

# APPLE SPRAY SCHEDULE



## Delayed dormant - 1/2-inch green (Stages 2, 3, 4)

Pest or disease	Material	Amount /acre	PHI	Remarks	
Apple Scab	Use one of the following alone:			Mancozeb products: Dithane, Manzate, and Penncozeb. See labels for rates. *EBDC fungicides - Pre-bloom schedule allows applications at full rate through bloom. Do not combine or integrate the pre-bloom schedule with extended schedule (below).	
		1. Captan 50W	6 lb		14
		2. Ferbam 76WDG	4.5 lb		7
		3. Mancozeb 80WP <sup>a</sup>	6 lb		FB
		4. Maneb 75DF <sup>a</sup>	6 lb		FB
		5. Polyram 80WP <sup>a</sup>	5 lb		FB
		6. Ziram 76DF	6-8 lb	14	
		OR use a combination spray by selecting one of the following:			These materials need to be combined with other fungicides to delay or prevent development of resistant scab. All these materials, except Syllit, are also effective against mildew (see tight cluster stage).
		1. Benlate 50WP	12 oz	14	
		2. Funginex 1.6EC	12-18 fl oz	PF	
		3. Nova 40W	4-6 oz	14	
		4. Procure 50WS	8-16 oz	14	
		5. Rubigan EC	6-12 fl oz	30	
		6. Syllit 65WP	12 oz	7	
		7. Topsin M 70WP	12 oz	NTL	
	PLUS one of the following:			*EBDC fungicides - Extended schedule allows applications at half rate up to 77 days before harvest. Do not combine or integrate the pre-bloom schedule (above) with extended schedule.	
	1. Captan 50W	3 lb	14		
	2. Mancozeb 80WP <sup>a</sup>	3 lb	77		
	3. Maneb 75DF <sup>a</sup>	3 lb	77		
	4. Polyram 80WP <sup>a</sup>	2.5 lb	77		
	5. Ziram 76DF	3-4 lb	14		
European red mite eggs, San Jose Scale, rosy apple aphid, green apple/Spirea aphids	Use one of the following:			Pre-bloom oil applications facilitate integrated mite management. If no oil is used, check for mites and San Jose scale during foliar season.	
		1. Superior oil alone	6 gal		
		2. Superior oil plus one of the following:	6 gal +		
		3. Lorsban 4E	3-4 pts		DD
		4. Lorsban 50WP	2-3 lbs		28
		5. Supracide 2E	3-6 pts		PB
Rosy apple aphid, green apple/Spirea aphids,		6. Diazinon 50WP	3-4 lb	21	
		1. Thiodan 3EC	2-3 1/3 qts	21	
Obliquebanded leafroller	Use one of the following:			Apply during Stage 3 for best results.	
		1. Lorsban 4E	1.5-4 pts		DD
		2. Lorsban 50WP	2-3 lbs		28
		3. Supracide 2E	3-6 pts		PB

	4. Diazinon 50WP	3-4 lb	21
European red mite eggs	1. Apollo SC	4-8 oz	TC



## Tight cluster, prepink (Stages 5 & 6)

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab	Same fungicides as Delayed Dormant stage			See remarks in delayed dormant.
Powdery Mildew	Same fungicides as Delayed Dormant stage			Many scab fungicides also control mildew. See remarks in Delayed Dormant stage.
Spotted Tentiform Leafminer, Aphids	Use one of the following:			<sup>a</sup> The use of these materials (pyrethroids) may exacerbate mite problems.
	1. Vydate L	2.5-3.0 pt	14	Carzol and Thiodan are effective for controlling leafminer adults. Provado use at petalfall can substitute for Vydate at pink for leafminer and leafhopper
	2. Ambush 2EC <sup>a</sup>	9-12 fl oz	PF	
	3. Asana XL <sup>a</sup>	4.8-8 fl oz	21	
	4. Pounce 3.2EC <sup>a</sup>	6-10 fl oz	PF	
	5. Carzol 92SP	12 oz	7	
	6. Thiodan 50WP	3 lb	21	
	7. Dimethoate 4E	1.5-3.0 pt	28	
European red mites	Use one of the following:			Do not apply Apollo beyond tight cluster stage or apply Savey beyond pink stage.
	1. Superior oil	2-3 gal		
	2. Apollo SC	4-8 oz	TC	
	3. Savey 50WP	3 oz	P	



