



Current Report

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Commercial Peach-Nectarine Insect and Disease Control 2007

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In the following table, the quantity of materials to use to apply to peaches and nectarines is given as amount per acre, which is the amount of spray volume needed to cover one acre of well pruned, standard size trees. Determine the amount of water being used per acre on your trees then add the rate of the chemical listed below in the rate/acre column to the amount of water. Always read the label carefully for any restrictions. In

Oklahoma, applications are commonly made using 20 to 150 gallons per acre. How effective this range in spray volumes will be is determined by several factors including: tree sizes, tree densities, canopy density, and type of nozzles. Airblast sprayers normally require amounts on the higher end of this scale. Irrespective of the amount of liquid per acre applied; use the amount of chemical per acre as a guide for mixing.

Application and Timing	Pests Involved	Amount of Materials Needed		Comments
		Material (Group)*	Per Acre	
LATE FALL: Apply in October-November when the temperature is above 40°F.	Peach Leaf Curl	Bravo Ultrex (M4)	2.8-3.8 lb	Apply amount of chemical in a minimum of 150 gallons per acre.
		Kocide DF (M4)	8-16 lb	
DORMANT: Apply when the trees are dormant and the temperature is above 40°F. Apply fungicides in spring before buds begin to swell.	San Jose Scale	Esteem 0.86EC (7D)	13-16 oz	For Peach leaf curl and/or scale insect control apply a minimum of 150 gallons of liquid per acre.
		Lorsban 4E ¹ (1B) (Can also be used with oil).	1.5 pt	
		Pasada 1.6F (4A)	4.0-8.0 oz	
		Superior oil*	2-4 gal	
	Seize 65WP (7D)	4-5 oz		
Forbes Scale	Dormant oil*	4.5-6 gal	Oils can be applied before budbreak. If buds are just beginning to open (1 to 5% bud swell), adjust rates downward (e.g., 1.5 gals/A).	
	Lime Sulfur ¹ (M4)	See label		
	Superior oil*	2-4 gal		
	Peach Leaf Curl	Bravo Ultrex (M4)	2.8-3.8 lb	
		Kocide DF (M4)	12-24 lb	
		Ziram 76DF (M4)	3.75-6 lb	
PRE-BLOOM OR EARLY BLOOM: Flower buds show pink.	Tarnished plant bug	Asana XL ¹ (3)	4.8-14.5 oz	Javelin is for Peach twig borer only. Pasada is for tarnished plant but, San Jose scale, green June beetles, and aphids. Can cause suppression of stink bugs and plum curculio.
		Peach twig borer	Dipel ES (11B2)	
		Javelin WG (11B2)	0.25-4 lb	
		Lorsban 4E ¹ (1B)	1.5 pt	
		Pasada 1.6F (4A)	4.0-8.0 oz	
		Pounce 3.2 EC (3) (peaches only)	4-16 oz	
		Thionex 3EC (2A)	2/3 qt	
Stink bug	Thionex 3EC (2A)	2/3 qt		

