

Stage of Development: Dormant							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Rust Mites and Pearleaf Blister Mite	calcium polysulphide (Lime sulphur 30%) 16465	M2	7.3L/100 L of water	7.3L/100 L of water	48 h	n/a	Order lime-sulphur early.
Pear Psylla	mineral oil (Superior 70) 14981	NC	60 L	24 L	12 h	n/a	Do not apply just before or during freezing weather or rain. One application/season.
	mineral oil (Guardsman) 23370	NC	90 L	36.4 L	12 h	n/a	Do not apply just before or during freezing weather or rain. One application/season.
	mineral oil (Purespray Green) 27666	NC	20L/1000 L of water	20L/1000 L of water	12 h	0	Apply at dormant to green tip. Do not apply just prior to or during freezing temperatures or rain. Maximum of two dormant applications allowed per season.
San Jose Scale	mineral oil (Purespray Green) 27666	NC	20L/1000 L of water	20L/1000 L of water	12 h	0	Apply at dormant to green tip. Do not apply just prior to or during freezing temperatures or rain. Maximum of two dormant applications allowed per season.
European Fruit Scale	mineral oil (Purespray Green) 27666	NC	20L/1000 L of water	20L/1000 L of water	12 h	0	Apply at dormant to green tip. Do not apply just prior to or during freezing temperatures or rain. Maximum of two dormant applications allowed per season.
European Red Mite	mineral oil (Purespray Green) 27666	NC	20L/1000 L of water	20L/1000 L of water	12 h	0	Apply at dormant to green tip. Do not apply just prior to or during freezing temperatures or rain. Maximum of two dormant applications per season.
Fire Blight	copper octanoate (Cueva Commercial) 31825	M1	Prepare 0.5-2% solution (5-20 L/1000 L water)		4 h	1	Apply 470-940 L of mixture/ha (190-380 L/acre). Remove cankers by March 31. See fire blight description. The higher rate for dormant sprays is more likely to be effective.
	Notes: Remove cankers from trees by March 31.						

Stage of Development: Dormant to Silver Tip							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Fire Blight	hydrogen peroxide + peroxyacetic acid (Oxidate 2.0) 32907	NC	1 L/100 L of water (1% solution)	1 L/1000 L of water (1% solution)	4 h	0	Partial suppression. Start foliar/branch/stem applications before the disease occurs or at the first sign of disease and/or when weather conditions are favourable for disease development. Apply diluted spray to the point of run-off to achieve full and even coverage.
	Copper hydroxide (Parasol) 25901	M1	4.7 L	1.9 L	48 hrs	2 days	Apply in sufficient water for complete coverage. Max. two applications per year.

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

Stage of Development: Silver Tip to Green Tip

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Pear Psylla	mineral oil (Superior 70) 14981	NC	60 L	24 L	12 h	0	Apply before egg laying. Do not use prior to or during freezing temperatures or rain.
	mineral oil (Guardsman) 23370	NC	90 L	36.4 L	12 h	n/a	Apply when egg laying begins. Do not use prior to or during freezing temperatures or rain. One application per year
Lygus Bugs	Notes: No products are currently registered for this pest. Contact your field advisor.						

Stage of Development: 15 mm Green to Tight Cluster

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Powdery Mildew (Apples)	ipflufenquin (Migiwa 20 SC) 35443	52	165 - 220 ml	66.8 - 89 ml	12 h	7 days	The 165 ml/ha rate provides suppression of powdery mildew. If disease pressure is moderate or high or if control is required, use the 220 ml/ha rate. The retreatment interval is 7 to 10 days. Do not make more than two sequential applications.
Powdery Mildew (Pears)	garlic powder (Buran) 30601	NC	9 L/500 to 800 L of water	9 L/500 to 800 L of water		0	Disease control can be achieved under low to moderate disease pressure. Begin applications when conditions are conducive to disease development. The addition of a registered non-ionic surfactant such as Agral 90 or AgSurf at a rate of 0.1% could help to improve the spreading.
	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply at tight cluster and continue every 10-14 days. Avoid application during bloom. Do not use within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
	mefentrifluconazole (Cevya) 33405	3	0.25 - 0.375 L	0.1 - 0.15 L	12 hours	0	Do not make more than 2 sequential applications before alternating to a non-group 3 fungicide registered for the same use. Begin applications prior to disease development. Apply an additional applic. at an interval of 7 - 10 days if disease persists or weather conditions are favourable for disease development. Do not use with horticultural mineral oil on pears.
	Polyoxin D Zinc Salt (Diplomat 5SC) 32918	19	259 - 926 ml	104 - 374 ml		0 days	Suppression of powdery mildew. Begin as a preventative application when conditions favour disease development, 7 - 14 day spray interval. Number of applications: 3-10 depending on rate.

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Stage of Development: Tight Cluster (Cluster Bud)

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
European Red Mite	mineral oil (Superior 70) 14981	NC	60 L	24 L	24 h	n/a	Do not use dormant oil more than twice pre bloom.
	mineral oil (Guardsman) 23370	NC	90 L	36 L	12 h	n/a	Do not use dormant oil more than twice pre bloom.
San Jose Scale	mineral oil (Superior 70) 14981	NC	60 L	24 L	12 h	n/a	Apply at true dormant for scales.
	mineral oil (Guardsman) 23370	NC	90 L	36 L	12 h	n/a	Do not use dormant oil more than once pre bloom.
European Fruit Scale	mineral oil (Superior 70) 14981	NC	60 L	24 L	12 h	n/a	Apply at true dormant for scales.
	mineral oil (Guardsman) 23370	NC	90 L	36 L	12 h	n/a	Do not use dormant oil more than once pre bloom.
Pear Scab	Notes: Pear scab is not a common problem in the Okanagan and Similkameen valleys. Pears grown in higher rainfall areas are at higher risk. Registered fungicides include Aprovia, Aprovia Top, Scala, Sercadis, Fontelis, Flint, Merivon, Nova, Serenade Opti, Sovran, Inspire Super, Luna Tranquility, Syllit, Captan, Maestro, Ferbam and lime sulphur. Refer to pear scab description for more information.						

