



2025 HORTICULTURE CROP PROTECTION GUIDE

Trusted technologies and innovative solutions for Canadian fruit and vegetable growers.

Whether it is insects, diseases or weeds, the wide range of high-performance solutions from Corteva Agriscience™ ensures you have everything you need to protect your fruit and vegetable crops. Our products are designed to work with your existing Integrated Pest Management programs and our team is continually innovating and developing new technologies to bring you the latest in horticulture crop protection. Corteva Agriscience: the agricultural company dedicated to farmers and growers.

KEEP GROWING.

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IMPORTANT NOTICE:
This information is provided for reference only and does not supply sufficient information for application. Always read and follow label directions.

	INSECTICIDES							FUNGICIDES				HERBICIDES				NEMATICIDE	BIOLOGICALS
	Closer™	Delegate™	Entrust™	GF-120 Fruit Fly Bait	Intrepid™	Success™	Vydate™	Fontelis™	Indar™	Nova™	Tanos™	Kerb™ SC	Lontrel™ XC	Prism™ SG	Steadfast™ IS	Salibro™	Utrisha™ N
Apple	X	X	X	X	X	X	X*	X		X		X	X	X			X
Apricot	X	X	X		X	X		X	X				X	X		X*	X
Blackberry	X	X	X		X	X		X		X	X			X			X
Blueberry – lowbush	X	X	X	X	X	X		X		X		X	X	X	X	X	X
Blueberry – highbush	X	X	X	X	X	X		X	X	X			X	X			X
Cantaloupe					X			X		X						X	X
Cherry	X	X	X	X	X	X		X	X	X			X	X		X*	X
Cranberry		X	X		X	X		X	X				X	X		X	X
Grape	X	X	X		X	X				X				X		X	X
Nectarine	X	X	X		X	X		X	X	X			X	X		X*	X
Peach	X	X	X		X	X		X	X	X			X	X		X*	X
Pear	X	X	X		X	X		X		X		X	X	X			X
Plum/Prune	X	X	X		X	X		X	X				X	X		X*	X
Raspberry	X	X	X		X	X	X	X		X	X			X			X
Saskatoon berry	X	X	X		X	X		X		X			X				X
Strawberry		X	X			X		X		X		X	X			X	X
Watermelon					X			X		X						X	X

*Non-bearing trees.
Always read the label for rates, instructions and precautions. Visit [Horticulture.corteva.ca](https://horticulture.corteva.ca) for more information.


	INSECTICIDES							FUNGICIDES					HERBICIDES				NEMATICIDE	BIOLOGICALS
	Closer™	Delegate™	Entrust™	Intrepid™	Success™	Vydate™		Acapela™	Curzate™	Fontelis™	Nova™	Tanos™	Accent™ IS	Kerb™ SC	Lontrel™ XC	Prism™ SG	Salibro™	Utrisha™ N
Asparagus	X	X	X		X						X							X
Basil and dill		X	X		X													
Broccoli	X	X	X	X	X					X					X			X
Brassica transplants			X		X													
Cabbage	X	X	X	X	X					X					X			X
Carrot	X	X								X							X	X
Cauliflower	X	X	X	X	X					X					X			X
Celery	X	X	X	X	X					X								X
Corn – sweet	X	X	X	X	X		X						X					
Cucumber				X						X	X						X	X
Cucumber – greenhouse		X	X		X					X	X							
Eggplant		X	X	X	X					X							X	X
Eggplant – greenhouse		X	X		X					X	X							
Garlic		X	X		X		X			X								X
Lettuce – head and leaf	X	X	X	X	X					X				X				X
Lettuce – greenhouse		X	X		X					X								
Mint		X	X		X													
Non-bearing nursery stock		X																
Onion – green		X	X		X		X			X								X
Onion – dry bulb		X	X		X		X			X					X			
Parsley	X	X	X	X	X					X								
Legume Vegetable (Bean)		X	X	X	X		X			X								X
Legume Vegetable (Pea)				X			X			X								X
Pepper		X	X	X	X					X							X	X
Pepper – greenhouse		X	X		X					X	X							
Potatoes	X	X	X		X	X	X	X	X			X				X	X	X
Pumpkin				X						X	X						X	X
Radish	X	X	X		X					X								X
Rutabaga	X	X	X		X					X					X			
Shallots – dry bulb		X	X		X		X			X								
Sweet potato	X			X													X	X
Swiss chard	X	X	X	X	X					X								
Tomato		X	X	X	X					X		X				X	X	X
Tomato – greenhouse		X	X		X					X	X							
Turnip	X	X	X		X					X					X			

Always read the label for rates, instructions and precautions. Visit [Horticulture.corteva.ca](https://horticulture.corteva.ca) for more information.



CROP GROUPINGS

BERRIES
(Crop Group 13-07 including blackberries, raspberries, blueberries and strawberries)

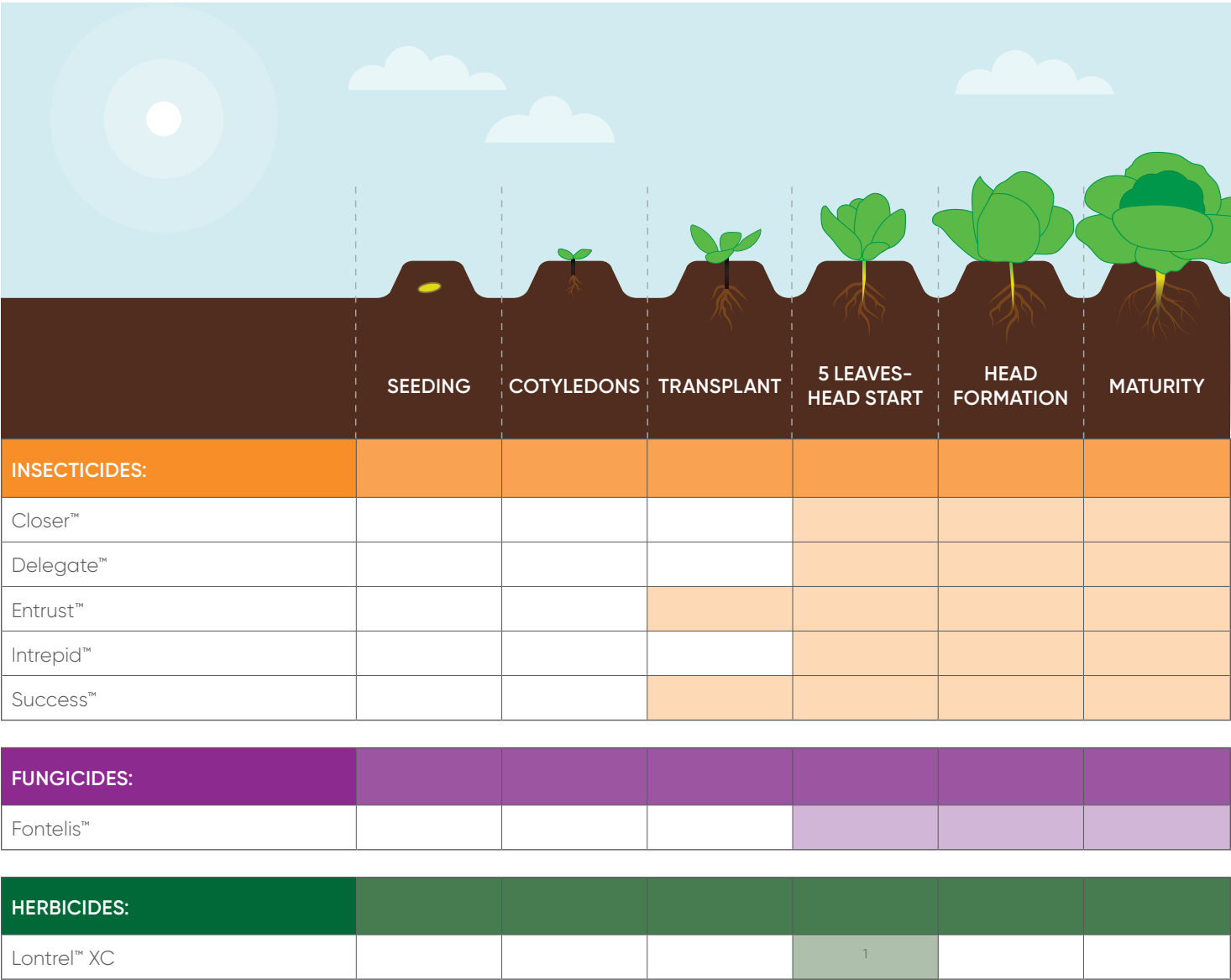
											
	PLANT/ AT PLANT	BUD SWELL TO BUD BREAK	TIGHT CLUSTER	PINK BUD	5% BLOOM	FULL BLOOM	PETAL FALL	GREEN FRUIT	FRUIT COLOURING	HARVEST	DORMANT
INSECTICIDES:											
Delegate™					1						
Entrust™					1						
GF-120 Fruit Fly Bait											
Intrepid™											
Success™					1						
FUNGICIDES:											
Indar™											
Fontelis™											
Nova™											
Tanos™											
HERBICIDES:											
Kerb™ SC											
Lontrel™ XC											
Prism™ SG											
Steadfast™ IS											
NEMATICIDE:											
Salibro™	Refer to product label for application timing.										
Vydate™*											

¹ Apply only when bees are not visiting the area.
* Apply one application in fall before October 31. Do not apply in the spring.

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Blueberry flea beetle	Success™	Spinosad	5	C, Ing	165-220 mL*	Until residues have dried.	3	3
	Delegate™	Spinetoram	5	C, Ing	200 g	12	3	3
	Entrust™	Spinosad	5	C, Ing	334-440 mL*	Until residues have dried.	3	3
Oblique-banded leafroller, Spanworm	Success™	Spinosad	5	C, Ing	145-182 mL	Until residues have dried.	1-3	3
	Entrust™	Spinosad	5	C, Ing	267-364 mL	Until residues have dried.	1-3	3
	Delegate™	Spinetoram	5	C, Ing	100-200 g**	12	1-3	3
	Intrepid™	Methoxyfenozide	18	Ing	500 mL	12	7	2 L/ha
Spotted wing drosophila	Delegate™	Spinetoram	5	C, Ing	280-420 g	12	1	3
	Success™	Spinosad	5	C, Ing	145-220 mL	Until residues have dried.	1	3
	Entrust™	Spinosad	5	C, Ing	292-440 mL	Until residues have dried.	1	3
Thrips*	Delegate™	Spinetoram	5	C, Ing	200-280 g	12	1	3
FUNGICIDES								
Botrytis grey mold, Powdery mildew, Mummy berry*	Fontelis™	Penthiopyrad	7	Pre, Cur	1-1.75 L	12	0	5.25 L/ha
Caneberry spur blight, Botrytis, Anthracnose	Tanos™	Famoxadone + Cymoxanil	11+27	Cur	840 g	9 days	9	3
Mummy berry	Indar™	Fenbuconazole	3	Pre	140 g	12	30	4
Powdery mildew	Nova™	Myclobutanil	3	Pre, Cur	340 g	12	1-14	3-6
HERBICIDES								
Quackgrass, Annual Grasses and Chickweed	Kerb™ SC	Propyzamide	3	Sys	4.1-5.6 L	24		1
Broadleaf weeds hard to control	Lontrel™ XC	Clopyralid	4	Sys	0.25-0.5 L	12	HB Blueberry - 45 days LB Blueberry - 10 months	1
Lamb's-quarters, Green foxtail, Volunteer wheat, Wild oats, Volunteer Canola	Steadfast™ IS	Rimsulfuron + Nicosulfuron	2	Sys	40-66.5 g	12	14 months	1
Broadleaf and grassy weeds: Redroot pigweed, Lamb's- quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60 g	12	21 LB Blueberry - 14 months	1
NEMATICIDES								
Root-knot nematode*	Salibro™	Fluazaindolizine		Ing	1.12-2.24 L	12	1	4,48 L/ha
Root lesion nematode (raspberries only)	Vydate™	Oxamyl	1A	C, Ing	9.35 L	12		1

^ C - Contact Pre - Preventative * Suppression
Ing - Ingestion Cur - Curative ** Suppression on Blueberry spanworm
Sys - Systemic This guide is a reference only. Always read and follow label directions.

BRASSICA
(Crop Group 5-13 including broccoli, cauliflower and cabbage)

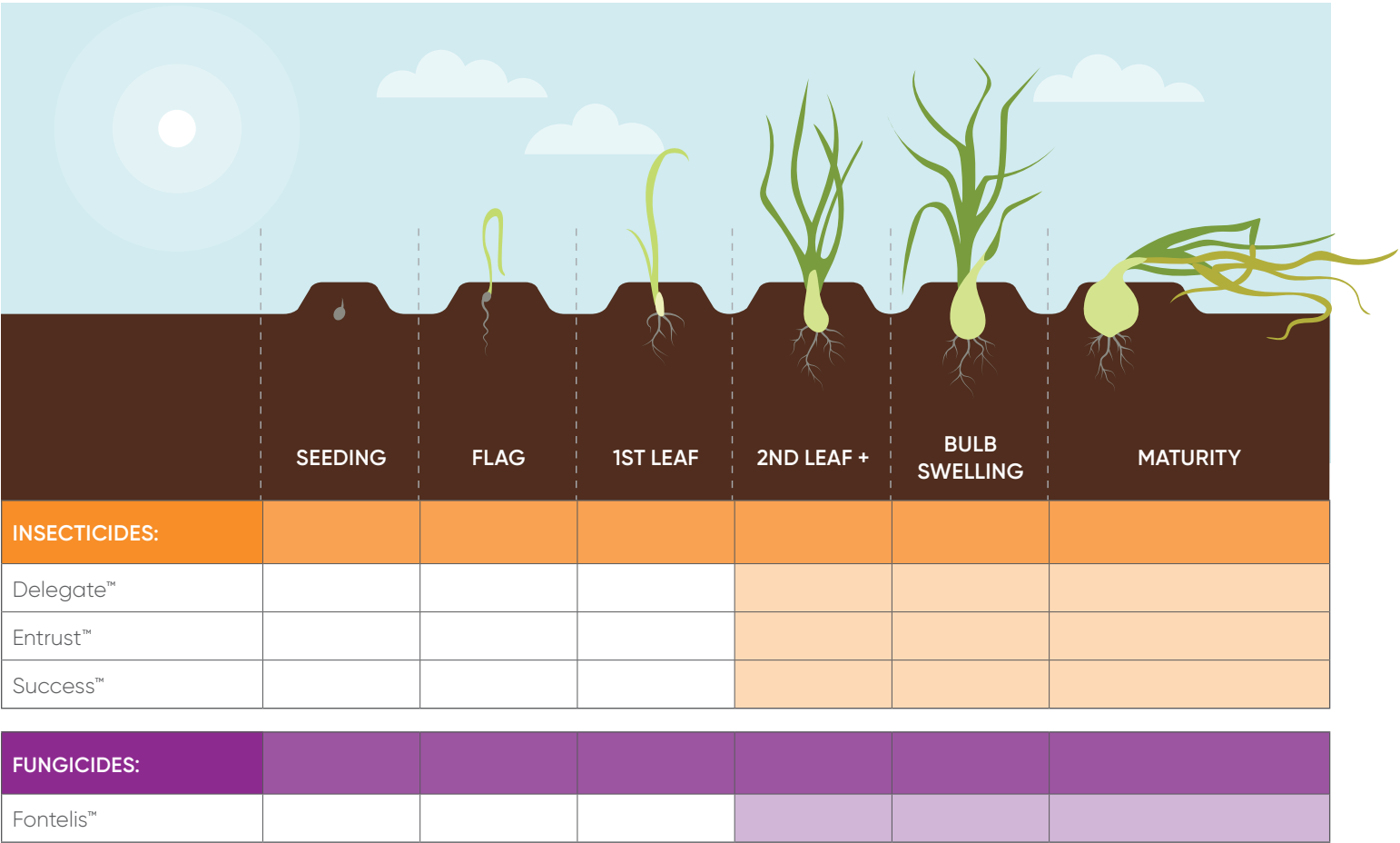


¹ Apply from established transplant, about 7 days after transplantation up to approx 8-10 leaves