Application and Timing	Pests Involved	Amount of Materials Needed		Comments		
		Material (Group)	Per Acre			
PRE-BLOOM OR EARLY BLOOM: (cont'd)	Brown Rot, Blossom Blight	Abound (11)	6.2-9.2 oz	DO NOT make more than two applications per season.		
		Bravo Ultrex (M4)	2.8-3.8 lb			
		Captan 50WP (M4)	4-8 lb			
		Elite 45DF (3)	4-8 oz			
		Funginex (3)	See label			
		Indar 75 WSP (3)	2 oz			
		Nova 40W (3)	6 oz			
		Orbit (3)	4 oz			
		Rovral 4F (2)	1-2 pt			
		Topsin-M 70W (1)	1.5-2.25 lb			
		Vanguard W (9)	5 oz			
Ziram 76DF (M4)	4.5-8 lb					
FULL BLOOM: 50% - 100% bloom.	Brown Rot, Blossom Blight	Same as PRE-BLOOM OR EARLY BLOOM				
PETAL FALL SPRAY: Apply when 50 to 75% of the petals have fallen. Insecticide and fungicide materials may be combined starting with Petal Fall and continuing through cover sprays (read and follow all label directions).	Plum Curculio	Asana XL ^r (3)	4.8-14.5 oz	See notes on monitoring for plum curculio at end of section.		
		Guthion 50WP ^r (1B)	1.75-2.25 lb			
		Imidan 70WP (1B)	2.125-4.25 lb			
		Pounce ^{r2} (3)	4-16 oz			
		(peaches only)				
		Warrior ^r 1EC (3)	2.56-5.12 oz			
		Tarnished plant bug	Ambush ^r 2E (3)		6.4-25.6 oz	
			(peaches only)			
			Asana XL ^r (3)		4.8-14.5 oz	
			Lannate LV ^r (1A)		3-6 pts	
			(peaches only)			
Pasada 1.6F (4A)	4.0-8.0 oz					
Phaser 50W (2A)	1 lb					
Pounce 3.2EC ^{r2} (3)	4-16 oz					
(peaches only)						
Brown Rot and Scab		Abound (11)	6.2-9.2 oz	Brown rot only Brown rot only Brown rot only Brown rot only DO NOT make more than two applications per season.		
		Bravo Ultrex (M4)	2.8-3.8 lb			
		Captan 50WP (M4)	4-8 lb			
		Elite 45DF (3)	6 oz			
		Funginex (3)	See label			
		Indar 75 WSP (3)	2 oz			
		Nova 40W (3)	6 oz			
		Orbit (3)	4 oz			
		Rovral 4F (2)	1-2 pts			
		Topsin-M 70W (1)	1.5-2.25 lb			
		Ziram 76DF (4)	4.5-8 lb			
SHUCK-SPLIT: Apply when approximately three-fourths of shucks have split and are shedding about 7-10 days after Petal Fall. (cont'd)	Plum Curculio or Oriental fruit moth** (see footnote at end of section)	Intrepid (18)	10-16 oz	Intrepid is for oriental fruit moth and other caterpillar pests only		
		Ambush 2E ^r (3)	6.4-25.6 oz			
		(peaches only)				
		Asana XL ^r (3)	4.8-14.5 oz			
		Imidan 70WP (1B)	2.125-4.25 lb			
		Pounce 3.2EC ^{r2} (3)	4-12 oz			
		(peaches only)				
		Warrior ^r 1EC(3)	2.56-5.12 oz			
		Tarnished plant bug			Ambush 2E ^r (3)	6.4-25.6 oz
					(peaches only)	
					Asana XL ^r (3)	4.8-14.5 oz
Lannate LV ^r (1A)	3-6 pt					
(peaches only)						

