2X	MCPP	+	+	-	sulf
Trimec Classic	MCPP	+	+	-	-	WS for L + Crabgrass	-	+	+	-	sulf+quin

Abbreviation: dic=dicamba, diclo=dichlorprop, meso=mesotrione, quin=quinclorac, sulf=sulfentrazone, carf=carfentrazone, tric=triclopyr, WBG=Weed B Gon.