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL [^]	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids	Closer™	Sulfoxaflor	4C	C, Ing	100-150 mL	12	3	2
Cabbage looper, Diamondback moth, Imported cabbage worm	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	3	3
	Delegate™	Spinetoram	5	C, Ing	140-200 g	12	1	3
	Intrepid™	Methoxyfenozide	18	C	300-600 mL	12	1	2 L/ha
Cabbage maggot	Success™	Spinosad	5	C, Ing	12.5 mL/1000 plants	24	3	1
	Entrust™	Spinosad	5	C, Ing	25 mL/1000 plants	24	3	1
Crucifer flea beetles*	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	3	3
Swede midge**	Success™	Spinosad	5	C, Ing	146 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	292 mL	Until residues have dried.	3	3
Thrips*	Success™	Spinosad	5	C, Ing	146 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	292 mL	Until residues have dried.	3	3
	Delegate™	Spinetoram	5	C, Ing	200-336 g	12	1	3
FUNGICIDES								
Gray mold	Fontelis™	Penthiopyrad	7	Pre, Cur	1.25-2.25 L	12	0	5.25 L/ha
Sclerotinia stem rot*, Alternaria leaf spot, Powdery mildew	Fontelis™	Penthiopyrad	7	Pre, Cur	1.25-1.75 L	12	0	5.25 L/ha
HERBICIDES								
Broadleaf weeds	Lontrel™ XC	Clopyralid	4	Sys	0.34 L	12	30	1

[^] C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative
* Suppression
** Reduction in damage
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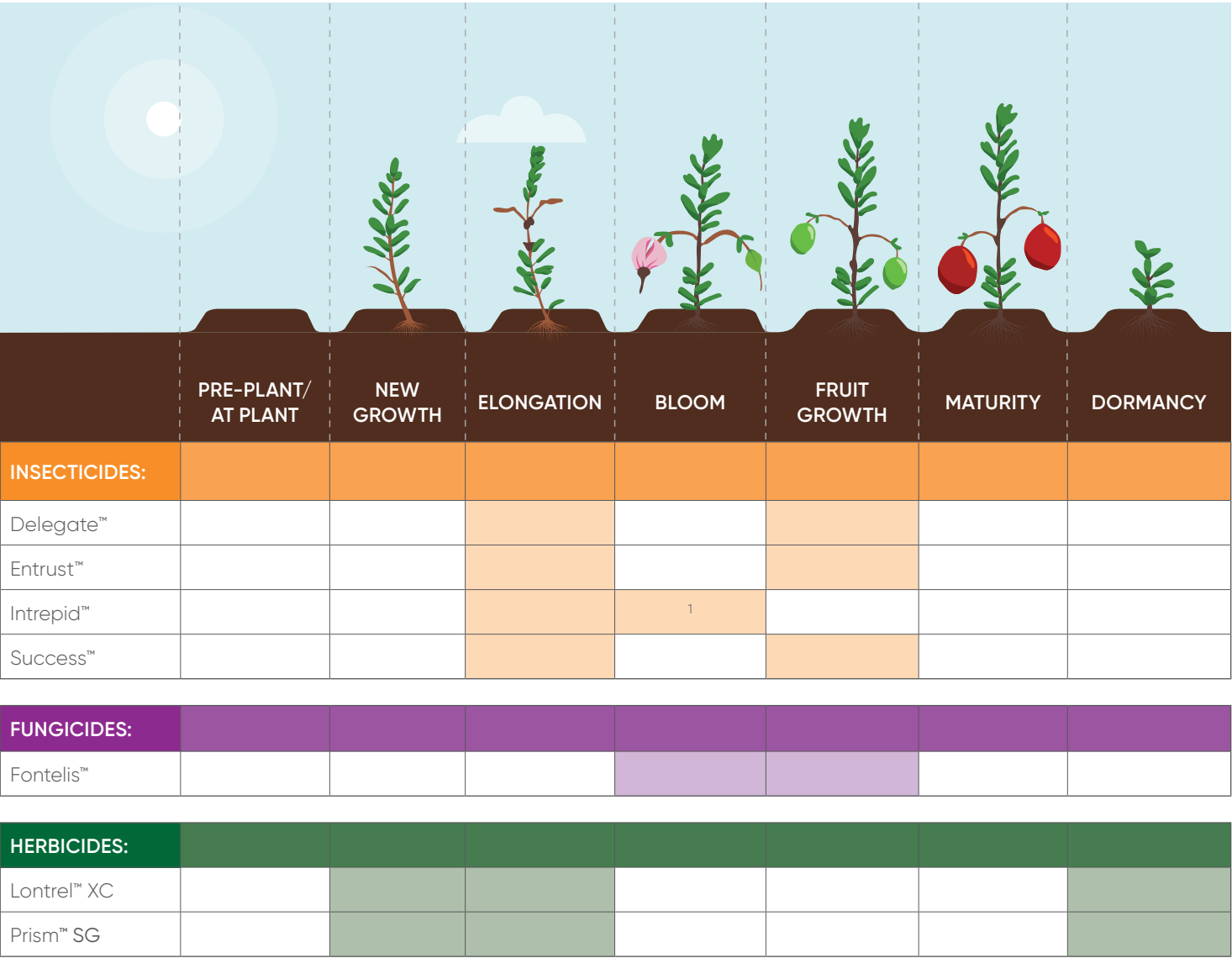
BULB VEGETABLES
(Crop Group 3 including green onion and garlic)



PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDE								
Onion leafminer*	Success™	Spinosad	5	C, Ing	218-262 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	437-527 mL	Until residues have dried.	3	3
	Delegate™	Spinetoram	5	C, Ing	200-336 g	12	3	3
Thrips*	Success™	Spinosad	5	C, Ing	218-262 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	437-527 mL	Until residues have dried.	3	3
	Delegate™	Spinetoram	5	C, Ing	200-336 g	12	3	3
FUNGICIDES								
Botrytis fleck, Purple blotch, Botrytis leaf blight	Fontelis™	Penthiopyrad	7	Pre, Cur	1.25-1.75 L	12	3	5.25 L/ha

^ C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative
* Suppression
This guide is a reference only. Always read and follow label directions.

CRANBERRY



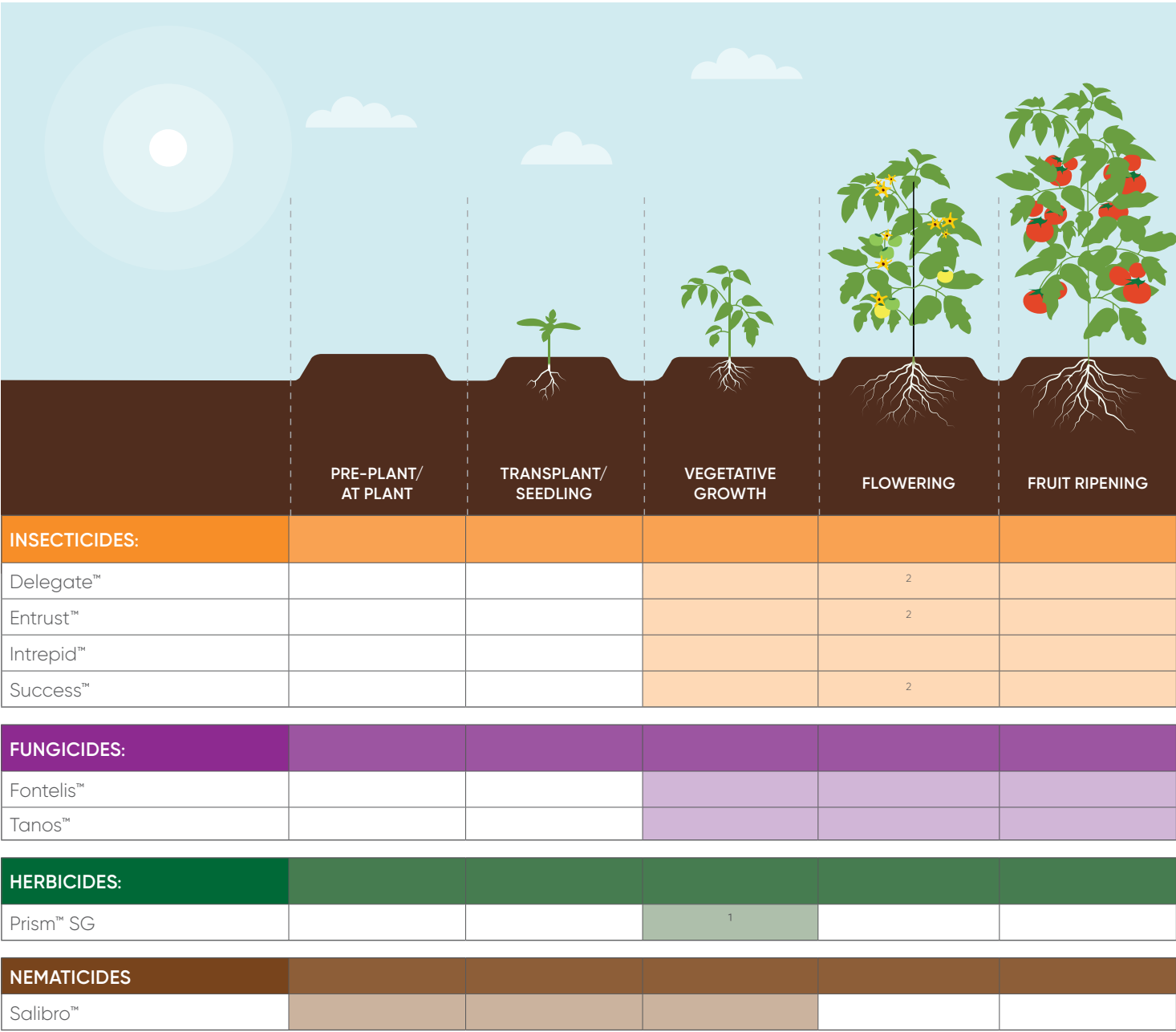
¹ Apply only when bees are not visiting the area

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Blackheaded fireworm Sparganothis fruitworm	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	21	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	21	3
	Delegate™	Spinetoram	5	C, Ing	420 g	12	21	3
	Intrepid™	Methoxyfenozide	18	Ing	0.75-1.16 L	12	14	2 L/ha
Cranberry fruitworm	Success™	Spinosad	5	C, Ing	365 mL*	Until residues have dried.	21	3
	Entrust™	Spinosad	5	C, Ing	727 mL*	Until residues have dried.	21	3
	Intrepid™	Methoxyfenozide	18	Ing	0.75-1.16 L	12	14	2 L/ha
Cranberry tipworm*	Delegate™	Spinetoram	5	C, Ing	420 g	12	21	3
FUNGICIDES								
Botrytis gray mold	Fontelis™	Penthiopyrad	7	Sys	1-1.75 L	12	0	5.25 L/ha
HERBICIDES								
Vetch	Lontrel™ XC	Clopyralid	4	Sys	12 mL /L water**	12	60	2
Broadleaf and grassy weeds: Redroot pigweed, Lamb's-quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60 g	12	60	1

^ C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

* Suppression
** Wick application only
This guide is a reference only. Always read and follow label directions.

FRUITING VEGETABLES
(Crop Group 8-09 including tomato, pepper and eggplant)



¹ 7-10 days after transplanting
² Apply only when bees are not visiting the area

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL [^]	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Diamondback moth, Imported cabbage worm	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	1	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	1	3
Cabbage looper	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	1	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	1	3
	Delegate™	Spinetoram	5	C, Ing	140-200 g	12	1	3
	Intrepid™	Methoxyfenozide	18	C	300-600 mL	12	1	2 L/ha
Colorado potato beetles	Success™	Spinosad	5	C, Ing	83 mL	Until residues have dried.	1	3
	Entrust™	Spinosad	5	C, Ing	167 mL	Until residues have dried.	1	3
	Delegate™	Spinetoram	5	C, Ing	160-240 g	12	1	3 (600 g/per year max)
European corn borer	Success™	Spinosad	5	C, Ing	83 mL	Until residues have dried.	1	2
	Entrust™	Spinosad	5	C, Ing	167 mL	Until residues have dried.	1	2
	Delegate™	Spinetoram	5	C, Ing	160 g	12	1	3
	Intrepid™	Methoxyfenozide	18	C	300-600 mL	12	1	2 L/ha
FUNGICIDES								
Early blight and Late blight	Tanos™	Famoxadone + Cymoxanil	11+27	Cur	560 g	12	3	3
Gray mold, Powdery mildew and Early blight*	Fontelis™	Penthiopyrad	7	Pre, Cur	1.0-1.75 L	12	0	5.25 L/ha
HERBICIDES								
Broadleaf and grassy weeds: Redroot pigweed, Lamb's-quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60-140 g	12	30	1
NEMATOCIDES								
Root-knot nematode	Salibro™	Fluazaindolizine		Ing	1.12-4.48 L	12	1	4.48 L/ha

[^] C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

* Suppression
This guide is a reference only. Always read and follow label directions.

