

# Fruit Production Recommendations 2010-2011

Ontario Ministry of Agriculture, Food & Rural Affairs

## Chapter 5: Berry Crops



### Currant and Gooseberry Calendar

Read the product label and follow all safety precautions.

Always 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 according to insecticide and fungicide family groups. Use of products from different groups helps prevent the development of 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 5-11. Products Used on Currants, page 106

Diseases and Insects	Products	Rate	Comments
<b>Just before blossoms open</b>			
<b>DO NOT APPLY INSECTICIDES WHILE CURRANTS OR GOOSEBERRIES ARE IN BLOOM. SEE BEE POISONING ON PAGE 214.</b>			
Leaf spot	Ferbam 76 WDG  Copper 53 W plus hydrated lime	6.75 kg/ha  5.0 kg /1,000 L plus 4.0 kg lime/1,000 L	Leaf spots develop on susceptible varieties, reducing yield and vigour. Rake or cultivate to bury old infected leaves before bud-break. Apply fungicides to susceptible varieties at weekly intervals if weather is wet. Ferbam is not labelled for gooseberries.
Powdery mildew	Microscopic Sulphur  Pristine WG	5.0 kg/ha  1.6 kg/ha	Resistant varieties are available, see Table 5-12. <i>Disease Ratings on Selected Currant and Gooseberry Varieties</i> , page 107. Prune out infected twig tips in fall and avoid excessive nitrogen. Pristine is registered for suppression, rather than control of powdery mildew.
Sawfly (imported currant fruitworm)	Diazinon 50 W or Diazinon 500 E	1.0 kg/1,000 L water 1.0 L/1,000 L water	Adults lay eggs in May and June. Green larvae quickly devour foliage at the green fruit stage. Gooseberries are the preferred host; black currants are not attacked. Do not apply Diazinon after the first bloom opens.
Blister aphid	Malathion 25 W	2.5 kg/1,000 L water	Aphids feeding on new growth can cause leaf curl and red blisters. Spray if aphids are abundant. Ensure good coverage of undersides of curled leaves.

Diseases and Insects	Products	Rate	Comments
Botrytis grey mould	Pristine WG Lance WDG  Elevate 50 WDG  Serenade ASO	1.3–1.6 kg/ha 560 g/ha  1.7 kg/ha  4.0-15.0 L/ha	<i>Botrytis</i> infection during bloom causes early fruit drop, or “runoff” in currants. Apply fungicides at 7–10 day intervals during bloom. Choose fungicides from different fungicide groups to reduce the development of resistant strains of <i>Botrytis</i> . Pristine and Lance: Both include active ingredients in the same fungicide group. Do not alternate Pristine with Lance. Serenade ASO: Provides suppression, rather than control. Expect best results when used in multiple applications or rotation with other products. See notes on <i>Bacillus subtilis</i> ( <i>Serenade ASO</i> , <i>Serenade MAX</i> ), page 14.
<b>Bloom</b>			
Botrytis grey mould	Apply one of the fungicides listed at <b>Just before blossoms open</b> .		
<b>Postbloom</b>			
Leaf spot	Ferbam 76 WDG  Copper 53 W plus hydrated lime	6.75 kg/ha  5.0 kg /1,000 L plus 4.0 kg lime/1,000 L	Apply at weekly intervals in the spring if weather is wet, but not within 14 days of harvest. Ferbam is not labelled for gooseberries.
Powdery mildew	Microscopic Sulphur  Pristine WG	5.0 kg/ha  1.6 kg/ha	Resistant varieties are available, see Table 5-12. <i>Disease Ratings on Selected Currant and Gooseberry Varieties</i> , page 107. Prune out infected twig tips in fall and avoid excessive nitrogen. If warm and humid conditions persist, repeat weekly until fruit begins to colour. Spray fungicides before symptoms develop. Pristine is registered for suppression rather than control of powdery mildew.
Currant fruit fly	Malathion 25 W	2.5 kg/1,000 L water	Larvae infest fruit, causing it to ripen prematurely. Spray to control adult flies, which lay eggs on green fruit. Spray where this pest has been a problem in the past or use yellow sticky traps to monitor for adult activity. Make two applications, 10 days apart. Malathion is most effective when temperature is above 20°C.
<b>10 days after postbloom spray</b>			
Leaf spot	Ferbam 76 WDG  Copper 53 W plus hydrated lime	6.75 kg/ha  5.0 kg/1,000 L plus 4.0 kg lime/1,000 L	Apply at 7–10 day intervals if weather is wet, but not within 14 days of harvest. Ferbam is not labelled for gooseberries.
Currant fruit fly	Malathion 25 W	2.5 kg/1,000 L water	<b>Malathion:</b> Most effective when temperature is above 20°C.
<b>Postharvest</b>			
Leaf spot	Ferbam 76 WDG  Copper 53 W plus hydrated lime	6.75 kg/ha  5.0 kg/1,000 L plus 4.0 kg lime/1,000 L	<b>Ferbam</b> is not labelled for gooseberries.
Aphids Leafhoppers	Malathion 25 W	2.5 kg/1,000 L water	Monitor for leaf curling on new growth. If these pests are present, spray red and white currants immediately after fruit is picked.