## Pink Sprays (Stage 7)

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab	Use one of the following alone:			See remarks in Delayed Dormant stage.
Powdery Mildew	1. Captan 50W	6 lb	14	
Cedar Apple Rust	2. Mancozeb 80WP <sup>a</sup>	6 lb	FB	
	3. Polyram 80WP <sup>a</sup>	5 lb	FB	
	4. Ziram 76DF	6-8 lb	14	
	OR use a combination spray by selecting one of the following:			
	1. Benlate 50WP	12 oz	14	See remarks in Delayed Dormant stage.
	2. Funginex 1.6EC	12-18 fl oz	PF	
	3. Nova 40W	4-6 oz	14	Funginex, Nova, Procure, and Rubigan best for rust control.
	4. Procure 50WS	8-16 oz	14	
	5. Rubigan EC	6-12 fl oz	30	
	6. Syllit 65WP	12 oz	7	
	7. Topsin M 70WP	12 oz	NTL	
	PLUS one of the following:			
	1. Captan 50W	3 lb	14	See remarks in Delayed Dormant stage.
	2. Mancozeb 80WP <sup>a</sup>	3 lb	77	

	3. Polyram 80WP <sup>a</sup>	2.5 lb	77	
	4. Ziram 76DF	3-4 lb	14	
European red mite	Use one of the following:			
	1. Savey 50WP	3 oz	P	Do not apply Savey past pink stage. Do not apply Morestan with oil or within 10 days of an oil application to prevent phytotoxicity. Morestan may disrupt mite pest management by killing mite predators.
	2. Morestan 25WP	1.5-3.0 lb	P	



**Bloom Spray (Stage 8) Do not apply insecticides during bloom**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple scab Powdery mildew Cedar apple rust Fire Blight	Same fungicides as Pink stage  Use one of the following:			Apply when first blossoms open; repeat sprays at 5-7 day intervals during bloom. See disease and fungicide/bactericide chapters for further information.
	1. Agri-mycin 17	24-48 oz	50	
	2. Agri-mycin 17 + glycerin	12-24 oz 4 qt	50	
	3. Agri-mycin 17 + Regulaid	12-24 oz 8 oz	50	

**Petal-Fall Spray Avoid killing bees on blooming ground cover**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple scab Powdery mildew Cedar apple rust Moldy core	Same fungicides as Pink stage			EBDC fungicides can only be used with extended schedule (half rate); see remarks at Delayed Dormant. Best control of moldy core with Captan alone or combined with Benomyl or Topsin M.
Fire Blight	Same materials as Bloom stage			If disease pressure is high, consider further applications to control twig blight.
Plum curculio, Redbanded leafroller, European apple sawfly, Green fruit worm	Use one of the following:			Apply when most petals have fallen and after bees are removed from orchard.
	1. Guthion 50WP	1.25-1.5 lb	7	
	2. Imidan 70WP	1.75-3 lb	7	

White apple leafhopper, Spotted tentiform leafminer	Use one of the following: 1. Carzol 92SP 2. Thiodan 50WP 3. Lannate LV 4. Provado 1.6F	1-1.25 lb 3 lb .75-1.5 pt 4-8 oz	7 21 14 7	Apply when most petals have fallen and after bees are removed from orchard. Provado use at petalfall can substitute for Vydate at pink for leafminer and leafhopper. Use lower rates of Provado if only targeting leafhoppers. These materials are toxic to mite predators.
Spotted tentiform leafminer, mites	1. Agrimek 0.15EC + Paraffinic spray oil	10-20 oz + 0.25% or 1 gal	28	Use a minimum of 1 gal of oil/A.
Aphids (except wooly apple aphid)	1. Provado 1.6F 2. Thiodan 50WP	6-8 oz	7	For rosy apple aphid, apply prior to leaf curling.
European red mite, twospotted spidermite	Use one of the following: 1. Vendex 50WP 2. Kelthane 35WP 3. Kelthane 50W 4. Carzol 92SP 5. Agrimek 0.15EC + Paraffinic spray oil	1-2 lb 4-6 lb 3-5 lb 12-16 oz 10-20 oz + 0.25% or 1 gal	14 7 7 7 28	Use lower rates of Kelthane for trees less than 10ft., higher rates for larger trees. For Agrimek, use a minimum of 1 gal of oil/A and apply no later than 6 weeks after petal fall.
San Jose scale	Use one of the following: 1. Lorsban 50WP 2. Diazinon 50WP 3. Provado 1.6F	2-3 lb 3 lb 6-8 oz	28 21 7	Time application to crawler stage.

