

Fruit Production Recommendations 2010-2011

Ontario Ministry of Agriculture, Food & Rural Affairs

Chapter 7: Tender Fruit



Sweet Cherry Calendar

Read the product label and follow all safety precautions.

Consult the product label for suggested water volumes. Otherwise, use enough water to ensure thorough spray coverage. Where the product rate is listed in amount per 1,000 L and if a water volume is not provided on the label, use enough water to wet the foliage to the near drip point.

Products are listed by fungicide and insecticide group. Use products from different groups to prevent pest resistance. For resistance management, refer to *Pest Resistance to Insecticides, Fungicides, Miticides*, page 23.

For preharvest interval, re-entry period, maximum number of applications and chemical group, see Table 7-7. *Products Used on Sweet Cherries*, page 163.

Diseases and Insects	Products	Rate	Comments
Dormant (before bud break)			
Bacterial canker	Copper Spray Guardsman Copper Oxychloride	6.0–9.0 kg/1,000 L 6.0–9.0 kg/1,000 L	Apply in early spring before bud break. Later applications in the spring may cause injury. Use low rate on small trees, and high rate on large trees.
Bloom			
DO NOT APPLY INSECTICIDES WHILE CHERRY TREES ARE IN BLOOM. SEE BEE POISONING ON PAGE 214.			
Brown rot (blossom blight stage)	Topas 250 E or Mission 418 EC Nova 40 W Indar 75 WSP Funginex DC Rovral Bravo 500 Supra Captan 80 WDG or Maestro 80 DF Elevate 50 WDG Lance WDG Pristine WG	500 mL/ha 300 mL/ha 340 g/ha 140 g/ha 2.5 L/ha 1.75 kg/ha 7.0 L/ha 4.5 kg/ha 4.5 kg/ha 1.7 kg/ha 370 g/ha 750 g/ha	Blossom blight is favoured by wet, warm (above 16°C) weather, especially when large numbers of mummies are present in the trees. Apply first spray when blossoms open, followed by two additional sprays during the bloom period if weather remains favourable for blight. Alternate among fungicide groups and do not use products from the same group in consecutive sprays. See <i>Pest Resistance to Insecticides, Fungicides, Miticides</i> , page 23, and Table 7-7. <i>Products Used on Sweet Cherries</i> , page 163. Nova, Funginex, Topas, Mission and Indar: Do not alternate within this group. Captan, Maestro or Bravo: Do not use within 14 days of an application of Superior Oil. Bravo: Do not apply after shuck to avoid fruit injury. Pristine and Lance: Do not alternate Pristine with Lance.
Petal fall			
Black cherry aphid	Diazinon 50 W Zolone Flo Thionex 50 W Movento 240 SC	see label 2.0 L/ha 4.5 kg/ha 365 mL/ha	Diazinon, Thionex and Zolone: A temperature of at least 21°C, thorough coverage and a calm day are needed for effective aphid control. Usually 1–2 sprays are required. Movento: Most effective on young stages of aphids. Has slow activity; control may not be apparent for 2–3 weeks. Under high aphid pressure a second application may be necessary 2 weeks later.

