## 2024 Potato Crop Protection Guide





Western Canada



## **BAYER COMPLETE POTATO PORTFOLIO**

	Dreduct				Chemical Class	Delutest	REI	PHI	
Product		Features and Benefits	Key Pests / Diseases Controlled	Use Rate		Group No.	Rainfast	(hours)	
SINS		<ul> <li>Systemic insecticide that provides economical and enduring control of damaging insects</li> <li>Application flexibility – use Admire<sup>®</sup> insecticide as a seed-piece treatment or as a foliar spray**</li> </ul>	Aphids, Colorado potato beetle, leafhoppers, potato flea beetle	26-39 mL/100 kg seed pieces (12-18 mL/cwt) Do not apply more than 1.165 L/ha (0.280 kg ai) per year		Group 4A (imidac	N/A	N/A	N/A
SEED-PIECE TREATMENTS	EMESTO SILVER	<ul> <li>Excellent control of fusarium tuber rot (including current resistant strains) and seed-borne <i>Rhizoctonia solani</i></li> <li>Coloured formulation facilitates safe and uniform application while allowing visual confirmation of coverage</li> <li>Liquid formulation allows for easy application and coverage</li> </ul>	Fusarium tuber rot (including current resistant strains), seed-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker), silver scurf	20 mL/100 kg seed (9.1 mL/cwt)		Group 7 (penflufen), Group 3 (prothioconazole)	N/A	N/A	N/A
SEED-P	EMESTO Complete	<ul> <li>Offers the same fungicide actives as Emesto<sup>®</sup> Silver, plus an insecticide, to protect against yield-robbing pests and diseases</li> <li>Liquid formulation allows for easy application and coverage</li> </ul>	Fusarium tuber rot (including current resistant strains), seed-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker), silver scurf Aphids, Colorado potato beetle, leafhoppers, potato flea beetle	Emesto PR0: 3.6 mL/100 kg seed pieces (1.6 mL/cwt) Emesto Quantum: 30 mL/100 kg seed pieces (13.6 mL/cwt)		Group 7 (penflufen) Group 3 (prothioconazole) Group 4 (c	N/A	N/A	N/A
icals	MINÚET <sup>®</sup>	<ul> <li>Protection against soil-borne diseases such as rhizoctonia root rot, black scurf and stem canker; phytophthora root rot, pink rot and pythium root rot</li> <li>Excellent mixing and handling characteristics</li> <li>Low use rate and concentrated packaging means less bulk and waste, making Minuet<sup>®</sup> an excellent fit with sustainability initiatives</li> </ul>	Soil-borne <i>Rhizoctonia solani</i> (root rot, black scurf and stem canker)*; fusarium root rot*, phytophthora root rot* and pink rot*; pythium root rot*	0.5 to 2.8 L/ha (200 to 1,120 mL/ac.) Recommended rate of 379 mL/ac. in potatoes.		FRAC Group BM02 ( <i>Bacillus subtilis</i> QST 713)	N/A	4	0
BIOLOG	SERENADE	<ul> <li>Broad-spectrum, biological foliar fungicide that provides effective disease suppression</li> <li>Provides anti-fungal and anti-bacterial activity; stimulates natural plant defence mechanisms</li> <li>Unique mode of action (FRAC Group BM02) makes for the best defence against the development of resistance</li> <li>Approved for organic use</li> </ul>	Early blight*, white mould*, post-harvest application for silver scurf*	1.1 to 2.2 kg/ha (0.45 to 0.90 kg/ac.) Begin application soon after emergence and when conditions are conducive to disease development. Repeat as necessary on a 7 to 10 day interval. Maximum of 6 applications per year. When disease pressure is severe, use the shorter intervals.		FRAC Group BM02 ( <i>Bacillus subtilis</i> QST 713)	Rainfast when dry	0	0
HERBICIDE	sencor	<ul> <li>Broad-spectrum grass and broadleaf weed control</li> <li>Can be applied pre-emergent or post-emergent</li> <li>Superior crop safety</li> <li>Utilizing Group 5 mode of action, it helps manage and prevent Group 2-resistant broadleaf weeds</li> </ul>	Grass and broadleaf weeds	Refer to Sencor $^{\ensuremath{\otimes}}$ label for pre-emergent or post-emergent rates for your region.		Group 5 (metribuzin)	6 hours	12	60
	_		Alternaria complex: brown leaf spot, early blight	600 mL/ha (243 mL/ac.)	Do not apply more than 3.2 L/ha (1.3 L/ac.) per season.				
ŝ		- Two modes of action protect your crops from black dot, brown spot, early blight and white mould	Black dot*, white mould	800 mL/ha (324 mL/ac.) Begin fungicide applications preventively. Continue as needed on a 7 to 14 day interval. When disease pressure is severe, use the shorter intervals.		Group 7 (fluopyram) Group 9 (pyrimethanil)	Rainfast when dry	12	7
FUNGICIDES	PROLINE GOLD	<ul> <li>Exceptional control of diseases such as early blight, brown leaf spot and white mould, as well as suppression of black dot</li> </ul>	Alternaria complex: brown leaf spot, early blight, white mould, black dot*	750 mL/ha (304 mL/ac.)		Group 7 (fl Group 3 (prothioconazole)	1 to 2 hours after application, when dry	12	14
