

SHELTERBELT WEED CONTROL

Extension Bulletin W-1097, "Weed Control in Tree Plantings" provides additional information.

Read and follow label directions. Most herbicides can injure trees if applied in a manner inconsistent with label directions. Only use herbicide formulations that are labeled in shelterbelts and only as described on the label. Eliminate perennial weeds prior to planting trees. Many herbicides are NOT labeled for over-the-top application to trees and must be applied through directed application. Some herbicides (Stinger) can be applied over-the-top to coniferous (cone bearing) trees but not over-the-top to deciduous (leaf bearing) trees. Some herbicides should be applied in fall or early spring before weeds germinate and trees begin leaf growth.

Herbicide	Product/A (ai/A)	Remarks	Refer to Paragraph U1																														
Casoron (dichlobenil)	100 to 200 lb 4G (4 to 8 lb)	Volatile, especially on wet soil. Preemergence herbicide for control of annual and perennial weeds in new plantings established at least 4 weeks. Most effective when applied in November or March just before rain or snow to activate and move dichlobenil into the soil.																															
Finale (glufosinate)	2 to 6 qt (0.5 to 1.5 lb)	Non-selective, non-residual, contact herbicide. Directed application only. Controls many annual and perennial weeds. Use 1.5 to 4 fl oz/gal for spot application. Use 3 to 4 qt/A for weeds less than 6 to 8 inches tall or 5 to 6 qt/A for weeds greater than 6 to 8 inches tall.																															
Fusilade DX (fluazifop-P)	1 to 1.5 pt (0.25 to 0.38 lb)	Translocated, postemergence, non-residual herbicide for control of annual and perennial grasses. Spot spray or apply over-the-top of woody species. Add oil additive at 1 qt/A.																															
glyphosate	2% solution or Up to 1.125 lb ae See Remarks.	<table border="0"> <tr> <td>lb ae/gal</td> <td>lb ai/gal</td> <td>0.38 ae</td> <td>0.57 ae</td> <td>0.75 ae</td> <td>1.125ae</td> </tr> <tr> <td>3</td> <td>4</td> <td>= 16 fl oz</td> <td>24 fl oz</td> <td>32 fl oz</td> <td>48 fl oz</td> </tr> <tr> <td>4/4.17</td> <td>5.4/5.1</td> <td>= 12 fl oz</td> <td>18 fl oz</td> <td>24 fl oz</td> <td>36 fl oz</td> </tr> <tr> <td>4.5</td> <td>5.5</td> <td>= 11 fl oz</td> <td>16 fl oz</td> <td>22 fl oz</td> <td>32 fl oz</td> </tr> <tr> <td>5</td> <td>6.1</td> <td>= 10 fl oz</td> <td>15 fl oz</td> <td>20 fl oz</td> <td>30 fl oz</td> </tr> </table> <p>Non-selective, non-residual, translocated, postemergence herbicide. Effective on annual and perennial plants. Directed spray only. Add AMS at 8.5 to 17 lb/100 gal. Avoid contact to desirable species. For hand-held sprayers, use 1 to 1.5 fl oz/gal for small annual weeds or 2.5 to 3 fl oz/gal for perennial weeds. Refer to label for adjuvant use. A4-7 X1</p>	lb ae/gal	lb ai/gal	0.38 ae	0.57 ae	0.75 ae	1.125ae	3	4	= 16 fl oz	24 fl oz	32 fl oz	48 fl oz	4/4.17	5.4/5.1	= 12 fl oz	18 fl oz	24 fl oz	36 fl oz	4.5	5.5	= 11 fl oz	16 fl oz	22 fl oz	32 fl oz	5	6.1	= 10 fl oz	15 fl oz	20 fl oz	30 fl oz	
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Goal (oxyfluorfen)	5 to 10 pt 1.6E 4 to 8 pt 2XL (1 to 2 lb)	Residual, preemergence or contact herbicide for control of broadleaf weeds including kochia and some grass weeds. <u>General:</u> Do not incorporate in soil. Apply POST with NIS at 0.25% v/v. Can be applied with a residual herbicide or as a split application. <u>Conifers:</u> Apply pre-transplant, POST or POST-directed prior to bud-break or after new foliage has hardened off. <u>Hardwoods:</u> Apply pre-transplant or POST-directed prior to bud-break. Spray only the base of deciduous trees and <u>not over- the-top</u> . If a non-dormant application is required, apply after new foliage has expanded and hardened off and NOT during periods of new growth. Avoid direct or indirect spray contact with foliage of deciduous trees.																															