Stage of Development: Pink

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Eyespotted Bud Moth	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 143 g	30 - 58 g	12 h	5	Apply at pink to petal fall when larvae are active. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season.
	cyantraniliprole (Exirel) 30895	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, Sovran, Pristine, copper or captan. Toxic to bees. Spray interval: 10 to 14 days.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	spinetoram (Delegate) 28778	5	210-420 g	85-170 g		7	Do not apply more than 3 times per season for all labeled uses. Provides 14 days protection in absence of rain. Spray interval: 14 days.
	chlorantraniliprole (Altacor) 28981	28	145-285 g	59-115 g	12 h	5	Apply when larvae are active. Do not apply more than 3 times per season.
Green Fruitworms	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 108 g	30 - 44 g	12 h	5	Repeat if necessary at petal fall. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.

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Stage of Development: Pink							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Will also control other leaf-feeding larvae present.
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth.
	chlorantraniliprole (Altacor) 28981	28	145-215 g	59-87 g	12 h	5	Repeat if necessary at petal fall. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
Obliquebanded and Threelined Leafrollers	cyclaniliprole (Harvanta 50SL) 32889	28	1.2 - 1.6 L	485 - 647 ml	12	7 days	Toxic to bees. Do not make more than 3 applications per crop year. Where possible, rotate the use of Harvanta or other Group 28 insecticides with different groups that control the same pests.
	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Maximum 3 applications/season
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	cyantraniliprole (Exirel) 30895	28	500-1000 mL	202-404 mL	12 h		Apply when larvae are active. Do not apply more than 4 times/season. Do not tank mix with Flint, Sovran Pristine, copper or captan fungicides. TOXIC to bees. Spray interval: 10 to 14 days.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	spinetoram (Delegate) 28778	5	210-420 g	85 g -170 g	12 h	7	Use higher rate under high pest pressure. Do not apply more than 3 times per season for all uses. Spray interval: 14 days.

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Stage of Development: Pink							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth.
	Notes: All recommended products are stomach poisons so thorough coverage is important for satisfactory control. Apply Bt products when 80% or more during late afternoon or on cloudy day when no rain is forecast for 24 hours. If there is more than 2 mm of rainfall within 24 hours of application, repeat treatment. Wait 7 days (in the absence of rain) before applying a second treatment of Bt or other product if active larvae still present. Optimum pH for Bt products is 6.						
Pear Psylla	Insecticidal soap	NC	20-25 L	8-10 L	24 h*	0	Use a minimum of 1900-2475 L of spray mixture/ha (800-1000 L/acre) to ensure thorough and uniform coverage.
Codling Moth	pheromone (Isomate CM Flex) 31589	NC	1000	400	n/a	0	Dispensers must be hung before first expected emergence of moths.
	pheromone (Isomate CM/LR TT) 28814	NC	750 dispensers	300 dispensers	n/a	0	
	pheromone (Isomate C+) 22899	NC	1000	400	n/a	0	Dispensers must be hung before first expected emergence of moths.
Powdery Mildew (Pears)	ipflufenquin (Migiwa 20 SC) 35443	52	165 - 220 ml	66.8 - 89 ml	12 h	7 days	The 165 ml/ha rate provides suppression of powdery mildew. If disease pressure is moderate or high or if control is required, use the 220 ml/ha rate. The retreatment interval is 7 to 10 days. Do not make more than two sequential applications.
	garlic powder (Buran) 30601	NC	9 L/500 to 800 L of water	9 L/500 to 800 L of water		0	Disease control can be achieved under low to moderate disease pressure. Begin applications when conditions are conducive to disease development. The addition of a registered non-ionic surfactant such as Agral 90 or AgSurf at a rate of 0.1% could help to improve the spreading.
	fenazaquin (Magister SC) 34544	21 + 39	1.75 - 2.63 L	0.7 - 1.1 L	12 h - 17 days	10 days	Toxic to bees. Avoid application during bloom. Maximum number of applications: 1
	sulphur (Cosavet DF Edge 31869, Kumulus 18836, Microthiol 29487)	M2	7.0 kg	2.8 kg	24 h	1	
	pyraclostrobin + fluxapyroxad (Merivon) 33951	7 + 11	0.3 - 0.4 L	0.12 - 0.16 L	12 h - 12 days	5 days (hand harvest)	Limit sprays of Group 11 fungicides to 2 sprays/season. REI's: hand thinning - 12 days, hand harvesting - 5 days, mechanical harvesting and all other activities - 12 hours.
	Mineral oil (Suffoil-	NC	10 L/1000 L of water	10 L/1000 L of water	12	0	Test for crop tolerance before widespread use. Apply at tight

