Potato Crop Protection Guide

Discover, at a glance, which Bayer solutions are the right choice to help keep your plants healthy and maximize your yield potential.

Eastern Canada

RECOMMENDED APPLICATION TIMING

	Product	Registration No.	Pests	Seed Treatment	In-Furrow	Pre-Emerge	Early Development	Pre-Row Closure	Row Closure/ Tuber Initiation	Tuber Bulking	Harvest	Post Harvest
SEED-PIECE TREATMENTS	ADMIRE	24094	Aphids, Colorado potato beetle, leafhoppers, potato flea beetl	■								
	EMESTO SILVER	30361	Fusarium tuber rot (including current resistant strains) Seed-borne *Rhizoctonia solani* (black scurf, stem and stolon canker) Silver scurf	■								
	EMESTO COMPLETE	Emesto Quantum - 30362 Emesto PRO - 33593	Fusarium tuber rot (including current resistant strains) Seed-borne *Rhizoctonia solani* (black scurf, stem and stolon canker) Silver scurf Aphids, Colorado potato beetle, leafhoppers, potato flea beetl	■								
BIOLOGICAL FUNGICIDES	MINUET	33651	Soil-borne *Rhizoctonia solani* (root rot, black scurf and stem canker)* Fusarium root rot* Phytophthora root rot and pink rot* Pythium root rot*		■							
	SERENADE OPTI	31666	Early blight*, white mould* Post-harvest application for silver scurf*				■	■	■	■	■	■
HERBICIDE	sencor	Sencor 480 F – 26280 Sencor 75 DF – 17242	Grass and broadleaf weeds			■	■	■				
FUNGICIDES	Luna TRANQUILITY	30510	Alternaria complex: brown leaf spot, early blight White mould, black dot*[1]				■	■	■	■	■	
	PROPULSE	33955	Alternaria complex: brown leaf spot, early blight White mould Black dot*[1]				■	■	■	■	■	
	SCALA	28011	Early blight				■	■	■	■	■	
FUNGICIDES/NEMATICIDES	VELUM PRIME	32108	Nematodes*[1] Black dot*[1], early blight*		■	■						
	VELUM RISE	34871	Soil-borne *Rhizoctonia solani* (black scurf, stem and stolon canker) Nematodes*[1] Black dot*[1], early blight*, white mould*		■	■						
INSECTICIDES	ADMIRE	24094	Aphids, Colorado potato beetle, leafhoppers, potato flea beetl				■	■	■	■		
	decis	33700	Aphids (potato and buckthorn), Colorado potato beetle, European corn borer, leafhoppers, potato flea beetle tuber flea beetle tarnished plant bug				■	■	■	■		
	MOVENTO	28953	Aphids, psyllids							■	■	
	SIVANTO prime	31452	Aphids, leafhoppers Colorado potato beetle						■	■	■	
	vayego	33711	Colorado potato beetle European corn borer, potato flea beetle aphids*				■	■	■	■	■	

[1] Black dot (*Colletotrichum coccodes*) and plant pathogenic nematodes are some of the causal agents of the potato early dying (PED) disease complex.
* Suppression only.

