

# Fruit Production Recommendations 2010-2011

Ontario Ministry of Agriculture, Food & Rural Affairs

## Chapter 5: Berry Crops



### Saskatoon Berry 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.

Products are listed according to insecticide and fungicide family groups. Use products from different groups to help 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 5-17. *Products Used on Saskatoon Berries*, page 116.

Diseases and Insects	Products	Rate	Comments
<b>Early bud break</b>			
Saskatoon bud moth Fruit tree leafroller	Superior 70 Oil	20 L/1,000 L water	Apply in high water volume until all plant surfaces are coated. Do not apply in freezing weather or if frost is expected.
<b>Flower bud break</b>			
Saskatoon-juniper rust	Funginex DC	3.0 L/ha	This disease causes yellow spots and swellings on leaves and fruit. Infections on juniper spread up to 2 km to saskatoons. Prune out rust galls on juniper or remove entire juniper plants to reduce disease pressure. Spray fungicides before symptoms develop on saskatoons. Make one application of Funginex to saskatoons, between flower bud break and white tip.
	Pristine WG	1.6 kg/ha	
Entomosporium leaf and berry spot	Funginex DC	3.0 L/ha	Angular brown spots develop first on lower leaves, causing yellowing, defoliation and fruit cracking. Spray fungicides before symptoms develop. Apply at flower bud break and repeat at 10–14 day intervals while disease risk persists. Funginex: Make one application of Funginex, between flower bud break and white tip. Kumulus: Do not apply if temperatures are over 27°C or leaf injury may result. Switch: For suppression of entomosporium leaf spot.
	Kumulus DF	7.5 kg/ha	
	Switch 62.5 WG	775–975 g/ha	
	Pristine WG	1.6 kg/ha	
<b>White tip</b>			

<b>Diseases and Insects</b>	<b>Products</b>	<b>Rate</b>	<b>Comments</b>
Saskatoon-juniper rust	Funginex DC Topas 250 E or Mission 418 EC  Pristine WG	3.0 L/ha 500 mL/ha 300 mL/ha  1.6 kg/ha	For resistance management alternate products from different fungicide groups. Funginex: Do not apply again if application was made at bud break.
Entomosporium leaf and berry spot	Funginex DC Topas 250 E or Mission 418 EC  Kumulus DF  Switch 62.5 WG  Pristine WG	3.0 L/ha 500 mL/ha 300 mL/ha  7.5 kg/ha  775–975 kg/ha  1.6 kg/ha	Repeat at 10–14 day intervals while disease risk persists. For resistance management alternate products from different fungicide groups. Funginex: Do not apply again if application was made at bud break. Switch: For suppression of entomosporium leaf spot.
<b>Bloom</b>			
Powdery mildew	Nova 40 W	113 g/ha	Apply before disease symptoms develop. Apply in 1,000 L water per ha, until plants are dripping. Repeat application in 10 days if necessary. Apply no more than 340 g/ha per season. This product is in the same fungicide group as Topas, Mission and Funginex, and should be used in alternation with products from other groups for entomosporium leaf and berry spot control.
<b>Petal fall</b>			
Saskatoon-juniper rust	Topas 250 E or Mission 418 EC  Pristine WG	500 mL/ha 300 mL/ha  1.6 kg/ha	Infections on juniper spread up to 2 km to saskatoons. Prune out rust galls on juniper or remove entire juniper plants to reduce disease pressure. Spray fungicides before symptoms develop on saskatoons. For resistance management alternate products from different fungicide groups.
Entomosporium leaf and berry spot	Topas 250 E or Mission 418 EC  Kumulus DF  Switch 62.5 WG  Pristine WG	500 mL/ha 300 mL/ha  7.5 kg/ha  775–975 kg/ha  1.6 kg/ha	For resistance management alternate products from different fungicide groups. Switch: For suppression of entomosporium leaf spot.
<b>Green fruit</b>			
Powdery mildew	Apply one of the products listed at <b>Bloom</b> .		
Saskatoon-juniper rust	Apply one of the fungicides listed at <b>Petal fall</b> .		
Entomosporium leaf and berry spot	Apply one of the fungicides listed at <b>Petal fall</b> .		
<b>After Harvest</b>			
Woolly elm aphid Woolly apple aphid	Orthene 75 % SP  Admire 240 F	For each plant: 1.7 g  For each plant: 0.125 mL	These aphids feed on plant roots and reduce plant vigour. After harvest dig up suspect bushes and examine the root systems for waxy white aphid colonies. Young plantings are especially susceptible. Make one application in mid-July to mid-August, after harvest is complete.

Diseases and Insects	Products	Rate	Comments
			<p>Orthene: Application is by soil injection. Mix 0.85 g/L of water. Apply 2 L of this solution per plant. Inject in 3–5 injection points about 12 inches deep. See product label for special application instructions.</p> <p>Admire 240 F: Apply in 200 L water/ha to the soil at the base of each plant, followed by sufficient water to move the product to the root zone. Admire provides suppression rather than control of woolly aphids. See Table 2-6. <i>Efficacy Ratings for Pesticides</i>, page 12.</p>

Table 5-17. Products Used on Saskatoon Berries

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 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 of beneficial insects.

Product name	Registration number	Common name	Group	Preharvest interval	Minimum re-entry	Maximum number of applications per season (on label)
<b>Products used to control or suppress insects and mites</b>						
Admire 240 F	24094	imidacloprid	4	14 days	24 hours	1
Orthene 75 % SP	14225	acephate	1B	11 months	72 hours	1
Superior 70 Oil	9542	mineral oil		Apply no later than ¼-inch green	12 hours	1
<b>Products used to control or suppress diseases</b>						
Funginex DC	27686	triforine	3	60 days	48 hours	1
Kumulus DF	18836	sulphur	M	1 day	24 hours	8
Mission 418 EC	28016	propiconazole	3	38 days	72 hours	3
Nova 40 W	22399	myclobutanil	3	14 days		3
Pristine WG	27985	boscalid and pyraclostrobin	7+11	0 days	29 days <sup>1</sup>	4
Switch 62.5 WG	28189	cyprodinil and fludioxonil	9+12	1 day	12 hours/10 days <sup>2</sup>	3
Topas 250 E	24030	propiconazole	3	38 days	72 hours	3
A blank cell indicates the information is not specified on the product label. <sup>1</sup> For hand harvest, otherwise when dry. <sup>2</sup> 10 days for hand harvest and pruning.						

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