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Stage of Development: Pink							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	X) 33099				hours		cluster and continue every 10-14 days. Avoid application during bloom. Do not use within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
	mefentrifluconazole (Cevya) 33405	3	0.25 - 0.375 L	0.1 - 0.15 L	12 hours	0	Do not make more than 2 sequential applications before alternating to a non-group 3 fungicide registered for the same use. Begin applications prior to disease development. Apply an additional applic. at an interval of 7 - 10 days if disease persists or weather conditions are favourable for disease development. Do not use with horticultural mineral oil on pears.
	Polyoxin D Zinc Salt (Diplomat 5SC) 32918	19	259 - 926 ml	104 - 374 ml		0 days	Suppression of powdery mildew. Begin as a preventative application when conditions favour disease development, 7 - 14 day spray interval. Number of applications: 3-10 depending on rate.
	benzovindiflupyr + difenoconazole (Aprovia Top) 31526	3 + 7	643 mL	260 mL	12 h	30 days	Rotate with other fungicides that do not contain group 3 or group 7 fungicides for resistance management. Do not apply more than 2 consecutive applications.
	fluxapyroxad (Sercadis) 31697	7	167-333 mL	68-135 mL	12 h	0	The use of a non-ionic surfactant (0.125%) is recommended. Begin treatment when conditions favour disease development. Apply a second spray 7-14 days up to blossom if conditions for disease development persist. Maximum amount per season: 1.33 L/ha (538 mL/acre). Maximum 4 applications per season.
	difenoconazole + cyprodinil (Inspire Super) 30827	3 + 9	836 mL	338 mL	12 h	14	Suppression of powdery mildew. Limit use of Group 3 fungicides (Nova, Inspire) to 2 sprays/season for resistance management.
	calcium polysulphide (Lime sulphur 30%) 16465	M2	9L/1000 L	9L/1000 L	48 h	1	
	myclobutanil (Nova 40WP) 22399	3	340 g	140 g	12 h - 12 days	14	Limit use of group 3 fungicides (Nova, Inspire) to 2 sprays/season. Rotate with other fungicides for resistance management.
	kresoxim-methyl (Sovran) 26257	11	240 - 360 g	100 - 150 g	48 h	30	Limit use of class 11 fungicides (Flint, Sovran, Pristine) to 2 per season for resistance management. Use high rate for high disease pressure. Caution: Sovran drift may injure cherries.
	trifloxystrobin (Flint)	11	140 - 210 g	57 - 85 g	12 h -	14	Limit sprays of Group 11 fungicides (Flint, Sovran, Pristine)

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Stage of Development: Pink							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	Extra Fungicide) 34962				4 days		to 2 per season for resistance management. Use high rate for high disease pressure. Caution: Sovran drift may injure cherries. 4 days REI for thinning.
	thiophanate-methyl (Senator 50SC) 32096	1	3.15 L	1.27 L	24 h*	1	May harm predatory mites. Maximum 2 applications per season.
	boscalid + pyraclostrobin (Pristine WG) 27985	7 + 11	1.0 - 1.2 kg	405 - 485 g	dry to 12 days	5	Limit sprays of Group 11 fungicides (Flint, Sovran, Pristine) to 2 per season for resistance management. 12 days REI for thinning.
	penthiopyrad (Fontelis) 30331	7	1.0-1.5 L	405-607 mL	12 h	28	Do not apply more than 3 times per season, or more than twice sequentially. Use high rate for high disease pressure.
	fluopyram pyrimethanil (Luna Tranquility) 30510	7 + 9	600 mL	242 mL	12 h	72 days	Use preventatively. Do not apply more than 2 times per season.
	Notes: Additional notes: Rotate fungicides from different groups for resistance management.						
			500 mL	202 mL	12 h	30	Rotate with other non-Group 7 products. Do not apply in two consecutive sprays nor more than 2 L/ha (1.0 L/acre) per season.

Stage of Development: Blossom							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Fruittree and European Leafrollers	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4 L	1.6 L	24 h*	0	Will also control other leaf-feeding larvae present. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Will also control other leaf-feeding larvae present.
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control other leaf-feeding larvae present.

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Stage of Development: Blossom							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Green Fruitworms	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Will also control bud moth.
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth.
Obliquebanded and Threelined Leafrollers	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Will also control bud moth.
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth.
Fire Blight	garlic powder (Buran) 30601	NC	1.4% (500 to 800 L of water)	1.4% (202 to 323 L of water)		0	Apply before wetting events when conditions are conducive to infection; reapply as needed. The addition of a registered non-ionic surfactant such as Agral 90 or AgSurf at a rate of 0.1% could help to improve the spreading.
	copper oxychloride (Guardsman Copper Oxychloride 13245)	M1	1.75 kg	710 g	48 h	n/a	Use on Bartlett's only. See fire blight description.
	copper octanoate (Cueva Commercial) 31825	M1	Prepare 0.5-2% solution (5-20 L/1000 L water)		4 h	1	Apply 470-940 L of mixture/ha (190-380 L/acre). Repeat every 7-10 days as long as weather conditions favour disease development. See Fire blight description.

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Stage of Development: Blossom

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	Bacillus amyloliquefaciens (Double Nickel 55) 31888	44	1-1.5 kg	405-607 g		0	Suppression only. Apply at blossom to end of flowering at 3- to 7-day intervals. Can be mixed with copper sprays. Can be applied post-bloom for shoot blight management.
	Aureobasidium pullulans (Blossom Protect) 30552	NC	See label	See label	dry	n/a	Apply up to 4 times from 10-90% bloom if weather conditions favour blossom infection.
	streptomycin sulphate (Streptomycin 17) 10305	25	1.8 kg or 100 ppm (see notes)	729 g or 100 ppm (see notes)	24 h - 14 days	30	Apply at blossom stage if weather conditions favour blossom infection. Maximum 3 applications (5.4 kg/ha/season). 100 ppm rate (600 g of Streptomycin per 1000 L of water) is based on high volume spray. Use sufficient water volume for thorough blossom wetting. 14 day REI for thinning.
	kasugamycin (Kasumin) 30591	24	5.0 L	2.0 L	12 h	90	Apply at 20-30% bloom or when conditions favour disease development. Do not apply after petal fall.
	Bacillus subtilis (Serenade Opti) 31666	44	1.1-1.7 kg	445-688 g	24 h*	0	Suppression only. Apply at 1-5% blossom and repeat as needed during the blossom period.
	copper oxychloride (Copper Spray 19146)	M1	1.75 kg	710 g	48 h	n/a	Use on Bartlett's only. See fire blight description.
Notes: Warm weather followed by rain favours blossom infection. See description of fire blight for information on risk assessment based on temperature.							