GRAPES

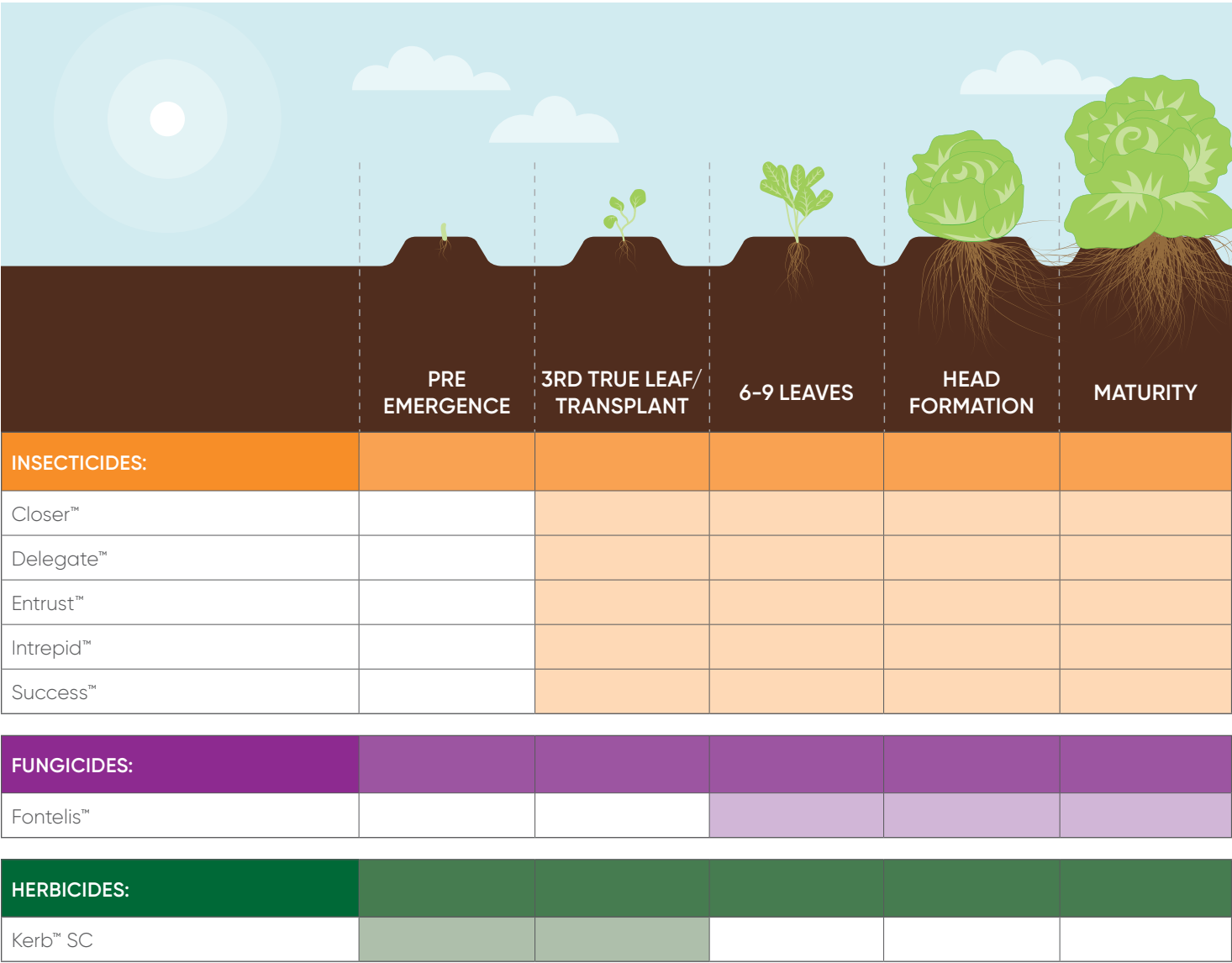
	PRE-PLANT/ AT PLANT	BUD BURST	1ST LEAF	3-5 LEAF	PRE-BLOOM	BLOOM	FRUIT SET	PEA SIZED FRUIT	BUNCH CLOSURE	VERAISON	HARVEST	DORMANT
INSECTICIDES:												
Closer™												
Delegate™												
Entrust™												
Intrepid™												
Success™												
FUNGICIDES:												
Nova™												
HERBICIDES:												
Prism™ SG												
NEMATOCIDES												
Salibro™												

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Climbing Cutworm	Intrepid™	Methoxyfenozide	18	Ing	600 mL	12	30	2
Grape Berry Moth	Delegate™	Spinetoram	5	C, Ing	280 g*	12	7	3
	Success™	Spinosad	5	C, Ing	182 mL*	Until residues have dried.	7	3
	Entrust™	Spinosad	5	C, Ing	364 mL*	Until residues have dried.	7	3
	Intrepid™	Methoxyfenozide	18	Ing	600 mL	12	30	3
Leafhoppers*	Closer™	Sulfoxyflor	4C	C, Ing	200-400 mL	12	7	2
Spotted-Wing Drosophilla	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	7	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	7	3
Western Flower Thrips*	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	7	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	7	3
FUNGICIDES								
Black Rot, Powdery Mildew	Nova™	Myclobutanil	3	Sys, local	200 g	12	14	5
HERBICIDES								
Broadleaf and grassy weeds: Redroot pigweed, Lamb's-quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60 g	12	21	1
NEMATOCIDES								
Root-knot nematode	Salibro™	Fluazaindolizine		Ing	2.24-4.48 L	12	3	4.48 L/ha

^ C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

*Suppression
This guide is a reference only. Always read and follow label directions.

LEAFY VEGETABLES
(Crop Group 4-13 including lettuce and spinach)

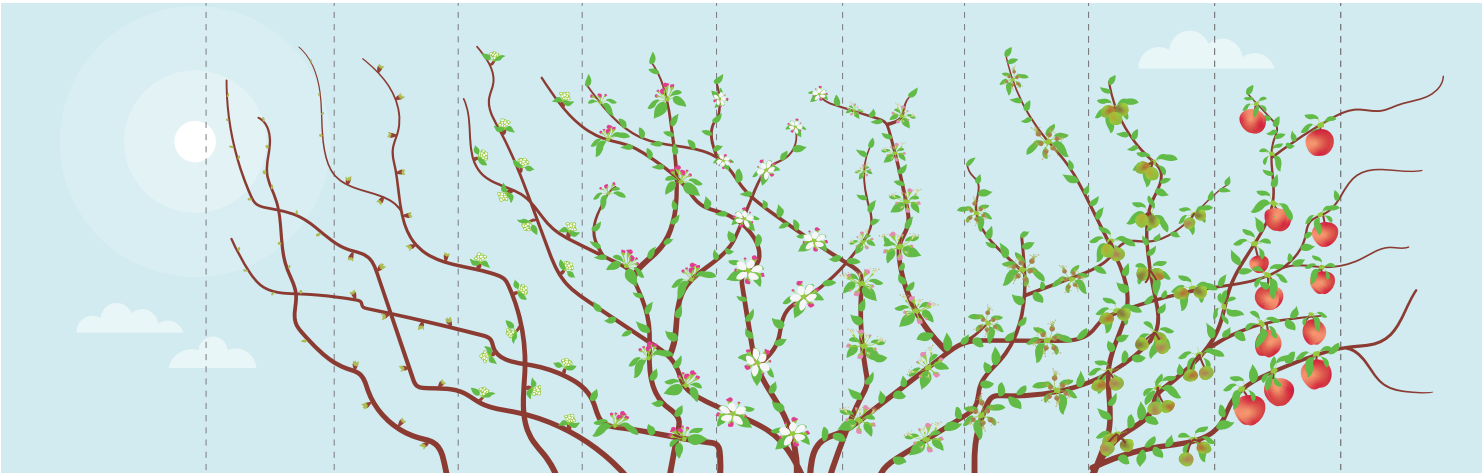


PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids	Closer™	Sulfoxaflor	4C	C, Ing	100-150 mL	12	3	2
Cabbage looper	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	1-3	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	1-3	3
	Delegate™	Spinetoram	5	C, Ing	140-200 g	12	1	3
	Intrepid™	Methoxyfenozide	18	C	300-600 mL	12	1	2 L/ha
Diamondback moth, Imported cabbage worm	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	1-3	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	1-3	3
	Delegate™	Spinetoram	5	C, Ing	140-200 g	12	1	3
Thrips*	Success™	Spinosad	5	C, Ing	146 mL	Until residues have dried.	3	3
	Entrust™	Spinosad	5	C, Ing	292 mL	Until residues have dried.	3	3
FUNGICIDES								
Gray mold, Lettuce drop*	Fontelis™	Penthiopyrad	7	Pre, Cur	1.25-1.75 L	12	3	5.25 L/ha
Septoria late blight, Alternaria leaf spot, Cercospora leaf spot, Powdery mildew	Fontelis™	Penthiopyrad	7	Pre, Cur	1.0-1.75 L	12	3	5.25 L/ha
HERBICIDES								
Annual grasses and broadleaf weeds	Kerb™ SC	Propyzamide	3	Sys	2.75 L	24	55	1

^ C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

* Suppression
This guide is a reference only. Always read and follow label directions.

POME FRUIT
(Crop Group 11-09 including apple and pear)

										
	GREEN TIP	HALF-INCH GREEN	TIGHT CLUSTER	PINK	FULL BLOOM	PETAL FALL	FRUIT SET	SUMMER	HARVEST	DORMANT
INSECTICIDES:										
Closer™										
Delegate™										
Entrust™										
GF-120 Fruit Fly Bait										
Intrepid™										
Success™										
FUNGICIDES:										
Fontelis™										
Nova™										
HERBICIDES:										
Kerb™ SC										
Lontrel™ XC										
NEMATICIDES:										
Vydate™*										

* Non-bearing apple only

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids; apple aphids, rosy apple aphids	Closer™	Sulfoxyflor	4C	C, Ing	100–200 mL	12	7	2
	Vydate™**	Oxamyl	1A	C, Ing	1.5 – 3 L/1,000 L	12		3
Apple maggot*	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	3
Apple clearwing moth	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	2
	Success™	Spinosad	5	C, Ing	125 mL	Until residues have dried.	7	7
	Entrust™	Spinosad	5	C, Ing	250 mL	Until residues have dried.	7	7
Codling moth	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	3
	Entrust™	Spinosad	5	C, Ing	364 mL*	Until residues have dried.	7	3
	Intrepid™	Methoxyfenozide	18	Ing	1 L	12	14	2
Dogwood borer	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	2
Mullein bug, Woolly apple aphids	Closer™	Sulfoxyflor	4C	C, Ing	400 mL	12	7	2
Oblique banded leafrollers, Fruit tree leafrollers and European leafroller, Eyespotted budmoth	Delegate™	Spinetoram	5	C, Ing	210–420 g	12	7	3
	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	7	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	7	3
	Intrepid™	Methoxyfenozide	18	Ing	0.75 L***	12	14	2
Oriental fruit moth	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	3
	Intrepid™	Methoxyfenozide	18	Ing	1 L	12	14	2
Plum curculio* European apple sawfly	Delegate™	Spinetoram	5	C, Ing	420 g	12	7	3
San Jose scale	Closer™	Sulfoxyflor	4C	C, Ing	200–400 mL	12	7	2
Spotted & Western tentiform leafminers	Delegate™	Spinetoram	5	C, Ing	210–420 g	12	7	3
	Intrepid™	Methoxyfenozide	18	Ing	0.5 L	12	14	2 L/ha
Tarnished plant bug	Closer™	Sulfoxyflor	4C	C, Ing	300 mL	12	7	2
FUNGICIDES								
Apple scab, Powdery mildew, Cedar apple rust	Fontelis™	Penthiopyrad	7	Pre, Cur	1–1.5 L	12	28	4.5 L/ha
	Nova™	Myclobutinal	3	Pre, Cur	340 g	12	14	6
HERBICIDES								
Quack grasss, annual grasses	Kerb™ SC	Propyzamide	3	Sys	5.6 L	24		1
Broadleaf weeds, vetch	Lontrel™ XC	Clopyralid	4	Sys	0.34 L	12	30	1
NEMATICIDES								
Root lesion nematode	Vydate™**	Oxamyl	1A	Sys	1.25 L/1000 L	12	365	1

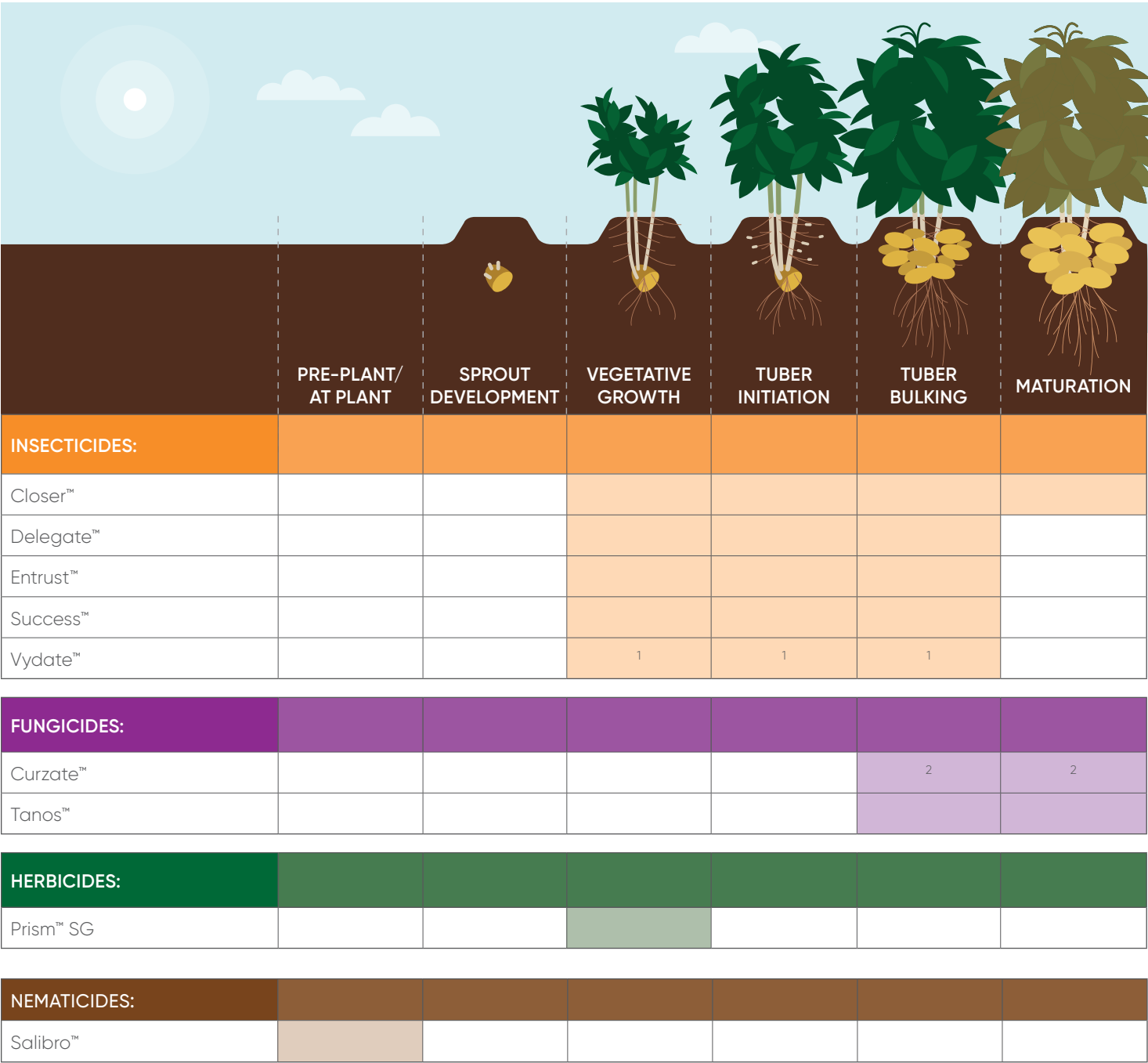
^ C - Contact
Ing - Ingestion
Sys - Systemic

Pre - Preventative
Cur - Curative

* Suppression
** Non-bearing apple only
*** Oblique banded leafroller and Three-lined leafroller only

This guide is a reference only.
Always read and follow label directions.

ROOT AND TUBER VEGETABLES
(Crop Group 1 including carrot, potato, sweet potato, radish and sugar beets)




¹ Colorado potato beetles resistant to carbamates will not be controlled.
² Early blight is controlled by the registered tank mix with a Group M fungicide.
This chart is intended for reference only and not intended to provide information for application. Always read and follow label directions. Chart shows possible pest timing, not spray timing.