	SCALA	- Superior early blight protection - Locally systemic activity to protect new growth	Early blight	0.75 L/ha (0.3 L/ac.) plus Bravo <sup>®</sup> ZN fungicide at registered rates. Repeat application at 7 to 14 day intervals, or as necessary to maintain disease control. When disease pressure is severe, use the shorter intervals. Maximum of 3 applications per year.		Group 9 (pyrimethanil)	2 hours	12	7
VIEMATICIDES		<ul> <li>With a unique mode of action and Group for protection against nematodes, Velum<sup>®</sup> Prime nematicide helps increase your crop's yield potential</li> <li>Black dot and early blight suppression</li> </ul>	Root lesion nematodes*, potato cyst nematodes*, root knot nematodes*, black dot*, early blight*	500 mL/ha (202 mL/ac.) or 4.5 mL/100 m row (based on 90 cm/36 in. row spacing) Maximum 500 mL/ac. per year.		Group 7 (fl	N/A	12	7
FUNGICIDES/NEM		<ul> <li>Co-formulation of the Group 7 active ingredients fluopyram and penflufen delivers systemic and preventative protection against crop diseases and nematodes</li> <li>Delivers excellent control of soil-borne diseases caused by <i>Rhizoctonia solani</i> as well as suppression of early blight and black dot</li> </ul>	Soil-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker) Root lesion nematodes*, potato cyst nematodes (including pale cyst and golden nematode)*, root knot nematodes*, black dot*, early blight*	1 L/ha (404 mL/ac.) or 9 mL/100 m row (based on 90 cm/36 in. row spacing) Regardless of formulation or method of application (soil or foliar), do not apply more than: - 500 g/ha (200 g/ac.) fluopyram per year - 160 g/ha (65 g/ac.) penflufen per year		Group 7 (fl Group 7 (penflufen)	N/A	12	7
INSECTICIDES	ADMIRE	<ul> <li>Systemic insecticide that provides economical and enduring control of damaging insects</li> <li>Application flexibility – use Admire insecticide as a seed-piece treatment or as a foliar spray**</li> </ul>	Aphids, Colorado potato beetle, leafhoppers*	200 mL/ha (80 mL/ac.) Maximum 1 foliar application per crop season.** Do not apply during bloom.		Group 4A (imidac	6	12	7
	decis	<ul> <li>A powerful synthetic pyrethroid insecticide that works quickly on a broad range of insects at very low rates per acre</li> </ul>	Aphids (potato and buckthorn), Colorado potato beetle, European corn borer, leafhoppers, potato flea beetle, tuber flea beetle, tarnished plant bug	Colorado potato beetle, leafhoppers, tarnished plant bug, potato flea beetle: 50 to 75 mL/ha (20 to 30 mL/ac.) in 200 to 500 L of water per ha Potato aphid, buckthorn aphid: 125 mL/ha (50 mL/ac.) in 300 to 400 L of water per ha Tuber flea beetle: 75 to 100 mL/ha (30 to 40 mL/ac.) in 600 L of water per ha European corn borer: 75 to 125 mL/ha (30 to 50 mL/ac.) in 300 to 500 L of water per ha Do not apply more than 250 mL product per ha (101 mL/ac.) per year by ground and 150 mL product per ha (61 mL/ac.) per year by air.		Group 3 (deltamethrin)	1	12	1
	<b>ΜΟΛΕΝΤΟ</b> .	<ul> <li>Travels up and down the entire plant to protect leaves, roots and new growth</li> <li>Controls pests that products with only contact or translaminar activity often miss</li> <li>Long residual control provides extremely effective activity on hard-to-control pests</li> </ul>	Aphids, psyllids	220 to 365 mL/ha (89 to 148 mL/ac.) Maximum allowed per crop season: 730 mL/ha (296 mL/ac.) For high insect pressure, a follow-up application may be necessary 7 days after the initial application.		Group 23 (spirotetrama	Rainfast when dry	12	7
		<ul> <li>A chemical sub-class, Group 4D, Sivanto<sup>®</sup> Prime combines proven Group 4 insecticide efficacy with a favourable safety profile for many beneficial insects</li> <li>Provides quick knockdown and residual control of target pests</li> </ul>	Aphids, leafhoppers Colorado potato beetle***	500 to 750 mL/ha (202 to 304 mL/ac.)Maximum 2 applications per year. Do not apply more than 2,000 mL/ha (810 mL/ac.) per season.750 to 1,000 mL/ha (304 to 404 mL/ac.)(810 mL/ac.) per season.		Group 4D (flupyradifurone)	1 hour	12	7
	vayego	<ul> <li>Second-generation Group 28 diamide that combines excellent knockdown and control of key potato insects</li> <li>Long-lasting residual control of Colorado potato beetles can mean fewer applications throughout the season</li> </ul>	Colorado potato beetle, European corn borer, potato flea beetle, aphids*	150 mL/ha (60 mL/ac.) Minimum interval between applications is 10 days. Maximum 2 applications per season. Not to exceed 300 mL/ha (120 mL/ac.) per crop season. Do not apply during bloom.		Group 28 (tetraniliprole)	1 hour	12	14

