

Stage of Development: Dormant							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Bacterial Canker	copper oxychloride 50% (Copper Spray)	M1	6 - 9 kg	2.4 – 3.6 kg	48 h	n/a	Apply in early spring before bud break.
	copper octanoate (Cueva Commercial)	M1	Prepare 0.5 – 2% (5 – 20L/1000L water) and apply 470-940 L/ha. See Notes		4 h	1	Apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays.
San Jose scale	dormant oil (Guardsman)	NC	90 L	36 L	12 h	n/a	Do not apply just before or during freezing weather. One application/season
	Superior 70 oil	NC	60 L	24 L	12 h	n/a	
Ambrosia beetle	Notes: There are currently no registered products for controlling ambrosia and shothole beetles on cherries. Good sanitation is the best management strategy. Remove large wood piles and prunings from the orchard. Cultural control by maintaining optimum tree vigour is important as beetles are attracted to trees weakened by drought, transplanting, disease, etc. See pest descriptions for details on insect life cycle and methods to intercept female beetles flying into an orchard. Endosulfan (Thionex) applied for control of aphids in the spring will also control any flying adults.						
Shothole borer							

Stage of Development: Green Tip to Pink							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Black cherry aphid	diazinon (Diazinon WSP)	1B	4.5 kg	1.8 kg	4 days	10	See Bee Poisoning (Pollination section). Harmful to beneficial insects. Last date of use, December 31, 2016.
	endosulfan (Thionex 50% WP ⚠)	2A	3.25 kg	1.3 kg	7-20 days	20	Last date of use, December 31, 2016.
	flonicamid (Beleaf 50 SG)	9C	160 g	65 g	12-48 h	14	Experience in the field indicates there may be issues with current label rate.
	sulfoxaflor (Closer SC)	4C	100-200 mL	40-80 mL	12 h	7	Do not apply more than 2 times/season.
Eyespotted bud moth	diazinon (Diazinon WSP)	1B	4.5 kg	1.8 kg	4 days	10	See Bee Poisoning (Pollination section). Harmful to beneficial insects. Last date of use, December 31, 2016.
Rust mite	endosulfan (Thionex 50% WP ⚠)	2A	3.25 kg	1.3 kg	7-20 days	20	Last date of use, December 31, 2016.
European red mite	dormant oil (100-220 vis)	NC	45 L	18.2 L	12 h	n/a	See description of European red mite for more information.
Brown Rot	fluxapyroxad (Sercadis)	7	333 mL	135 mL	12 h	0	Apply when conditions favour disease development and at 7-14 day intervals, up to the blossom stage. Maximum 4 applications/season. The use of a non-ionic surfactant (0.125%) is recommended.

<sup>1</sup>Group number for resistance management NC=not classified.

<sup>2</sup>Re-entry interval on the label (Pesticides Chapter). An asterisk(\*) indicates that no re-entry is shown on the label, but the WorkSafe BC re-entry interval may apply and is shown.

<sup>3</sup>Pre-harvest interval (Pesticides Chapter). Note: always read and follow the directions on the pesticide label.