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids	Closer™	Sulfoxaflor	4C	C, Ing	50-150 mL	12	7	2
	Vydate™	Oxamyl	1A	Sys	2.3-3 L	12	7	2
Colorado potato beetles	Success™	Spinosad	5	C, Ing	83-167 mL	12	7	250 mL/ha
	Entrust™	Spinosad	5	C, Ing	167-334 mL	12	7	500 mL/ha
	Delegate™	Spinetoram	5	C, Ing	160-240 g	12	7	3
	Vydate™	Oxamyl	1A	Sys	2.3-3 L	12	7	2
European corn borer	Success™	Spinosad	5	C, Ing	125 mL	12	7	250 mL/ha
	Entrust™	Spinosad	5	C, Ing	250 mL	12	7	2
	Delegate™	Spinetoram	5	C, Ing	160 g	12	7	3
Flea beetles	Vydate™	Oxamyl	1A	Sys	2.3-3 L	12	7	2
Leafhoppers	Closer™	Sulfoxaflor	4C	C, Ing	300 mL	12	7	2
	Vydate™	Oxamyl	1A	Sys	2.3-3 L	12	7	2
Tarnished plant bug	Vydate™	Oxamyl	1A	Sys	2.3-3 L	12	7	2
FUNGICIDES								
Early blight	Tanos™	Famoxadone + Cymoxanil	11+27	Cur	560-840 g	24	14	3
Late blight	Curzate™	Cymoxanil	27	Pre, Cur	225 g***	24	8	4
	Tanos™	Famoxadone + Cymoxanil	11+27	Cur	560-840 g	24	14	3
HERBICIDES								
Broadleaf and grassy weeds: Redroot pigweed, Lamb's-quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60 g	12	30	1
NEMATICIDES								
Root knot nematode	Salibro™	Fluazaindolizine		Ing	1.12 - 4.48 L**	12	40	4.48 L/ha

^ C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

*Suppression
**Pre-plant incorporated/in furrow application: 2.24 - 4.48 L/ha; Post-plant Chemigation: 1.12 - 2.24 L/ha. See product label for specific application rates.
*** Early blight control requires tank mix. Refer to product label.
This guide is a reference only. Always read and follow label directions.

STONE FRUIT
(Crop Group 12-09 including cherries, peaches and plums)

													
	PRE-PLANT/ AT PLANT	GREEN TIP	PINK	BLOOM	PETAL FALL	FRUIT SET	SHUCK SPLIT/ HUSK FALL	FRUIT SIZING	STRAW COLOUR (CHERRIES ONLY)	BLUSH	HARVEST	POST HARVEST	DORMANT
INSECTICIDES:													
Closer™													
Delegate™													
Entrust™													
GF 120 Fruit Fly Bait													
Intrepid™													
Success™													
FUNGICIDES:													
Fontelis™													
Indar™													
Nova™													
HERBICIDES:													
Lontrel™ XC													
Prism™ SG													
NEMATICIDES:													
Salibro™**	Refer to product label for application timing.												

** Non-bearing only

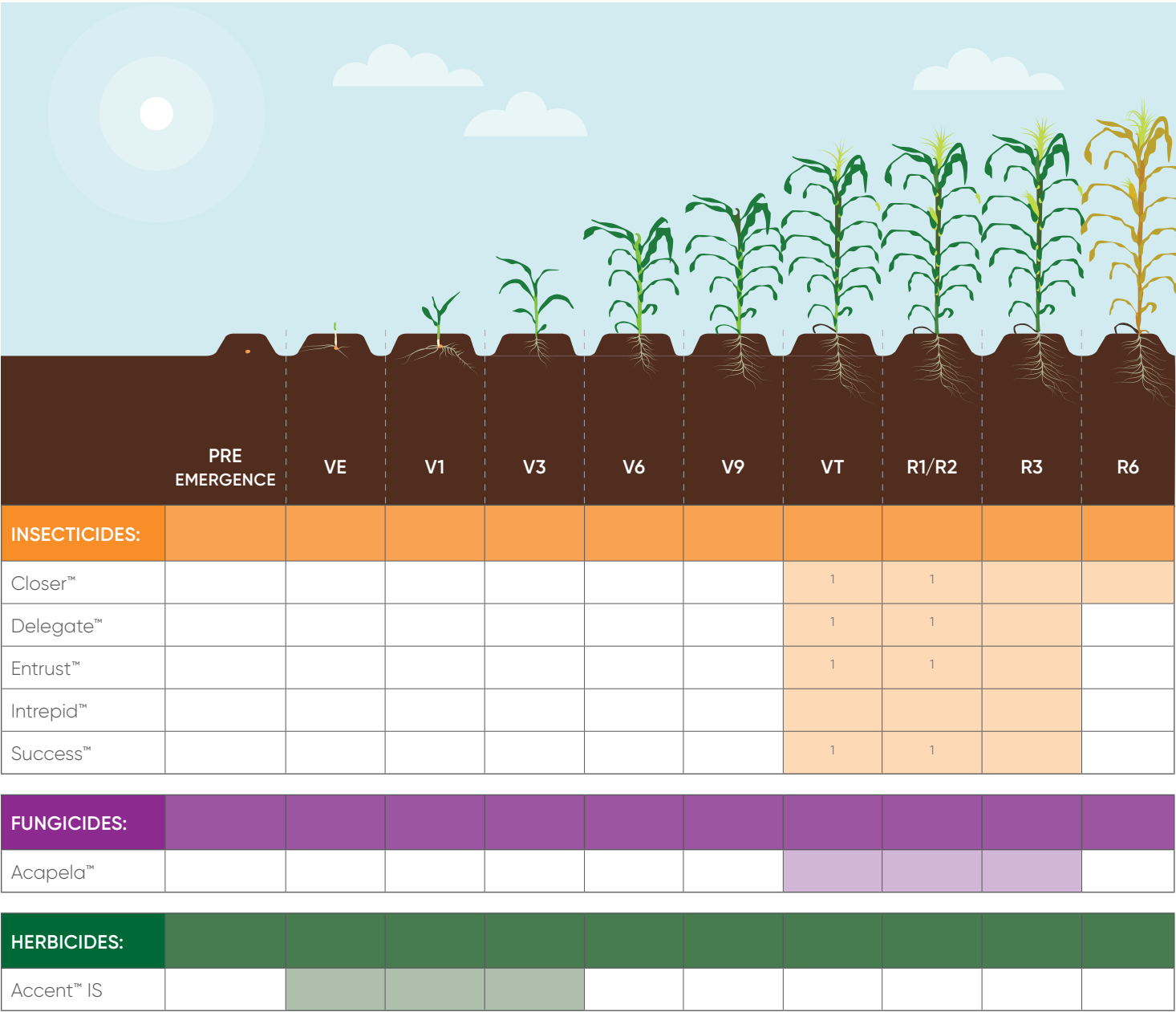
PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids; Green peach, Mealy plum, Black cherry	Closer™	Sulfoxyflor	4C	C,Ing	100-200 mL	12	7	2
Cherry fruit fly	Delegate™	Spinetoram	5	C, Ing	420 g*	12	5	3
	Entrust™	Spinosad	5	C, Ing	364 mL	Until residues have dried.	7	4
Peach tree borer, Lesser peachtree borer*	Delegate™	Spinetoram	5	C, Ing	420 g	12	1-5	3
Peach twig borer	Success™	Spinosad	5	C, Ing	182 mL*	Until residues have dried.	14	3
	Entrust™	Spinosad	5	C, Ing	364 mL*		14	3
	Intrepid™	Methoxyfenozide	18	Ing	750 mL		12	7
Oblique-banded leafroller, Three-lined leafrollers, Fruittree leafroller, European leafroller, Eye spotted budmoth	Delegate™	Spinetoram	5	C, Ing	210-420 g***	Until residues have dried.	1-5	3
	Success™	Spinosad	5	C, Ing	182 mL		1-3	3
	Entrust™	Spinosad	5	C, Ing	364 mL		1-3	3
	Intrepid™	Methoxyfenozide	18	Ing	750 mL***		12	7
Oriental Fruit moth	Delegate™	Spinetoram	5	C, Ing	420 g	12	1-5	3
	Intrepid™	Methoxyfenozide	18	Ing	1.5 L	12	14	1
San Jose scale	Closer™	Sulfoxyflor	4C	C, Ing	200-400 mL	12	7	2
Spotted Wing drosophila	Delegate™	Spinetoram	5	C, Ing	420 g	12	5	3
	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	1-3	3
	Entrust™	Spinosad	5	C, Ing	364 mL		1-3	3
Western flower thrips*	Success™	Spinosad	5	C, Ing	182 mL	Until residues have dried.	14	3
	Entrust™	Spinosad	5	C, Ing	364 mL		14	3
FUNGICIDES								
Black knot	Indar™	Fenbuconazole	3	Pre	140 g	12	1	7
Blossom Blight	Fontelis™	Penthiopyrad	7	Pre, Cur	1 -1.75 L	12	0	4.5 L/ha
	Indar™	Fenbuconazole	3	Pre	140 g	12	1	7
Botrytis	Fontelis™	Penthiopyrad	7	Pre, Cur	1.25 - 1.75 L	12	0	4.5 L/ha
Brown Rot	Fontelis™	Penthiopyrad	7	Pre, Cur	1 -1.75 L	12	0	4.5 L/ha
	Indar™	Fenbuconazole	3	Pre	140 g	12	1	7
	Nova™	Myclobutinal	3	Pre, Cur	340 g	12	1	6
Cherry leaf spot*	Fontelis™	Penthiopyrad	7	Pre, Cur	1.5 L	12	0	4.5 L/ha
Fruit rot	Fontelis™	Penthiopyrad	7	Pre, Cur	1 -1.75 L	12	0	4.5 L/ha
Leaf Spot	Nova™	Myclobutinal	3	Pre, Cur	340 g	12	1	6
Powdery Mildew	Fontelis™	Penthiopyrad	7	Pre, Cur	1-1.75 L	12	0	4.5 L/ha
	Nova™	Myclobutinal	3	Pre, Cur	340 g	12	1	6
Scab	Fontelis™	Penthiopyrad	7	Pre, Cur	1 - 1.5 L	12	0	4.5 L/ha
HERBICIDES								
Broadleaf weeds, vetch	Lontrel™ XC	Clopyralid	4	Sys	0.25-0.50 L	12	30	1
Broadleaf and grassy weeds: Redroot pigweed, Lamb's-quarters*, Quackgrass, Foxtail, Barnyard grass	Prism™ SG	Rimsulfuron	2	Sys	60 g	12	14	1
NEMATICIDES								
Root-knot nematode	Salibro™**	Fluazaindolizine		Ing	2.24-4.48 L	12	365	4.48 L/ha

^ C - Contact
Ing - Ingestion
Sys - Systemic

Pre - Preventative
Cur - Curative

*Suppression
** Non-bearing only
*** Oblique banded leafroller and Three-lined leafroller only
This guide is a reference only. Always read and follow label directions.

SWEET CORN



¹ Apply only when bees are not visiting the area

PEST	TRADE NAME	ACTIVE INGREDIENT	GROUP	CONTROL [^]	RATE/HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR
INSECTICIDES								
Aphids	Closer™	Sulfoxaflor	4C	C, Ing	75-150 mL	12	7	2
European corn borer	Success™	Spinosad	5	C, Ing	83 mL	Until residues have dried.	7	2
	Entrust™	Spinosad	5	C, Ing	167 mL	Until residues have dried.	7	2
	Delegate™	Spinetoram	5	C, Ing	120-210 g	12	1	3
	Intrepid™	Methoxyfenozide	18A	C	300-600 mL	12	3	2 L/ha
Western bean cutworm	Delegate™	Spinetoram	5	C, Ing	120-210 g	12	1	3
FUNGICIDES								
Northern corn leaf blight	Acapela™	Picoxystrobin	11	Sys, Pre, Cur	530-800 mL	12	7	3.5 L/ha
Tar Spot*	Acapela™	Picoxystrobin	11	Sys, Pre, Cur	800 mL	12	7	3.5 L/ha
HERBICIDES								
Quackgrass, Barnyard grass, Panicum, Foxtails	Accent™ IS	Nicosulfuron	2	Sys	45.8 g	12	40	1

[^] C - Contact
Ing - Ingestion
Sys - Systemic
Pre - Preventative
Cur - Curative

* Suppression
This guide is a reference only. Always read and follow label directions.

GREENHOUSE VEGETABLES

PEST	PRODUCT NAME	ACTIVE INGREDIENT	GROUP	CONTROL^	RATE /HA	REI (HOURS)	PHI (DAYS)	MAX APP. PER YEAR	CROP	ADDITIONAL INFORMATION
INSECTICIDES										
Cabbage Looper	Success™	Spinosad	5	C, Ing	120 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E, L	Minimum 7 days in between applications
	Entrust™	Spinosad	5	C, Ing	240 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E, L	
	Delegate™	Spinetoram	5	C, Ing	92-132 g/ha in 1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E, L	
Cabbage Maggot	Success™	Spinosad	5	C, Ing	12.5 mL/1,000 plants	24	3	1	Brassica	
	Entrust™	Spinosad	5	C, Ing	25 mL/1,000 plants	24	3	1	Brassica	
Colorado Potato Beetle	Entrust™	Spinosad	5	C, Ing	170 mL/1,000 L of water	12	2	3 per crop cycle	E	Minimum 7 days in between applications
European Corn Borer	Success™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E	Minimum 7 days in between applications
	Entrust™	Spinosad	5	C, Ing	100 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E, L	
	Delegate™	Spinetoram	5	C, Ing	92-132 g/ha in 1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E	
Thrips*	Success™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E	Minimum 7 days in between applications
	Entrust™	Spinosad	5	C, Ing	100 mL/1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E, L	
	Delegate™	Spinetoram	5	C, Ing	92-132 g/ha in 1,000 L of water	12	2	3 per crop cycle	Cu, P, T, E	
FUNGICIDES										
Botrytis Grey Mold	Fontelis™	Penthiopyrad	7	Pre, Cur	1-1.75 L/ha	12	0, 1 or 3	2	Cu, P, T, E, L	Refer to product label for crop specific rate and pre-harvest interval.
Gummy Stem Blight	Nova™	Myclobutanil	3	Pre, Cur	340 g/ha	12	2	1 per crop cycle	Cu	
Powdery Mildew	Nova™	Myclobutanil	3	Pre, Cur	340 g/ha	12	2 or 3	1	Cu, P, T, E	Refer to product label for crop specific rate, water volume and pre-harvest interval.
	Fontelis™	Penthiopyrad	7	Pre, Cur	1 - 1.75 L/ha	12	0, 1 or 3	2	Cu, P, T, E, L	Refer to product label for crop specific rate and pre-harvest interval.