### First Cover Spray

Avoid killing bees on blooming ground cover

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple scab Powdery mildew Cedar apple rust Fruit rots Brooks fruit spot	Same fungicides as Pink stage			EBDC fungicides can only be used with extended schedule (half rate); see remarks at Delayed Dormant. For bitter rot, the EBDC's are most effective. For white rot, Captan, Benomyl, and Topsin M are best.
Plum curculio, Redbanded leafroller, Codling moth	Use one of the following: 1. Guthion 50WP 2. Lorsban 50WP 3. Imidan 70WP 4. PennCap-M	1-1.5 lb 2-3 lb 1.5-3 lb 2 pt	7 28 7 14	Do not allow PennCap-M or other bee toxic material to contact blooming plants including weeds.
White apple leafhoppers, Spotted	Use one of the following: 1. Provado 1.6F	3-6 oz	7	Time leafminer sprays against eggs

tentiform leafminer	2. Lannate 90SP 3. Lannate LV	0.5-1 lb 18-24 oz	14 14	or early sap-feeder stages.
Spotted tentiform leafminer, mites	1. Agrimek 0.15EC + Paraffinic spray oil	10-20 oz + 0.25% or 1 gal	28	Apply against leafminer eggs and early sap feeder stages
European red mite, twospotted spidermite	Use one of the following: 1. Vendex 50WP 2. Kelthane 35WP 3. Kelthane 50W 4. Carzol 92SP 5. Agrimek 0.15EC + Paraffinic spray oil	1-2 lb 4-6 lb 3-5 lb 12-16 oz 10-20 oz + 0.25% or 1 gal	14 7 7 7 28	Use lower rates of Kelthane for trees less than 10ft., higher rates for larger trees. For Agrimek, use a minimum of 1 gal of oil/A and apply no later than 6 weeks after petal fall.
San Jose scale	Use one of the following: 1. Lorsban 50WP 2. Diazinon 50WP 3. Provado 1.6F	2-3 lb 3 lb 6-8 oz	28 21 7	Time application to crawler stage.

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### Second Cover

**Avoid killing bees on blooming ground cover**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Fruit Rots Brooks Fruit Spot	Use one of the following: 1. Pink stage fungicides 2. Captan 50W 3. Mancozeb 80WP <sup>a</sup> 4. Polyram 80WP <sup>a</sup> 5. Ziram 76DF	-- 4.5-6 lb 3 lb 3 lb 4-8 lb	14 77 77 14	Spray earlier pink stage materials if secondary scab, rust, or mildew continue to occur. Captan and Ziram can usually be applied at reduced rates during the summer. The EBDC's Mancozeb and Polyram can be applied if the extended schedule is being used.
Codling moth, Tufted apple budmoth <sup>a</sup>	Use one of the following: 1. Guthion 50WP 2. Imidan 70WP 3. Lorsban 50WP	1-1.5 lb 1.75-3 lb 2-3 lb	7 7 28	<sup>a</sup> In orchards where tufted apple budmoth pressure is severe, use higher rate or one of the combination sprays listed below for tufted budmoth.
Tufted apple budmoth	Use one of the following: 1. Guthion 50WP + Lannate 90SP <b>or</b> Lannate LV <b>or</b> PennCap M 2. Lorsban 50WP + Lannate 90SP <b>or</b>	8-12 oz 6-8 oz 12-24 oz 1-2 pt 1.5-2 lb 6-8 oz	7 14 14 14 28 14	Lannate is toxic to mite predators. Do not allow PennCap-M or other bee toxic material to contact blooming plants including weeds.