Stage of Development: Blossom							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Brown rot	fenhexamid (Elevate 50 WDG)	17	1.7 kg	690 g	4 h	1	Avoid more than 2 consecutive applications
	penthiopyrad (Fontelis)	7	1.0-1.75 L	405-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure. Use a minimum rate of 1.25 L/ha to also control botrytis.
	fluxapyroxad (Sercadis)	7	333 mL	135 mL	12 h	0	May be applied up to the blossom stage at 7-14 day intervals. Maximum 4 applications per year. The use of a non-ionic surfactant (0.125%) is recommended.
	boscalid (Cantus WDG)	7	370 g	150 g	12 h	0	Avoid more than 2 consecutive applications
	boscalid + pyraclostrobin (Pristine WG)	7+11	750 g – 1 kg	304 g – 405 g	dry – 10 days	0	Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season for resistance management.
	captan (Captan 80% or Maestro)	M4	3.75-4.5 kg	1.5-1.8 kg	48 h	2	Do not apply captan in combination with or immediately before or closely following oil sprays.
	iprodione (Rovral 50% WP)	2	1.5 – 1.75 kg	610 - 710 g	12 h	1	Use the higher rate on large, mature trees
	fenbuconazole (Indar 75 WSP)	3	140 g	57 g	12 h	1	Caution – mildew resistance to group 3 fungicides may be developing. Limit use of group 3 fungicides (Indar, Nova, Topas, Jade, Tilt) to 2 sprays/season. Rotate with fungicides from different groups.
	myclobutanil (Nova 40 W)	3	340 g	140 g	12 h – 12 days	1	
	propiconazole (Topas 250E or Jade or Tilt 250E)	3	500 mL	200 mL	3 days	3	
	triforine (Funginex 10% EC)	3	2.5 L	1 L	48 h	See notes	Do not apply after bloom.
	chlorothalonil (Bravo 500)	M5	5.0 - 9.0 L	2.0 - 3.6 L	48 h	40	Do not apply Bravo after shuck split. Use higher rate for trees over 6 m in height.
	thiophanate-methyl (Senator 70% WP)	1	1.75 kg	710 g	24 h*	1	
	<i>Bacillus subtilis</i> (Serenade Max)	44	2.0 – 3.0 kg	800 g – 1.2 kg	24 h*	0	Suppression only. Begin at early bloom and repeat at 7 day intervals through petal fall.
	copper octanoate (Cueva Commercial)	M1	Prepare 0.5 – 2% (5 – 20L/1000L water) and apply 470-940 L/ha.		4 h	1	Apply at delayed dormant (bud swell), popcorn, full bloom and petal fall stages for blossom blight control.
<b>Additional notes:</b> Brown rot infection begins at bloom. Protect blossoms if weather is wet. Rotate fungicides for resistance management.							
<b>Powdery mildew</b>	<b>Notes:</b> For blocks with high mildew pressure, begin mildew spray program no later than bloom to petal fall. See petal fall section for available sprays.						
<b>Botrytis Rot</b>	penthiopyrad (Fontelis)	7	1.25-1.75 L	506-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure.
<b>Additional notes:</b> Many fungicides used for brown rot will also help to control botrytis, including Bravo, captan, Elevate, Pristine, Cantus, Rovral and Senator. Blossom is an important spray timing for management of botrytis rots. Botrytis resistance to Rovral and Senator may be present in some orchards.							

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Stage of Development: Petal Fall to Husk Fall							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Mealybugs	spirotetramat (Movento 240 SC)	23	365 - 585 mL	148 - 237 mL	12 h	7	Apply Movento with an adjuvant such as Agral 90 after petal fall. Do not exceed 1120 mL Movento/ha (453 mL/ac)/season. Toxic to bees.
	<b>Additional notes:</b> Admire or Diazinon used against other pests at petal fall will also provide control of mealybugs. Use high volume air-blast or hand gun applications.						
Leafrollers (Obliquebanded and threelined)	chlorantraniliprole (Altacor)	28	145 - 285 g	59 - 115 g	12 h	1	Monitor larval populations in spring; apply when larvae are active. Maximum 3 applications per season. For rates above 215 g/ha (87 g/ac), do not apply more than twice/season.
	cyantraniliprole (Exirel)	28	500-1000 mL	202-404 mL	12 h	3	Apply when larvae are active. Do not apply more than 4 times/ season. Do not tank mix with Flint, Pristine, Cabrio, copper or captan fungicides. Toxic to bees.
	novaluron (Rimon 10 EC)	15	1.35 - 3.35 L	0.55 - 1.35 L	12 h	14	Use the higher rate for higher populations. Maximum 3 applications/season. May be harmful to predatory mites.
	<i>Bacillus thuringiensis</i> (Dipel 2X DF or Bioprotec CAF)	11	1.675 kg 4.0 L	678 g 1.6 L	24 h*	0	See leafroller descriptions for more information. Will also control bud moth and other caterpillars.
	spinetoram (Delegate WG)	5	210-420 g	85-170 g	12 h	5	Do not apply more than 3 times per season. Use the higher rate under high pest pressure and/or larger larvae.
	spinosad (Success 480 SC or Entrust SC)	5	182 mL 364 mL	74 mL 147 mL	dry	3	Do not apply more than 3 times per season.
	sulfoxaflor + spinetoram (TwinGuard)	4C, 5	250-500 g	101-202 g	12 h	7	Apply when larvae are active. Do not apply more than 2 times per season. Toxic to bees.
	<b>Additional notes:</b> All products are stomach poisons so complete coverage is important for satisfactory control. These products will also control any other leafroller and bud moth larvae present. Apply <i>Bacillus thuringiensis</i> products when bloom is 80% or more during late afternoon or on a cloudy day when no rain is forecast for 24 hours. If there is more than 2 mm rainfall within 24 h of application, re-apply product. Wait 10 days (in the absence of rain) before applying a second treatment of <i>B. thuringiensis</i> or another product. Optimum solution pH for Bt products is 6.						
Leafrollers (Fruittree & European)	<b>Notes:</b> Bt products, Success, Entrust and Exirel are registered for fruittree and European leafrollers. Use rates for obliquebanded and threelined leafrollers above and follow indicated precautions. See leafroller description.						
Fruitworms	<i>Bacillus thuringiensis</i> (Dipel 2X DF or Bioprotec CAF)	11	1.675 kg 4.0 L	678 g 1.6 L	24 h*	0	Will also control bud moth.
Eyespotted bud moth	spinosad (Success 480 SC or Entrust SC)	5	182 mL 364 mL	74 mL 147 mL	dry	3	Do not apply more than 3 times per season.
	cyantraniliprole (Exirel)	28	500-1000 mL	202-404 mL	12 h	3	Apply when larvae are active. Do not apply more than 4 times per season. Do not tank mix with Flint, Pristine, Cabrio, copper or captan. Toxic to bees.