Stage of Development: Petal fall or Calyx

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Eyespotted Bud Moth	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 143 g	30 - 58 g	12 h	5	Apply at pink to petal fall when larvae are active. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 741 mL	201 - 300 mL	12 h	28	Monitor larval population in the Spring, and apply when overwintering larvae become active. Add 0.25 - 1% spray oil/spray mixture. Also controls pear psylla and mites. Do not exceed 1.0 L/ha per season.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season. Spray interval: 7 to 10 days.
	cyantraniliprole (Exirel) 30895	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 Sovran, Flint, Pristine, copper or captan fungicides. Toxic to bees.

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Stage of Development: Petal fall or Calyx							
Insect or Disease	Recommended Product Choices	Grp¹	Amount Per Ha	Amount Per Acre	REI²	PHI³ (days)	Precautions and Notes
Green Fruitworms	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	chlorantraniliprole (Altacor) 28981	28	145-285 g	59-115 g	12 h	5	Do not apply more than 4 times/ season. Do not tank mix with Sovran, Flint, Pristine, copper or captan fungicides. Toxic to bees. Spray interval - 10 to 14 days.
	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 108 g	30 - 44 g	12 h	5	Repeat if necessary at petal fall. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
Obliquebanded and Threelined Leafrollers	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	chlorantraniliprole (Altacor) 28981	28	145-215 g	59-87 g	12 h	5	Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 143 g	30 - 58 g	12 h	5	Apply when larvae become active. Do not apply more than 3 times/ season. Spray interval: 10 to 14 days (see label).
	GS-omega/kappa-Htx-Hv1a (Spear Lep) 34678	32	1.2 - 2.3 L	486 - 931 mL	4 h	0	Tank mix with the low labelled rate of a Bacillus thuringiensis (Bt) product registered on the same crop for control of caterpillars such as Bioprotec, Dipel or Foray. Use a spreader/sticker or non-ionic surfactant (0.125%) to enhance the adhesion of Spear Lep.
	tetraniliprole (Vayego 200 SC) 33711	28	225 ml	91 ml	12 hours	7 days	Max 3 applications per year. Toxic to bees. Do not apply during pre-bloom or blooming period. Apply post-bloom only.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 741 mL	201 - 300 mL	12 h	28	Monitor larval population in the Spring, and apply when overwintering larvae become active. Add 0.25 - 1% spray oil/spray mixture. Also controls pear psylla and mites. Do not exceed 1.0 L/ha per season.
	cyclaniliprole (Harvanta 50SL) 32889	28	1.2 - 1.6 L	485 - 647 ml	12	7 days	Toxic to bees. Do not make more than 3 applications per crop year. Where possible, rotate the use of Harvanta or other Group 28 insecticides with different groups that control the same pests.

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Stage of Development: Petal fall or Calyx							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes. Spray interval: 7 days under optimal conditions.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season. Spray interval: 7 to 10 days.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	cyantraniliprole (Exirel) 30895	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 Sovran, Flint, Pristine, copper or captan fungicides. Toxic to bees. Spray interval: 10 to 14 days.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	spinetoram (Delegate) 28778	5	210 - 420 g	85 - 170 g	12 h	7	Do not apply more than 3 times per season. Use higher rate under high pest pressure and/or larger larvae. Spray interval: 14 days.
	Bacillus thuringiensis (Foray) 24978	11	4.0 L	1.6 L	24 h*	0	Will also control bud moth. Spray interval: 7 days under optimal conditions.
	chlorantraniliprole (Altacor) 28981	28	145-285 g	59-115 g	12 h	5	Monitor larval populations in the spring and apply when larvae are active. Do not apply more than 3 times/ season. For rates above 215 g/ha (87 g/ac), do not apply more than twice/season. Spray interval - 10 to 14 days.
	tebufenozide (Confirm) 24503	18	1 L	405 mL	dry - 12 h	14	Will also control bud moth. Spray interval: 10 to 14 days.
Notes: All recommended products are stomach poisons so through coverage is important for good control. Apply Bt products when 80% bloom or more during late afternoon or on a cloudy day when there is no risk of rain for 24 hours. If there is more than 2 mm of rainfall within 24 hours of application, repeat the treatment. Wait 7 days (in the absence of rainfall) before applying a second treatment of Bt or other product if active larvae still present. Optimum pH for Bt products is 6.							
McDaniel, Twospotted Spider Mites	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply every 10 - 14 days, depending on level of pest pressure. Do not use within 14 days before or after captan fungicide. Do not apply