Karmex/Direx (diuron)	2.5 to 5 lb DF (2 to 4)	Preemergence herbicide for plantings established at least one year. Apply as directed spray. Tolerance of labeled species is fair to very good. Do not use on light soil or in low, wet areas.																															
Plateau (imazapic)	8 to 12 fl oz (2 to 3 oz ae)	Apply with MSO at 2 qt/A. Controls many broadleaf weeds including leafy spurge. Can spray in and around tree species. Do not use on new plantings or seedling trees. Fall treatment will kill lilac and will cause temporary yellowing of spruce candles. Higher rates will reduce grass stands. Refer to label for list of tolerant tree species. Use caution on trees not listed on label.																															
Poast/Vantage (sethoxydim)	1.5 to 2.5 pt Poast 2.25 to 3.75 pt Vntg (0.1 to 0.5 lb)	Translocated, postemergence, non-residual herbicide for control of annual and perennial grasses. Spot spray or apply over-the-top of most woody species. Add oil additive at 1 qt/A. Use a minimum of 5 to 10 gpa. Spray to wet foliage.																															
Princep 4L Caliber 90 Simazine 4L Simazine 90DF (simazine)	2 to 4 qt 2.2 to 4.4 lb DF (2 to 4 lb)	Use only on tree plantings at least three years old. Preemergence herbicide that is most effective on annual broadleaf weeds. For adequate annual grass control apply with a preemergence, residual grass herbicide. Apply in fall or spring in full or split-rate applications. Use high rate in fine textured soils. Refer to label for list of registered tree species.																															
clopyralid	0.25 to 0.67 pt (0.1 to 0.25 lb ae)	Safe to only some conifer species. Translocated, postemergence, broadleaf herbicide. Effective on weeds in the legume, smartweed (polygonum) and sunflower (composite) families. Provides excellent control of Canada thistle and knapweeds. Apply to actively growing weeds.																															
Stomp Pendulum (pendimethalin)	2 to 4 qt 3.3 to 6.6 lb WDG (2 to 4 lb)	Preemergence herbicide for residual control of annual grasses and some small-seeded broadleaf weeds. Apply before bud break to avoid potential growth suppression. Apply with preemergence broadleaf herbicide for broad spectrum annual weed control.																															
trifluralin	1 to 2 pt (0.5 to 1 lb) 80 lb 5G (4 lb)	Apply PPI for new plantings or established trees. Gives season-long control of many annual grasses and some broadleaf weeds. Does not control weeds in the sunflower, legume or mustard family. Poor perennial weed control but may suppress field bindweed. Cultivation may be required for broadleaf weed control the first season. Apply with a residual preemergence broadleaf herbicide for broad-spectrum weed control.																															
2,4-D amine	1 to 2 qt 4EC/SL (1 to 2 lb ae)	Translocated, postemergence, broadleaf herbicide. Directed application only. Used to reduce infestations of perennial weeds. Broadleaf plants and deciduous trees very sensitive. Avoid drift to desirable species. Use only amine formulations. Use low pressure, coarse spray droplets and apply only in calm weather.																															