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Stage of Development: Petal Fall to Husk Fall							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Eyespotted bud moth	diazinon (Diazinon 50% WP)	1B	4.5 kg	1.8 kg	4 days	10	See Bee Poisoning (Pollination section). Harmful to beneficial insects. Last day of use, December 31, 2016.
Peach tree borer	mating disruption (Isomate-P dispensers)	NC	250-625	100-250	n/a	0	Apply before first moth flight. See description of peach tree borer for more information.
	novaluron (Rimon 10 EC)	15	1.4 L/1000L of water		12 h	14	Begin spray application 7-10 days after first trap catch. Spray tree trunk and scaffold limbs with a hand gun sprayer. Repeat at 21 days. May harm predatory mites.
Brown rot	fenhexamid (Elevate 50 WDG)	17	1.7 kg	690 g	4 h	1	Avoid more than 2 consecutive applications
	penthiopyrad (Fontelis)	7	1.0-1.75 L	405-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure.
	boscalid (Cantus WDG)	7	370 g	150 g	12 h	0	Avoid more than 2 consecutive applications
	boscalid + pyraclostrobin (Pristine WG)	7 +11	750 g – 1 kg	304 g – 405 g	dry – 10 days	0	Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season for resistance management.
	captan (Captan 80% or Maestro)	M4	3.75-4.5 kg	1.5-1.8 kg	48 h	2	
	iprodione (Rovral 50% WP)	2	1.5 – 1.75 kg	610 - 710 g	12 h	1	Use the higher rate on large, mature trees
	fenbuconazole (Indar 75 WSP)	3	140 g	57 g	12 h	1	Caution – mildew resistance to group 3 fungicides may be developing. Limit use of group 3 fungicides (Indar, Nova, Topas, Jade, Tilt) to 2 sprays/season. Rotate with fungicides from different groups.
	myclobutanil (Nova 40 W)	3	340 g	140 g	12 h – 12 days	1	
	propiconazole (Topas 250E or Jade or Tilt 250E)	3	500 mL	200 mL	3 days	3	
	thiophanate-methyl (Senator 70% WP)	1	1.75 kg	710 g	24 h*	1	
	chlorothalonil (Bravo 500)	M5	5.0 - 9.0 L	2.0 - 3.6 L	48 h	40	Do not apply Bravo after shuck split. Use higher rate for trees over 6 m in height.
	<i>Bacillus subtilis</i> (Serenade Max)	44	2.0 – 3.0 kg	800 g – 1.2 kg	24 h*	0	Suppression only. Begin application at early bloom and repeat at 7 day intervals through petal fall.
	copper octanoate (Cueva Commercial)	M1	Prepare 0.5 – 2% (5 – 20L/1000L water) and apply 470-940 L/ha.		4 h	1	Apply at delayed dormant (bud swell), popcorn, full bloom and petal fall stages for blossom blight control.
<b>Additional notes:</b> Brown rot infection begins at bloom. Protect blossoms if weather is wet. Rotate fungicides for resistance management. If botrytis fruit rot has been a problem, select fungicides that also control botrytis (e.g. Elevate, Cantus, Pristine, Captan, Rovral, Bravo, Senator). Botrytis resistance to Rovral and Senator may be present in some orchards.							