* Suppression

Crop Legend
Cu – Cucumber
E – Eggplant
T – Tomato

P – Pepper
L – Lettuce
Brassica – Brassica transplants

^ Control Legend
C – Contact
Ing – Ingestion

Sys – Systemic
Pre – Preventative
Cur – Curative

ORNAMENTALS

PEST	PRODUCT NAME	ACTIVE INGREDIENT	GROUP	CONTROL ^	RATE /HA	REI (HOURS)	MAX APP. PER YEAR	CROP	ADDITIONAL INFORMATION
INSECTICIDES									
Aspen Serpentine Leafminer	Delegate™	Spinetoram	5	C, Ing	320-420 g/ha plus non-ionic surfactant at 0.25% v/v	12	3	Populus spp. (Outdoor Ornamental)	Minimum retreatment interval of 14 days
Conifer Sawfly Larvae	Success™	Spinosad	5	C, Ing	25 mL/1,000 L of water	12	4	Outdoor Ornamentals	Do not reapply within less than 7 days
	Entrust™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	4	Outdoor Ornamentals	
Eastern Tent Caterpillars	Success™	Spinosad	5	C, Ing	25 mL/1,000 L of water	12	4	Outdoor Ornamentals	Do not reapply within less than 7 days
	Entrust™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	4	Outdoor Ornamentals	
Elm and Willow Leaf Beetles	Success™	Spinosad	5	C, Ing	25 mL/1,000 L of water	12	4	Outdoor Ornamentals	Do not reapply within less than 7 days
	Entrust™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	4	Outdoor Ornamentals	
Fir Coneworm	Delegate™	Spinetoram	5	C, Ing	210-420 g/ha	12	3	Conifer Seed Orchards (Douglas-fir, Spruce, Pine, Larch, Hemlock)	Retreatment interval of 14-21 days
Gypsy Moth	Success™	Spinosad	5	C, Ing	25 mL/1,000 L of water	12	4	Outdoor Ornamentals	Do not reapply within less than 7 days
	Entrust™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	4	Outdoor Ornamentals	
Thrips	Success™	Spinosad	5	C, Ing	50 mL/1,000 L of water	12	3	Outdoor Ornamentals, Greenhouse Ornamentals	Do not reapply within less than 7 days
	Entrust™	Spinosad	5	C, Ing	100 mL/1,000 L of water	12	3	Outdoor Ornamentals	
Western Conifer Seed Bug	Delegate™	Spinetoram	5	C, Ing	210-420 g/ha	12	3	Conifer Seed Orchards (Douglas-fir, Spruce, Pine, Larch, Hemlock)	Retreatment interval of 21 days
White Pine Weevil	Delegate™	Spinetoram	5	C, Ing	420 g/ha	12	3	Christmas trees, Outdoor Nursery Stock, Ornamentals (Pines, Spruce, Douglas-fir only)	Retreatment of 7-10 days
FUNGICIDES									
Black Spot	Nova™	Myclobutanil	3	Pre, Cur	340 g/1,000 L of water	12 hours 12 days	4	Rose	Minimum 10 days between applications. Refer to product label for ornamental specific rates, re-entry intervals and max number of applications.
Powdery Mildew	Nova™	Myclobutanil	3	Pre, Cur	280-340 g/1,000 L of water	12-24	4-6	Poinsettia, Cut & Potted Roses, Gerbera, Aster, Chrysanthemums	
Rust	Nova™	Myclobutanil	3	Pre, Cur	250-540 g/1,000 L of water	12 hours to 17 days	4-6	Geranium, Cut & Potted Roses, Gerbera, Aster, Chrysanthemums, Nursery grown ornamentals, Carnation	
BIOLOGICALS									
Nutrient efficiency biostimulant that provides continuous nitrogen to the plant.	Utrisha™ N	Methylobacterium symbioticum			333 g/ha in 10 L/ha of water	0	1	Ornamental trees and shrubs, Annual and Perennial ornamental plant species	Apply annually during active growth.

* Suppression

^ Control Legend
C – Contact
Ing – Ingestion

Sys – Systemic
Pre – Preventative
Cur – Curative



INSECTICIDES

GROUP

4C

Sulfoxaflor

Closer™

Isoclast™ active

INSECTICIDE

EXCEPTIONAL SPEED AND CONTROL OF APHIDS AND SCALE IN VEGETABLE, FRUIT AND FIELD CROPS.

Nothing works faster to control aphids, tarnished plant bugs, leaf hoppers and scale in your crops.

Closer™ insecticide with Isoclast™ active is a Group 4C insecticide, ideal for controlling insects resistant to other classes. It moves quickly through the plant to control pests through both contact and ingestion.

Closer is selective and can be used safely around beneficial populations when used according to the product label.

Closer controls economically important and difficult to control sap-feeding insects.

PRECAUTIONS

- Do not make applications less than seven days apart. For Woolly apple aphid do not make applications less than 14 days apart.
- DO NOT apply this product during crop flowering period or when flowering weeds are present in the treatment areas (except for potatoes where applications during crop flowering period are allowed).
- For REIs for various crops see Quick Reference Charts.
- For Woolly apple aphid control: It is recommended to add MSO or other horticultural oil at 0.2% v/v. Applications made with dormant oil does not require additional MSO.

For more information on Closer insecticide visit:



This guide is a reference only. For more information on use directions, please refer to the product label.

GROUP

5

Spinetoram

Delegate™

Jemvelva™ active

INSECTICIDE

HARNESS NATURE'S STRENGTH FOR SUSTAINABLE FARMING.

Delegate™ insecticide with Jemvelva™ active (spinetoram) is a naturally-derived product that is fast-acting against a wide range of insect pests including Western bean cutworm and Colorado potato beetle, with minimal impact on beneficials and the environment. Its unique profile makes this product an excellent fit for IPM and IRM programs while contributing to a profitable and sustainable tomorrow. Choose Delegate and you're choosing a brighter future for your farm.

Delegate is registered for aerial application in potatoes and corn (field, sweet, seed and popping).

PRECAUTIONS

- Maximum of two or three applications per year, depending on crop.
- Spray solution pH can affect the performance of Delegate. A pH between 5 and 9 is preferred for optimal performance.
- DO NOT apply this product to flowering crops or weeds if bees are visiting the treatments area.
- For REIs for various crops see Quick Reference Charts.

For more information on Delegate insecticide visit:



This guide is a reference only. For more information on use directions, please refer to the product label.

GROUP

5

Spinosad

Entrust™

Qalcova™ active

INSECTICIDE

A PROVEN NATURAL INSECTICIDE.

Entrust™ insecticide with Qalcova™ active (spinosad) is the world’s number one natural insecticide for organic agriculture. Qalcova active is an effective insecticide made from a naturally occurring soil bacteria. It controls harmful insects while being kinder to beneficials and pollinators when used according to the product label. With cross-spectrum control and a unique mode of action, Entrust is a perfect fit for integrated pest management programs.

PRECAUTIONS

- Spray solution pH can affect the performance of Entrust. A pH between 6 and 8 is preferred for optimal performance.
- Ground application: Apply product in a minimum of 1,000 L/ha of water. Ensure good coverage of all target foliage.
- For REIs for various crops see Quick Reference Charts.

RESISTANCE MANAGEMENT STRATEGIES

- Follow application rates as per label.
- Ensure the correct water volume for adequate coverage.
- Be aware of water quality and necessary pH requirements.
- Monitor to ensure correct application timing and thresholds.
- Target pests at their most susceptible stage.
- Do not apply more than two consecutive applications of the same chemistry group, per generation, per year.

For more information on Entrust insecticide visit:



TARGET PESTS

- Asparagus beetle
- Blackheaded fireworm
- Blueberry flea beetle
- Blueberry maggot
- Blueberry spanworm
- Cabbage looper
- Cabbage maggot
- Cherry fruit fly
- Clearwing moth
- Codling moth
- Colorado potato beetle
- Cranberry fruitworm
- Crucifer flea beetle
- Diamondback moth
- European corn borer
- Eye-spotted bud moth
- Flea beetle
- Grapeberry moth
- Imported cabbageworm
- Leafroller species (oblique-banded, three-lined, fruittree and European)
- Leek moth
- Onion thrips
- Peach twig borer
- Spanworm
- Sparganothis fruitworm
- Spotted wing drosophila
- Swede midge
- Thrips
- Tuber flea beetles
- Western flower thrips
- Winter moth

CROPS

- Apples
- Asparagus
- Basil
- Blueberries
- Brassica head and stem vegetables
- Brassica head and stem vegetables greenhouse transplants
- Brassica leafy greens greenhouse transplants
- Bulb vegetables
- Bushberries
- Caneberries
- Cherry – sweet and tart
- Cranberries
- Dill seed
- Fruiting vegetables
- Ginseng
- Grapes
- Greenhouse vegetables; lettuce, cucumber, pepper, tomato and eggplant
- Leafy vegetables
- Low-growing berries
- Mint
- Pome fruits
- Potatoes
- Root and tuber vegetables
- Snap beans
- Stalk, Stem and Leaf Petioles
- Stone fruits
- Sweet corn
- Walnuts

FORMULATION AND PACKAGING

- Suspension concentrate
- 12 x 1 L bottles

GROUP

5

Spinosad

GF-120 Fruit Fly Bait

Qalcova™ active

INSECTICIDE

HIGH PERFORMANCE BAIT FOR CHERRY FRUIT FLY, BLUEBERRY MAGGOT AND APPLE MAGGOT.

GF-120 Fruit Fly Bait insecticide with Qalcova™ active (spinosad) performs as a true bait, attracting only targeted insects. The goal is to strategically place large droplets where flies will find them in their normal search for food.

Uniform coverage is not as critical as with conventional sprays. The application technique for GF-120 Fruit Fly Bait is an ultra low volume application, but with large droplets.

PRECAUTIONS

- **Blueberry:** Do not exceed five applications per season.
- **Apple, cherry and walnut:** Do not exceed 10 applications per season.
- This product resists wash off but will lose effectiveness if exposed to rain and overhead irrigation.
- Once diluted, GF-120 Fruit Fly Bait should be used with 24 hours.
- Large droplets (5 mm in diameter) help the product remain viable in the field for longer periods of time.
- Do not apply during periods when heavy rain is expected. Reapply immediately after rain.
- For REIs for various crops see Quick Reference Charts.

For more information on GF-120 Fruit Fly Bait insecticide visit:



TARGET PESTS

- Apple maggot
- Blueberry maggot
- Cherry fruit flies
- Walnut husk fly

CROPS

- Apples
- Blueberries
- Cherries
- Walnuts

FORMULATION AND PACKAGING

- Liquid suspension
- 4 x 3.78 L jugs

GROUP
18 Methoxyfenozide

Intrepid™

INSECTICIDE

PERFORMANCE AND PEACE OF MIND. WITH INTREPID™, THERE IS NO NEED TO CHOOSE.

Intrepid™ insecticide initiates a lethal premature molt in specific lepidopterous pests (caterpillars) while not adversely affecting beneficial insect populations such as bees, making it ideal for integrated pest management programs.

Intrepid has both ovicidal and larvicidal activity. Ingestion is the main source of activity on pests, causing the larvae to stop feeding within 24 hours and providing long residual control for 10 to 14 days after application.

PRECAUTIONS

- Do not apply more than 2 L/ha of Intrepid per year.
- Intrepid is registered for application to cranberries through chemigation. Please refer to label for application directions.
- For REIs for various crops see Quick Reference Charts.

TARGET PESTS

- Armyworm
- Blackheaded fireworm
- Cabbage looper
- Climbing cutworm
- Codling moth
- Cranberry fruitworm
- Diamondback moth
- Garden webworm
- Grapeberry moth
- European corn borer
- Imported cabbageworm
- Oblique-banded leafroller
- Oriental fruit moth
- Peach twig borer
- Spanworm
- Sparganothis fruitworm
- Spotted tentiform leafminer
- Three-lined leafroller
- Western bean cutworm
- Western tentiform leafminer
- Winter moth

CROPS

- Brassica (cole) leafy vegetables
- Bushberries
- Caneberries
- Corn – field, sweet, seed and popping
- Cranberries
- Cucurbit vegetables
- Dried beans
- Edible-podded legume vegetables
- Fruiting vegetables
- Grapes
- Herbs (except chives)
- Leafy vegetables
- Pome fruits
- Stone fruits
- Succulent shelled peas and beans
- Tree nuts
- Tuberous and corn vegetables

FORMULATION AND PACKAGING

- Liquid suspension
- 4 x 4 L jugs

For more information on Intrepid insecticide visit:



GROUP
5 Spinosad

Success™

Qalcova™ active

INSECTICIDE

GROW HIGH-QUALITY FRUIT AND VEGETABLE CROPS WITH A PROVEN INSECTICIDE OF NATURAL ORIGIN.

Success™ insecticide with Qalcova™ active (spinosad), made from naturally occurring soil bacteria (*Saccharopolyspora spinosa*), has helped generations of farmers responsibly produce abundant and safe food. While effective against a range of damaging pests, including Cabbage Maggot, Success insecticide has a minimal impact to the environment, users and beneficial insects, when used according to the product label.

PRECAUTIONS

- Avoid use when bees are actively foraging.
- Sweet corn, Fruiting vegetables: Do not exceed two applications per year.
- Brassica Head and Stem vegetables Greenhouse Transplants: Do not exceed one application per year.
- Other registered crops: Refer to product label for maximum applications per year.
- Spray solution pH can affect the performance of Success. A pH between 6 and 8 is preferred for optimal performance.
- For REIs for various crops see Quick Reference Charts.

DRENCH APPLICATION ON BRASSICA TRANSPLANTS

- Water the plant first prior to the application of Success.
- Apply 12.5 mL of Success per 1,000 plants.
- After application, water again to ensure the product reaches the roots.
- Success should be applied 24 hours to the plants before being transplanted.

For more information on Success insecticide visit:



TARGET PESTS

- Asparagus beetle
- Blackheaded fireworm
- Blueberry flea beetle
- Blueberry maggot
- Cabbage looper
- Cabbage maggot
- Clearwing moth
- Colorado potato beetle (larvae)
- Cranberry fruitworm
- Crucifer flea beetle
- Diamondback moth
- European corn borer (larvae)
- Eye-spotted budmoth
- Flea beetle
- Grapeberry moth
- European corn borer
- Imported cabbageworm
- Leafroller species (oblique-banded, three-lined, fruittree and European)
- Leek moth
- Onion thrips
- Peach twig borer
- Potato stem borer
- Prairie tent caterpillar
- Spanworm
- Sparganothis fruitworm
- Spotted wing drosophila
- Swede midge
- Thrips
- Western flower thrips
- Winter moth

CROPS

- Asparagus
- Basil
- Blueberries
- Brassica head and stem vegetables
- Brassica head and stem vegetables greenhouse transplants
- Brassica leafy greens greenhouse transplants
- Bulb vegetables
- Bushberries
- Caneberries
- Chokecherries
- Cranberries
- Dill seed
- Fruiting vegetables
- Ginseng
- Grapes
- Greenhouse ornamentals
- Greenhouse vegetables
- Leaf Petiole vegetables
- Leafy vegetables
- Low-growing berries
- Mint
- Pome fruits
- Potatoes
- Rhubarb
- Root and tuber vegetables
- Snap bean
- Stalk and Stem vegetables
- Stone fruits
- Sweet corn

FORMULATION AND PACKAGING

- Liquid suspension
- 12 x 1 L jugs

For more information on Success insecticide visit:

GROUP

1A

Oxamyl

Vydate™

INSECTICIDE/NEMATOCIDE

EFFECTIVE CONTROL OF VARIOUS INSECTS, INCLUDING COLORADO POTATO BEETLE AND NEMATODES.

Vydate™ insecticide/nematicide, a Group 1A effectively controls various insect pests in non-bearing apple trees, potatoes and raspberries.

PRECAUTIONS

- Maximum 2 applications in potatoes with a minimum 14 days between applications
- Do not apply this product while bees are actively visiting the treatment area.

CROP	ACTIVITY	RESTRICTED ENTRY INTERVAL
Non-bearing apple trees	Hand pruning, scouting, training	7 days
	Hand thinning	32 days
	All other activities	12 hours
Raspberries	All activities	12 hours
Potatoes	Irrigation (hand set)	3 days
	Roguing	1 day
	All other activities	12 hours

TARGET PESTS

- Aphids (green apple, green peach, potato, rosy apple)
- Apple rust mites
- Colorado potato beetle¹
- European red mites
- Flea beetles
- Leafhoppers
- Leafrollers
- Potato leafhopper
- Root-lesion nematodes
- Tarnished plant bugs
- Tentiform leafminers
- Two spotted spider mites

CROPS

- Non-bearing apple trees
- Potatoes
- Raspberries

FORMULATION AND PACKAGING

- Water soluble liquid
- 2 x 9.6 L jug

¹ Colorado potato beetles resistant to carbamates will not be controlled.