	Lannate LV <b>or</b>	12-24 oz	14	
	Penncap M	1-2 pt	14	
	3. Penncap M	1-2 pt	14	
	+ Lannate 90SP <b>or</b>	6-8 oz	14	
	Lannate LV <b>or</b>	12-24 oz	14	
	Guthion 50WP	8-12 oz	7	
	4. <i>Bacillus thuringiensis</i>	see label		
European red mite, twospotted spidermite	Use one of the following:			
	1. Vendex 50WP	1-2 lb	14	Use lower rates of Kelthane for trees less than 10ft., higher rates for larger trees.
	2. Kelthane 35WP	4-6 lb	7	
	3. Kelthane 50W	3-5 lb	7	
	4. Carzol 92SP	12-16 oz	7	
San Jose scale	Use one of the following:			
	1. Lorsban 50WP	2-3 lb	28	Time application to crawler stage.
	2. Diazinon 50WP	3 lb	21	
	3. Provado 1.6F	6-8 oz	7	
Leafhoppers	Provado 1.6F	3 oz	7	

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### Third Cover Spray

**Avoid killing bees on blooming ground cover**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab	Use one of the following:			Captan and Ziram can usually be applied at reduced rates during the summer. The EBDC's Mancozeb and Polyram can be applied if the extended schedule is being used.
Fruit Rots	1. Captan 50W	4.5-6 lb	14	
Sooty Blotch	2. Mancozeb 80WP <sup>a</sup>	3 lb	77	
Fly Speck	3. Polyram 80WP <sup>a</sup>	3 lb	77	
	4. Ziram 76DF	4-8 lb	14	
	OR use a combination by selecting one of the following:			
	1. Benlate 50WP	0.75 lb	14	Benlate or Topsin M best for sooty blotch/fly speck.
	2. Topsin M 70WP	0.75 lb	NTL	
	PLUS			
	1. Captan 50WP	3 lb	14	
Codling moth, tufted apple bud moth, Redbanded leafroller	Same materials and rates as SECOND COVER SPRAY			
San Jose scale	Use one of the following:			
	1. Lorsban 50WP	2-3 lb	28	Time application to crawler stage.
	2. Diazinon 50WP	3 lb	21	
	3. Provado 1.6F	6-8 oz	7	
Leafhoppers	Provado 1.6F	3 oz	7	

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### Fourth Cover Spray

**Avoid killing bees on blooming ground cover**

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<b>cover</b>				
<b>Pest or disease</b>	<b>Material</b>	<b>Amount /acre</b>	<b>PHI</b>	<b>Remarks</b>
Apple Scab Fruit Rots Sooty Blotch Fly Speck	Same materials and rates as THIRD COVER SPRAY			
Codling moths, apple maggot	Same materials and rates as SECOND COVER SPRAY			
Leafhoppers	Provado 1.6F	3 oz	7	
San Jose scale	Use one of the following:			
	1. Lorsban 50WP	2-3 lb	28	Time application to crawler stage.
	2. Diazinon 50WP	3 lb	21	
	3. Provado 1.6F	6-8 oz	7	

<b>Fifth, Sixth, and Seventh Cover Sprays</b>				<b>Avoid killing bees on blooming ground cover</b>
<b>Pest or disease</b>	<b>Material</b>	<b>Amount /acre</b>	<b>PHI</b>	<b>Remarks</b>
Apple Scab Fruit Rots Sooty Blotch Fly Speck	Same materials and rates as THIRD COVER SPRAY			
Codling moth, tufted apple bud moths, apple maggot, variegated leafroller	Same materials and rates as SECOND COVER SPRAY			
Leafhoppers	Provado 1.6F	3 oz	7	
Leafminer	Provado 1.6F	6 oz	7	
San Jose scale	Use one of the following:			
	1. Lorsban 50WP	2-3 lb	28	Time application to crawler stage.
	2. Diazinon 50WP	3 lb	21	
	3. Provado 1.6F	6-8 oz	7	

# Processing Apple Spray Schedule



## Half-Inch Green Through Full Pink(Stages 4-7 )

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple scab Powdery mildew Cedar apple rust	Same as Apple Spray Program			
Insects, mites	Same as Apple Spray Program			



## Bloom (Stage 7)

**Do not apply insecticides during bloom**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Powdery Mildew Cedar Apple Rust	Same materials as Half-Inch Green			
Fire Blight	Same as Apple Spray Program			

## Petal Fall and Cover Sprays

**Avoid killing bees on blooming ground cover**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Powdery Mildew Cedar Apple Rust Fruit Rots Summer Diseases	Use one of the following: 1. Materials listed at Half-Inch Green 2. Sulfur, actual	-- 10-12 lb	-- NTL	See Apple Spray Program for remarks on fruit rots and summer diseases. Be careful of sulfur injury; see fungicide chapter for details. Do not apply Funginex after petal fall.
Insects	Use one of the following: 1. Guthion 50WP 2. Imidan 50WP 3. Imidan 70WP	1.5 lb 2.5-3.0 lb 2.25-2.5 lb	7 7 7	See Apple Spray Program for timing, material selection, and other pest specific information