<i>Application and Timing</i>	<i>Pests Involved</i>	<i>Amount of Materials Needed</i>		<i>Comments</i>
		<i>Material (Group)</i>	<i>Per Acre</i>	
SHUCK-SPLIT: (cont'd)	Tarnished plant bug (cont'd)	Pasada 1.6F (4A)	4.0-8.0 oz	
	Stink bug	Pounce 3.2EC ^{r2} (3) (peaches only)	4-12 oz	
		Lannate LV ^r (1A) (peaches only)	3-6 pt	
		Phaser 50W (2A)	1 lb	
		Thionex 3EC (2A)	2/3 qt	
SHUCK-SPLIT: Apply when approximately three-fourths of shucks have split and are shedding about 7-10 days after Petal Fall.	Brown Rot and Scab	Abound (11)	6.2-9.2 oz	
		Bravo Ultrex (M4)	2.8-3.8 lb	Bravo Ultrex should not be applied after shuck.
		Captan 50WP (M4)	4-8 lb	Brown rot only
		Elite 45DF (3)	4-6 oz	Brown rot only
		Funginex (3)	See label	Brown rot only
		Indar 75 WSP (3)	2 oz	
		Nova 40W (3)	6 oz	Brown rot only
		Orbit (3)	4 oz	Brown rot only
		Topsin-M 70W (1)	1.5-2.25 lb	Brown rot only
	Ziram 76DF (M4)	4.5-8 lb		
	Bacterial Leaf and Fruit Spot	Mycoshield	See label	
SECOND AND LATER COVER SPRAYS: Apply at 10-14 day intervals.	Peach twig borer (PTB) or Oriental fruit moth** (OFM)	Ambush 2E ^r (3) (peaches only)	6.4-25.6 oz	
		Asana XL ^r (3)	4.8-14.5 oz	
		Dipel ES(11B2)	1.25-2.5 oz	
		Entrust (5)	1-4 pts	
		Imidan 70WP ^r (1B)	2.125-4.25 lb	
		Intrepid 2F (18)	8-16 oz	
		Javelin WG (11B2)	0.25-4 lb	
		Lannate LV ^r (1A) (peaches only) (OFM only)	3-6 pt	
		Lorsban 4E ^r (1B) (PTB only)	1.5 pt	
		Pounce 3.2EC ^{r2} (3) (peaches only)	4-12 oz	
	Sevin 4F (1A)	4-5 qts		
	Warrior ^r 1EC (3)	2.56-5.12 oz		
	Tarnished plant bug	Ambush 2E ^r (3) (peaches only)	6.4-25.6 oz	
		Asana XL ^r (3)	4.8-14.5 oz	
		Lannate LV ^r (1A) (peaches only)	3-6 pt	
Pasada 1.6F (4A)		4.0-8.0 oz		
Pounce 3.2EC ^{r2} (3) (peaches only)		4-12 oz		
Sevin 4F (1A)		4-5 qts		
Peachtree borer	Asana (3)	4.8-14.5 oz	See discussion at end of section.	
	Lorsban XL 4E ^r (1B)	3 qts		
	Thionex 3EC (2A)	1 qt		
	Warrior ^r 1EC (3)	2.56-5.12 oz		
Read label and follow instructions regarding maximum number of spray applications permitted near harvest.	Brown Rot and Scab	Abound (11)	6.2-9.2 oz	
		Captan 50WP (M4)	4-8 lb	Brown rot only
		Funginex (3)	See label	Brown rot only
		Indar 75 WSP (3)	2 oz	
		Nova 40W (3)	6 oz	Brown rot only
		Orbit (3)	4 oz	Brown rot only
		Topsin-M 70W (1)	1.5-2.25 lb	Brown rot only
		Ziram 76DF (M4)	4.8-8 lb	

Application and Timing	Pests Involved	Amount of Materials Needed		Comments
		Material (Group)	Per Acre	
Apply weekly.	Bacterial Leaf and Fruit Spot	Mycoshield	See label	
JUNE AND SUMMER SPRAYS	Mites	Apollo 5C (10) Acramite 50WS (25) Onager 1EC (10A) Pyramite 60WP (21) Carzol SP (1A) Vendex 50WP ^r (12B)	2-8 oz 0.75-1.0lb 12-24 oz 4.4-13.2 oz 1 lb 1-2 lb	Rates below 4oz/A are not recommended unless associated with an IPM program and when adequate beneficials are present.
PRE-HARVEST (3 weeks before harvest)	Brown rot	Indar 75 WSP (3) Nova 40W (3) Orbit (3) Topsin-M 70W (1)	2 oz 6 oz 4 oz 1.5-2.25 lb	7-10 day interval 7-14 day interval 1-2 applications 1-2 applications
HARVEST	Green June Beetles	Pasada 1.6F (4A) Sevin 4F (1A)	4.0-8.0 oz 4-5 qts	See label for additional restrictions.

¹ Do not apply during periods of high temperature or injury to foliage may occur.

² Do not apply more than 3.0 pounds active ingredient per acre per season.

** Isomate-M or Checkmate-M pheromone dispensers may be used for oriental fruit moth (OFM) control, but must be attached to trees before first adult flight. Hang in branches at 400 ties/A.

^r Restricted use pesticide.

Chemical group classifications can be found at the following Web sites: **Herbicides**-<http://www.plantprotection.org/hrac/>; **Insecticides**-<http://www.irac-online.org/>; and **Fungicides**-<http://www.frac.info/>.