Diseases and Insects	Products	Rate	Comments
			See the Movento label for additional details. Do not tank-mix with sulfur.
Shuck fall			
Plum curculio	Assail 70 WP Guthion 50 WSB or Sniper Zolone Flo	240 g/ha see label see label 2.0 L/ha	Spray when most of the shucks are off and plum curculio activity is observed, usually when temperatures are above 16°C. Zolone: Also helps control aphids.
Brown rot	Topas 250 E or Mission 418 EC Indar 75 WSP Rovral Elevate 50 WDG Lance WDG Pristine WG Supra Captan 80 WDG or Maestro 80 DF	500 mL/ha 300 mL/ha 140 g/ha 1.75 kg/ha 1.7 kg/ha 370 g/ha 750 g/ha 4.5 kg/ha 4.5 kg/ha	Alternate among groups and do not use products from the same group in consecutive sprays. Captan and Maestro: May cause leaf injury to Schmidt and Emperor Francis varieties in postbloom sprays. Topas, Mission and Indar: Do not alternate Topas or Mission with Indar. Pristine and Lance: Do not alternate Pristine with Lance.
First cover (12 days after Shuck fall)			
Plum curculio	Use one of the insecticides listed under Shuck fall .		Zolone: Helps control aphids but is only fair against plum curculio. Monitor 7 days after shuck fall insecticide application for new plum curculio damage. Apply insecticide if new crescent-shaped cuts are found.
Brown rot	Use one of the fungicides listed under Shuck fall .		
Second cover (12 days after first cover)			
Cherry fruit fly	GF-120 NF Entrust 80 W Admire 240 Diazinon 50 W Zolone Flo Guthion 50 WSB or Sniper	1.5 L/ha 109 g/ha 233 mL/ha see label 2.0 L/ha see label see label	GF-120 NF: Spray as soon as monitoring traps indicate flies are present or 2–3 weeks before ripening. GF-120 is a bait formulation that requires large droplet size (4–6 mm); specialized application equipment may be needed. GF-120 will lose effectiveness if exposed to rain or overhead irrigation. Admire: Monitor for cherry fruit fly and apply as a foliar spray within 6 days of first fly emergence. Thorough uniform coverage is necessary for optimal control. Allow at least 10 days between applications. Diazinon, Zolone and Guthion: On early varieties, check the preharvest interval. Spray when early varieties are beginning to colour. Diazinon: Provides 10 days protection against cherry fruit fly. Zolone: Provides 12–14 days protection against cherry fruit fly.
Plum curculio	Guthion 50 WSB or Sniper Zolone Flo	see label see label 2.0 L/ha	Zolone: Helps control aphids but is only fair against plum curculio. Monitor 7 days after previous insecticide for new plum curculio damage. Apply insecticide if new crescent-shaped cuts are found.
Powdery mildew	Cabrio EG Pristine WG Flint 50 WG	670 g/ha 750 g/ha 210 g/ha	Powdery mildew is not a common problem on sweet cherries. Only required on susceptible varieties. Flint: Do not apply where spray drift may reach Concord grapes as it

Diseases and Insects	Products	Rate	Comments
			may cause crop injury. Pristine: Provides suppression of powdery mildew.
Brown rot	Topas 250 E or Mission 418 EC Indar 75 WSP Rovral Supra Captan 80 WDG or Maestro 80 DF Elevate 50 WDG Lance WDG Pristine WG	500 mL/ha 300 mL/ha 140 g/ha 1.75 kg/ha 4.5 kg/ha 4.5 kg/ha 1.7 kg/ha 370 g/ha 750 g/ha	Alternate among groups and do not use products from the same group in consecutive sprays. Topas, Mission: Apply no more than two applications of Topas or Mission in the three weeks prior to harvest. Captan and Maestro: May cause leaf injury to Schmidt and Emperor Francis varieties in postbloom sprays. Pristine and Lance: Do not alternate Pristine with Lance.
Third cover			
Cherry fruit fly	GF-120 NF Entrust 80 W Admire 240 Diazinon 50 W Zolone Flo Sevin XLR	1.5 L/ha 109 g/ha 233 mL/ha see label 2.75 L/ha 6.25 L/ha	Check preharvest interval before spraying early maturing cherries. See Table 7-7. <i>Products Used on Sweet Cherries</i> , page 163. GF-120: Spray as soon as monitoring traps indicate flies are present or 2–3 weeks before ripening. GF-120 is a bait formulation that requires large droplet size (4–6 mm); specialized application equipment may be needed. GF-120 will lose effectiveness if exposed to rain or overhead irrigation. Admire: Monitor for cherry fruit fly and apply as a foliar spray within 6 days of first fly emergence. Thorough uniform coverage is necessary for optimal control. Allow at least 10 days between applications. Sevin XLR: Provides 5–7 days protection.
Brown rot	Use one of the fungicides listed under Second cover .		
Prepick			
Brown rot	Indar 75 WSP Topas 250 E or Mission 418 EC Rovral Supra Captan 80 WDG or Maestro 80 DF Elevate 50 WDG Lance WDG Pristine WG	140 g/ha 500 mL/ha 300 mL/ha 1.75 kg/ha 4.5 kg/ha 4.5 kg/ha 1.7 kg/ha 370 g/ha 750 g/ha	Consult product labels for preharvest intervals in Table 7-7. <i>Products Used on Sweet Cherries</i> , page 163. Topas, Mission: Apply no more than two applications of Topas or Mission in the three weeks prior to harvest. Captan and Maestro: May cause leaf injury to Schmidt and Emperor Francis varieties in postbloom sprays. Pristine and Lance: Do not alternate Pristine with Lance.
Postharvest orchard treatment			
Leaf spot	Equal 65 WP Supra Captan 80 WDG or Maestro 80 DF Pristine WG Flint 50 WG	2.25 kg/ha 4.5 kg/ha 4.5 kg/ha 750 g/ha 210 g/ha	Necessary only where leaf spot is a problem or where sweet cherries are beside sour cherries. Captan and Maestro: May cause leaf injury to the Schmidt and Emperor Francis varieties in postbloom sprays. Pristine and Lance: Do not alternate Pristine with Lance. Flint: Do not apply where spray drift may reach Concord grapes as it may cause crop injury.
Special sprays (when monitoring indicates the need)			