TOTAL VEGETATION WEED CONTROL

Herbicides should be applied to bare soil to improve herbicide performance. Add glyphosate to kill existing vegetation if present. Initial high rates of a residual herbicide or combination of residual herbicides followed by treatment in subsequent years at rates of 1/3 to 2/3 the initial rate will give satisfactory extended control. For short term bare-ground control, non-residual herbicides can be applied several times per year. General precautions when using soil sterilant are:

1. Do not move treated soil and avoid applying where wind or water will move the treated soil.
2. Avoid spray drift and reduce drift potential by applying during lower wind and temperature, reducing spray pressure, and selecting nozzles that produce larger droplets.
3. Do not apply where roots of desirable vegetation may extend into the treated area.
4. Be familiar with and know the risks of the product to be applied.
5. Use a combination of herbicides with different modes of action to avoid resistant weeds.

Herbicide	Product/A (lb ai/A)	Remarks	Refer to Paragraph V1																									
glyphosate	Up to 1.5 lb ae See Remarks.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">lb ae/gal</td> <td style="text-align: left;">lb ai/gal</td> <td style="text-align: left;">0.75 ae</td> <td style="text-align: left;">1.25 ae</td> <td style="text-align: left;">1.5 ae</td> </tr> <tr> <td>3</td> <td>4</td> <td>= 32 fl oz</td> <td>48 fl oz</td> <td>64 fl oz</td> </tr> <tr> <td>4/4.17</td> <td>5.4/5.1</td> <td>= 24 fl oz</td> <td>36 fl oz</td> <td>48 fl oz</td> </tr> <tr> <td>4.5</td> <td>5.5</td> <td>= 22 fl oz</td> <td>32 fl oz</td> <td>44 fl oz</td> </tr> <tr> <td>5</td> <td>6.1</td> <td>= 20 fl oz</td> <td>30 fl oz</td> <td>40 fl oz</td> </tr> </table> <p>Non-selective, non-residual, translocated herbicide. Effective on annual and perennial grass and broadleaf plants. May be mixed with 2,4-D or dicamba for broad-spectrum of weed control. A4-6</p>	lb ae/gal	lb ai/gal	0.75 ae	1.25 ae	1.5 ae	3	4	= 32 fl oz	48 fl oz	64 fl oz	4/4.17	5.4/5.1	= 24 fl oz	36 fl oz	48 fl oz	4.5	5.5	= 22 fl oz	32 fl oz	44 fl oz	5	6.1	= 20 fl oz	30 fl oz	40 fl oz	
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Finale (glufosinate)	3 to 6 qt (0.75 to 1.5 lb)	Non-selective, non-residual contact herbicide. Use 1.5 to 4 fl oz/gal for spot application, 3 to 4 qt/A for weeds less than 6 to 8 inches, 5 to 6 qt/A for weeds greater than 6 to 8 inches.																										
paraquat RUP	2 to 2.7 pt (0.75 to 1 lb)	Non-selective, non-residual , contact herbicide. Controls only top-growth of perennial species. Add NIS and repeat application as necessary. Avoid drift and contact with desirable species.																										
Diuron/Direx Karmex (diuron)	1 to 8 gal 5 to 15 lb (4 to 32 lb)	Refer to label for use in irrigation ditches. Higher rates needed for perennial grasses and broadleaf weeds. Deep rooted perennials will require retreatment. Long residual.																										