\* Suppression only
\*\* Do not make a foliar application of Admire following a soil or seed treatment application of a Group 4 insecticide. Do not apply during bloom.
\*\*\* Do not use Sivanto Prime as a foliar spray targeting Colorado potato beetle if a Group 4 insecticide was used as a seed treatment or at planting

## **RECOMMENDED APPLICATION TIMING**

	Product	Pests	Seed Treatment	in- Furrow	Pre- Emerge	Early Development	Pre-Row Closure	Row Closure/ Tuber Initiation	Tuber Bulking	Harvest	Post Harvest
		- Aphids, Colorado potato beetle, leafhoppers, potato flea beetle									
SEED-PIECE TREATMENTS	EMESTO SILVER	<ul> <li>Fusarium tuber rot (including current resistant strains)</li> <li>Seed-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker)</li> <li>Silver scurf</li> </ul>									
SEED-PIEC	E M E S T O Complete	<ul> <li>Fusarium tuber rot (including current resistant strains)</li> <li>Seed-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker)</li> <li>Silver scurf</li> <li>Aphids, Colorado potato beetle, leafhoppers, potato flea beetle</li> </ul>									
BIOLOGICALS	MIN <b>Ú</b> ET <sup>.</sup>	<ul> <li>Soil-borne <i>Rhizoctonia solani</i> (root rot, black scurf and stem canker)*</li> <li>Fusarium root rot*</li> <li>Phytophthora root rot and pink rot*</li> <li>Pythium root rot*</li> </ul>				*					
8	SERENADE	<ul> <li>Early blight*, white mould*</li> <li>Post-harvest application for silver scurf*</li> </ul>									
HERBICIDE	sencor	- Grass and broadleaf weeds									
	Luna_	<ul> <li>Alternaria complex: brown leaf spot, early blight</li> <li>White mould, black dot*</li> </ul>									
FUNGICIDES	PROLINE	<ul> <li>Alternaria complex: brown leaf spot, early blight</li> <li>White mould</li> <li>Black dot*</li> </ul>									
	SCALA	- Early blight									
ATICIDES		- Nematodes* - Black dot*, early blight*									
FUNGICIDES/NEMATICIDES	<b>YELUM</b> RISE	<ul> <li>Soil-borne <i>Rhizoctonia solani</i> (black scurf, stem and stolon canker)</li> <li>Nematodes*</li> <li>Black dot*, early blight*</li> </ul>									
		- Aphids, Colorado potato beetle, leafhoppers, potato flea beetle									
INSECTICIDES	decis	<ul> <li>Aphids (potato and buckthorn), Colorado potato beetle, European corn borer, leafhoppers, potato flea beetle, tuber flea beetle, tarnished plant bug</li> </ul>									
INSECT	<b>ΜΟΛΕΝΤΟ</b> .	- Aphids, psyllids									
		- Aphids, leafhoppers - Colorado potato beetle									
	vayego	<ul> <li>Colorado potato beetle</li> <li>European corn borer, potato flea beetle, aphids*</li> </ul>									
* Suppres	sion only	SEED-PIECE TREATMENTS	BIOLOGI	CALS	HERBICIDE	FUNGI	CIDES	FUNGICIDES/N	EMATICIDES	s 📕 INS	ECTICIDES



## For more information, visit cropscience.bayer.ca

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ALWAYS READ AND FOLLOW LABEL DIRECTIONS. Admire<sup>®</sup>, Bayer, Bayer Cross, Bayer Value<sup>™</sup>, Decis<sup>®</sup>, Emesto<sup>®</sup>, Hot Potatoes<sup>®</sup>, Luna Tranquility<sup>®</sup>, Minuet<sup>®</sup>, Movento<sup>®</sup>, Proline<sup>®</sup>, Scala<sup>®</sup>, Serenade<sup>®</sup>, Sencor<sup>®</sup>, Sivanto<sup>®</sup>, vayego<sup>®</sup> and Velum<sup>®</sup> are trademarks of the Bayer Group. All other trademarks are the property of their respective owners. Bayer CropScience Inc. is a member of CropLife Canada. ©2023 Bayer Group. All rights reserved.