Leafhoppers, 1. Provado 1.6F 3-8 oz 7  
leafminer, San Jose  
Scale

Mites Any miticide list under Third Cover in Apple Spray  
Schedule

### Apple Spray Schedule (Nonbearing Trees)



### Half-Inch Green Spray (Stage 4)

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab	Same as Apple Spray Program (Delayed Dormant - Half Inch Green)			See remarks for Apple Spray Program.
European red mite eggs, San Jose Scale, rosy apple aphid, green apple/Spirea aphids	Use one of the following: 1. Superior oil alone 2. Superior oil plus one of the following: 3. Lorsban 4E 4. Lorsban 50WP 5. Supracide 2E 6. Diazinon 50WP	6 gal 6 gal + 3-4 pts 2-3 lbs 3-6 pts 3-4 lb	DD 28 PB 21	Pre-bloom oil applications facilitate integrated mite management. If no oil is used, check for mites and San Jose scale during foliar season. Supracide alone without oil is not effective against ERM.
Rosy apple aphid, green apple/Spirea aphids,	1. Thiodan 3EC	2-31/3 qts	21	
Obliquebanded leafroller	Use one of the following: 1. Lorsban 4E 2. Lorsban 50WP 3. Supracide 2E 4. Diazinon 50WP	1.5-4 pts 2-3 lbs 3-6 pts 3-4 lb	DD 28 PB 21	Apply during Stage 3 for best results.
Spotted Tentiform Leafminer, Aphids	Use one of the following: 1. Vydate L 2. Ambush 2EC <sup>a</sup> 3. Asana XL <sup>a</sup> 4. Pounce 3.2EC <sup>a</sup> 5. Carzol 92SP 6. Thiodan 50WP 7. Dimethoate 4E	2.5-3.0 pt 9-12 fl oz 4.8-8 fl oz 6-10 fl oz 12 oz 3 lb 1.5-3.0 pt	14 PF 21 PF 7 21 28	<sup>a</sup> The use of these materials (pyrethroids) may exacerbate mite problems. Carzol and Thiodan are effective for controlling leafminer adults. Provado use at petalfall can substitute for Vydate at pink for leafminer and leafhopper
European red mite eggs	1. Apollo SC	4-8 oz	TC	

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**Same Timing As Pink Spray For Bearing Blocks**

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Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Powdery Mildew	Same materials as Half-Inch Green			
European red mite	1. Savey 50WP	3 oz	P	Do not apply Savey past pink stage.

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**Same Timing As Petal-Fall Spray For Bearing Blocks**

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Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Powdery Mildew	Use one of the following: 1. Any spray listed for Half-Inch Green 2. Sulfur, wettable	--  10-12 lb	--  NTL	Sulfur can cause foliar injury, especially during hot weather. See fungicide chapter for details.
Cankerworms, tent caterpillars, leafrollers	1. Guthion 50WP 2. Imidan 70WP	1.5 lb 2.25-2.5 lb	7 7	
White apple leafhopper, Spotted tentiform leafminer	Use one of the following: 1. Carzol 92SP 2. Thiodan 50WP 3. Lannate LV 4. Provado 1.6F	1-1.25 lb 3 lb .75-1.5 pt 4-8 oz	7 21 14 7	Apply when most petals have fallen and after bees are removed from orchard. Provado use at petalfall can substitute for Vydate at pink for leafminer and leafhopper. Use lower rates of Provado if only targeting leafhoppers. These materials are toxic to mite predators.
Spotted tentiform leafminer, mites	1. Agrimek 0.15EC + Paraffinic spray oil	10-20 oz + 0.25% or 1 gal	28	Use a minimum of 1 gal of oil/A.
Aphids (except wooly apple aphid)	1. Provado 1.6F 2. Thiodan 50WP	6-8 oz	7	For rosy apple aphid, apply prior to leaf curling.