Hyvar X Hyvar X-L (bromacil)	3 to 15 lb DF 0.75 to 6 gal L (2.4 to 12 lb DF 1.5 to 12 lb L)	Apply PRE or EPOST. Requires moisture for activation. <table style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td style="text-align: center;">Annual weeds</td> <td style="text-align: center;">Perennial weeds</td> <td style="text-align: center;">Woody plants</td> </tr> <tr> <td>Hyvar X</td> <td style="text-align: center;">3 to 6 lb DF</td> <td style="text-align: center;">7 to 15 lb</td> <td style="text-align: center;">7 to 15 lb</td> </tr> <tr> <td>Hyvar X-L</td> <td style="text-align: center;">1 to 3 gal/A</td> <td style="text-align: center;">3 to 6 gal/A</td> <td style="text-align: center;">3 to 6 gal/A</td> </tr> </table> Non-corrosive, nonvolatile, nonflammable. Refer to label for tank-mix options. Bromacil can move horizontally in soil after application. Long residual.		Annual weeds	Perennial weeds	Woody plants	Hyvar X	3 to 6 lb DF	7 to 15 lb	7 to 15 lb	Hyvar X-L	1 to 3 gal/A	3 to 6 gal/A	3 to 6 gal/A														
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Hyvar X	3 to 6 lb DF	7 to 15 lb	7 to 15 lb																									
Hyvar X-L	1 to 3 gal/A	3 to 6 gal/A	3 to 6 gal/A																									
Krovar I (bromacil + diuron)	6 to 16 lb DF (4.8 to 12.8 lb)	Apply PRE for control of annual grass and broadleaf weeds. Requires moisture for activation. Refer to label for registered tank-mixes. Bromacil can move horizontally in soil after application. Long residual.																										
Oust XP (sulfometuron)	2 to 4 oz DF (1.5 to 3 oz)	Use high rate in high moisture areas except in residential properties. Will control leafy spurge at 3 oz/A. Do not spray near water. Long residual.																										
Landmark MP Landmark II MP (sulfometuron & chlorsulfuron)	1 pkg/5 A to 1 pkg/2.5 A (1.5 to 3 oz)	Apply PRE to EPOST for broadleaf weeds. Will control/suppress leafy spurge. May be applied with Krovar I DF or Hyvar X to control ALS resistant weeds. Long residual.																										
Plateau (imazapic)	8 to 12 fl oz (2 to 3 oz ae)	Add MSO at 2 pt/A. Controls many broadleaf weeds including leafy spurge. May use up to 12 fl oz in combination with Arsenal, diuron, glyphosate, Oust, Sahara, and other total-vegetation-control herbicides. T12																										
Pramitol 25E (prometon)	5 to 10 gal (10 to 15 lb)	Use 5 to 7.5 gal/A for annual and susceptible perennial weeds, 7.5 to 10 gal/A for hard-to-kill perennial weeds. Apply before weeds emerge or EPOST. Long residual.																										
Spike 20P (tebuthiuron)	3.75 to 20 lb 20P 1.25 to 5 lb 80DF (1 to 4 lb)	For long-term woody plant and some broadleaf weed control. Avoid application in areas with surface or high water tables. Do not exceed 4 lb ai/A in a three year period. See label for specific species controlled, grazing and haying restrictions. Long residual.																										
Sahara (imazapyr & diuron)	3 to 4 A/copack or 6.5 to 13 lb DF (0.5 to 1 lb ae & 4 to 8 lb)	Provides residual PRE and POST control of annual weeds and POST control of perennial weeds. Apply Sahara POST with NIS at 0.25% v/v or MSO-type adjuvants at 1.5 to 2 pt/A alone + UAN at 2 to 3 pt/A. Apply Topside 2.5G prior to weed emergence at 0.5 to 0.7 lb 2.5G/100 sq. ft. Can be tank-mixed with dicamba, Finale, Garlon, glyphosate, Hyvar X, Krovar, and Oust. Do not apply with 2,4-D due to reduced weed control. Long residual.																										
Throttle (chlorsulfuron & sulfometuron & sulfentrazone)	12.5 oz (1.125 oz & 2.25 oz & 6 oz)	Provides residual PRE and POST control of annual weeds and POST control of perennial weeds. Apply Sahara POST with NIS at 0.25% v/v or MSO-type adjuvants at 1.5 to 2 pt/A alone + UAN at 2 to 3 pt/A. Refer to label for tank-mix options. Long residual.																										