SEED-PIECE TREATMENTS · BIOLOGICAL FUNGICIDES · HERBICIDE · FUNGICIDES · FUNGICIDES/NEMATICIDES · INSECTICIDES

	Product	Features and Benefit	Key Pests / Diseases Controlled	WAMLEGS Mixing Order	Maximum Applications per Crop Season	Use Rate	Chemical Class Group No.	Rainfast	REI (hours)	PHI (days)
SEED-PIECE TREATMENTS	ADMIRE	• Systemic insecticide that provides economical and enduring control of damaging insects • Application flexibility – use Admire® insecticide as a seed-piece treatment or as a foliar spray**	Aphids, Colorado potato beetle, leafhoppers, potato flea beetl	L	Do not apply more than 1.165 L/ha (470 mL/ac.) per year.	26 to 39 mL/100 kg seed pieces (12 to 18 mL/cwt)	Group 4A (imidac	N/A	N/A	N/A
	EMESTO SILVER	• Excellent control of fusarium tuber rot (including current resistant strains) and seed-borne *Rhizoctonia solani* - Coloured formulation facilitates safe and uniform application while allowing visual confirm tion of coverage • Liquid formulation allows for easy application and coverage	Fusarium tuber rot (including current resistant strains), seed-borne *Rhizoctonia solani* (black scurf, stem and stolon canker), silver scurf	L	N/A	20 mL/100 kg seed (9.1 mL/cwt)	Group 7 (penflufen) Group 3 (prothioconazole)	N/A	N/A	N/A
	EMESTO COMPLETE	• Offers the same fungicide actives as Emesto® Silver, plus an insecticide, to protect against yield-robbing pests and diseases • Liquid formulation allows for easy application and coverage	Fusarium tuber rot (including current resistant strains), seed-borne *Rhizoctonia solani* (black scurf, stem and stolon canker), silver scurf Aphids, Colorado potato beetle, leafhoppers, potato flea beetl	L	N/A	Emesto PRO: 3.6 mL/100 kg seed pieces (1.6 mL/cwt) Emesto Quantum: 30 mL/100 kg seed pieces (13.6 mL/cwt)	Group 3 (prothioconazole) Group 7 (penflufen Group 4 (c	N/A	N/A	N/A
BIOLOGICAL FUNGICIDES	MINUET	• Protection against soil-borne diseases such as rhizoctonia root rot, black scurf and stem canker; phytophthora root rot, pink rot and pythium root rot • Excellent mixing and handling characteristics • Low use rate and concentrated packaging means less bulk and waste, making Minuet® an excellent fit with sustainability initi tives	Soil-borne *Rhizoctonia solani* (root rot, black scurf and stem canker)*; fusarium root rot*, phytophthora root rot* and pink rot*; pythium root rot*	L	N/A	0.5 to 2.8 L/ha (200 to 1,120 mL/ac.) Recommended rate of 379 mL/ac. in potatoes	FRAC Group BM02 (*Bacillus subtilis* QST 713)	N/A	N/A	0
	SERENADE OPTI	• Broad-spectrum, biological foliar fungicide that provides effective disease suppression • Provides anti-fungal and anti-bacterial activity; stimulates natural plant defence mechanisms • Unique mode of action (FRAC Group BM02) makes for the best defence against the development of resistance • Approved for organic use	Early blight*, white mould*, post-harvest application for silver scurf*	W	N/A	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 (*Bacillus subtilis* QST 713)	Rainfast when dry	0	0
HERBICIDE	sencor	• Broad-spectrum grass and broadleaf weed control • Can be applied pre-emergent or post-emergent • Superior crop safety • Utilizing Group 5 mode of action, it helps manage and prevent Group 2-resistant broadleaf weeds	Grass and broadleaf weeds	Sencor 480 F – L Sencor 75 DF – W	Refer to the Sencor label for maximum application rates for your region and soil type.	Refer to Sencor® label for pre-emergent or post-emergent rates for your region.	Group 5 (metribuzin)	6 hours	12	60
FUNGICIDES	Luna TRANQUILITY	• Two modes of action protect your crops from black dot[1], brown spot, early blight and white mould	Alternaria complex: brown leaf spot, early blight Black dot*[1], white mould	L	Maximum 3.2 L/ha (1.3 L/ac.) per season.	600 mL/ha (243 mL/ac.) 800 mL/ha 324 mL/ac.) Do not apply more than 3.2 L/ha (1.3 L/ac.) per season. 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
	PROPULSE	• Exceptional control of diseases such as early blight, brown leaf spot and white mould, as well as suppression of black dot[1]	Alternaria complex: brown leaf spot, early blight, white mould, black dot*[1]	L	Maximum of 2 applications per year. If using Velum Rise (or Velum Prime) at planting, then there is a maximum of 1 application of Propulse per year.	750 mL/ha (304 mL/ac.)	Group 7 (fluopyram 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	L	Maximum of 3 applications per year.	0.75 L/ha (0.3 L/ac.) plus Bravo® 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.	Group 9 (pyrimethanil)	2 hours	12	7