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Stage of Development: Petal fall or Calyx							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
							more than 8 applications per year.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 1000 mL	201 - 405 mL	12 h	28	Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
Fruittree and European Leafrollers	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 741 mL	201 - 300 mL	12 h	28	Monitor larval population in the Spring, and apply when over-wintering larvae become active. Add 0.25 - 1% spray oil/spray mixture. Also controls pear psylla and mites. Do not exceed 1.0 L/ha per season.
	Bacillus thuringiensis (Bioprotec PLUS) 32425	11	1.8-2.5 L	0.73-1.0 L	24 h*	0	Will also control other leaf-feeding larvae present. See Notes. Spray interval: 7 days under optimal conditions.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season. Spray interval: 7 to 10 days.
	Bacillus thuringiensis (Bioprotec CAF) 26854	11	4.0 L	1.6 L	24 h*	0	Will also control other leaf-feeding larvae present. Spray interval: 7 days under optimal conditions.
	Bacillus thuringiensis (Dipel 2X DF) 26508	11	1.125 - 1.675 kg	455 - 678 g	24 h*	0	Spray interval: 7 days under optimal conditions.
	cyantraniliprole (Exirel) 30895	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, Sovran, Pristine, captan or copper fungicides. TOXIC to bees.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	spinetoram (Delegate) 28778	5	210-420 g	85-170 g		7	Do not apply more than 3 times per season including all labeled uses. Spray interval: 14 days.
	Bacillus thuringiensis (Foray) 24978	11	4 L	1.6 L	24 h*	0	Will control other leaf-feeding larvae present. Spray interval: 7 days under optimal conditions.
Western Flower Thrips	cyclaniliprole (Harvanta 50SL) 32889	28	1.2 - 1.6 L	485 - 647 ml	12	7 days	Toxic to bees. For suppression only. Do not make more than 3 applications per crop year. Where possible, rotate the use of Harvanta or other Group 28 insecticides with different groups that control the same pests.
San Jose Scale	sulfoxaflor (Closer) 30826	4C	200-400 mL	80-160 mL	12 h	7	Do not apply during bloom or when flowering weeds are present. Do not apply more than 2 times per season. Spray interval: minimum 7 days.

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

Stage of Development: Petal fall or Calyx

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Powdery Mildew (Pears)	ipflufenquin (Migiwa 20 SC) 35443	52	165 - 220 ml	66.8 - 89 ml	12 h	7 days	The 165 ml/ha rate provides suppression of powdery mildew. If disease pressure is moderate or high or if control is required, use the 220 ml/ha rate. The retreatment interval is 7 to 10 days. Do not make more than two sequential applications.
	garlic powder (Buran) 30601	NC	9 L/500 to 800 L of water	9 L/500 to 800 L of water		0	Disease control can be achieved under low to moderate disease pressure. Begin applications when conditions are conducive to disease development. The addition of a registered non-ionic surfactant such as Agral 90 or AgSurf at a rate of 0.1% could help to improve the spreading.
	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply at tight cluster and continue every 10-14 days. Avoid application during bloom. Do not use within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
	mefentrifluconazole (Cevya) 33405	3	0.25 - 0.375 L	0.1 - 0.15 L	12 hours	0	Do not make more than 2 sequential applications before alternating to a non-group 3 fungicide registered for the same use. Begin applications prior to disease development. Apply an additional applic. at an interval of 7 - 10 days if disease persists or weather conditions are favourable for disease development. Do not use with horticultural mineral oil on pears.
	Polyoxin D Zinc Salt (Diplomat 5SC) 32918	19	259 - 926 ml	104 - 374 ml		0 days	Suppression of powdery mildew. Begin as a preventative application when conditions favour disease development, 7 - 14 day spray interval. Number of applications: 3-10 depending on rate.

Stage of Development: Summer

Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
McDaniel, Twospotted Spider Mites	pyridaben (Nexter SC) 33433	21	500 - 1000 ml	202 404 ml	24 h	25 days	Do not apply more than twice per year. Controls rust mite. Residual control: 7-10 days.
	fenazaquin (Magister SC) 34544	21 + 39	1.75 - 2.34 L	0.7 - 0.95 L	12 h - 17 days	10 days	Toxic to bees. Avoid application during bloom. Maximum number of applications: 1
	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply every 10 - 14 days, depending on level of pest pressure. Do not use

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
							within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 1000mL	201 - 405 mL	12 h	28	Apply before a threshold of five spider mites per leaf is reached. Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
	cyflumetofen (Nealta) 31284	25	1 L	405 mL	12 h	7	Do not apply more than 2 times/season. Spray interval: 14 days.
	abamectin (Agri-Mek SC) 31607	6	170-340 mL	69-139 mL	dry	28	Must be applied with 0.25% oil. Maximum 2 applications @ 170 mL/ha rate; maximum one application @ 340 mL/ha rate. Spray interval: 21 days.
	acequinocyl (Kanemite) 28641	20B	2.1 L	850 mL	14		Do not apply more than 2 times/season. Controls all life stages. Spray interval: 21 days.
	pyridaben (Nexter) 25135	21	300-600 g	120-240 g	24 h	25	Use the higher rate for spider mites. Will also control rust mites. Maximum 2 applications per season. Residual control: 7-10 days.
	spirodiclofen (Envidor) 28051	23	750 mL	300 mL	12 h	7	Only one application per season. Spray interval: minimum 7 days.
	clofentezine (Apollo) 21035	10	300-600 mL	120-240 mL	4-12 h	21	Do not apply more than once per season. Residual control: 45 days.
	Notes: It is important to rotate products with different group numbers 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 products in sufficient water to ensure thorough and uniform coverage.						
Rust Mites and Pearleaf Blister Mite	pyridaben (Nexter SC) 33433	21	500 ml	202 ml	24 h	25 days	Do not apply more than twice per year. Residual control: 7-10 days.
	fenazaquin (Magister SC) 34544	21 + 39	1.75 L	0.7 L	12 h - 17 days	10 days	Toxic to bees. Avoid application during bloom. Maximum number of applications: 1
	sulphur (Cosavet DF Edge 31869, Kumulus 18836, Microthiol 29487)	M2	6.0 kg	2.4 kg	24 h	1	
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 1000 mL	201 - 405 mL	12 h	28	Apply before a threshold of five spider mites per leaf is reached. Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
	abamectin (Agri-Mek SC) 31607	6	170-340 mL	69-138 mL	dry	28	Must be applied with 0.25% oil. Maximum 2 applications @ 170 mL/ha rate; maximum one application @ 340 mL/ha

