Guide to PreSeed Herbicide Options - 2014

| Product Option | Typical Rate | Herbicide Group | Crop Choices | Benefits | Target Weeds | Cautions | Cost/Acre Approx SRP |
|---|--|--------------------|---|--|--|---|--|
| Glyphosate | Variable rate structure Depends on glyphosate brand, grams a.i., rate, weed type & weed density | 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 - \$2.12/ac 1.0 REL - \$4.25/ac |
| Glyphosate + Amitrol 240 | Glyphosate - 0.5 REL 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 | Glyphsoate cost + \$16.15 for Amitrol at 1.7L/ac |
| Glyphosate + Authority (sulfentrazone) | Glyphosate: rate variable Authority: 40-53 ac/jug | 9, 14 | Field peas, Flax, Chickpeas, 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 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 + \$14.58 for Authority at 40 ac/jug |
| Glyphosate + Authority Charge (sulfentrazone + carfentrazone) | Glyphosate: rate variable Authority Charge at 64-80 ac/case Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v | 9, 14, 14 | Field peas, Flax, Chickpeas, and Sunflowers | - Control vol. 1-3 leaf RR canola - Control Gr. 2 & 9 resistant kochia - Improved Gr. 2 resistant cleavers - Improved wild buckwheat control | Kochia Lambs quarters Redroot Pigweed Wild Buckwheat Cleavers (supp) | - Watch re-cropping restrictions - Requires a 10 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 + \$15.94 for Authority Charge at 80 ac/case |
| CleanStart (carfentrazone) | 20-40ac/case (0.5-1.0REL glyphosate + Aim) Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v | 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 | CleanStart \$7.83 at 40 acres/case |
| Glyphosate + Brotex / Parder (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 + \$7.88 for Pardner at 0.4L/ac (20ac/jug) |
| Glyphosate + Logic M / Buctril 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 + \$3.91 for Buctril M at 0.2L/ac (40ac/jug) |
| Glyphosate + 2,4-D | 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 + \$2.12 for 2,4-D Ester 700 (60 ac/ jug - 4 oz) |
| Glyphosate + MCPA | Glyphosate: rate variable MCPA amine:0.25-0.5L/ac MCPA ester: 0.2-0.4L/ac (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 + \$2.12 for MCPA Ester 600 (50 ac/ jug - 4 oz/ac) |
| Glyphosate + Banvel 480 (Dicamba) | Glyphosate: rate variable Dicamba: 60 ml/ac (1 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 + \$2.18 for Dicamba (167 ac/jug - 1 oz/ac) |
| Glyphosate + Express SG (tribenuron) | Glyphosate: rate variable Express SG: 6 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 Hawkrs beard 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 + \$3.81 for Express SG |
| Glyphosate + Express 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 Hawkrs beard Wild buckwheat White Cockle Cleavers Scentless Chamomile Storksbill | - Refer to label for crop options within one year after application | Glyphosate Cost + \$4.60 for Express Pro |

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| Glyphosate + HEAT (saflufenacil) | Glyphosate: rate variable Heat: 30-80 ac/bottle (10.5 - 28.1 g/ac) Merge: 0.2 L/ac | 9, 14 | Barley, Canary seed, Chickpea, Corn, Peas, Oat, Wheat, Lentils*, Soybean, Canary Seed, Soybeans* (*low rate only 10.5 g) | - Rapid desiccation of weeds - Excellent prodcut to manage grp 2 Restistant weeds. - Residual rate at 30-40 ac/jug, but vairable based on soil quality | Residual Rate 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 + \$5.39 for HEAT - 80 ac \$9.61 for HEAT - 40 ac \$12.43 for HEAT - 30 ac |
|---|---|----------|---|--|---|--|---|
| Glyphosate +PrePare (flucarbazone) | Glyphosate: rate variable Everest: 8.7 g/ac (66 ac/567 g/ jug) or 15 ml/ac (129 ac/1.940 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 + \$11.69 for Everest |
| PrePass (glyphosate & florasulam) | 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 21 days. | Dandelions Narrowleaved Hawks beard Wild buckwheat Cleavers Scentless Chamomile Storksbill | - Re-cropping restrictions within 10 months | \$6.95 for PrePass |
| Inferno Duo (flucarbazone & Tribenuron methyl) | Glyphosate: Rate variable Inferno Duo: 12.7 g/ac | 9, 2 | Wheat (spring, not Durum) | Controls all vol. canola, including RR - Enhanced residual control of wild oats and green foxtail control plus broadleaves - Control of Persian Darnel and Barnyard grass but no residual control | Downy Brome Foxtail barley Wild oats Green foxtail Hempnettle Kochia Narrow-leaved hawks wild buckwheat | Re-cropping restrictions based on soil zone - Do not seed peas or lentils in brown soil zone - No restrictions on canola and barley in all soil zones - Caution: Soil pH above 7.5, organic matter below 4%, rain less than 100 mm | Glyphosate cost + \$8.25 for Inferno Duo |
| Glyphosate + BlackHawk (carfentrazone + 2,4- D Ester - 5 oz) | Glyphosate: rate variable 80 acres/case Recommended to add surfactant: NIS at 0.25% v/v or Merge at 1% v/v | 9, 14, 4 | Wheat, Barley, Rye | - Controls 1-3 leaf canola, including RR - Rapid control of annual weeds - Control of Grp 2 & 9 resistant kochia - Spring germinated rosettes | Annual grasses Annual broadleafs 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 is a contact herbicide | Glyphosate Cost + BlackHawk \$5.61 at 80 acres/case |
| Glyphosate + Ko-Act (tribenuron + 2,4-D Ester - 5 oz) | Glyphosate: rate variable 80 acres/case Recommended to add surfactant: | 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 broadleafs RR-canola Dandelions Narrow leaved HB Hempnettle | - For best control, use 10 gpa water - Best control of volunteer canola is at the 1-2 leaf stage - Aim is a contact herbicide | Glyphosate Cost + Ko-Act \$5.10 at 80 acres/case |

^{*}Always refer to the Manufacturer Label

