

Guide to PreSeed Herbicide Options - 2018

Product Option	Typical Rate	Herbicide Group	Crop Choices	Benefits	Target Weeds	Cautions	Cost/Acre Approx SRP
Glyphosate	Variable rate structure (0.5 to 1.0 REL) Depends on glyphosate brand, grams a.i, weed type & weed density, weed staging, size, etc.	9	All Crops	- Simple, low cost - Vary rates to adjust to conditions, weeds, density & life cycle -No residual	Annual grasses Annual broadleaf Non RR-canola	- No vol. RR canola control - Only one MOA - Control may be slow in cool spring - BMP is to mix with an additional MOA for resistance management	Glyphosate 540 g mid-tier product 0.5 REL - \$2.60/ac 1.0 REL - \$5.20/ac
Glyphosate + AIM (carfentrazone)	Glyphosate: rate variable Aim: 15 ml/ac	9,14	All Crops	- Controls 1-3 leaf canola, including RR - Rapid control of annual weeds - No residual to any crop grown	Annual grasses Annual broadleaf RR-canola	- For best control, use 10 gpa water - Best control of volunteer canola is at the 1-2 leaf stage - Aim is a contact herbicide-prefer 10 gpa	Glyphosate Cost + AIM - \$3.90/ac at 133 ac per jug rate
Glyphosate + AIM + Command (carfentrazone + clomazone)	Glyphosate: rate variable Aim: 15 ml/ac Command: 135ml/ac	9,13,14	Canola	- Controls 1-3 leaf canola, including RR - Rapid control of annual weeds - Command provides short season residual control of cleavers	Annual grasses Annual broadleaf RR-canola Cleavers	Requires 5-10mm moisture for activation - Reduced residual duration in soils with high OM% or excessive rain events - Soil texture - coarse/sandy soils - Aim is contact herbicide - prefer 10 GPA	Glyphosate Cost + AIM - \$3.90/ac at 133 ac per jug rate + Command - \$7.99/ac at 40 ac/jug
Glyphosate + Amitrol 240 (discontinued - but still some available)	Glyphosate - rate variable Amitrol 1.7 L/ac label rate lower rates may be adequate for vol. canola control	9, 11	Barley, Canola, Field corn, Field pea, Soybean, Wheat, White bean	- Vol. RR canola control -Control annuals & small dandelions -Amitrol at 1.0 l/ac adequate for seedling RR canola volunteers	Vol RR canola Annual broadleaf Small dandelion Field Horsetail	- Keep glyphosate rate at 0.5 REL -Minimum of 5 GPA water volume -Higher water rates are beneficial -Refer to label for more specifics	Glyphosate cost + Amitrol - \$8.75/ac at 1.0 L/ac Amitrol - \$14.88/ac at 1.7L/ac
Glyphosate + Authority (sulfentrazone)	Glyphosate: rate variable Authority: 32-43 ac/jug	9, 14	Field peas, Flax, Chickpeas, Soybeans and Sunflowers	- Residual weed control - Control Grp 2 & 9 Resistant Kochia -Suppression/control of Grp 2 resistant cleavers	Kochia Lambs quarters Redroot Pigweed Wild Buckwheat Cleavers (supp)	- Watch re-cropping restrictions - Requires a 10-20 mm moisture event within 7-10 days for activation - Reduced efficacy in soils with high OM% and low pH - Soil texture - coarse/sandy soils	Glyphosate Cost + Authority - \$15.08/ac at 43 ac/jug
Glyphosate + Authority Charge (sulfentrazone + carfentrazone)	Glyphosate: rate variable Authority Charge at 64-86 ac/case Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v	9, 14, 14	Field peas, Flax, Faba beans, Chickpeas, Soybeans and Sunflowers	- Control vol. 1-3 leaf RR canola - Control Gr. 2 & 9 resistant kochia - Suppression Gr. 2 resistant cleavers - Improved wild buckwheat control - AIM provides activity on emerged weeds. Residual control for Authority	Kochia Lambs quarters Redroot Pigweed Wild Buckwheat Cleavers (supp)	- Watch re-cropping restrictions - Requires a 10-20 mm moisture event within 7-10 days for activation - Reduced efficacy in soils with high OM% and low pH - Soil texture - coarse/sandy soils - Contact herbicide - prefer 10 GPA	Glyphosate Cost + Authority Charge \$16.85/ac at 86 ac/case