TROUBLESOME WEEDS IN PASTURE, RANGELAND, AND NONCROPLAND

Weed	Herbicide	Product/A	Remarks and Paragraphs
Buckbrush/ (West. snowberry)	2,4-D amine or ester Cimarron X-tra	2 to 3 qt 4EC/SL 0.25 oz + 1 pt (co-pack)	Anytime during the growing season when plants are not stressed.
Baby's breath	metsulfuron metsulfuron + dicamba	0.3 to 0.6 oz DF 0.45 oz DF + 1 pt	Very effective. Best when applied from bolting to pre-flower growth stage. Use NIS at 0.25% v/v.
Burdock	2,4-D amine or ester cimarron X-tra dicamba	1 qt 4EC/SL 0.25 oz + 1 pt (co-pack) 1 pt	Early summer prior to flowering.
Curly dock	cimarron X-tra dicamba metsulfuron + NIS Redeem fluroxypyr 1.5/2.8EC/40DG Tordon + 2,4-D RUP	0.25 oz + 1 pt (co-pack) 0.5 to 1 pt 0.1 oz + 0.25 to 0.5% v/v 1 to 2 pt 0.67 pt / 0.35 pt / 5 oz 0.5 to 1 pt + 1 to 2 pt 4EC/SL	Early spring to bolting is best. Herbicides will control curly dock when treated later in the summer but will need higher rates.
Dandelion	2,4-D amine or ester 2,4-D + MCPA + dicamba tribenuron + NIS Redeem	2 to 4 pt 4EC/SL See label 0.167 to 0.33 oz + 0.25 to 0.5% v/v 1.5 to 2 pt	Best in early fall following several light frosts. Express labeled only on cropland and fallow.
Foxtail barley	Plateau	8 to 12 fl oz	Add MSO at 1 qt/A + 28% UAN at 1 qt/A.
Goldenrod	2,4-D amine or ester Cimarron X-tra metsulfuron + NIS Tordon + 2,4-D RUP	3 to 6 pt 4EC/SL 1 oz + 4 pt (co-pack) 0.33 to 0.5 oz+0.25 to 0.5% v/v 1 pt + 1 qt 4EC/SL	Mid-June through flowering when plants are not stressed.
Gumweed	2,4-D amine or ester Cimarron X-tra metsulfuron + NIS	1.5 to 2 pt 4EC/SL 1 oz + 4 pt (co-pack) 1 oz + 0.25 to 0.5% v/v	Early spring when plants are not stressed.
Houndstongue	2,4-D amine or ester metsulfuron + NIS Plateau	2 pt 4EC/SL 1 to 2 oz + 0.25 to 0.5% v/v 8 to 12 oz	2,4-D: Apply to 1 st year plants from May to June. Met: Very effective through the growing season. Plateau: Controls plants applied PRE and POST.
Mint	Cimarron X-tra dicamba + 2,4-D metsulfuron + NIS Tordon + 2,4-D RUP	1 oz + 4 pt (co-pack) 1 pt + 1 qt 4EC/SL 1/3 to 1/2 oz + 0.25 to 0.5% v/v 1 pt + 1 qt 4EC/SL	Mid-June through flowering when plants are not stressed.
Poison ivy	Crossbow Garlon 3A or 4	1.5 gal 3 to 4 pt or 2 to 3 pt	Plants actively growing.
Prairie wild rose (State flower of ND)	Cimarron X-tra dicamba + 2,4-D Tordon + 2,4-D RUP	0.5 oz + 2 pt (co-pack) 1 pt + 1 qt 4EC/SL 0.5 pt + 1 qt 4EC/SL	Anytime during the growing season when plants are not stressed.
Prickly pear cactus	Tordon RUP	2 pt	Late-spring to early summer.
Ragweed	Cimarron X-tra Redeem Tordon + 2,4-D RUP	0.25 oz + 1 pt (co-pack) 1.5 to 2 pt 1 pt + 1 qt 4EC/SL	Mid to late summer.
Fringed sagebrush	2,4-D ester Cimarron X-tra Tordon RUP	2 to 4 pt 4EC/SL 1 oz + 4 pt (co-pack) 1 to 2 pt	Best in May. Plants should be leafed out and growing in good moisture conditions.
Silver sagebrush	2,4-D ester	2 to 4 pt 4EC/SL	
Green sagewort	2,4-D ester Tordon + 2,4-D RUP	4 pt 4EC/SL 1 pt + 1 qt 4EC/SL	
WY big sagebrush	2,4-D ester	4 pt 4EC/SL	
Swamp smartweed	dicamba metsulfuron + NIS Tordon + 2,4-D RUP Weedmaster	0.5 to 1 pt 0.1 oz + 0.25 to 0.5% v/v 1 pt + 1 qt 4EC/SL 1 pt	Apply to plants 1 to 4 inches tall. Mid to late summer.
Trees, volunteer	Crossbow Tordon+2,4-D+Remedy RUP	2% solution or 2 gal/A 2% or 1 pt + 1 qt 4EC/SL + 1 pt	Add NIS at 0.5% v/v. Apply after tree leaves have fully expanded.
Wild licorice	2,4-D amine or ester	1 to 2 pt 4EC/SL	Early June when plants are not stressed.