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Stage of Development: Petal Fall to Husk Fall							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Powdery mildew (p. 7-17)	wettable sulphur (Kumulus 80 DF or Microthiol Disperss)	M2	7.0 kg	2.8 kg	24 h	1	See description of powdery mildew.
	metrafenone (Vivando SC)	U8	750 mL – 1.12 L	304 – 453 mL	12 h	7	Apply prior to onset of disease and at 14-21 day intervals. Maximum of 2 applications/season.
	quinoxyfen (Quintec)	13	500 mL	200 mL	12 h	7	Apply before visible symptoms, and at 10-14 day intervals. Do not make more than 2 consecutive applications.
	trifloxystrobin (Flint 50WG)	11	175 – 210 g	71 – 85 g	12 h – 4 days	1	Use the higher rate for high disease pressure. Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season.
	pyraclostrobin (Cabrio 20% EG)	11	670 g	270 g	12 h - 9 days	10	Use tank mixes with caution. Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season.
	boscalid + pyraclostrobin (Pristine WG)	7+11	750 g – 1 kg	304 g – 405 g	dry – 10 days	0	Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season for resistance management.
	penthiopyrad (Fontelis)	7	1.0-1.75 L	405-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure.
	myclobutanil (Nova 40 W)	3	340 g	140 g	12 h – 12 days	1	Caution – mildew resistance to group 3 fungicides may be developing. Limit use of group 3 fungicides (Indar, Nova, Topas, Jade and Mission) to 2 sprays/season.
	mineral oil (Purespray Green Spray Oil 13E)	NC	10 L	4 L	12 h	0	For suppression of powdery mildew, apply in a minimum of 1000 L water/ha from two weeks after full bloom to pit hardening at 10-14 day intervals. Do not use in combination with or within 14 days of sulphur or captan.
<b>Additional notes:</b> For blocks with high mildew pressure, begin spray program no later than bloom to petal fall. For low pressure blocks, begin at husk fall. Rotate fungicide groups for resistance management.							

Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Black cherry aphid	spirotetramat (Movento 240 SC)	23	365 - 435 mL	148 - 176 mL	12 h	7	Apply Movento with an adjuvant such as Agral 90. Do not exceed 1120 mL Movento/ha/season. Movento is toxic to bees; use only after petal fall. Will also control mealybugs.
	flocicamid (Beleaf 50 SG)	9C	160 g	65 g	12-48 h	14	Experience in the field indicates there may be issues with current label rate.
	clothianidin (Clutch 480 SC)	4A	140-210 g	57-85 g	12 h	7	Do not apply more than twice/season.
	sulfoxaflor (Closer SC)	4C	100-200 mL	40-80 mL	12 h	7	Do not apply more than 2 times/season.