FUNGICIDES/NEMATICIDES	VELUM PRIME	• With a unique mode of action and Group for protection against nematodes[1], Velum® Prime nematicide helps increase your crop's yield potential • Black dot[1] and early blight suppression	Root lesion nematodes*, potato cyst nematodes*, root knot nematodes*[1], black dot*[1], early blight*	L	1 application per year recommended. If using other products containing fluopyram there is a maximu of 500 g fluopyram/ha per yea , regardless of formulation or method of application.	500 mL/ha (202 mL/ac.) or 4.5 mL/100 m row (based on 90 cm/36 in. row spacing)	Group 7 (fluopyram	N/A	12	7
	VELUM RISE	• Co-formulation of the Group 7 active ingredients fluopyram and penflufen delivers systemic an preventative protection against crop diseases and nematodes[1] • Delivers excellent control of soil-borne diseases caused by *Rhizoctonia solani* as well as suppression of early blight and black dot[1]	Soil-borne *Rhizoctonia solani* (black scurf, stem and stolon canker) Root lesion nematodes*, potato cyst nematodes (including pale cyst and golden nematode)*, root knot nematodes*[1], black dot*[1], early blight*, white mould*	L	1 application per year recommended. Fluopyram: If using other products containing fluopyram there is a maximum of 500 g/ha (202 g/ac.) fluopyram/ha per yea , regardless of formulation or method of application. Penflufen Do not apply more than 160 g/ha (65 g/ac.) penflufen per year, regardless of formulation or method of application (seed piece treatment or in-furrow).	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 yea	Group 7 (fluopyram Group 7 (penflufen)	N/A	12	7
INSECTICIDES	ADMIRE	• Systemic insecticide that provides economical and enduring control of damaging insects • Application flexibility – use Admire insecticide as a seed-piece treatment or as a foliar spray**	Aphids, Colorado potato beetle, leafhoppers*	L	Maximum of one foliar application per crop per season.	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	• A powerful synthetic pyrethroid insecticide that works quickly on a broad range of insects at very low rates per acre	Aphids (potato and buckthorn), Colorado potato beetle, European corn borer, leafhoppers, potato flea beetle, tuber flea beetle tarnished plant bug	E	Colorado potato beetle, leafhoppers, tarnished plant bug, potato flea beetle Maximum 3 applications Potato aphid, buckthorn aphid, tuber flea beetle European corn borer: Maximum 2 applications 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.	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
	MOVENTO	• Travels up and down the entire plant to protect leaves, roots and new growth • Controls pests that products with only contact or translaminar activity often miss • Long residual control provides extremely effective activity on hard-to-control pests	Aphids, psyllids	L	Maximum 1.83 L/ha (730 mL/ac.) per crop season.	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
	SIVANTO prime	• A chemical sub-class, Group 4D, Sivanto® Prime combines proven Group 4 insecticide effica y with a favourable safety profile for ma y beneficial insect • Provides quick knockdown and residual control of target pests	Aphids, leafhoppers Colorado potato beetle****	L	Maximum 2,000 mL/ha (810 mL/ac.) per crop season.	500 to 750 mL/ha (202 to 304 mL/ac.) 750 to 1,000 mL/ha (304 to 404 mL/ac.) Maximum 2 applications per year. Do not apply more than 2,000 mL/ha (810 mL/ac.) per season.	Group 4D (flupyradifurone	1 hour	12	7
	vayego	• Second-generation Group 28 diamide that combines excellent knockdown and control of key potato insects • Long-lasting residual control of Colorado potato beetles can mean fewer applications throughout the season	Colorado potato beetle, European corn borer, potato flea beetle aphids*	L	Maximum 2 applications per season. Minimal interval between applications is 10 days. Not to exceed 300 mL/ha (120 mL/ac.) per crop season.	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

[1] Black dot (*Colletotrichum coccodes*) and plant pathogenic nematodes are some of the causal agents of the potato early dying (PED) disease complex.
* 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.
*** To limit the potential for development of disease resistance to these fungicide classes, do not make more than two sequential applications of Luna Tranquility or any Group 7 or Group 9 fungicide before rotating with a fungicide from a different Group.
**** 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.

NOTES

BV / Hot Potatoes® Rewards Program

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