TROUBLESOME WEEDS IN CROPLAND AND OTHER AREAS

Weed	Herbicide	Product/A	Remarks and Paragraphs
Alfalfa	2,4-D + dicamba clopyralid/clopyralid & 2,4-D	2 pt 4EC/SL + 0.5 pt 0.67 pt / 4 pt	Glyphosate (2 to 4 pt/A) is less effective.
Buffalobur	dicamba	0.5 pt	Cobra, 2,4-D, MCPA, and Pursuit are less effective.
Cleavers/Catch-weed bedstraw	fluroxypyr 1.5/2.8EC/40DG thifensulfuron & tribenuron	0.67 pt / 0.35 pt / 5 oz DF or SG - See label for rate.	Glufosinate is less effective. Apply thifen & tribenuron with NIS at 0.125 to 0.25% v/v.
Cattail	glyphosate (only 4 lb ae/gal no adjuvant formulations)	4.5 pt of 4 lb ae/gal conc.	Add an approved NIS at 0.5% v/v. Apply at early to full bloom stage (late July to mid August). A4
	Arsenal/Habitat	2 to 4 pt (1% v/v solution)	Apply to cattail with green foliage/after leaf elongation.
Curly dock	clopyralid/clopyralid & 2,4-D Most SU herbicides	0.67 pt / 2 pt See label for rates.	Clopyralid has crop rotation restrictions. Apply SUs with NIS at 0.125 to 0.25% v/v.
Common milkweed	glyphosate Tordon RUP / + 2,4-D tribenuron+2,4-D+dicamba	2% 2 to 3 pt / 2 pt + 2 pt 4EC/SL See label + 0.75 pt + 2 fl oz	Glyt - Suppression only. Will require retreatment. A4 Tordon - Apply at late bud to early flower stage. See T3. Trib + 2,4-D + dic - Apply high rates for spot treatment.
Dandelion	2,4-D amine or ester clopyralid dicamba tribenuron + NIS glyphosate	2 to 4 pt 4EC/SL Refer to premix label. 0.5 pt. Apply with 2,4-D DF or SG - See label for rate. 1 to 3 lb ae	2,4-D - Best control when applied in fall. Clopyralid - Apply premixes - Curtail and WideMatch. Dicamba - Residue may injure crop to be planted. Tribenuron - Partial control. Apply with 2,4-D Glyphosate - Best control when applied in fall, otherwise only partial control.
	Callisto / Impact / Laudis	3 / 0.75 / 3 fl oz	Only partial control. Add oil adjuvant.
Equisetum (Horsetail) (Scouring rush)	MCPA Permit Python Remedy/Garlon Telar (Glean) or Oust	1 qt/A 4EC/SL 1.33 oz DF + MSO 1.33 oz DF + MSO 2 qt 3 oz DF + adjuvant	Glyphosate is less effective. Retreatment necessary. Permit - Apply two applications each at 1.33 oz/A. Python - Apply with NIS or oil adjuvant PRE or POST. Remedy/Garlon and MCPA - Apply fall or spring. Telar and Oust - Will result in total vegetation control.
False chamomile	bromoxynil + MCPA Most SU herbicides glyphosate	1 pt 4EC See label + adjuvant 2 pt of a 3 lb ae/gal conc.	Bromoxynil + MCPA - Plants should be <4 inches tall. SU herbicides - Add NIS at 0.25% v/v. Glyphosate - Avoid spraying desirable vegetation. A4
Flax, volunteer	Flexstar/Reflex Paramount Pursuit + Sencor (PRE)	0.5 to 0.75 pt + oil adjuvant 0.33 oz DF + MSO adjuvant 0.375 + 1 to 2 fl oz	Flexstar/Reflex - Apply oil adjuvant at 1% v/v. Paramount - Apply with MSO adjuvant at 1.5 pt/A.
	fluroxypyr 1.5/2.8EC/40DG thifensulfuron & tribenuron tribenuron + 2,4-D	0.67 pt / 0.35 pt / 5 oz DF or SG - See label for rate. DF or SG + 0.75 pt 4EC/SL	Starane - No adjuvant needed. Thifenulfuron + tribenuron - Add NIS at 0.25% v/v. Tribenuron - Add NIS at 0.25% v/v.
Hemp dogbane	2,4-D + dicamba glyphosate	1 to 2 pt 4EC/SL + 1 pt 2% v/v	Dicamba at 2 pt/A will injure some crops planted the next year. A4
Horseweed (Marestail)	2,4-D Callisto, Impact, Laudis FirstRate Hornet Python Spartan thifensulfuron Valor	1 to 2 pt 4EC/SL 3 fl oz, 0.75 fl oz, 2 to 3 fl oz 0.3 oz WDG + adjuvant 3 to 4 oz WDG + adjuvant 1 oz WDG 3 to 6 fl oz DF or SG - See label for rate. 2 to 3 oz WDG	2,4-D (preplant) to some labeled crops is effective. Glyphosate, atrazine, paraquat are less effective. Pursuit is not effective. Most herbicides listed have rotational crop restrictions. Follow label guidelines.
Nightflowering catchfly	thifensulfuron & tribenuron thifensulfuron Huskie (not confirmed)	DF or SG - See label for rate. DF or SG - See label for rate. 15 fl oz	Add NIS at 0.25% v/v. Add NIS at 0.25% v/v. Huskie controls other cockle species.
Sowthistle (Ann. or perennial)	Cimarron X-tra metsulfuron tribenuron	0.25 to 0.5 oz + 1 to 2 pt 1/10 oz DF + adjuvant DF or SG - See label for rate.	2,4-D, dicamba, Curtail, and glyphosate are less effective. Apply metsulfuron and tribenuron with NIS at 0.25% v/v.
Waterpod	2,4-D, Pursuit or SUs	See label.	See Pursuit label for crop rotation restrictions.
Wild cucumber	dicamba glyphosate	0.5 to 1 pt 0.38 to 0.75 lb ae	Dicamba may injure or kill trees. Mechanical control or handweed is best. Dicamba may injure trees. A4
Yellow nutsedge	Permit Basagran (sequential apps)	0.67 to 1.33 oz DF+adjuvant 1.5 pt fb 1.5 pt + oil adjuvant	Pursuit, Dual, glyphosate are less effective. Permit may injure crops planted the following years.

