

PEAR (*Pyrus communis* 'Bartlett')
 Scab; *Venturia pirina*
 Pacific Coast Pear Rust; *Gymnosporangium libocedri*

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Efficacy of fungicides for management of pear scab and Pacific Coast pear rust, 2015.

Treatments were arranged in a randomized complete block design in a block of 'Bartlett' pears planted in 1954 on a 20 x 20 ft spacing. Each treatment consisted of 4 single tree replicates. Fungicide treatments were applied using a hydraulic handgun sprayer at 100 psi at a rate of 163 gal water/A. All treatments received approximately 6 gal of a spray suspension per 4 trees. Fungicide treatments were applied on 17 Mar (tight cluster), 27 Mar (full bloom), 8 Apr (petal fall), 22 Apr (1st cover) and 2 May (2nd cover). No fertilizer or irrigation was applied to this block of trees. Trees were lightly pruned from 17 to 23 Dec 14 to thin and shorten the canopy. Omni Supreme oil (1.5 gal/A) was applied to the entire block on 17 Feb, for management of pear psylla. Makaze (1 qt/A) plus Alion (4 fl oz/A) was applied 29 Jan and Reckon (39 oz/A) was applied on 15 May for management of weeds. Pear scab infection periods were monitored using an Adcon weather station equipped with standard sensors. Using the Spotts model and the rule that wet periods start with rain and end with 8 hr drying time, a total of 6 infection periods (20, 22 and 31 Mar, 8 Apr, 11 and 31 May) were detected during the spring. The incidence of rust was determined on 16 Apr, by examining 100 blossom clusters arbitrarily selected from the lower portion of each tree. Incidence of scab and rust on the fruit was evaluated on 13 Jul by examining 100 fruit arbitrarily selected from the lower portion of each tree. The incidence of leaf scab was not determined due to low symptom development.

Spring growing conditions were considered warm and dry resulting in lower than normal disease pressure. Rust was first observed on flowers and leaves on 30 Mar and scab was first observed on fruit on 20 Apr and on leaves on 27 Apr. All fungicide treated trees had significantly fewer flower clusters or fruit with rust than nontreated trees. There were no significant differences among the various treatments with respect to rust. All fungicide treated trees had significantly fewer fruit with scab than nontreated trees. There were no significant differences among the various treatments with respect to fruit scab. No phytotoxicity was observed in trees treated with any of the various materials used.

Treatment & Rate/A	Time of application*	Rust % Flower Clusters**	% Fruit**	
			Pear Scab	Rust
Non-treated.....	none	46.8 a	52.0 a	3.8 a
Flint 50 WG at 2.5 oz plus				
Koverall 75 WG at 3 lb alternate	A, C, E			
Procure 480 SC at 12 fl oz plus				
Syllit FL at 3 pt.....	B, D.....	4.8 b	9.3 b	0.5 b
Vanguard 75 WG at 5 oz then	A			
Inspire Super 2.82 EW at 12 fl oz alternate	B, E			
Aprovia EC at 6.84 fl oz.....	C, D.....	3.0 b	11.8 b	0.0 b
Vanguard 75 WG at 5 oz then	A			
Inspire Super 2.82 EW at 12 fl oz alternate	B, E			
Aprovia EC at 6.84 fl oz plus				
Koverall 75 WG at 6 lb	C, D.....	1.8 b	14.3 b	0.0 b

* Treatments were applied on A = 17 Mar (tight cluster), B = 27 Mar (full bloom), C = 8 Apr (petal fall), D = 22 Apr (1st cover), and E = 2 May (2nd cover).

** Means followed by the same letter do not differ significantly based on Fisher's protected LSD ($P=0.05$).