Glyphosate + Authority Supreme (sulfentrazone + pyroxasulfone)	Glyphosate: rate variable Authority Supreme at 33-40 ac/jug	9, 14, 15	Field peas, Chickpeas, Soybeans	- Control vol. 1-3 leaf RR canola - Control Gr. 2 & 9 resistant kochia - Suppression Gr. 2 resistant cleavers - Improved wild buckwheat control & Lambsquarters. - Wild oat (S), green foxtail, Downy & Japanese Brome, Barnyard grass	Kochia Lambs quarters Redroot Pigweed Wild Buckwheat Cleavers (supp) Downy Brome Japanese Brome Wild oats (s)	- Watch re-cropping restrictions - Requires a 15-25 mm moisture event within 7-10 days for activation - Reduced efficacy in soils with high OM% and low pH - Soil texture - coarse/sandy soils - Contact herbicide - prefer 10 GPA	Glyphosate Cost + Authority Charge \$26.00/ac at 40 ac/jug
Glyphosate + Banvel 480 (Dicamba)	Glyphosate: rate variable Dicamba: 60-90 ml/ac (1.0-1.5 oz)	9, 4	Barley, Corn, Oats, Rye, Wheat	- Controls all vol. canola, including RR - Enhanced broadleaf control and winter annuals, wild buckwheat	Annual grasses Annual broadleaf RR-canola	- In front of corn do not use on soil with less than 2.5% OM or sandy soils	Glyphosate Cost + Dicamba - \$2.25/ac (170 ac/jug - 1 oz/ac) **2017 Price

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Glyphosate + BlackHawk (pyraflufen-ethyl + 2,4-D Ester)	Glyphosate: rate variable 60 acres/case (add surfactant only when not mixing with glyphosate)	9, 4, 14	Wheat, Barley, Rye, Soybeans, Canaryseed, Field Corn, Triticale, Oats(7 days before planting)	- Controls all volunteer canola, including RR - Rapid control of annual weeds - Control of Grp 2 & 9 resistant kochia - Spring germinated rosettes	Annual grasses Annual broadleaves RR-canola Spring Dandelions Narrow leaved HB	- For best control, use 10 gpa water - Best control of volunteer canola is at the 1-2 leaf stage - Aim and pyraflufen are contact herbicides (5 to 10 gpa)	Glyphosate Cost + BlackHawk - \$6.25/ac at 60 acres/case
Glyphosate + Goldwing (pyraflufen-ethyl + MCPA Ester)	Glyphosate: rate variable 80 ac/jug (add surfactant only when not mixing with glyphosate)	9, 4, 14	Wheat, Barley, Rye, Field Peas, Canaryseed, Field Corn, Triticale, Oats(7 days before planting), Buckwheat, Pearl & Proso Millet	- Rapid desiccation of weeds -non-group 2 weeds and resistant Grp 2 Multiple modes of action - no cropping restrictions	Annual grasses Annual broadleaves RR-canola Spring Dandelions Narrow leaved HB Kochia (Grp 2&9)	- For best control, use 10 gpa water - does not provide residual control - Aim and pyraflufen are contact herbicides (5 to 10 gpa)	Glyphosate Cost + Goldwing - \$6.25/ac at 80 acres/jug
Glyphosate + Buctril M / Logic M (Bromoxynil & MCPA)	Glyphosate: rate variable Bromoxynil & MCPA: 0.2 - 0.4 L/ac (2-4 oz/ac)	9, 6, 4	Wheat, Oats, Barley Canary Seed, Flax, Rye, Forage Grasses	- Vol RR canola control - Improved wild buckwheat control	Annual grasses Annual broadleaf RR-canola Field Horsetail	- For best control, use 10 gpa water - Best control of volunteer canola is at the 1-3 leaf stage - Bromoxynil is a contact herbicide	Glyphosate Cost + Buctril M - \$4.00 at 0.2L/ac (40ac/jug)