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
							rate. Spray interval: 21 days.
	pyridaben (Nexter) 25135	21	300 g	121 g	24 h	25	Maximum 2 applications/season. Residual control: 7-10 days.
	spirodiclofen (Envidor) 28051	23	750 mL	300 mL	12 h	7	Only one application per season. Spray interval: minimum 7 days.
European Red Mite	pyridaben (Nexter SC) 33433	21	500 ml	202 ml	24 h	25 days	Do not apply more than twice per year. Residual control: 7-10 days.
	fenazaquin (Magister SC) 34544	21 + 39	1.75 - 2.34 L	0.7 - 0.95 L	12 h - 17 days	10 days	Toxic to bees. Avoid application during bloom. Maximum number of applications: 1
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 1000mL	201 - 405 mL	12 h	28	Apply before a threshold of five spider mites per leaf is reached. Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
	cyflumetofen (Nealta) 31284	25	1 L	405 mL	12 h	7	Do not apply more than 2 times/season. Spray interval: 14 days.
	abamectin (Agri-Mek SC) 31607	6	170-340 mL	69-138 mL	dry	28	Must be applied with 0.25% oil. Maximum 2 applications @ 170 mL/ha rate; maximum one application @ 340 mL/ha rate. Spray interval: 21 days.
	acequinocyl (Kanemite) 28641	20B	2.1 L	850 mL	12 h	14	Do not apply more than twice per season. For control of all life stages. Spray interval: 21 days.
	pyridaben (Nexter) 25135	21	300 g	120-240 g	24 h	25	Use the higher rate for spider mites. Maximum 2 applications per season. Will also control rust mites. Residual control: 7-10 days.
	spirodiclofen (Envidor) 28051	23	750 mL	300 mL	12 h	7	Only one application per season. Spray interval: minimum 7 days.
	clofentezine (Apollo) 21035	10	300-600 mL	120-240 mL	24 h	21	Do not apply more than once per season.
	mineral oil (Purespray Green) 27666	NC	10 L	4 L	12 h	0	For suppression only. Begin applications when mites first appear, allow 10-14 days between applications. To prevent phytotoxicity, do not apply less than 1000 L water/ha (1% solution). Do not use within 14 days before or after captan or sulphur.
	Notes: It is important to rotate products with different group numbers 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 products in sufficient water to ensure thorough and uniform coverage.						
	Notes: Not all pear varieties have been tested for tolerance to Purespray Green Oil. It is therefore important to limit application to a small area of each variety to confirm tolerance prior to application as a general field practice. Post harvest sprays may be applied to reduce overwintering populations.						

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Pear Psylla	pyridaben (Nexter SC) 33433	21	1000 - 1200 ml	405 - 485 ml	24 h	25 days	Do not apply more than twice per year. Controls rust mite. Residual control: 7-10 days.
	fenazaquin (Magister SC) 34544	21 + 39	1.75 - 2.63 L	0.7 - 1.1 L	12 h - 17 days	10 days	Toxic to bees. Avoid application during bloom. Maximum number of applications: 1
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 1000 mL	201 - 405 mL	12 h	28	Apply before a threshold of five spider mites per leaf is reached. Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
	flupyradifurone (Sivanto Prime) 31452	4D	750-1000 mL + 0.25% oil	304-405 mL + 0.25% oil	12 h	14	Suppression only. Addition of 0.25% oil may cause fruit injury to certain varieties of pears, particularly Anjou. Observe precautions on oil labels before using. Minimum interval between applications: 10 days. Maximum amount per season: 2000 mL/ha (810 mL/acre).
	Insecticidal soap	NC	20-25 L	8-10 L	24 h*	0	Use a minimum of 1900-2475 L of spray mixture/ha (800-1000 L/acre) to ensure thorough and uniform coverage.
	abamectin (Agri-Mek SC) 31607	6	170-340 mL	69-138 mL	dry	28	Must be applied with 0.25% oil. Maximum 2 applications @ 170 mL/ha rate; maximum one application @ 340 mL/ha rate. Spray interval: 21 days.
	pyridaben (Nexter) 25135	21	600 - 720 g	240 - 291 g	24 h	25	Use the higher rate for spider mites. Will also control rust mites. Maximum 2 applications per season. Residual control: 7-10 days.
	acetamiprid (Assail) 27128	4	80-160 g	32-64 g	12 h-6 days	7	Do not apply more than twice per season. Spray interval - 12 days. REIs of 2 days for scouting and 6 days is for thinning.
	Notes: Do not apply more than twice/season. Spray interval: 10 to 14 days. Clutch will no longer be registered for use by growers as of April 11, 2021.						
Codling Moth	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 108 g	30 - 44 g	12 h	5	Apply at first egg hatch based on pheromone trap catches and degree days after biofix. Controls eggs and larvae. Also controls leafroller. Do not exceed 322 g/ha (130 g/ac) per season. Will provide control of apple clearwing moth.
	GS-omega/kappa-Htx-Hv1a (Spear Lep) 34678	32	1.2 - 2.3 L	486 - 931 mL	4 h	0	Tank mix with the low labelled rate of a Bacillus thuringiensis (Bt) product registered on the same crop for control of caterpillars such as Bioprotec, Dipel or Foray. Use a spreader/sticker or non-ionic surfactant (0.125%) to enhance the adhesion of Spear Lep.
	Cydia pomonella granulovirus (CpGV) isolate V-22 (Madex HP) 34116	NC	50 - 100 ml	20 - 40 ml	4 hours	0	The pH of tank solution should range between 5 and 8.5. Use the high rate under high pest pressure or when reapplication interval is longer than 6 days. Max 5 applications per year.