NEMATOCIDE

For more information on Vydate insecticide/nematicide visit:



This guide is a reference only. For more information on use directions, please refer to the product label.



THE SOIL HEALTH CYCLE: PRESERVE TODAY, PROVIDE FOR TOMORROW

Soil holds the secrets to keeping your roots and your crop healthy. To help ensure your soil supports a plentiful and quality harvest year after year, it would be beneficial for you to have a clear understanding of the actions you can take to keep it a productive resource.

Doran describes soil health as “The capacity of soil to function as a vital living system, within ecosystem and land-use boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and promote plant and animal health” (Doran et al. 1996). Healthy soils can suppress naturally soil-borne pathogens and pests, support efficient nutrient cycles and provide improved physical structure for robust root foundation and plant growth. This is why it is important to know what agricultural practices to adopt to **boost soil health**.

Crops draw nutrients from the soil through their roots. The roots in turn, release food that sustains the beneficial organisms in the soil. However, roots are not immune to threats as a variety of factors can destroy roots. One of the least understood threats is **harmful nematodes**. Nematodes are microscopic and invisible to the naked eye but can cause significant yield loss. Control of harmful nematodes is essential to keeping crops healthy.

Contrary to what many people think, the number of harmful nematodes in soils is easily outnumbered by the number of **beneficial nematodes** that promote natural fertility and quality over time. **Beneficial nematodes** feed on bacteria, fungi, insects or harmful nematodes in the soil, stimulating soil nutrient cycles, and keeping populations of damaging plant pests and diseases at bay.

Doran, John W. and Zeiss, Michael R. (2000). Soil health and sustainability: managing the biotic component of soil quality. Applied Soil Ecology 15, 3-11. <https://digitalcommons.unl.edu/agronomyfacpub/15/>

Therefore, it is crucial to adopt farm management tools that work in harmony with the beneficial nematodes.

You can take several actions to preserve and promote the health of your soils, including:

- Minimizing disturbance by adopting practices like no-till or minimum tillage
- Planting cover crops to preserve moisture and reduce erosion
- Promoting biodiversity in the soils by choosing inputs that are less disruptive to the beneficial organisms in the soil
- And using **nematicides**, like Salibro™ nematicide with Reklamel™ active, that preserve beneficial nematodes and control harmful ones

Salibro nematicide, powered by Reklamel™ active, is a novel sulfonamide nematicide with a unique mode of action against plant-parasitic nematodes. It is a true nematicide with no insecticidal nor fungicidal activity, making it a highly effective nematode control solution with a more favorable environmental profile compared to conventional treatments. Salibro protects crop roots without compromising beneficial arthropods, pollinators or other organisms that provide useful functions in the crop root zone. It is a core component of an integrated nematode management program.

Healthy soils promote healthy crops and abundant yields for years. A simple shift from merely managing the soil to **proactively advancing soil health** and recognizing the greater role it plays in benefiting farmland and the planet can create long-term value. As farmers, you can take actions today to leave behind a legacy for the future.

Fluazaindolizine

Salibro™

Reklamel™ active

NEMATICIDE

NOVEL SULFONAMIDE NEMATICIDE WITH A UNIQUE MODE OF ACTION AGAINST PLANT-PARASITIC NEMATODES.

Salibro™ nematicide with Reklamel™ active is a true nematicide with no insecticidal nor fungicidal activity, making it a highly effective and selective nematode control solution with a more favorable environmental profile compared to conventional treatments.

Salibro protects crop roots without compromising beneficial insects that provide useful functions in the crop root zone.

It is a core component of an integrated nematode management program. Start at the roots to protect the future of your farm.

NEMATODES CONTROLLED

- Root-knot nematode (*Melodogyne spp.*)

CROPS

- Carrots
- Cucurbit vegetables*
- Fruiting vegetables (including tomatoes)
- Grapes
- Low growing berries*
- Non-bearing Stone Fruits
- Tree Nuts
- Tuberous and corm vegetables (including potatoes)

FORMULATION AND PACKAGING

- 2 x 9.6 L jugs

APPLICATIONS

Potatoes, Carrots, Cucurbits, Fruiting Vegetables and Low Growing Berries:

- Pre-plant incorporated or broadcast followed by soil incorporation
 - Uniformly apply over the field and incorporate mechanically or through irrigation to a depth of 10-15 cm with incorporation equipment to ensure even distribution
 - For maximum residual efficacy, pre-plant incorporate within 7 days prior to planting.
- In furrow (potatoes only)
 - Direct applications into the open furrow and cover with soil
- Pre-plant, At-plant or Post-plant soil drench (Low growing berries only)
- Chemigation
 - See product label for specific application rates. Apply in sufficient water and of sufficient duration to apply the labeled rate evenly to the entire treated area.

Tree nuts, Grapes and Non-bearing Stone Fruits:

- Pre-plant incorporated, Post-plant soil drench or Post-plant drip (Grapes only)
 - Apply to newly planted vines or trees or those previously trained to drip or micro sprinkler irrigation.
 - Time the applications to coincide with beginning of root flush.
- Chemigation
 - See product label for specific application rates. Apply in sufficient water and of sufficient duration to apply the labeled rate evenly to the entire treated area.

CROP ROTATION

- **Anytime:** carrots, potatoes
- **14 days:** barley, wheat, oats, corn, soybeans, chickpeas, field peas, lentils, sunflowers and flax

PRE-HARVEST INTERVAL

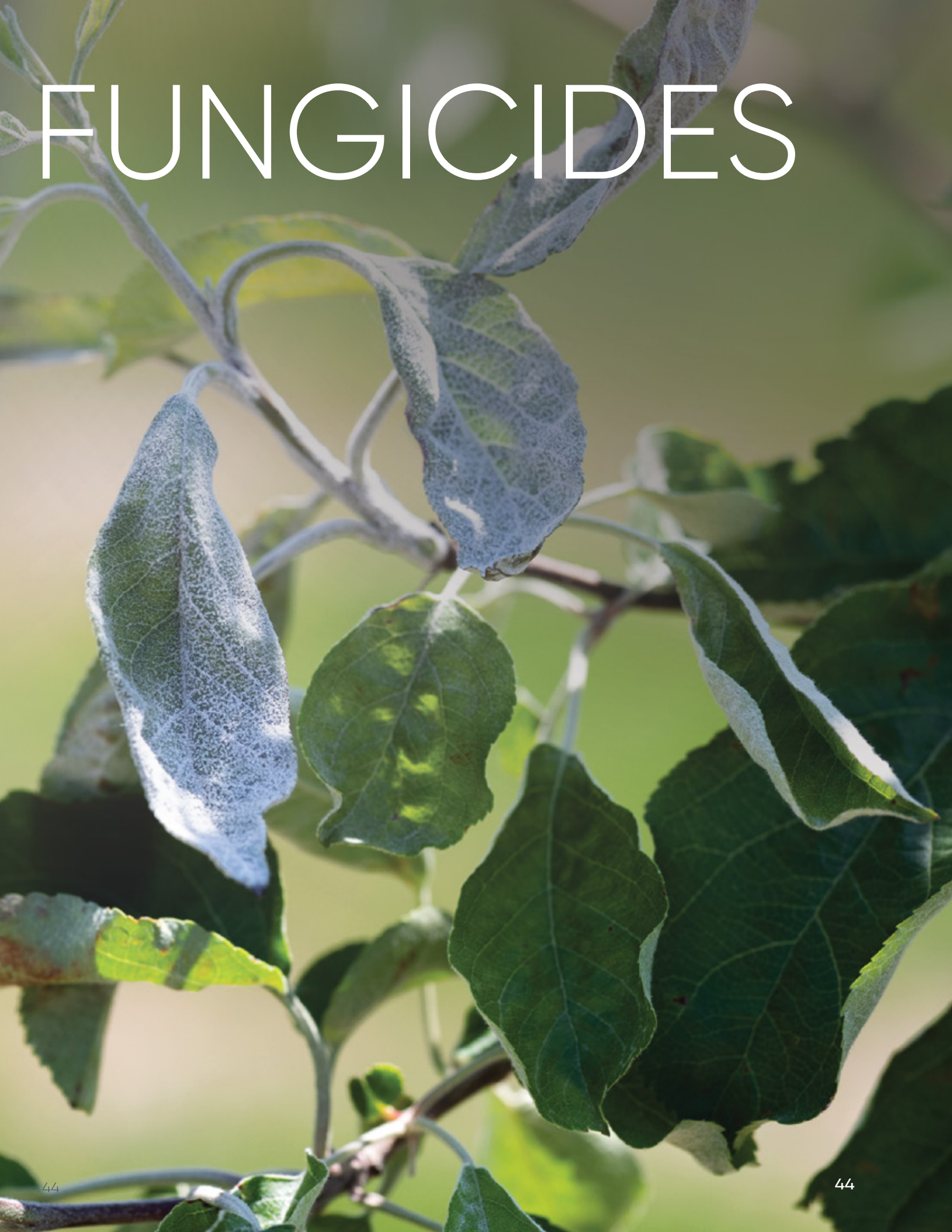
- The PHI for cucurbits, fruiting vegetables and low growing berries is 1 day.
- The PHI for grapes is 3 days.
- The PHI for tree nuts is 30 days.
- The PHI for tuberous and corm vegetables is 40 days.
- The PHI for carrots is 65 days.
- The PHI for non-bearing stone fruits is 365 days.

* Suppression

This guide is a reference only. For more information on use directions, please refer to the product label.

For more information on Salibro nematicide visit:





FUNGICIDES

GROUP

11

Picoxystrobin

Acapela™

FUNGICIDE

SPEED, AGILITY AND EXCEPTIONAL COVERAGE.

Acapela™ fungicide provides outstanding disease protection in corn. It has unique movement properties that quickly and efficiently surrounds, penetrates and protects. Acapela is rapidly absorbed moving quickly into and within each plant. Acapela supports positive plant performance by increasing chlorophyll content and plant productivity, even in stressful conditions.

PRECAUTIONS

- Make no more than two sequential applications of Acapela before switching to a fungicide with a different mode of action.
- Maximum total seasonal use rate is 2.63 L/ha in bulb vegetables.
- Minimum time (PHI) between application and harvest is 0 days for bulb vegetables.

TARGET DISEASES

- Northern corn leaf blight (corn)
- Sclerotinia rot* (dry edible beans)
- Purple blotch (bulb vegetables)
- Botrytis neck rot (bulb vegetables)
- Botrytis blight* (bulb vegetables)
- Leaf spot (sugar beets)
- Powdery mildew (sugar beets)
- Rust* (sugar beets)
- Rhizoctonia root and crown rot* (sugar beets)

CROPS

- Bulb vegetables
- Corn (field, seed, sweet and popping)
- Dry edible beans
- Legumes (edible-podded and succulent)
- Sugar beets

FORMULATION AND PACKAGING

- Suspension concentrate
- 2 x 9.6 L jugs
- 115.2 L drum

* Suppression only

For more information on Acapela fungicide visit:



This guide is a reference only. For more information on use directions, please refer to the product label.

GROUP

27

Cymoxanil

Curzate™

FUNGICIDE

CURZATE HAS BEEN BEATING LATE BLIGHT IN POTATOES FOR OVER 45 YEARS.

Curzate™ fungicide is highly effective with its locally systemic activity. It rapidly penetrates the foliage and stem surfaces to provide multi-levels of fast-acting disease control. Curzate can help stop disease post-infection but cannot reverse damage already done, so make sure you apply prior to symptoms appearing. Always tank-mix with a preventative broad-spectrum fungicide to control early blight. Curzate employs a combination of preventative, post-infection and antisporulant activity.

PRECAUTIONS

- Initial applications should start when local conditions indicate that late blight is imminent; make additional applications at 5–7 day intervals, however at least 20 days must pass between the second and third application.
- If disease conditions are present during this 20 day period, a fungicide other than Curzate must be used to protect the crop during this period.
- Apply no more than four applications per crop.
- The disease early blight is controlled by the registered tank-mix with a Group M3 fungicide.

TARGET DISEASES

- Late blight

CROPS

- Potatoes

FORMULATION AND PACKAGING

- Dry flowable
- 5 x 1.8 kg bag

GROUP

7

Penthiopyrad

Fontelis™

FUNGICIDE

POWERFUL, FLEXIBLE DISEASE MANAGEMENT.

Fontelis™ fungicide provides residual, preventative and post-infection activity on a broad-spectrum of key diseases such as apple scab, powdery mildew and botrytis. Its single mode of action allows for flexible application timing and disease management. Fontelis provides translaminar and systemic protection, and redistributes well to protect both the treated and untreated parts of the plant.

PRECAUTIONS

- Make no more than two sequential applications of Fontelis before switching to a fungicide with a different mode of action.
- Maximum seasonal use rates apply dependent on the type of crop, please consult the label for more information.

TARGET DISEASES

- Alternaria (blight and leafspot)
- Angular leaf spot
- Anthracnose
- Ascochyta (blight and leafspot)
- Asian soybean rust
- Botrytis (blight, fleck, gray mold, leaf blight and rot)
- Brown rot blossom blight and fruit rot
- Cedar apple rust
- Cercospora leaf spot
- Cherry leafspot
- Early blight
- Early leafspot
- Late leafspot
- Lettuce drop
- Mummy berry
- Powdery mildew
- Purple blotch
- Rust
- Scab
- Sclerotinia (blight and stem rot)
- Septoria late blight
- Southern stem rot
- Web blotch

CROPS

- Alfalfa
- Low growing berries
- Bulb vegetables (green, dry)
- Bushberries
- Brassica (cole) leafy vegetables
- Caneberries
- Cucurbit vegetables
- Fruiting vegetables
- Leafy vegetables
- Legume vegetables
- Pome fruits
- Root vegetables and leaves
- Stone fruit
- Tree nuts
- Peanuts

FORMULATION AND PACKAGING

- 2 x 9.6 L jugs

For more information on Curzate fungicide visit:



For more information on Fontelis fungicide visit:



GROUP

3

Fenbuconazole



FUNGICIDE

EXCELLENT CONTROL OF BLOSSOM BLIGHT, FRUIT BROWN ROT AND BLACK KNOT IN STONE FRUITS.

Indar™ fungicide protects the fruit and leaf by remaining on the fruit and leaf surface longer. It has locally systemic and curative activity, as well as strong residual activity.

PRECAUTIONS

- Do not apply through irrigation systems (chemigation).
- NOTE: Reduced product efficacy may occur if water containing suspended soil particles is used, such as water from ponds, streams or unlined ditches.
- A wetting agent or non-polymer containing spray adjuvant approved for use in registered pesticide products on fruit should be added to spray solutions according to manufacturers' use instructions to achieve optimum disease control.
- The pouches of Indar are water-soluble. Do not allow pouches to become wet prior to adding to the spray tank.
- For REIs for various crops see Quick Reference Charts.

TARGET DISEASES

- Black knot
- Blossom blight
- Fruit brown rot
- Fruit rots (early, end, bitter, cotton ball, ripe, viscid, yellow, black and storage)
- Mummy berry

CROPS

- Apricot
- Cherries
- Cranberries
- Highbush blueberries
- Nectarine
- Peach
- Plum

FORMULATION AND PACKAGING

- Wettable powder
- 12 x 454 g bags

GROUP

3

Myclobutanil



FUNGICIDE

EFFECTIVE DISEASE CONTROL IN FRUITS AND VEGETABLES INCLUDING APPLE, GRAPE AND STONE FRUITS.