Diseases and Insects	Products	Rate	Comments
Obliquebanded leafroller	Dipel 2X DF or Bioprotec CAF	1.125 kg/ha 4.0 L/ha	Routine monitoring is necessary to determine if obliquebanded leafrollers are causing damage in sweet cherries. Altacor and Delegate: For OBLR summer generation, apply at 240-280 degree days C (base 6.1 C) after biofix (first sustained moth catch). Altacor: Do not exceed 645 g/ha per year. For resistance management, if more than one spray is required for this generation, use a product from the same chemical family. For subsequent generations, rotate to another chemical group. Dipel, Bioprotec: See <i>Biopesticides and reduced risk products for insect control</i> , page 17.
	Success 480 SC or Entrust 80 W Delegate WG	182 mL/ha 109 g/ha 420 g/ha	
	Altacor	285 g/ha	
Postharvest fruit treatment			
Blue mould Grey mould Brown rot Rhizopus rot	Scholar 50 WP	227 g/378 L water	Postharvest treatment may be necessary during wet harvest seasons. These treatments will prolong storage time while providing control of postharvest diseases. See label for dip and drench instructions.
Fall spray			
Bacterial canker	Copper Spray Guardman Copper Oxychloride	6.0–9.0 kg/1,000 L 6.0–9.0 kg/1,000 L	Apply when three-quarters of leaves have fallen.

Table 7-7. Products Used on Sweet Cherries

Use this table as a guide but refer to product label for specific information.

The **preharvest interval** is the number of days between the last spray and first harvest.

The **re-entry period** is the minimum interval that must be observed between the application of pesticide and work in the treated crop without protective equipment. If no re-entry period is stated on the label, assume the spray solution must be dry before re-entry can occur.

The **maximum number of applications** is the labelled maximum number for the growing season and may be higher than what is recommended for resistance management or for the preservation of beneficial insects.