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	tetraniliprole (Vayego 200 SC) 33711	28	225 ml	91 ml	12 hours	7 days	Max 3 applications per year. Toxic to bees. Do not apply during pre-bloom or blooming period. Apply post-bloom only. Apply before egg hatch for first and second generation codling moth based on pheromone trap captures and degree days after biofix. Also controls leafroller.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	556 mL	225 mL	12 h	28	Apply before egg hatch for first generation and at first egg hatch for second generation codling moth based on pheromone trap catches and degree days after biofix. Add 0.25 - 1% spray oil/spray mixture. Also controls pear psylla and mites. Do not exceed 1.0 L/ha per season.
	cyclaniliprole (Harvanta 50SL) 32889	28	1.2 - 1.6 L	485 - 647 ml	12	7 days	Toxic to bees. Do not make more than 3 applications per crop year. Where possible, rotate the use of Harvanta or other Group 28 insecticides with different groups that control the same pests.
	cyantraniliprole (Exirel) 30895	28	500-750 mL	202-304 mL	12 h	3	Apply before egg hatch for first generation and at first egg hatch of second generation codling moth based on pheromone trap catches and degree days after biofix. Also controls leafroller. Do not tank mix with Flint, Sovran, Pristine, copper or captan fungicides. Toxic to bees. Spray interval: 10 to 14 days.
	phosmet (Imidan 70% WP) 29064	1B	2.68 kg	1.08 kg	12 h - 9 days	22	Controls larvae. Will not control leafrollers. Highly toxic to bees. Minimum interval between sprays: 14 days. Max applications per season: 2. All hand thinning must occur prior to application.
	acetamiprid (Assail) 27128	4	240 g	97 g	12 h-6 days	7	Does not control leafrollers. High toxicity to bees. Do not apply more than twice per season. Spray interval - 12 days. REIs of 2 days for scouting and 6 days is for thinning.
	thiacloprid (Calypso) 28429	4	290-440 mL	117-178 mL	12 h	30	Controls larvae. Does not control leafrollers. Low toxicity to bees. High toxicity to lacewings. Use low rate for first brood if low to moderate pressure: use high rate for 2nd brood. Do not exceed a total of 870 mL/ha (352 mL/ac) per season. Spray interval: 14 to 21 days.
	spinetoram (Delegate) 28778	5	420 g	170 g	12 h	7	Will also provide control of leafroller and bud moth. Rain fast when dry. Use a high pH in spray solution. Apply at first egg hatch based on pheromone trap catches and degree days after biofix. Controls larvae before they enter the fruit so early timing is important. Do not apply more than 3 times per season. Use higher rate under high pest pressure. Spray

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
							interval: 14 days.
	chlorantraniliprole (Altacor) 28981	28	145-215 g	58-87 g	12 h	5	Controls eggs and larvae. Also provides control of leafroller. Apply at first egg hatch based on pheromone trap catches and degree days after biofix. Do not exceed 645g/ha (261g/ac)/season.
	mineral oil (Purespray Green) 27666	NC	10 L	4 L	12 h	0	Apply at or just before egg laying. Apply in a minimum of 1000L water/ha. Do not use in combination with or within 14 days of sulphur or captan. Also provides control of aphids and suppression of mites and powdery mildew.
	Notes: For suppression only. Do not apply more than a total of 420 g/ha/ (170 g/ac)/season. Spray interval: 14 days. Clutch will no longer be registered for use by growers as of April 11, 2021.						
	Notes: Thorough and timely spray coverage is essential for good control. All products except Groups 1B, 4 and 4A will also control any leafroller and bud moth larvae present. Avoid using Group 4 products more than 2 times/season for all registered uses to prevent mite problems. Group 4 products will also control aphids and leafhoppers present. To minimize risk of developing resistance, do not use any product in two successive generations.						
Eyespotted Bud Moth	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 143 g	30 - 58 g	12 h	5	Apply at pink to petal fall when larvae are active. Do not apply more than 3 times per season. Spray interval - 10 to 14 days.
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 741 mL	201 - 300 mL	12 h	28	Add 0.25 - 1% spray oil/ spray mixture. Also controls leafroller and mites. Do not exceed 1.0 L/ha per season.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season. Spray interval: 7 to 10 days.
	cyantraniliprole (Exirel) 30895	28	500-1000 mL	202-404 mL	12 h	3	Do not apply more than 4 times per season. Do not tank mix with Sovran, Flint, Pristine, copper or captan fungicides. Toxic to bees. Spray interval:10 to 14 days.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	chlorantraniliprole (Altacor) 28981	28	145-285 g	59-115 g	12 h	5	Apply when larvae are active. Do not apply more than 3 times per season.
Obliquebanded and Threelined Leafrollers	Chlorantraniliprole (Altacor MaX) 34654	28	73 - 143 g	30 - 58 g	12 h	5	Apply when larvae become active. Do not apply more than 3 times/ season. Spray interval: 10 to 14 days (see label).
	GS-omega/kappa-Htx-Hv1a (Spear Lep) 34678	32	1.2 - 2.3 L	486 - 931 mL	4 h	0	Tank mix with the low labelled rate of a Bacillus thuringiensis (Bt) product registered on the same crop for control of caterpillars such as Bioprotec, Dipel or Foray. Use a spreader/sticker or non-ionic surfactant (0.125%) to enhance the adhesion of Spear Lep.
	tetraniliprole (Vayego 200 SC)	28	225 ml	91 ml	12 hours	7 days	Max 3 applications per year. Toxic to bees. Do not apply during pre-bloom or blooming period. Apply post-bloom only.

