

## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Dormant Bud Stage</b>			
	Saskatoon Bud Moth (egg stage), leaf rollers	Bartlett Superior 70 Oil (Dormant Oil) • general cleanup spray	Apply before or after bud break (this stage or silver tip stage) • max 1x application/year
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur)  Microthiol Disperss (80% sulphur)	Apply at bud break & at 10 - 14 day intervals  May be necessary if moderate to severe infection in previous year • may be applied at bud break and at 10 - 14 day intervals (1 day PHI) • do not apply within 30 days of mineral oil application • max 8x applications/year
	Bacterial Blight ( <i>Pseudomonas syringae</i> ) - suppression	Serenade MAX / ASO / OPTI (Biofungicide - <i>Bacillus subtilis</i> )	Apply before fall rains & again during dormancy

	Pests controlled	Chemicals registered	Other comments
<b>Silver Tip Bud Stage</b>			
	Saskatoon Bud Moth (egg stage), leaf rollers	Bartlett Superior 70 Oil (Dormant Oil)	Spray before bud break (apply at dormant or silver tip stage) • Check bud axils for eggs • Max 1x application/year
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur)  Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • May be applied at bud break and at 10 - 14 day intervals (1 day PHI) • Do not apply within 30 days of mineral oil application • Max 8x applications/year

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<b>Green Tip Bud Stage</b>			
	Saskatoon Bud Moth (SBM laying eggs; hatching larvae)	Decis 5.0EC (deltamethrin 50g/L)	1st Decis application <ul style="list-style-type: none"> <li>• may be effective as late as tight cluster stage</li> <li>• 21 day PHI</li> </ul>
	Tarnished Plant Bug (wintering TPB adults feeding on fruit buds)		
	Other Plant Bugs		
	Saskatoon Bud Moth	Matador 120EC / Warrior (lambda-cyhalothrin 120g/L / 122g/L)	1st of 2 possible applications <ul style="list-style-type: none"> <li>• max 2 applications</li> <li>• 21 day PHI</li> <li>• 10 - 15 days between applications</li> </ul>
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year <ul style="list-style-type: none"> <li>• may be applied at bud break and at 10 - 14 day intervals (1 day PHI)</li> <li>• do not apply within 30 days of mineral oil application</li> <li>• max 8x applications/year</li> </ul>
Mummyberry	Quash / Metconazole 50WDG (metconazole 50%)	12 day PHI Max 1x application Apply at green tip	

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<b>Full Green Stage</b>			
	Saskatoon Bud Moth	Decis 5.0EC (deltamethrin 50g/L) • Delayed timing for SBM control (see Green Tip Stage)	Green tip stage is the preferred stage for application • 21 day PHI
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur)  Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • may be applied at bud break and at 10 - 14 day intervals (1 day PHI) • do not apply within 30 days of mineral oil application • max 8x applications/year

	Pests controlled	Chemicals registered	Other comments
<b>Tight Cluster Stage</b>			
	Saskatoon Bud Moth	Decis 5.0EC (deltamethrin 50g/L) • Delayed timing for SBM control (see Green Tip Stage)	Green tip stage is the preferred stage for application • 21 day PHI
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur)  Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • May be applied at bud break and at 10 - 14 day intervals (1 day PHI) • Do not apply within 30 days of mineral oil application • Max 8x applications/year

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>White Tip Stage</b>			
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year <ul style="list-style-type: none"> <li>• may be applied at bud break and at 10 - 14 day intervals (1 day PHI)</li> <li>• do not apply within 30 days of mineral oil application</li> <li>• max 8x applications/year</li> </ul>
	<i>Entomosporium</i> Leaf & Berry Spot – suppression	Switch 62.5WG (cyprodinil 37.5% / fludioxinil 25.0%) Cyproflu (cyprodinil 37.5% / fludioxinil 25.0%)	Apply during early bloom – can be applied when petals start to show or earlier (if disease is present) <ul style="list-style-type: none"> <li>• max 3x applications/year</li> </ul>
	<i>Entomosporium</i> Leaf & Berry Spot	Jade / Topas / Mission 418 EC (propiconazole 250, 250 or 418g/L)	Persistent cool, wet weather <ul style="list-style-type: none"> <li>• 1st of max 3 applications</li> <li>• apply to point of runoff</li> <li>• 38 day PHI</li> </ul>
	Saskatoon Berry / Juniper Rust	Funginex DC (triforine 190g/L)	Spray to point of drip <ul style="list-style-type: none"> <li>• 60 day PHI</li> </ul>
	Coincidental control of Brown rot	Pristine WG (boscalid 25.2% / pyraclostrobin 12.8%)	Apply prior to disease development <ul style="list-style-type: none"> <li>• 7 - 14 day interval</li> <li>• max 4x applications/year (2 recommended)</li> <li>• 29 day REI / 0 day PHI</li> </ul>
	Oblique-banded leafroller; spanworm; winter moth	Success 480SC / Entrust 80W Naturalyte (spinosad 480g/L / 80%)	Apply at time of egg hatch or to small larvae <ul style="list-style-type: none"> <li>• 7 - 10 day intervals</li> <li>• max 3x applications/year</li> <li>• 3 day PHI</li> <li>• apply higher rate for larger larvae</li> <li>• larvae may become more exposed as buds flush</li> </ul>