Table 5-11. Products Used on Currants

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 the 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 beneficial insects.

Product name	Registration number	Common Name	Group	Preharvest interval	Minimum re-entry	Maximum number applications per season (on label)
<b>Products used to control or suppress insects and mites</b>						
Diazinon 500 E	11889	diazinon	1A	Do not use after first bloom		
Diazinon 50 W	19576	diazinon	1A	Do not use after first bloom		
Malathion 25 W	14656	malathion	1B	3 days		
<b>Products used to control or suppress diseases</b>						
Copper 53 W	9934	tribasic copper sulphate	M	1 day		
Elevate 50 WDG	25900	fenhexamid	17	1 day	4 hours	4
Ferbam 75 WDG	20136	ferbam	M	14 days		
Lance WDG	27495	boscalid	7	0 days	4 hours	4
Microscopic Sulphur	14653	sulphur	M	1 day	24 hours	8
Pristine WG	27985	boscalid + pyraclostrobin	7+11	0 days	29 days <sup>1</sup>	4
Serenade ASO	28626	<i>Bacillus subtilis</i>	44	0 days		
A blank cell indicates the information is not specified on the product label. <sup>1</sup> For hand harvest, otherwise when dried.						

Table 5-12. Disease Ratings on Selected Currant and Gooseberry Varieties

Type	Variety	Mildew Resistance	Rust Resistance <sup>1</sup>
black currant	Ben Alder	resistant <sup>2</sup>	very susceptible <sup>2</sup>
	Ben Connan	resistant <sup>2</sup>	moderately resistant <sup>2</sup>
	Ben Sarek	resistant <sup>2</sup>	moderately resistant <sup>2</sup>
	Titania	immune	immune
red currant	Red Lake	susceptible <sup>4</sup>	susceptible <sup>3</sup>
	Rovada	resistant <sup>4</sup>	moderately resistant <sup>3</sup>
	Jonkheer van Tets	moderately resistant <sup>3</sup>	resistant <sup>4</sup>
gooseberry	Captivator	moderately resistant <sup>3</sup>	
	Invicta	moderately resistant <sup>3</sup>	moderately resistant <sup>3</sup>
	Hinnonmaki Red	resistant <sup>4</sup>	moderately resistant <sup>3</sup>

<sup>1</sup> Resistant: Does not show symptoms of rust (only Titania has genetic resistance).

Moderately resistant: Shows symptoms at low frequency, yield not affected.

Susceptible: Noticeable levels of rust infection, not affecting yield.

Very susceptible: Severe infection, affecting yield.

Source:

<sup>2</sup> Adam Dale, *HortTechnology* 10(3) 2000, page 553.

<sup>3</sup> Hummer and Barney, *HortTechnology* 12(3) 2002 page 382–383, or *Currants, Gooseberries, Jostaberries, Guide for Growers*. Food Products Press 2005.

<sup>4</sup> Dick McGinnis, McGinnis Berry Crops, B.C., personal communication.

### To order copies of Publication 360, Price \$20.00 + tax

- Visit ServiceOntario Publications website at <http://www.ServiceOntario.ca/publications>
- Contact ServiceOntario Publications Contact Centre at:  
1-800-668-9938  
416-326-5300  
TTY 1-800-268-7095