CleanStart (carfentrazone + glyphosate)	Complete case - 40ac/case (0.5 REL Credit glyphosate + Aim) Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v when controlling v.canola 1-3 leaf	9, 14	All Crops	- Controls 1-3 leaf canola, including RR - Rapid control of annual weeds - No residual to any crop grown	Annual grasses Annual broadleaf RR-canola	- For best control, use 10 gpa water - Best control of volunteer canola is at the 1-2 leaf stage - Aim is a contact herbicide-prefer 10 gpa	CleanStart - \$7.83/ac at 40 acres/case
Glyphosate + Command (clomazone)	Glyphosate: rate variable Command 135ml/ac	9,13	Canola	Glyphosate benefits and Command provides short season residual control of cleavers	Annual grasses Cleavers	Requires 5-10mm moisture for activation - Reduced residual duration in soils with high OM% and excessive rain events - Soil texture - coarse/sandy soils	Glyphosate Cost + Command - \$7.99/ac at 40 ac/jug
Glyphosate + Conquer (bromoxynil + pyraflufen-ethyl)	Glyphosate: rate variable CONQUER at 80 acres/case	9, 6, 14	Canola	- Controls cot-4 leaf canola, including RR canola - very strong on cleavers - Control of Grp 2 & 9 resistant kochia - Controls larger rosettes, winter annuals	Annual grasses V Canola kochia, cleavers Narrow leaved HB	- For best control, use 10 gpa water - Best control of volunteer canola is at the cot to 4 leaf stage - Aim in previous formulation - pyraflufen-ethyl new formulation	Glyphosate Cost + CONQUER - \$7.40/ac at 80 acres/case
Glyphosate + Everest or PrePare (flucarbazone)	Glyphosate: rate variable Everest: 8.7 g/ac (66 ac/567 g/ jug) or 15 ml/ac (129 ac/1.937 jug)	9, 2	Wheat (spring, not Durum)	- Residual control of green foxtail, wild oats - Enhanced Japanese, Downy, Foxtail Barley, Barnyard grass with the glyphosate.	Wild oats Green foxtail	- Re-cropping restrictions in some conditions; read label - Add AMS for additional control of Brome Species	Glyphosate Cost + Everest 2.0 - \$12.60/ac **2017 Price
Glyphosate + Express SG or Inferno WDG, Nuance, Spike (tribenuron)	Glyphosate: rate variable Express SG: 6 g/ac Inferno WDG - 8 g/ac	9, 2	Wheat, Durum, Winter wheat, Barley, Oats, Canary Seed, Dry Bean, Peas, Soybean, Fababean, Lupin, Alfalfa, Clover	- Controls all vol. canola, including RR - Improved winter annual control, including Narrow Leaf Hawksbeard Improved control of dandelions	Dandelions Narrowleaved H.B Wild buckwheat White Cockle	- Do not use in front of pulses or legumes, when there is coarse textured (sandy soil) >50% sand and <3% OM%. As well as eroded knolls	Glyphosate Cost + Express SG - \$4.20/ac
Glyphosate + Express FX (tribenuron & dicamba)	Glyphosate: rate variable Express SG: 6 g/ac Dicamba - 53 ml/ac	9, 2, 4	Wheat, Durum, Barley	- Controls all vol. canola, including RR - Improved winter annual control, including Narrow Leaf Hawksbeard Improved control of dandelions, Kochia	Dandelions Flixweed Kochia Narrowleaved H.B Wild buckwheat White Cockle	- enhanced resistance managent -increased broadleaf control -2 mode of action plus glyphoste -no recropping restrictions for the next year	Glyphosate Cost + Express SG - \$5.84/ac

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Glyphosate + Express Pro or Nurance Pro (tribenuron & metsulfuron)	Glyphosate: rate variable Express Pro: 7 g/ac	9, 2, 2	Wheat and Barley	- Controls all vol. canola, including RR - Improved winter annual control, including Narrow Leaf Hawksbeard Improved control of dandelions - Residual control of some annual weeds for about 1-2 weeks	Dandelions Narrowleaved H.B Wild buckwheat White Cockle Cleavers Scentless Chamomile Storksbill	- Refer to label for crop options within one year after application	Glyphosate Cost + Express Pro - \$4.98/ac