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Balloon or Tube Stage</b>			
	Saskatoon Bud Moth Tarnished Plant Bug Other Plant Bugs Saskatoon Sawfly Hawthorn Weevil Apple Curculio	Decis 5.0EC (deltamethrin 50g/L) • Toxic to most pollinators	2nd of 3 allowed applications • apply to both sides of orchard rows • apply prior to 25% bloom • 21 day PHI
	Fireblight – suppression	Bloomtime Biological FD Biopesticide ( <i>Pantoea agglomerans</i> )	Make 1st of maximum 2 applications at 15 - 20% bloom • 0 day PHI
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • may be applied at bud break and at 10 - 14 day intervals (1 day PHI) • do not apply within 30 days of mineral oil application • max 8x applications/year
	<i>Entomosporium</i> Leaf & Berry Spot – suppression	Switch 62.5WG (cyprodinil 37.5%/ fludioxinil 25.0%) Cyproflu (cyprodinil 37.5% / fludioxinil 25.0%)	Apply during early bloom – repeat after 7 - 10 days • max 3x applications • 10 day REI
	<i>Entomosporium</i> Leaf & Berry Spot Saskatoon Berry/ Juniper Rust	Jade / Topas / Mission 418EC (propiconazole 250, 250 or 418g/L)  Pristine WG (boscalid 25.2%/pyraclostrobin 12.8%)	May be applied as a late 1st application if weather conditions are favourable for disease development  Apply prior to disease development • 7 - 14 day intervals • max 4x applications/year (2 recommended) • 29 day REI/0 day PHI
	Powdery Mildew	Nova 40W (myclobutanil 40%)	Spray until drip • 1st of max 3 applications/year • 14 day PHI

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Early Flowering Stage</b>			
	Saskatoon Bud Moth Tarnished Plant Bug Other Plant Bugs Saskatoon Sawfly Hawthorn Weevil Apple Curculio	Decis 5.0EC (deltamethrin 50g/L) • Toxic to most pollinators	2nd of max 3 allowed applications • Apply prior to 25% bloom • Apply to both sides of orchard rows • 21 day PHI
	Fireblight - suppression	Bloomtime Biological FD Biopesticide ( <i>Pantoea agglomerans</i> )	Make 1st of maximum 2 applications at 15 - 20% bloom

	Pests controlled	Chemicals registered	Other comments
<b>Full Flower Stage</b>			
	Insect pollination is considered beneficial for fruit set - pesticide application during flowering can significantly injure pollinators	No pesticides or fungicides should be applied during full bloom	• insecticides are toxic to pollinators • some fungicides (e.g. sulphur) can have a repellent effect

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Petal Fall Stage</b>			
	Fireblight (suppression)	Bloomtime Biological FD Biopesticide ( <i>Pantoea agglomerans</i> )	Make 2nd of max 2 applications at full bloom to petal fall • 0 day PHI
	<i>Entomosporium</i> Leaf & Berry Spot - suppression	Switch 62.5WG (cyprodinil 37.5% / fludioxinil 25.0%) Cyproflu (cyprodinil 37.5% / fludioxinil 25.0%)	• apply 7 - 10 day intervals • max 3x applications • 10 day REI
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • may be applied at bud break and at 10 - 14 day intervals (1 day PHI) • do not apply within 30 days of mineral oil application • max 8x applications/year
	<i>Entomosporium</i> Leaf & Berry Spot Saskatoon Berry / Juniper Rust	Jade / Topas / Mission 418EC (propiconazole 250, 250 or 418g/L)	Persistent cool, wet weather • 2nd of max 3 applications • apply to point of runoff • 38 day PHI
	Some coincidental control of Brown rot may be expected	Pristine WG (boscalid 25.2% / pyraclostrobin 12.8%)	Apply prior to disease development • 7 - 14 day intervals • max 4x applications/year (2 recommended) • 29 day REI / 0 day PHI
	Botrytis grey mould ( <i>Botrytis cinerea</i> )	Serenade MAX / ASO / OPTI (Biofungicide - <i>Bacillus subtilis</i> )	Begin applications prior to first sign of disease • 7 - 10 day intervals