Product name	Registration number	Common name	Group	Preharvest interval	Minimum re-entry	Maximum number of applications per season
Products used for control or suppression of insects and mites						
Admire 240	24094	imidacloprid	4	10 days	24 hours	5
Altacor	28981	chlorantraniliprole	28	10 days	12 hours	3 (max 645g/ha)
Assail 70 WP	27128	acetamiprid	4	7 days	12 hours/6 days ¹	4
Bioprotec CAF	26854	<i>Bacillus thuringiensis</i>	11	1 day		
Delegate WG	28778	spinetoram	5	7 days	12 hours	3
Diazinon 50 W	19576	diazinon	1B	10 days		
Dipel 2X DF	26508	<i>Bacillus thuringiensis</i>	11	1 day		
Entrust 80 W	27825	spinosad	5	7 days		3

Product name	Registration number	Common name	Group	Preharvest interval	Minimum re-entry	Maximum number of applications per season
GF-120 NF	28336	spinosad	5	0 days		10
Guthion 50 WSB	21374	azinphosmethyl	1B	15 days	15 days/30 days ²	2
Movento 240 SC	28593	spirotetramat	23	7 days	12 hours	
Sevin XLR	27876	carbaryl	1A	2 days		
Sniper	23323	azinphosmethyl	1B	15 days	15 days/30 days ²	2
Success 480 SC	26835	spinosad	5	7 days		3
Thionex 50 W	14617	endosulfan	2A	15 days	4 days	2
Zolone Flo	17983	phosalone	1B	14 days	14 days/30 days ²	3
Products used for control or suppression of diseases						
Bravo 500	15723	chlorothalonil	M	40 days	48 hours	3 ³
Cabrio EG	27323	pyraclostrobin	11	10 days	12 hours/9 days ⁴	5
Copper Spray	19146	copper oxychloride	M			
Elevate 50 WDG	25900	fenhexamid	17	1 day	4 hours	4
Equal 65 WP	15608	dodine	M	7 days	48 hours	2 ⁵
Ferbam 76 WDG	20136	ferbam	M	4 days		
Flint 50 WG	27529	trifloxystrobin	11	1 day	12 hours	2
Funginex DC	27686	triforine	3	do not use after bloom	48 hours	3
Guardzman Copper Oxychloride	13245	copper oxychloride	M			
Indar 75 WSP	27294	fenbuconazole	3	1 day	12 hours	7
Lance WDG	27495	boscalid	7	0 days	4 hours	5
Maestro 80 DF	26408	captan	M	2 days	48 hours	
Mission 418 EC	28016	propiconazole	3	3 days	72 hours	5 ⁶
Nova 40 W	22399	myclobutanil	3	1 day		
Pristine WG	27985	boscalid + pyraclostrobin	7+11	0 days	10 days/24 hours ⁷	5
Rovral	15213	iprodione	2	1 day	12 hours	
Scholar 50 WP	28568	fludioxonil	12	postharvest		
Supra Captan 80 WDG	24613	captan	M	2 days	48 hours	
Topas 250 E	24030	propiconazole	3	3 days	72 hours	5 ⁶

Product name	Registration number	Common name	Group	Preharvest interval	Minimum re-entry	Maximum number of applications per season
<p>A blank cell indicates the information is not specified on the product label.</p> <p>¹ 6 days for hand thinning.</p> <p>² 30 days for pick-your-own harvest. See label.</p> <p>³ Before shuck fall.</p> <p>⁴ 9 days for hand labour.</p> <p>⁵ Depends on rate, see label.</p> <p>⁶ No more than two applications in the 3 weeks prior to harvest.</p> <p>⁷ 10 days for hand thinning, 24 hours for hand harvest, otherwise when dry.</p>						

Growth Regulators for Sweet Cherries

To delay ripening and improve fruit quality of sweet cherries

Research in British Columbia shows that gibberellic acid (GA) delays fruit ripening four to five days and thus extends the picking period, which may delay the susceptibility to rain cracks. The treatment also increases fruit size, firmness and resistance to postharvest disorders.

- Dissolve 20 Falgro® tablets in 1,000 L of water to produce a 20 ppm solution and apply as a foliar spray to runoff.
- Apply 21 days before normal harvest when the fruit is at the straw coloured stage.
- Harvest when fruits are at the desired shade of red but not within 21 days after spraying.

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