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**21 TO 28 Days Later**

**Avoid killing bees on blooming ground cover**

Pest or disease	Material	Amount /acre	PHI	Remarks
Apple Scab Powdery Mildew	Same materials as Petal Fall stage			See remarks at Petal Fall stage.
Cankerworms, tent	1. Guthion 50WP	1.5 lb	7	

caterpillars, leafrollers	2. Imidan 70WP	2.25-2.5 lb	7	
White apple leafhopper, Spotted tentiform leafminer	Use one of the following: 1. Carzol 92SP 2. Thiodan 50WP 3. Lannate LV 4. Provado 1.6F	1-1.25 lb 3 lb .75-1.5 pt 4-8 oz	7 21 14 7	Apply when most petals have fallen and after bees are removed from orchard. Provado use at petalfall can substitute for Vydate at pink for leafminer and leafhopper. Use lower rates of Provado if only targeting leafhoppers. These materials are toxic to mite predators.
Spotted tentiform leafminer, mites	1. Agrimek 0.15EC + Paraffinic spray oil	10-20 oz + 0.25% or 1 gal	28	Use a minimum of 1 gal of oil/A.
Aphids (except wooly apple aphid)	1. Provado 1.6F 2. Thiodan 50WP	6-8 oz	7	For rosy apple aphid, apply prior to leaf curling.

# PEAR SPRAY SCHEDULE



## Dormant Spray (Stage 1)

Pest or disease	Material	Amount /acre	PHI	Remarks
Fire Blight	Use one of the following: 1. Blue Shield DF 2. Bordeaux mixture 3. Champ Formula 2 4. Kocide DF	8-16 lb (4,6/100) 2/3-1 1/3 gal 8-16 lb	D D D D	Copper materials cause injury if applied beyond half-inch green. Kocide, Champ, Blue Shield are copper hydroxide products. See fungicide chapter for details on formulas for Bordeaux mix.
European red mite, scale, pear psylla	superior oil, 60-70 second viscosity	6 gal		Oil inhibits pear psylla egg laying. Good coverage is essential.



## Delayed -Dormant Spray (Stages 2 & 3)

Pest or disease	Material	Amount /acre	PHI	Remarks
European red mite, scale, pear psylla	1. superior oil, 60-70 second viscosity	6 gal		Oil inhibits pear psylla egg laying. Good coverage is essential.
Pear psylla	Use one of the following: 1. Ambush 2EC 2. Ambush 25WP 3. Pounce 3.2EC 4. Asana XL	18 oz 18 oz 10-14 oz 12-16 oz	7 14 DD 21	



## Tight Cluster Bud, Green Cluster Bud (Stages 4 & 5)

Pest or disease	Material	Amount /acre	PHI	Remarks
Pear Scab Fabraea Leaf Spot Powdery Mildew	Use one of the following alone: 1. Ferbam 76WDG 2. Mancozeb 80WP <sup>a</sup> 3. Maneb 75DF <sup>a</sup> 4. Ziram 76DF	4.5 lb 6 lb 6 lb 6-8 lb	7 FB FB 14	Mancozeb products: Dithane, Manzate, and Penncozeb. See labels for rates. <sup>a</sup> EBDC fungicides - Pre-bloom schedule allows applications at full rate through bloom. Do not combine or integrate the pre-bloom schedule with extended schedule (below). All four of these materials have

activity against *Fabraea* leaf spot.

OR use a combination spray by selecting one of the following:

1. Benlate 50WP	12 oz	14	These materials control scab and mildew, but none are labeled for <i>Fabraea</i> leaf spot control.
2. Procure 50WS	8-16 oz	14	
3. Rubigan EC	6-12 fl oz	30	

PLUS one of the following:

1. Mancozeb 80WP <sup>a</sup>	3 lb	77	. <sup>a</sup> EBDC fungicides - Extended schedule allows applications at half rate up to 77 days before harvest. Do not combine or integrate the pre-bloom schedule (above) with extended schedule.
2. Maneb 75DF <sup>a</sup>	3 lb	77	
3. Ziram 76DF	3-4 lb	14	