Nova™ fungicide is a systemic fungicide providing long-lasting, effective control of diseases such as apple scab, powdery mildew and rust in apples and other crops.

PRECAUTIONS

- **Apple, peach, pear, nectarine, cherry, strawberry:** Maximum of six applications per growing season.
- **Grape, asparagus:** Maximum five applications per growing season.
- **Saskatoon berry:** Maximum three applications of up to 340 g/ha per growing season.
- **Greenhouse cucumber, pepper and tomatoes:** Maximum one application per growing season.
- **Dry beans:** Maximum three applications per growing season.
- Copper products tank mixed with Nova reduce the effectiveness of the fungicide.
- For REIs for various crops see Quick Reference Charts.

TARGET DISEASES

- Anthracnose
- Black rot
- Black spot
- Brown rot
- Gummy stem blight
- Powdery mildew
- Rust diseases
- Scab
- Septoria leaf spot

CROPS

- Apple
- Asparagus
- Bushberries
- Caneberries
- Cherries (sweet and sour)
- Cucurbit vegetables
- Dry beans
- Grapes
- Greenhouse cucumbers, eggplant, peppers and tomatoes
- Greenhouse Ornamentals
- Nectarines
- Nursery Production
- Pear
- Peaches
- Saskatoon berries
- Strawberries

FORMULATION AND PACKAGING

- Granule
- 12 x 560 g bags

For more information on Indar fungicide visit:



For more information on Nova fungicide visit:



GROUP

11

GROUP

27

Famoxadone + Cymoxanil

Tanos™

FUNGICIDE

IT WORKS. RAIN OR SHINE.

Tanos™ fungicide provides control of early blight, late blight and botrytis in a variety of crops. It offers both systemic and protectant activity, in addition to being resistant to wash off.

PRECAUTIONS

- Make the first application of Tanos following one to two applications of a preventative broad spectrum fungicide such as chlorothalonil or mancozeb.
- Make the second application no less than 12 days after the first; a third application may be made no less than 24 days after the second.
- Apply Tanos in a preventative program.
- When using Tanos in a fungicide program, a recommendation is to alternate with other fungicides to manage resistance.
- Utilize sufficient water to obtain thorough coverage.

TARGET DISEASES

- Cane botrytis
- Caneberry (anthracnose and spur blight)
- Early blight
- Late blight
- Preharvest fruit rot

CROPS

- Caneberries
- Field Tomatoes
- Potatoes

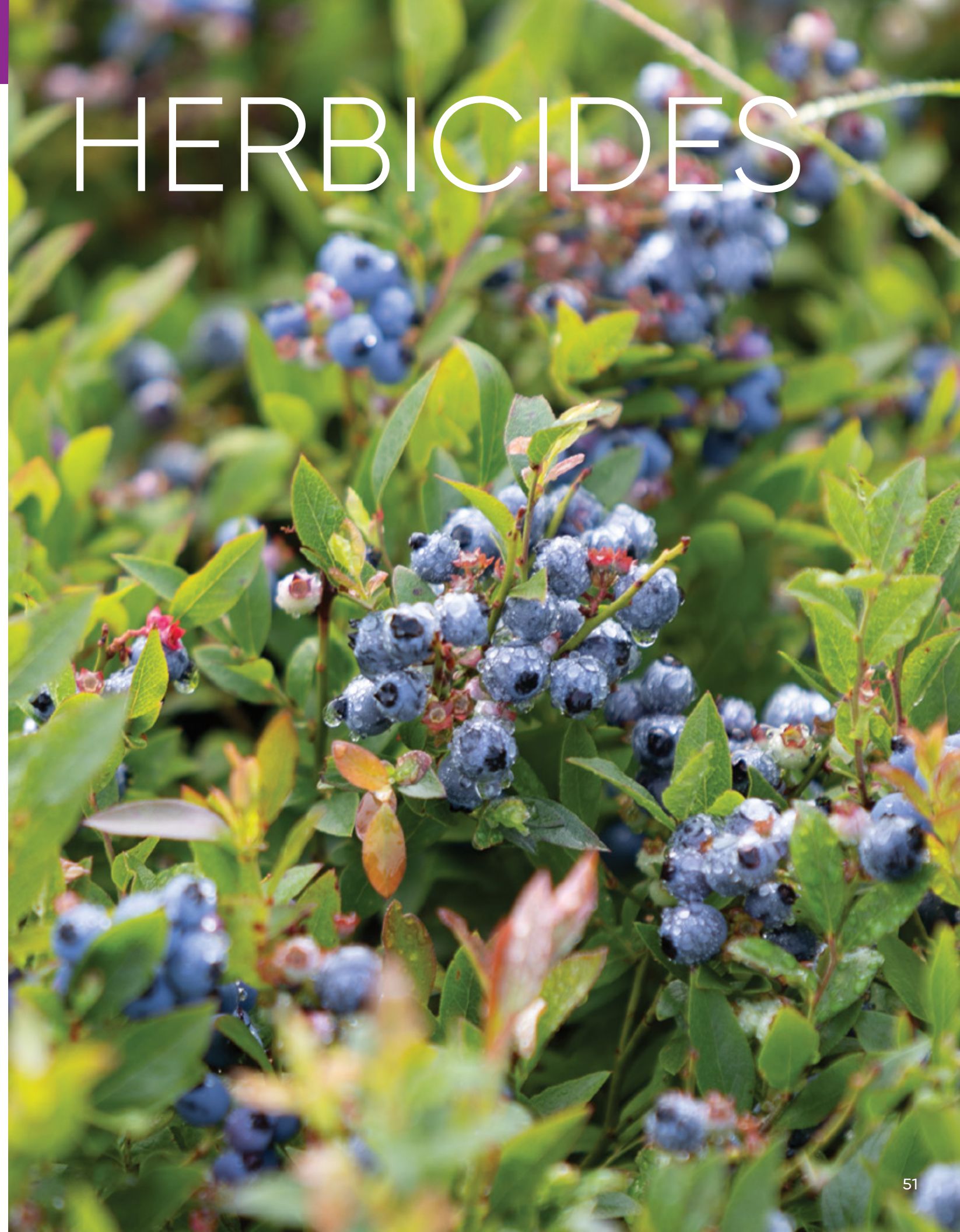
FORMULATION AND PACKAGING

- Dry flowable
- 4 x 3.4 kg bags

For more information
on Tanos
fungicide visit:



HERBICIDES



GROUP

2

Nicosulfuron

Accent™ IS

HERBICIDE

TOUGH ON WEEDS. SAFE ON CORN.

Accent™ IS herbicide delivers outstanding control of annual and perennial grass weeds in field corn, seed corn² and sweet corn³. With a built-in crop safener, Accent IS can be applied with confidence under a wide range of weather and growth stages.

PRECAUTIONS

- Add a registered non-ionic surfactant (NIS) such as Agral® 90 or Ag-Surf® at 2 L per 1000 L of spray solution (0.2% v/v).
- Agitation is required for uniform mixing and application. The optimum water volume for Accent IS application is 140–190 litres of water per hectare (minimum of 100 litres of water per hectare).

WEEDS CONTROLLED

- Barnyard grass
- Fall panicum
- Green foxtail
- Long-spined sandbur
- Old witchgrass
- Quackgrass
- Wild oats
- Yellow foxtail¹

CROPS

- Field corn
- Seed corn²
- Sweet corn²

FORMULATION AND PACKAGING

- Water Dispersible Granule
- 370 gram bottle treats 20 acres

1 Suppression only. For improved control, apply Accent IS with Merge (0.5% v/v) or NIS + UAN (0.2% v/v + 5 L/Ha)
2 Sweet corn varieties and seed corn inbreds may vary in their tolerance to herbicide, including Accent IS Herbicide. Since not all sweet corn varieties and seed corn inbreds have been tested for tolerance to Accent IS Herbicide, consult your seed supplier for information on the tolerance of specific sweet corn varieties and seed corn inbreds to Accent IS Herbicide.

For more information on Accent IS herbicide visit:



GROUP

3

Propyzamide

Kerb™ SC

HERBICIDE

SOIL ACTIVE WEED CONTROL IN ORNAMENTALS AND SELECT HORTICULTURE CROPS.

Kerb™ SC herbicide provides selective weed control and is readily absorbed by plants through the root system, translocated upward and distributed into the entire plant.

PRECAUTIONS

- Do not make more than one application of Kerb SC per year.
- Herbicide activity is best when the soil organic matter is less than four percent. Use in soils with higher organic matter may result in inconsistent or incomplete weed control. Kerb SC is ineffective and not recommended for application preemergence to weeds on highly organic peat or muck soils.
- Dandelion, thistles and other members of the Compositae family are not controlled by Kerb SC.
- Less tolerant grass species (e.g. tall fescue, creeping red fescue) may experience a 10 to 15 percent injury as a result of the treatment.
- DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty.
- For REIs for various crops see Quick Reference Charts.

WEEDS CONTROLLED

- Annual grasses
- Chickweed
- Foxtail barley
- Orchardgrass
- Quackgrass
- Timothy
- Volunteer wheat
- Wild oats

CROPS

- Alfalfa
- Apple
- Established pastures
- Lettuce
- Lowbush blueberries
- Ornamentals
- Pear
- Strawberries
- Trefoil

FORMULATION AND PACKAGING

- Liquid suspension
- 2 x 10 L jugs

For more information on Kerb SC herbicide visit:



GROUP

4

Clopyralid

Lontrel™ XC

HERBICIDE

THE STANDARD FOR THISTLE CONTROL.

Lontrel™ XC herbicide delivers trusted Canada thistle and broadleaf weed control that producers have relied on to get the job done right.

PRECAUTIONS

- Maximum of one application per year in all crops, with the exception of cranberries.
- Residues of the herbicide occurring in the straw may be harmful to susceptible plants; therefore, do not use straw or crop residue from treated crops for composting or mulching susceptible broadleaved crops. Do not grow susceptible crops such as peas, beans, lentils, potatoes, sunflowers or other sensitive crops on land that has been mulched with straw containing Lontrel XC residues within the last 12 months.
- For REIs for various crops see Quick Reference Charts.

WEEDS CONTROLLED

- Alsike clover
- Canada thistle
- Common groundsel
- Common ragweed
- Kudzu
- Ox-eye daisy*
- Perennial sow thistle (top growth control)
- Ragweed
- Red/white clover
- Scentless chamomile
- Sheep sorrel*
- Tufted vetch
- Vetch
- Volunteer alfalfa
- Volunteer soybean
- Wild buckwheat
- * Suppression only
- Corn – field
- Cranberries
- Crop and non-crop farmland areas
- Dry bulb onions (tolerant varieties only)
- Garden beets
- Pome fruit
- Poplars and hybrids
- Rutabaga
- Saskatoon berry
- Spinach
- Stone fruit
- Strawberries
- Sugar beet
- Turnip
- Wide variety of oilseeds, cereals and grasses. See label for complete listing.

CROPS

- Balsam fir Christmas tree plantations
- Blueberries
- Brassica head and stem vegetables
- Conifer plantations (Balsam fir, Fraser fir, White spruce, White pine)

FORMULATION AND PACKAGING

- Solution
- 4 x 2.67 L jugs

GROUP

2

Rimsulfuron

Prism™ SG

HERBICIDE

OUTSTANDING POST-EMERGENT CONTROL OF QUACKGRASS, PIGWEED AND ANNUAL GRASSES.

Potato and field tomato growers look to Prism™ SG herbicide for its outstanding post-emergent weed control.

PRECAUTIONS

- Application to control annual grasses and quackgrass must be made before the crop canopy can interfere with spray coverage of the target weeds.
- Cultivation is NOT recommended within 7-10 days prior to or after application of Prism™ SG.

WEEDS CONTROLLED

- Barnyard grass
- Fall panicum
- Green foxtail
- Hairy nightshade
- Lamb's-quarters*
- Quackgrass
- Redroot pigweed
- Witchgrass
- Yellow foxtail

CROPS

- Blueberries
- Caneberries
- Grapes
- Pome fruit
- Potatoes
- Stone fruit
- Tomatoes (Transplanted processing and Field)

FORMULATION AND PACKAGING

- Soluble granule
- 12 x 480 g bottles

* Suppression only

For more information on Lontrel XC herbicide visit:



For more information on Prism SG herbicide visit:



GROUP

2

Rimsulfuron + Nicosulfuron

Steadfast™ IS

HERBICIDE

PROVEN CONTROL OF ANNUAL GRASSES IN LOWBUSH BLUEBERRIES

Steadfast™ IS herbicide provides robust post-emergence control of key annual grasses such as green foxtail and wild oats.

PRECAUTIONS

- Do not apply within 14 months of harvest. One application can occur in the spring of the sprout year (non-bearing year) either before or after blueberry emergence.
- Caution should be taken to avoid contacting blueberry plants directly when applying Steadfast IS.

WEEDS CONTROLLED

- Green foxtail
- Volunteer canola
- Volunteer wheat
- Wild oats

CROPS

- Lowbush blueberries

FORMULATION AND PACKAGING

- Wettable granule
- 6 x 540 g bottles

BIOLOGICALS

WHY CHOOSE BIOLOGICALS FROM CORTEVA AGRISCIENCE?

GROWING TOGETHER

Biological products from Corteva are designed to keep farms productive and healthy today and tomorrow.

Using proven, predictable solutions across all crop stages, our Biologicals portfolio helps build more productive crops and maximize crop potential by helping crops use nutrients and inputs more effectively, and improve naturally occurring processes to help them grow. We believe healthy farms are productive farms. And this keeps each farming operation strong today, tomorrow, and for generations to come.

WHAT IS A BIOLOGICAL?

Biological products are an innovative, sustainable solution to today's biggest farming challenges - they consist of materials that already exist in nature; some are actual living organisms, like beneficial bacteria, while others, like enzymes, are inspired from natural materials.

MAXIMIZE YOUR ACRE WITH BIOLOGICALS

Our pipeline is full of exciting new developments. Expect more biological crop protection solutions from Corteva Agriscience, coming soon.

biologicals

BOOST PERFORMANCE

Activate the plant and its environment to maximize the harvest by enhancing the plants' ability to efficiently utilize soil, nutrients, water, and sunlight.

BUILD RESILIENCE

Empower crop vigour to withstand adversity and stress by enabling crops to thrive in the face of abiotic stresses and unfavourable weather.

PROTECT POTENTIAL

Shield crops from pests and disease to ensure viability by incorporating powerful and flexible solutions in crop protection programs.

For more information
on Steadfast IS
herbicide visit:



This guide is a reference only. For more information on use directions, please refer to the product label.

NEW FORMULATION

Utrisha™ N**NUTRIENT EFFICIENCY
BIOSTIMULANT**

MAXIMIZES CROP POTENTIAL - UTILIZING NATURAL BACTERIA TO CAPTURE AND SUPPLY NITROGEN TO PLANTS WHEN THEY NEED IT MOST.

Utrisha™ N is a nutrient efficiency biostimulant. The natural bacteria, *methylobacterium symbioticum*, fixes nitrogen from the air and converts it into a usable form for the plant.

WHY USE UTRISHA N NUTRIENT EFFICIENCY BIOSTIMULANT?