Glyphosate + Focus (pyoxasulfone + carfentrazone)	Glyphosate: rate variable Focus at 33, 40 or 50 ac/jug Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v	9, 14, 15	Spring & Winter Wheat, Soybeans, Corn	- wide range of grasses and broadleaf weeds -residual control -pre or post seed application	Downy & Japanese Brome, Foxtail Bly(S),Wild oats(S), Kochia (S) Lambs quarters (S) Redroot Pigweed Wild Buckwheat(S) Cleavers	- Watch re-cropping restrictions - Requires a 15-25 mm moisture event within 7-10 days for activation - Reduced efficacy in soils with high OM% and low pH - Soil texture - coarse/sandy soils - Contact herbicide - prefer 10 GPA	Glyphosate Cost + Focus - \$20.38/ac at 40 ac/jug
Glyphosate + HEAT (limited) HEAT LQ (saflufenacil)	Glyphosate: rate variable Heat: 30-80 ac/bottle (10.5 - 28.1 g/ac) Heat LQ - 30-80 ac/jug (21.5 - 59 ml/ac) Merge: 0.2 L/ac (included with Heat LQ)	9, 14	Barley, Canary seed, Chickpea, Corn, Peas, Oat, Wheat, Lentils*, Soybean, Canary Seed, Soybeans* (*low rate only 10.5 g or 21.5 ml)	- Rapid desiccation of weeds - Excellent product to manage grp 2 Resistant weeds. - Residual rate at 30-40 ac/jug, but variable based on soil quality	Residual (30 ac) for: Kochia, Cleavers Wild buckwheat Redroot Pigweed Stinkweed, Wild Mustard	- Must use surfactant: Merge 0.2 L/ac or Score 0.4L/ac - Not before any oilseeds - Only 80ac rate before lentils & soybeans	Glyphosate Cost + HEAT LQ - \$5.90/ac 80 ac/jug LQ HEAT LQ - \$15.73/ac 30 ac/jug LQ
Glyphosate + Inferno Duo (flucarbazone & tribenuron)	Glyphosate: rate variable Inferno Duo - 12.8 g/ac	9, 2	Wheat (spring, not Durum)	- Residual control of green foxtail, wild oats - Enhanced Japanese, Downy, Foxtail Barley, Barnyard grass with the glyphosate.	Wild oats (suppr) Green foxtail plus Express (tribenuron) weeds	- Re-cropping restrictions in some conditions; read label - Add AMS for additional control of Brome Species	Glyphosate Cost + Inferno Duo - \$8.45/ac **2017 Price
Glyphosate + Ko-Act (tribenuron + 2,4-D Ester - 5 oz)	Glyphosate: rate variable 80 acres/case	9, 2, 4	Wheat, Barley, Rye	- Controls 1-3 leaf canola, including RR - Control of Grp 2 & 9 resistant kochia - Controls larger rosettes, winter annuals, larger canola	Annual grasses Annual broadleaves RR-canola Dandelions Narrow leaved HB Hempnettle	- For best control, use 10 gpa water	Glyphosate Cost + Ko-Act - \$5.41/ac at 80 acres/case **2017 Price
Glyphosate + Korrex II (florasulam + dicamba)	Glyphosate: rate variable 80acres/case or Korrex	9, 2, 4	Wheat, Winter Wheat, Durum, Barley, Oats, Rye	- Controls 1-3 leaf canola, including RR - Control of Grp 2 & 9 resistant kochia - Controls larger rosettes, winter annuals, larger canola - provides extended control of flusing broadleaf weeds	Annual grasses Annual broadleaves RR-canola Dandelions Narrow leaved HB Hempnettle Grp 2&9 Res Kochia	- For best control, use 5-10 gpa water	Glyphosate Cost + Korrex - \$6.25/ac at 80 acres/case
Glyphosate + 2,4-D Ester	Glyphosate: rate variable 2,4-D: 0.16- 0.32 L/ac (4-8oz/ac)	9, 4	Wheat, Barley, Rye, Triticale	- Controls all vol. canola, including RR - Enhanced broadleaf control and winter annuals, wild buckwheat	Annual grasses Annual broadleaf RR-canola Field Horsetail	- Rates of 2,4-D will need to increase if canola larger than 2 leaf stage	Glyphosate Cost + 2,4-D Ester 700 - \$2.25/ac (60 ac/ jug - 4 oz)