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	33711						
	abamectin + cyantraniliprole (Minecto Pro) 33023	6 + 28	496 - 741 mL	201 - 300 mL	12 h	28	Add 0.25 - 1% spray oil/spray mixture. Also controls pear psylla and mites. Do not exceed 1.0 L/ha per season.
	cyclaniliprole (Harvanta 50SL) 32889	28	1.2 - 1.6 L	485 - 647 ml	12	7 days	Toxic to bees. Do not make more than 3 applications per crop year. Where possible, rotate the use of Harvanta or other Group 28 insecticides with different groups that control the same pests.
	spinosad (Success) 26835	5	182 mL	74 mL	dry	7	Do not apply more than 3 times/season. Spray interval: 7 to 10 days.
	cyantraniliprole (Exirel) 30895	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 Sovran, Flint, Pristine, copper or captan fungicides. Toxic to bees. Spray interval: 10 to 14 days.
	spinosad (Entrust) 30382	5	364 mL	147 mL	dry	7	Do not apply more than 3 times per season. Spray interval: 7 to 10 days.
	spinetoram (Delegate) 28778	5	210-420 g	85-170 g	12 h	7	Do not apply more than 3 times/season. Use higher rate under high pest pressure and/or larger larvae. Spray interval: 14 days.
	chlorantraniliprole (Altacor) 28981	28	145-285 g	59-115 g	12 h	5	Monitor adult moth flight and apply at first egg hatch. Do not apply more than 3 times/season, for rates above 215 g/ha (87 g/ac), do not apply more than twice/season.
	tebufenozide (Confirm) 24503	18	1 L	405 mL	dry - 12 h	14	Will also control bud moth. Do not apply more than 4 times/season. Spray interval: 10 to 14 days.
	pheromone (Isomate CM/LR TT) 28814	NC	750 disp.	300 disp.	n/a	0	Apply before first moth flight.
Notes: Confirm, Delegate, Success, Altacor and Exirel are stomach poisons so complete coverage is important for satisfactory control. These products will also control any bud moth larvae present.							
Apple Aphid	tetraniliprole (Vayego 200 SC) 33711	28	150 ml	61 ml	12 hours	7 days	Suppression only. Max 3 applications per year. Toxic to bees. Do not apply during pre-bloom or blooming period. Apply post-bloom only.
	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply every 10 - 14 days, depending on level of pest pressure. Do not use within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
	afidopyropen (Versys) 33266	9D	0.1 L	0.04 L	12 hrs	7 days	Allow 7 days between applications. Do not apply more than 4 times per season. For resistance management, rotate with another insecticide group after 2 applications.

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Stage of Development: Summer							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
	flupyradifurone (Sivanto Prime) 31452	4D	500-750 mL	202-304 mL	12 h	14	Minimum interval between applications: 10 days. Maximum amount per season: 2000 mL/ha (810 mL/acre).
	cyantraniliprole (Exirel) 30895	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, Sovran, copper or captan fungicides. Toxic to bees. Spray interval: 10 to 14 days.
	flonicamid (Beleaf) 29796	29	120-160 g	49-65 g	12 h-2 days	21	Experience in the field indicates there may be issues with current label rate. 2 days REI for thinning.
	sulfoxaflor (Closer) 30826	4C	100-200 mL	40-80 mL	12 h	7	Do not apply more than 2 times/season. Spray interval: minimum 7 days.
Woolly Apple Aphid	tetraniliprole (Vayego 200 SC) 33711	28	150 ml	61 ml	12 hours	7 days	Suppression only. Max 3 applications per year. Toxic to bees. Do not apply during pre-bloom or blooming period. Apply post-bloom only.
	Mineral oil (Suffoil-X) 33099	NC	10 L/1000 L of water	10 L/1000 L of water	12 hours	0	Test for crop tolerance before widespread use. Apply every 10 - 14 days, depending on level of pest pressure. Do not use within 14 days before or after captan fungicide. Do not apply more than 8 applications per year.
Stink Bugs	fenpropathrin (Danitol) 33817	3	779 - 1559 ml	315 - 631 ml	24 h - 23 days	16 days	Toxic to bees. Do not apply during bloom. REI/PHI's: 23 days (thinning), 16 days (hand harvesting), 7 days (scouting, hand pruning), 14 days (mechanical harvesting), 24 hours (all other activities). Pests controlled: exclude Brown marmorated stink bug
	Notes: There are no registered products. Contact field advisor. Products registered for brown marmorated stink bugs (Actara and Clutch) will provide some control. Check product labels.						
San Jose Scale	flupyradifurone (Sivanto Prime) 31452	4D	750-1000 mL + 0.25% oil	304-405 mL + 0.25% oil	12h	14	Addition of 0.25% oil may cause fruit injury to certain varieties of pears such as Anjou. Observe precautions on oil labels before using. Minimum interval between applications: 10 days. Maximum amount per season: 2000 mL/ha (810 mL/acre).
	sulfoxaflor (Closer) 30826	4C	200-400 mL	80-160 mL	12 h	7	Do not apply more than 2 times per season. Spray interval: minimum 7 days.
Mealybugs	spirotetramat (Moverto 240 SC) 28953	23	365-585 mL	148-237 mL	12 h		Maximum interval between applications: 14 days. Do not apply more than 1.83 L/ha (729 mL/acre) pr season. DO NOT use on pear trees when fruit is present due to the possibility of adverse effects on the fruit.
Fire Blight	Notes: There are no products that can be applied to cure fire blight following infection. Preventative copper sprays may help to protect against new infections. Scout susceptible orchards for symptoms and prune out infected shoots, being careful to disinfect tools between cuts. See fire blight section for more information on cultural methods.						

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Stage of Development: Post-Harvest							
Insect or Disease	Recommended Product Choices	Grp ¹	Amount Per Ha	Amount Per Acre	REI ²	PHI ³ (days)	Precautions and Notes
Fire Blight	Copper hydroxide (Parasol) 25901	M1	4.7 L	1.9 L	48 hrs	2 days	Apply after harvest with 50% leaf drop. Max. two applications per year.

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

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