- Maximizes crop potential by increasing nitrogen availability, resulting in **healthier and more resilient plants**.
- Utrisha N **compliments and diversifies a conventional nitrogen fertilizer program** by providing nitrogen at critical times during the plant's life cycle.
- Utrisha N is a **simple way to provide supplemental nitrogen**, allowing crops to continue to be their most productive.
- Utrisha N contains a natural bacteria, providing a sustainable source of nitrogen that **reduces dependency of nitrogen uptake from the soil**.

ENHANCES NITROGEN USE EFFICIENCY

Utrisha N provides a sustainable, alternative source of nitrogen that reduces dependency of nitrogen uptake from the soil and ensures the plant has access to nitrogen all season long.

RECOMMENDATIONS

- Apply during active plant growth
- Apply in healthy crops unaffected by poor nutrition or other biotic/abiotic stresses
- Apply with sufficient plant biomass, when the crop presents good soil coverage
- Use water with a total chlorine content <2 ppm
- Use water with a pH between 5 and 8
- Utrisha N is best applied in the early morning, when a greater number of stomata are open

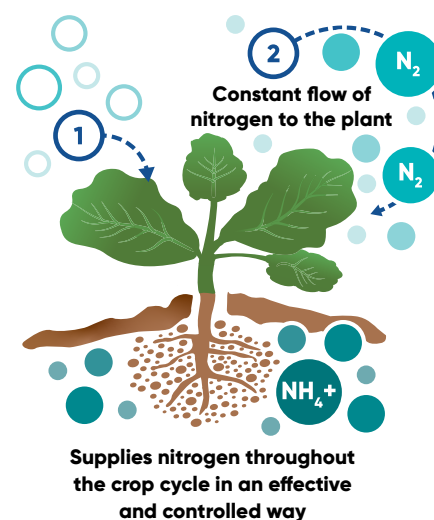
For more information
on Utrisha N
nutrient efficiency
biostimulant visit:

**CROPS**

- Artichoke
- Beet
- Blueberry (high and low bush)
- Broad bean
- Broccoli
- Cabbage
- Caneberry
- Carrot
- Cauliflower
- Celery
- Chard
- Cranberry
- Cucumbers
- Eggplant
- Escarole
- Fennel
- Garlic
- Ginseng
- Grapes
- Green asparagus
- Green onions
- Herbs
- Leek
- Lettuce
- Melon
- Nut trees
- Onion
- Pea
- Pepper for paprika
- Peppers
- Pome fruit trees
- Potato
- Pumpkin
- Radish
- Raspberry
- Romanesco
- Saskatoon
- Spinach
- Squash
- Stone fruit trees
- Strawberry
- Sugar Beet
- Sweet Potato
- Tomatoes
- Watermelon
- White asparagus
- Zucchini

PACKAGING

- 2 x 5.39 kg bags (case)



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CROP GROUPS

INTEGRATED PEST MANAGEMENT



Integrated pest management (IPM) is a systematic decision-making process that supports a balanced approach to managing crop production systems through sound economic and environmental practices. Here are some of the principles:

Evaluate disease and pest populations through scouting and monitoring programs.

Use practices to support resistance management, including proper application rates, techniques and rotation of chemical groups.

Biological, chemical, cultural and mechanical methods are used to reduce pest populations.

Control measures are implemented using the knowledge of known threshold levels for economic damage, the potential impact on beneficials and the crop value.

Records are maintained for products use, product groups, application information and results achieved.

Corteva Agriscience™ recommends consulting your local extension specialist or certified crop advisor for any additional pesticide resistance management and/or IPM recommendations for specific site and pest problems in your area.

CROP GROUPS AND SUBGROUPS – NUMBER AND NAME	REPRESENTATIVE COMMODITIES	COMMODITIES
1. Root and Tuber Vegetables	Carrot, potato, sweet potato, radish, sugar beet	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; beet, garden; beet, sugar; burdock, edible; canna, edible; carrot; cassava, bitter and sweet; celeriac; chayote (root); chervil, turnip-rooted; chicory; chufa; dasheen (taro); ginger; ginseng; horseradish; leren; parsley, turnip-rooted; parsnip; potato; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; sweet potato; tanier; turmeric; turnip; yam bean; yam, true
1A. Root vegetables subgroup	Carrot, radish and sugar beet	Beet, garden; beet, sugar; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip
1B. Root vegetables (except sugar beet) subgroup	Carrot and radish	Beet, garden; burdock, edible; carrot; celeriac; chervil, turnip-rooted; chicory; ginseng; horseradish; parsley, turnip-rooted; parsnip; radish; radish, oriental; rutabaga; salsify; salsify, black; salsify, Spanish; skirret; turnip
1C. Tuberous and corm vegetables subgroup	Potato	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; potato; sweet potato; tanier; turmeric; yam bean; yam, true
1D. Tuberous and corm vegetables (except potato) subgroup	Sweet potato	Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible; cassava, bitter and sweet; chayote (root); chufa; dasheen (taro); ginger; leren; sweet potato; tanier; turmeric; yam bean; yam, true
2. Leaves of Root and Tuber Vegetables (Human Food or Animal Feed)	Turnip and garden beet or sugar beet	Beet, garden; beet, sugar; burdock, edible; carrot; cassava, bitter and sweet; celeriac; chervil, turnip-rooted; chicory; dasheen (taro); parsnip; radish; radish, oriental (daikon); rutabaga; salsify, black; sweet potato; tanier; turnip; yam, true
3. Bulb Vegetables	Onion, green; and onion, dry bulb	Garlic; garlic, great-headed; leek; onion, dry bulb and green; onion, Welsh; shallot
3-07. Bulb vegetable group	Onion, bulb; onion, green	Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these
3-07A. Onion, bulb, subgroup	Onion, bulb	Daylily, bulb; fritillaria, bulb; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; lily, bulb; onion, bulb; onion, Chinese, bulb; onion, pearl; onion, potato, bulb; shallot, bulb
3-07B. Onion, green, subgroup	Onion, green	Chive, fresh leaves; chive, Chinese, fresh leaves; elegans hosta; fritillaria, leaves; kurrat; lady's leek; leek; leek, wild; onion, Beltsville bunching; onion, fresh; onion, green; onion, macrostem; onion, tree, tops; onion, Welsh, tops; shallot, fresh leaves
4-13. Leafy Vegetables	Head lettuce, leaf lettuce and spinach	Amaranth (Chinese, leafy); arugula; aster, Indian; blackjack; broccoli (raab, Chinese); cabbage (Abyssinian, Chinese (bok choy), seakale); cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; collards; corn salad (lamb's lettuce, Italian); cosmos; cress (garden, upland); dandelion; dang-gwi; dillweed, fresh leaves; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; good King Henry; Hanover salad; huauzontle; jute leaves; kale; lettuce (bitter, head, leaf, Romaine); maca; mizuna; mustard greens; orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane (garden, winter); radicchio (red chicory); radish, leaves; rape greens; rocket, wild; shepherd's purse; spinach (malabar, New Zealand, tree); Swiss chard; tanier spinach; turnip greens; violet, Chinese; watercress; cultivars, varieties and/or hybrids of these
4-13A. Leafy greens subgroup	Head lettuce, leaf lettuce and spinach	Amaranth (Chinese, leafy); aster, Indian; blackjack; cat's whiskers; cham-chwi; cham-na-mul; chervil, fresh leaves; chipilin; chrysanthemum, garland; cilantro, fresh leaves; corn salad (lamb's lettuce, Italian); cosmos; dandelion; dang-gwi; dillweed, fresh leaves; dock; dol-nam-mul; ebolo; endive; escarole; fameflower; feather cockscomb; good King Henry; huauzontle; jute leaves; lettuce (bitter, head, leaf, Romaine); orach; parsley, fresh leaves; plantain, buckhorn; primrose, English; purslane (garden, winter); radicchio (red chicory); spinach (malabar, New Zealand, tree); Swiss chard; tanier spinach; violet, Chinese; cultivars, varieties and/or hybrids of these

CROP GROUPS AND SUBGROUPS – NUMBER AND NAME	REPRESENTATIVE COMMODITIES	COMMODITIES
4–13B. Brassica leafy greens subgroup	Mustard greens	Arugula; broccoli (raab, Chinese); cabbage (Abyssinian, Chinese (bok choy), seakale); collards; cress (garden, upland); Hanover salad; kale; maca; mizuna; mustard greens; radish, leaves; rape greens; rocket, wild; shepherd's purse; turnip greens; watercress; Chinese; cultivars, varieties and/or hybrids of these
5–13. Brassica Head and Stem Vegetables	Broccoli, cauliflower and cabbage	Broccoli; Brussels sprouts; cabbage, Chinese (napa); cauliflower; Cultivars, varieties and/or hybrids of these
6. Legume Vegetables (Succulent or Dried)	Bean (Phaseolus) (succulent and dried), pea (Pisum) (succulent and dried) and soybean	Bean (Lupinus) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); bean (Phaseolus) (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean); bean (Vigna) (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean); broad bean (fava); chickpea (garbanzo); guar; jackbean; lablab bean; lentil; pea (Pisum) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean; soybean (immature seed); sword bean
6A. Edible-podded legume vegetables subgroup	Any one succulent cultivar of edible-podded bean (Phaseolus) and any one succulent cultivar of edible-podded pea (Pisum)	Bean (Phaseolus) (includes runner bean, snap bean, wax bean); bean (Vigna) (includes asparagus bean, Chinese longbean, moth bean, yardlong bean); jackbean; pea (Pisum) (includes dwarf pea, edible-podded pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean
6B. Succulent shelled pea and bean subgroup	Any succulent shelled cultivar of bean (Phaseolus) and garden pea (Pisum)	Bean (Phaseolus) (includes lima bean, green; broad bean, succulent); bean (Vigna) (includes blackeyed pea, cowpea, southern pea); pea (Pisum) (includes English pea, garden pea, green pea); pigeon pea
6C. Dried shelled pea and bean (except soybean) subgroup	Any one dried cultivar of bean (Phaseolus) and any one dried cultivar of pea (Pisum)	Dried cultivars of bean (Lupinus); bean (Phaseolus) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (Pisum) (includes field pea); pigeon pea
8–09. Fruiting Vegetable Group	Tomato, standard size, and one cultivar of small tomato; bell pepper and one cultivar of small non-bell pepper	African eggplant; bush tomato; bell pepper; cocona; currant tomato; eggplant; garden huckleberry; goji berry; groundcherry; martynia; naranjilla; okra; pea eggplant; pepino; non-bell pepper; roselle; scarlet eggplant; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these
8–09A. Tomato subgroup	Tomato (standard size and one cultivar of small tomato)	Bush tomato; cocona; currant tomato; garden huckleberry; goji berry; groundcherry; naranjilla; sunberry; tomatillo; tomato; tree tomato; cultivars, varieties, and/or hybrids of these
8–09B. Pepper/Eggplant subgroup	Bell pepper and one cultivar of small nonbell pepper	African eggplant; bell pepper; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant; cultivars, varieties, and/or hybrids of these
8–09C. Nonbell pepper/Eggplant subgroup	One cultivar of small nonbell pepper or one cultivar of small eggplant	African eggplant; eggplant; martynia; nonbell pepper; okra; pea eggplant; pepino; roselle; scarlet eggplant ; cultivars, varieties, and/or hybrids of these
9. Cucurbit Vegetables	Cucumber, muskmelon and summer squash	
9A. Melon subgroup	Cantaloupe	Citron melon; muskmelon; watermelon
9B. Squash/Cucumber subgroup	One cultivar of summer squash and cucumber	Chayote (fruit); Chinese waxgourd; cucumber; gherkin; gourd, edible; Momordica spp; pumpkin; squash, summer;squash, winter
11–09. Pome Fruit Group	Apple and pear	Apple; azarole; crabapple; loquat; mayhaw; medlar; pear; pear, Asian; quince; quince, Chinese; quince, Japanese; tejocote; cultivars, varieties, and/or hybrids of these

CROP GROUPS AND SUBGROUPS – NUMBER AND NAME	REPRESENTATIVE COMMODITIES	COMMODITIES
12–09. Stone Fruit Group	Sweet cherry or tart cherry, Peach and plum or prune plum	Apricot; apricot, Japanese; capulin; cherry, black; cherry, Nanking; cherry, sweet; cherry, tart; Jujube, Chinese; nectarine; peach; plum; plum, American; plum, beach; plum, Canada; plum, cherry; plum, Chickasaw; plum, Damson; plum, Japanese; plum, Klamath; plum, prune; plumcot; sloe; cultivars, varieties, and/or hybrids of these
13–07. Berry And Small Fruit	Any one blackberry or any one raspberry, highbush blueberry, elderberry or mulberry, grape, fuzzy kiwifruit and strawberry	Amur river grape; aronia berry; bayberry; bearberry; bilberry; blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these); blueberry, highbush; blueberry, lowbush; buffalo currant; buffaloberry; che; Chilean guava; chokecherry; cloudberry; cranberry; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; grape; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); kiwifruit, fuzzy; kiwifruit, hardy; lingonberry; maypop; mountain pepper berries; mulberry; muntries; native currant; partridgeberry; phalsa; pincherry; raspberry, black and red; riberry; salal; schisandra berry; sea buckthorn; serviceberry; strawberry; wild raspberry; cultivars, varieties, and/or hybrids of these
13–07A. Caneberry subgroup	Any one blackberry or any one raspberry	Blackberry; loganberry; raspberry, black and red; wild raspberry; cultivars, varieties, and/or hybrids of these
13–07B. Bushberry subgroup	Blueberry, highbush	Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these
13–07C. Large shrub/tree berry subgroup	Elderberry or mulberry	Bayberry; buffaloberry; che; chokecherry; elderberry; Juneberry (Saskatoon berry); mountain pepper berries; mulberry; phalsa; pincherry; riberry; salal; serviceberry; cultivars, varieties, and/or hybrids of these
13–07D. Small fruit vine climbing subgroup	Grape and fuzzy kiwifruit	Amur river grape; gooseberry; grape; kiwifruit, fuzzy; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these
13–07E. Small fruit vine climbing subgroup, except grape	Fuzzy kiwifruit	Amur river grape; gooseberry; kiwifruit, fuzzy; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these
13–07F. Small fruit vine climbing subgroup, except fuzzy kiwifruit	Grape	Amur river grape; gooseberry; grape; kiwifruit, hardy; maypop; schisandra berry; cultivars, varieties, and/or hybrids of these
13–07G. Low growing berry subgroup	Strawberry	Bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; strawberry; cultivars, varieties, and/or hybrids of these
13–07H. Low growing berry subgroup, except strawberry	Cranberry	Bearberry; bilberry; blueberry, lowbush; cloudberry; cranberry; lingonberry; muntries; partridgeberry; cultivars, varieties, and/or hybrids of these
14. Tree Nuts	Almond and pecan	Almond; beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; walnut, black and English
22. Stalk, stem, and leaf petioles	Asparagus and Celery	Agave; aloe vera; asparagus; bamboo, shoots; cardoon; celery; celery, Chinese; celtuce; fennel, Florence, fresh leaves and stalk; fern, edible; fuki; kale, sea; kohlrabi; palm hearts; prickly pear; prickly pear, Texas; rhubarb; udo; zuiki; cultivars, varieties, and hybrids of these

Questions?

Visit us at [Horticulture.corteva.ca](https://horticulture.corteva.ca) to find your
Corteva Agriscience™ Horticulture Specialist.