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Glyphosate + MCPA Ester	Glyphosate: rate variable MCPA amine: 0.25-0.5L/ac (other crops) MCPA ester: 0.2-0.4L/ac (cereals only) (4-8 oz/ac)	9, 4	Cereals, Corn*, Flax*, Peas*, Lentil*, Chickpea* (*amine only)	- Controls all vol. canola, including RR - Enhanced broadleaf control and winter annuals, wild buckwheat	Annual grasses Annual broadleaf RR-canola Field Horsetail	- Rates of MCPA will need to increase if canola larger than 2 leaf stage	Glyphosate Cost + MCPA Ester 600 \$2.25/ac (50 ac/ jug - 4 oz/ac)
Glyphosate + Paradigm (florasulam + Arylex)	Glyphosate: rate variable Paradigm - 106 ac/jug (0.8 kg)	9, 4, 4	Wheat, Barley	- Controls all vol. canola, including RR - Improved winter annual control, including Narrow Leaf Hawksbeard Improved control of dandelions - Residual control of some annual weeds for about 1-2 weeks	Dandelions Narrowleaved HB Wild buckwheat Cleavers(all sizes) Scentless Chamomile Storksbill	- no cropping restrictions the following year when used as a preseed burnoff in the spring -21 day extended control (guarantee)	Glyphosate Cost + Paradigm - \$6.40/ac
Glyphosate + Pardner / Brotex (Bromoxynil)	Glyphosate: rate variable Bromoxynil: 0.4 - 0.5 L/ac (4-5 oz a.i)	9, 6	Wheat, Oats, Barley, Corn, Canola, Canary Seed, Flax, Rye, Forage Grasses	- Vol RR canola control - Improved wild buckwheat control	Annual grasses Annual broadleaf RR-canola Field Horsetail	- For best control, use 10 gpa water - Best control of volunteer canola is at the 1-3 leaf stage - Bromoxynil is a contact herbicide	Glyphosate Cost + Pardner - \$7.50/ac at 0.4L/ac (20ac/jug)
PrePass FLEX (florasulam) or PrePass XC (glyphosate & florasulam)	Glyphosate: rate variable PrePass Flex - 8.1 g/ac (2 g/ac a.i.) 80 ac/jug Prepass XC: Glyphosate: 0.5 REL Florasulam: 40 ml/ac (2 g/ac a.i.)	9, 2	Wheat, Barley, Oats	- Controls all vol. canola, including RR - Improved winter annual control, including Narrow Leaf Hawksbeard Improved control of dandelions - Residual control of some annual weeds for about 1-2 weeks	Dandelions Narrowleaved HB Wild buckwheat Cleavers Scentless Chamomile Storksbill	- no cropping restrictions the following year when used as a preseed burnoff in the spring -21 day extended control (guarantee)	Glyphosate Cost + PrePass Flex - \$4.50/ac PrePass XC - \$6.75/ac
Glyphosate + Valtera (flumioxazin)	Glyphosate: rate variable Valtera (56 g/ac) 160 ac/case	9, 14	Wheat (7 days before planting), Peas, Chickpeas, Soybeans, Lentils (fall application only)	- Control of Grp 2 & 9 resistant kochia -4 to 6 weeks residual activity on newly emerging weeds - do not incorporate	Annual grasses Annual broadleaves chickweed, pigweed, dandelions, nightshade, Kochia lamb's quarters, Cleavers (S-Grp 2)	- For best control, use 10 gpa water - requires 0.2" rain to activate - apply to soils up to 8% OM - preseed applications require min disturbance (<30%)	Glyphosate Cost + Valtera - \$15.24/ac at 160 ac/case

***Always refer to the Manufacturer Label - this list is not comprehensive**
Refer to the label for rates, crops, recropping, stages, etc.
Prices provided are SRP, and may be much lower at your retailer.
Tjhs Summary Guide is meant to compare similar products and options