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Black cherry aphid	thiamethoxam (Actara 25 WG)	4	160	65 g	12 h	14	Do not apply more than twice/season. Highly toxic to bees.
	sulfoxaflor+ spinetoram (TwinGuard)	4C, 5	250 g	101 g	12 h	7	Do not apply more than 2 times per season. Toxic to bees.
	diazinon (Diazinon WSP)	1B	4.5 kg	1.8 kg	4 days	10	Will also control pear sawfly (cherry slug). Harmful to beneficial insects. Last date of use, Dec. 31, 2016.
	malathion (Pro Malathion 50% EC or Malathion 85E)	1B	1.25-2L /1000 L of water 610 – 880 mL/1000 L of water		12 h – 3 days	3	Malathion may injure some varieties of cherries.
	endosulfan (Thionex 50% WP ⚠)	2A	3.25 kg	1.3 kg	7-20 days	20	Last date of use, December 31, 2016.
	mineral oil (Purespray Green Spray Oil 13E)	NC	10L	4	12 h	0	Prevents aphids from feeding. Begin applications when aphids first appear, allow 10 - 14 days between applications. Do not use within 14 days before or after captan or sulphur. Post harvest sprays may be made to reduce over-wintering pressure.
<b>Additional notes:</b> Avoid using Group 4 products more than twice/season for all registered uses to prevent mite problems.							
Cherry fruit flies (Western, Black)	imidacloprid (Admire 240 F)	4	230 mL	93 mL	24 h	10	Do not apply more than 2 times per season. Will also control aphids and mealybug.
	acetamiprid (Assail 70 WP)	4	240 g	97 g	12 h -6 days	7	For suppression only. Do not apply more than 2 times per season.
	spinosad (Entrust SC)	5	364 mL	147 mL	dry	3	Do not apply more than 3 times per season.
	Spinosad (GF 120 NF)	5	1.0 - 1.5 L	405 - 607 mL	dry	0	Apply at label rates with special equipment in a strip on one side of every row.
	dimethoate (Cygon 480 EC or Lagon 480 E)	1B	2.25 L	910 mL	24 h*	21	Will also control cherry fruitworm, pear sawfly (cherry slug) and apple mealybug. Field reports indicate EC formulations can cause severe leaf burn and leaf drop in Lapins, Sam, Skeena, Stella and Sweetheart cherry varieties.
	diazinon (Diazinon WSP)	1B	4.5 kg	1.8 kg	4 days	10	Ensure thorough coverage. Harmful to beneficial insects. Last date of use, December 31, 2016.
	Carbaryl (Sevin XLR)	1A	2.3 L	930 mL	48 h*	2	May harm predatory mites. May leave visible residue on fruit. See page 6-9.
	cyantraniliprole (Exirel)	28	750-1500 mL	304-607 mL	12 h	3	Do not apply more than 4 times/season. Do not tank mix with Flint, Pristine, Cabrio, copper or captan fungicides. Toxic to bees
	spinetoram (Delegate)	5	420 g	170 g	12 h	5	For suppression only. Apply within first 5 days of first adult trap capture. Re-apply at 7-day intervals. Do not apply more than 3 times per season.
<b>Additional notes:</b> Entrust and GF-120 NF are approved for use in organic cherry blocks. Avoid using Group 4 products more than twice/season for all registered uses to prevent mite problems.							

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Spotted wing drosophila	cyantraniliprole (Exirel)	28	1000-1500 mL	404-607 mL	12 h	3	Begin applications when fruit begin to turn colour (straw to pink). Re-apply at 7 day intervals. Do not apply more than 4 times/season. Will control only adult flies, NOT larvae inside fruit. Do not tank mix with Flint, Pristine, Cabrio, copper or captan. Toxic to bees. Check MRL requirements for fruit exports.
	<b>Additional notes:</b> Emergency registration requests will be submitted for Delegate, Entrust, Malathion, and Mako (formerly Ripcord) in 2016. Please see labels for rates, pre-harvest intervals and directions. Organophosphate insecticides such as Diazinon used for the control of cherry fruit fly will provide control of spotted wing drosophila. Do not rely on Sevin, Admire, Assail or GF 120 for control of spotted wing drosophila.						
Cherry (pear) slug	carbaryl (Sevin XLR)	1A	2.3 L	930 mL	48 h*	2	May harm predatory mites. May leave visible residue on fruit. Will aid in control of any leafroller or bud moth larvae present.
Obliquebanded and threelined leafrollers	cyantraniliprole (Exirel)	28	500-1000 mL	202-404 mL	12 h	3	Monitor adult moth flight and apply at first egg hatch. Do not tank mix with Flint, Pristine, Cabrio, copper or captan. Toxic to bees.
	chlorantraniliprole (Altacor)	28	145 – 215 g	59-87 g	12 h	1	Apply at first egg hatch based on pheromone trap catches and degree days after biofix. Do not apply more than 3 times per season.
	novaluron (Rimon 10 EC)	15	1.35 - 3.35 L	0.55 - 1.35 L	12 h	14	Use the higher rate for higher populations. Maximum 3 applications /season. May be harmful to predatory mites
	spinetoram (Delegate WG)	5	210 - 420 g	85 - 170 g	12 h	5	Do not apply more than 3 times per season. Use the higher rate under high pest pressure and/or larger larvae.
	spinosad (Success 480 SC or Entrust SC)	5	182 mL 364 mL	74 mL 147 mL	dry	3	Do not apply more than 3 times per season against leafrollers.
	sulfoxaflor + spinetoram (TwinGuard)	4C, 5	250-500 g	101-202 g	12 h	7	Apply at first egg hatch. Do not apply more than 2 times per season. Toxic to bees.
	<i>Bacillus thuringiensis</i> (Dipel 2X DF or Bioprotec CAF)	11	1.675 kg 4.0 L	678 g 1.6 L	24 h*	0	Will also control bud moth and other leaf-feeding larvae present. See leafroller description for more information.
<b>Additional notes:</b> All the products are stomach poisons so complete coverage is important for satisfactory control. Apply <i>Bt</i> when bloom is 80% or more during late afternoon or on a cloudy day when no rain is forecast for 24 hours. If there is more than 2 mm rainfall within 24 h of application, re-apply product. Wait 10 days (in absence of rain) before applying a second treatment of <i>Bt</i> or another product. Optimum solution pH for <i>Bt</i> is 6.							
Rust mites	spirodiclofen (Envidor 240 SC)	23	750 mL	300 mL	12 h	7	Will control other mites present.
	endosulfan (Thionex 50% WP ♂)	2A	3.25 kg	1.3 kg	7-20 days	20	Last date of use, December 31, 2016.