**Pink Spray (Stage 6) (after bud separation but before petals show)**

Pest or disease	Material	Amount /acre	PHI	Remarks
Pear Scab Fabraea Leaf Spot Powdery Mildew	Same fungicides as at Green Cluster Bud			
Pear psylla adults	Use one of the following:			
	1. Ambush 2EC	18 oz	7	
	2. Ambush 25WP	18 oz	14	
	3. Pounce 3.2EC	10-14 oz	DD	
	4. Asana XL	12-16 oz	21	
Mites, pear psylla Powdery mildew	1. Morestan	4-5 lb	PB	Apply before petals show. If Morestan was used in prepink, do not reapply. Morestan applied within 10 days after an oil application may cause severe phytotoxicity. Morestan may russet Seckle and Asian pears.
Thrips, tarnished plant and stink bugs	1. Thiodan 50WP 2. Thiodan 3EC	4-5 lb 3 1/3 qt	7 7	



**Bloom Spray (Stage 8)  
during bloom**

**Do not apply insecticides**

Pest or disease	Material	Amount /acre	PHI	Remarks
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Pear Scab Same fungicides as at Green Cluster Bud  
 Fabraea Leaf Spot  
 Powdery Mildew

Fire Blight	Use one of the following:			Apply when first blossoms open; repeat sprays at 5-7 day intervals during bloom. See disease and fungicide/bactericide chapters for further information.
	1. Agri-mycin 17	24-48 oz	30	
	2. Agri-mycin 17 + glycerin	12-24 oz 4 qt	30	
	3. Agri-mycin 17 + Regulaid	12-24 oz 8 oz	30	

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**Petal-Fall Spray**

**Avoid killing bees on blooming ground cover**

<b>Pest or disease</b>	<b>Material</b>	<b>Amount /acre</b>	<b>PHI</b>	<b>Remarks</b>
Pear Scab Fabraea Leaf Spot Powdery Mildew	Same fungicides as at Green Cluster Bud			
Fire Blight	Same materials as Bloom stage			If disease pressure is high, consider further applications to control twig blight.
Plum curculio, codling moth	Use one of the following:			
	1. Guthion 50WP	1.5 lb	7	Do not allow PennCap-M or other bee toxic material to contact blooming plants including weeds.
	2. Imidan 70WP	3 lb	7	
	3. PennCap-M	3-6 pt	21	
Pear psylla	Use one of the following:			
	1. Mitac 50WP	1.5-3 lb	7	Apply Agrimek with 1% oil or at least 1 gal/A before leaves harden off.
	2. Agrimek 0.15EC + Paraffinic Spray Oil	10-20 oz minimum 1 gal	28	
	1. Provado 1.6F	16-20 oz	7	
Pear psylla, aphids, San Jose scale, mealybugs				

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**Cover Sprays**

**Avoid killing bees on blooming ground cover**

<b>Pest or disease</b>	<b>Material</b>	<b>Amount /acre</b>	<b>PHI</b>	<b>Remarks</b>
Pear Scab Fabraea Leaf Spot Powdery Mildew Sooty Blotch	Same fungicides as at Green Cluster Bud			EBDC fungicides, when used in the extended schedule at half-rate, can be applied through Second Cover. See mancozeb in fungicide chapter

Fly Speck

for more information.

<p>Pear psylla, European red mite, twospotted spider mite, pear rust mites</p>	<p>Use one of the following:          1. Mitac 50WP          2. Agrimek 0.15EC          + Paraffinic Spray Oil</p>	<p>1.5-3 lb          10-20 oz +          minimum 1          gal oil</p>	<p>7          28</p>	<p>Apply Agrimek with 1% oil or at least 1 gal/A before leaves harden off.          Avoid summer pyrethroid use to delay resistance development of pear psylla.</p>
<p>Plum curculio, codling moth</p>	<p>Use one of the following:          1. Guthion 50WP          2. Penncap-M</p>	<p>1.5 lb          3-6 pt</p>	<p>7          14/21</p>	
<p>European red mite, twospotted spider mite</p>	<p>Use one of the following:          1. Apollo SC          2. Savey 50WP          3. Vendex 50WP          4. Vydate 2L          5. Carzol SP</p>	<p>4-8 oz          4-6 oz          1-2 lb          2-3 qt          1.5-2 lb</p>	<p>21          28          14          14          7</p>	<p>Do not apply Vydate within 30 days of bloom to avoid thinning fruit.</p>
<p>Tarnished plant and stink bugs, pear rust mite</p>	<p>1. Thiodan 50WP</p>	<p>3-5 lb</p>	<p>7</p>	
<p>Pear psylla, aphids, San Jose scale, mealybugs</p>	<p>1. Provado 1.6F</p>	<p>16-20 oz</p>	<p>7</p>	