CONTROL OF VOLUNTEER ROUNDUP READY CROPS

	Rate	Canola - Pre	Canola - 3-leaf	Canola - 6-leaf	Corn - 10-18 inches	Corn - 18-24 inches	Corn - 24-40 inches	Soybean - V2-V3	Soybean - V4-V6
POST Grass Herbicides									
Assure II*	4 - 5 fl oz	N	N	N	E	E	G-E	N	N
Fusilade DX	4 - 6 fl oz	N	N	N	E	E	G-E	N	N
clethodim	3 - 4 fl oz	N	N	N	G-E	P-F	P	N	N
	6 fl oz	N	N	N	E	G	F	N	N
Select Max	4 - 6 fl oz	N	N	N	F-G	P	N-P	N	N
	8 fl oz	N	N	N	E	F	P	N	N
Broadleaf Herbicides									
Aim	0.5 fl oz	-	P	N	N	N	N	P	P
atrazine	0.38 lb ai	E	N-P	N	N	N	N	E	P
	0.5 lb ai	E	P	N	N	N	N	E	F
Balance Flexx	3 fl oz	E	-	-	N	N	N	-	-
Basagran*	0.5 pt	-	G-E	F	N	N	N	N	N
bromoxynil & MCPA	0.8 pt	-	E	F-G	N	N	N	E	E
Callisto	3 fl oz	E	E	G	N	N	N	P	P
clopyralid	1.3 fl oz	N	N	N	N	N	N	G	F-G
	2.6 fl oz	N	N	N	N	N	N	E	G-E
clopyralid & 2,4-D	0.25 - 0.5 pt	-	G-E	F-G	N	N	N	F-G	P-F
dicamba	2 fl oz	-	P	N	N	N	N	G	G
	4 - 5 fl oz	-	P	P	N	N	N	E	E
Extreme	1.5 pt	E	E	G-E	F-G	F	P	N	N
Flexstar	0.38 - 0.75 pt	-	E	E	N	N	N	N	N
FirstRate	0.1 - 0.3 oz	E	E	F-E	-	-	-	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
MCPA	0.5 pt	P	G-E	P	N	N	N	P	P
metribuzin	0.25 lb	E	G-E	F	N	N	N	P-F	P-F
Laudis	3 fl oz	-	E	G-E	N	N	N	G	G
Option	1.5 oz	-	E	E	N	N	N	P	P
Progress* + UpBeet + MSO	1.5 pt + 0.25 oz	-	P-F	N-P	F	N-P	N-P	F	N-P
Pursuit	2 fl oz	G-E	E	G-E	G	F	P	N	N
Raptor	1 - 2 fl oz	-	E	G-E	P-F	P	N-P	N	N
	4 fl oz	-	E	E	G-E	F	P	N	N
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
thifensulfuron	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
tribenuron	0.167 oz DF/0.25 oz SG	-	E	G-E	P	P	P	P	P
Valor	2.5 oz	E	-	-	-	-	-	-	-
WideMatch*	0.13 - 0.25 pt	-	P	P	N	N	N	F-E	P-G
UpBeet + MSO	0.25 oz	-	P-F	N-P	F	N-P	N-P	F	N-P
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