GREATER PEACHTREE BORER CONTROL: Thionex 3EC, 1 qt in 100 gallons of water or Lorsban 4E, 3 qts in 100 gallons of water. Only need to spray once with Lorsban in mid-May and with Thionex applied once in late May and again post-harvest during first week of September. Spray the trunks thoroughly from the large branches to the ground line (1.5 to 2 feet). Endosulfan (Thionex) or Asana or Warrior applications in September are also effective in controlling Lesser Peachtree Borer. Do not spray the fruit or leaves with Lorsban.

Lorsban 4E may also be used as a preplant dip application for nonbearing peach trees at the equivalent application rate of 3 qts/100 gallons of water. Dip trees several inches above the grafting bud scar and plant immediately.

For detailed instructions, see Extension Fact Sheet F-7319, "Home Tree Fruit Production and Pest Management."

ORIENTAL FRUIT MOTH: The earliest indication of injury by this insect is similar to that of the peach twig borer and consists of a "dying-back" of new growth in the spring. The worms found burrowing in the twigs are pinkish or creamy-white with brown heads. One larvae/10 terminals/tree should

be considered an economic infestation. Later generations of the worm enter the fruit near the stem before the fruit ripens. The fruit may look perfect at the time of harvest, but breaks down shortly after packing.

PLUM CURCULIO: Early detection of this important pest should be conducted using pyramid or screen traps to monitor for adult weevils. The construction and utility of these traps for this purpose are outlined in OSU Extension Fact Sheet F-7190, "Monitoring Adult Weevil Populations in Pecan and Fruit Trees in Oklahoma."

BACTERIAL SPOT: The disease attacks the leaves, fruits and stems. There is a varietal difference in susceptibility.

For detailed information on using pesticides safely, see OSU Extension Fact Sheet F-7450, "Pesticides Can Be Used Safely," and OSU Extension Fact Sheet F-7457, "Toxicity of Pesticides."

POST HARVEST: Scholar Fungicide is labeled to be used for control of post harvest diseases.

Table 1. Limitations — Number of Days Before Harvest.

Days from last application to harvest.

<i>CHEMICALS*</i>	<i>PEACHES</i>	<i>NECTARINES</i>	<i>CHEMICALS*</i>	<i>PEACHES</i>	<i>NECTARINES</i>
Abound	0	0	Lannate LV (C) †	4	–
Ambush (SP) †	5	–	Lorsban (OP) †	14	14
Apollo SC	21	21	Mycoshield	21	–
Asana XL (SP) †	14	14	Nova 40W	0	0
Bravo Ultrex	N/A	N/A	Onager	28	28
Captan	0	0	Orbit	0	0
Carzol (C)	21	14	Pasada	0	0
Dipel	0	0	Pounce (SP) †	7	–
Elite 45 DF	0	0	Phaser 50W	30	30
Entrust	14	14	Pyramite 60WP	7	7
Esteem	14	14	Rovral 4F	**	**
Funginex 6.5%	0	0	Seize	14	14
Imidan 70WP (OP)	14	14	Sevin (C)	3	
Indar 75 WSP	0	0	Thionex 3EC (CH)	21-30	21-30
Intrepid 2F	7	7	Topsin-M	1	1
Intrepid	7	7	Vendex 50WP (O) †	14	14
Javelin	0	0	Warrior †	14	14
Kocide	N/A	N/A	Ziram	14	14

* See label for other limitations. Insecticide chemical classes are in parenthesis: SP = synthetic pyrethroid; OP = organophosphate; C = carbamate; CH = chlorinated hydrocarbon; and O = organotin.

** Rovral may not be applied after petal fall

N/A = These fungicides may not be applied after shuck split.

† Restricted use pesticides.

Chemical classifications can be found at the following Web sites: **Herbicides**-<http://www.plantprotection.org/hrac/>; **Insecticides**-<http://www.irac-online.org/>; and **Fungicides**-<http://www.frac.info/>.

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