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Early Green Fruit Stage</b>			
	Hawthorn Weevil Apple Curculio • adult weevils and ovipositing curculio	Decis 5.0EC (deltamethrin 50g/L)	3rd of max 3 allowed applications • apply 5 - 10 days after petal fall • apply to both sides of orchard rows • 21 day PHI
	Saskatoon Bud Moth	Matador 120EC / Warrior (lambda-cyhalothrin 120g/l / 122g/L)	2nd possible application (after petal fall) • max 2 applications • 21 day PHI • 10 - 15 days between applications
	Powdery Mildew	Nova 40W (myclobutanil 40%)	Spray until drip • 2nd of max 3 applications/year • 14 day PHI
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year • may be applied at bud break and at 10 - 14 day intervals (1 day PHI) • do not apply within 30 days of mineral oil application • max 8x applications/year
	<i>Entomosporium</i> Leaf & Berry Spot Saskatoon Berry/ Juniper Rust	Jade/Topas/Mission 418EC (propiconazole 250, 250 or 418g/L)	Persistent cool, wet weather • 3rd of max 3 applications • apply to point of runoff • 38 day PHI
	Some coincidental control of Brown rot may be expected	Pristine WG (boscalid 25.2% / pyraclostrobin 12.8%)	Apply prior to disease development • 7 - 14 day intervals • max 4x applications/year (2 recommended) • 29 day REI / 0 day PHI
	Botrytis grey mould ( <i>Botrytis cinerea</i> )	Serenade MAX / ASO / OPTI (Biofungicide – <i>Bacillus subtilis</i> )	Begin applications prior to first sign of disease • 7 - 10 day intervals

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Late Green Fruit Stage</b>			
	Powdery Mildew	Nova 40W (myclobutanil 40%)	Spray until drip <ul style="list-style-type: none"> <li>• 3rd of max 3 applications/year</li> <li>• 14 day PHI</li> </ul>
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year <ul style="list-style-type: none"> <li>• may be applied at bud break and at 10 - 14 day intervals (1 day PHI)</li> <li>• do not apply within 30 days of mineral oil application</li> <li>• max 8x applications/year</li> </ul>
	<i>Entomosporium</i> Leaf & Berry Spot Saskatoon Berry/ Juniper Rust  Coincidental control of Brown rot may be expected	Pristine WG (boscalid 25.2% / pyraclostrobin 12.8%)	<ul style="list-style-type: none"> <li>• may be applied at this stage rather than early green fruit stage - disease pressure related</li> <li>• 29 day REI / 0 day PHI</li> </ul>
	Botrytis grey mould ( <i>Botrytis cinerea</i> )	Serenade MAX / ASO / OPTI (Biofungicide – <i>Bacillus subtilis</i> )	Begin applications prior to first sign of disease <ul style="list-style-type: none"> <li>• 7 - 10 day intervals</li> </ul>

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## Saskatoon Berry Bud/Bloom Staging/Pests/Pesticides

	Pests controlled	Chemicals registered	Other comments
<b>Red Fruit Stage</b>			
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year <ul style="list-style-type: none"> <li>• may be applied at bud break and at 10 - 14 day intervals (1 day PHI)</li> <li>• not recommended at late stages due to strong sulphur odours</li> <li>• do not apply within 30 days of mineral oil application</li> <li>• max 8x applications/year</li> </ul>
	Botrytis grey mould ( <i>Botrytis cinerea</i> )	Serenade MAX / ASO / OPTI (Biofungicide – <i>Bacillus subtilis</i> )	Begin applications prior to first sign of disease <ul style="list-style-type: none"> <li>• 7 - 10 day intervals</li> </ul>

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	Pests controlled	Chemicals registered	Other comments
<b>Mature Fruit Stage (approx. mid July) *</b>			
	<i>Entomosporium</i> Leaf & Berry Spot	Kumulus DF (80% sulphur) Microthiol Disperss (80% sulphur)	May be necessary if moderate to severe infection in previous year <ul style="list-style-type: none"> <li>• may be applied at bud break and at 10 - 14 day intervals (1 day PHI)</li> <li>• not recommended at late stages due to strong sulphur odours</li> <li>• do not apply within 30 days of mineral oil application</li> <li>• max 8x applications/year</li> </ul>
	Woolly Elm Aphid - suppression Woolly Apple Aphid - suppression	Admire 240F (imidacloprid 240g/L) (systemic insecticide) Alias 240SC (imidacloprid 240g/L) (systemic insecticide)	Apply as a soil drench when 75 - 100% of aphid migration is completed (typically early to mid-July) <ul style="list-style-type: none"> <li>• 14 day PHI</li> </ul>
	Botrytis grey mould ( <i>Botrytis cinerea</i> )	Serenade MAX / ASO / OPTI ( <i>Biofungicide – Bacillus subtilis</i> )	Begin applications prior to first sign of disease <ul style="list-style-type: none"> <li>• 7 -1 0 day intervals</li> </ul>
* Depending on season and location			

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<b>Post-Harvest Stage (Late July – Early August) *</b>			
	Woolly Elm Aphid Woolly Apple Aphid	Orthene 75% SP (acephate) (systemic insecticide)	Inject with a probe 15cm (6 inch) from plant at 4 locations around each plant <ul style="list-style-type: none"> <li>• apply 1x per season (mid-July to early August)</li> <li>• 11 month PHI</li> </ul>
* Depending on season and location			

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