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			Ha	Acre			
European red mite, McDaniel and Two-spotted spider mites	pyridaben (Nexter 75 WP)	21	300 - 600 g	120 - 240 g	24 h	7	Only one application per season.
	spirodiclofen (Envidor 240 SC)	23	750 mL	300 mL	12 h	7	Will also control rust mites.
	bifenazate (Acramite 50 WS)	25	851 g	344 g	12 h	7	Begin application when mites first appear. Do not apply more than once/season. Will not control rust mites.
	<b>Additional notes:</b> To avoid development of pesticide resistance, do not apply products from the same group more than once per season. The presence and number of predatory mites should first be determined before spraying. Apply the products in sufficient water to ensure thorough and uniform coverage.						
European red mite	mineral oil (Purespray Green Spray Oil 13E)	NC	10L	4	12 h	0	For suppression only. Begin applications when mites first appear, allow 10 - 14 days between applications. Do not use within 14 days before or after captan or sulphur. Post harvest sprays help to reduce over-wintering pressure.
Brown rot	fenhexamid (Elevate 50 WDG)	17	1.7 kg	690 g	4 h	1	Avoid more than 2 consecutive applications
	penthioopyrad (Fontelis)	7	1.0-1.75 L	405-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure. Use a minimum rate of 1.25 L/ha to also control botrytis.
	boscalid (Cantus WDG)	7	370 g	150 g	12 h	0	Avoid more than 2 consecutive applications
	boscalid + pyraclostrobin (Pristine WG)	7 + 11	750 g - 1 kg	304 g - 405 g	dry - 10 days	0	Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season for resistance management.
	captan (Captan 80% or Maestro)	M4	3.75-4.5 kg	1.5-1.8 kg	48 h	2	
	iprodione (Rovral 50% WP)	2	1.5 – 1.75 kg	610 - 710 g	12 h	1	Use the higher rate on large, mature trees
	fenbuconazole (Indar 75 WSP)	3	140 g	57 g	12 h	1	Caution – mildew resistance to group 3 fungicides may be developing. Limit use of group 3 fungicides (Indar, Nova, Topas, Jade, Tilt) to 2 sprays/season. Rotate with fungicides from different groups.
	myclobutanil (Nova 40 W)	3	340 g	140 g	12 h – 12 days	1	
	propiconazole (Topas 250E or Jade or Tilt 250E)	3	500 mL	200 mL	3 days	3	
	<b>Additional notes:</b> Fruit becomes increasingly susceptible to brown rot as it ripens. Rotate fungicides for resistance management. Follow pre-harvest intervals.						
Botrytis Rot	penthioopyrad (Fontelis)	7	1.25-1.75 L	506-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure.
	<b>Additional notes:</b> Many fungicides used for brown rot will also help to control botrytis, including captan, Rovral, Elevate, Pristine, Cantus and Senator. Botrytis resistance to Rovral and Senator may be present in some orchards.						

<sup>1</sup>Group number for resistance management NC=not classified.<sup>2</sup>Re-entry interval on the label (Pesticides Chapter). An asterisk(\*) indicates that no re-entry is shown on the label, but the WorkSafe BC re-entry interval may apply and is shown.<sup>3</sup>Pre-harvest interval (Pesticides Chapter). Note: always read and follow the directions on the pesticide label.



Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Powdery mildew	metrafenone (Vivando SC)	U8	750 mL – 1.12 L	304 – 453 mL	12 h	7	Apply prior to onset of disease and at 14-21 day intervals. Maximum of 2 applications/season.
	pyraclostrobin (Cabrio 20% EG)	11	670 g	270 g	12 h - 9 days	10	Use tank mixes with caution. Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season.
	penthiopyrad (Fontelis)	7	1.0-1.75 L	405-709 mL	12 h	0	Do not apply more than 2 times per season. Use high rate for high disease pressure.
	boscalid + pyraclostrobin (Pristine WG)	7 + 11	750 g - 1 kg	304 g - 405 g	dry – 10 days	0	Limit sprays of group 11 fungicides (Flint, Cabrio, Pristine) to 2 per season for resistance management.
	trifloxystrobin (Flint 50WG)	11	175 - 210 g	71 - 85 g	12 h – 4 days	1	Use the higher rate when disease pressure is severe. Limit sprays of group 11 fungicides to 2 per season.
	quinoxyfen (Quintec)	13	500 mL	200 mL	12 h	7	Apply before visible symptoms, and at 10-14 day intervals. Do not make more than 2 consecutive applications.
	wettable sulphur (Kumulus 80 DF or Microthiol Disperss)	M2	7.0 kg	2.8 kg	24 h	1	May cause injury during hot weather.
	mineral oil (Purespray Green Spray Oil 13E)	NC	10 L	4 L	12 h	0	For suppression of powdery mildew, apply in a minimum of 1000 L water/ha from two weeks after full bloom to pit hardening at 10-14 day intervals. Do not use in combination with or within 14 days of sulphur or captan.
<b>Additional notes:</b> Caution – mildew resistance to group 3 fungicides (Nova, Indar, Jade, Topas, Tilt) may be developing. Limit use of group 3 fungicides to 2 sprays/season on cherry. Avoid using these products late in the season if powdery mildew is abundant. Group 11 fungicides are also at high risk for resistance.							

Stage of Development: Post-Harvest							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Post harvest rots (Brown rot, <i>Botrytis</i> , <i>Rhizopus</i> )	fludioxonil (Scholar 50 WP)	12	n/a	n/a	n/a	n/a	Post-harvest dip or drench application to harvested fruit in the packinghouse. See label for details.
Post harvest rots ( <i>Botrytis</i> , <i>Penicillium</i> )	<i>Pseudomonas syringae</i> (Bio-Save 10LP)	NC	n/a	n/a	n/a	n/a	Post-harvest dip, drench or spray to harvested fruit in the packinghouse for suppression of post-harvest rots. See label for details.
Powdery Mildew	mineral oil (Purespray Green Spray Oil 13E)	NC	10 L	4 L	12 h	0	For suppression of powdery mildew, apply in a minimum of 1000 L water/ha.
Bacterial Canker	copper oxychloride 50% (Copper Spray)	M1	6 - 9 kg	2.4 – 3.6 kg	48 h	n/a	Apply when at least ¾ leaves have fallen to protect leaf scars.

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<sup>3</sup>Pre-harvest interval (Pesticides Chapter).      Note: always read and follow the directions on the pesticide label.

Stage of Development: Post-Harvest							
Insect or Disease	Recommended Product Choices	Grp <sup>1</sup>	Amount per		REI <sup>2</sup>	PHI <sup>3</sup> (days)	Precautions and Notes
			Ha	Acre			
Bacterial Canker	copper octanoate (Cueva Commercial)	M1	Prepare 0.5 – 2% (5 – 20L/1000L water) and apply 470-940 L/ha. See Notes		4 h	1	Apply at 10% and 80% leaf fall.
Cherry fruit flies	dimethoate (Cygon 480 EC or Lagon 480 E)	1B	2.25 L	910 mL	24 h*	n/a	Will also control apple mealybug, pear sawfly (cherry slug). See description of cherry fruit flies.
Apple mealy bug	<b>Notes:</b> See description of mealybugs.						
Shothole borer	<b>Notes:</b> Cultural control, see description of shothole borer.						

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<sup>3</sup>Pre-harvest interval (Pesticides Chapter).      Note: always read and follow the directions on the pesticide label.