

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, 2014.**

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 110 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 19 Mar (bud break), 1 Apr (white bud), 15 Apr (full bloom), 29 Apr (fruit set), 6 May (1<sup>st</sup> cover), 14 May (2<sup>nd</sup> cover) and 27 May (3<sup>rd</sup> cover). Treatment 4 was applied according to the Spotts forecasting program after bloom and used one fewer application than other treatments. No fertilizer or irrigation was applied to this block of trees. Omni Supreme oil (1 gal/100 gal water) was applied to the entire block on 24 Feb, for management of pear psylla. Makaze (2 qt/A) was applied 11 Mar and Alion (5 fl oz/A) plus Reckon (48 oz/A) were applied on 4 Apr 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 10 infection periods (25, 27 and 29 Mar, 5, 17, and 22 Apr, 3, 8 and 18 May and 25 Jun) were detected during the spring. The incidence of leaf scab and rust was determined on 13 May, by examining 500 leaves arbitrarily selected from the lower portion of each tree. Incidence of fruit scab was evaluated on 1 Jul by examining 100 fruit arbitrarily selected from the lower portion of each tree.

Spring growing conditions had normal precipitation but warmer temperatures overall which resulted in an above average number of scab infection periods. Rust was first observed on leaves on 7 Apr and scab was first observed on leaves on 21 Apr and on fruit on 5 May. 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. There were no significant differences among trees with respect to leaves with rust or scab. No phytotoxicity was observed in trees treated with any of the various materials used.

Treatment & Rate/A	Time of application*	Pear Scab % Fruit**	% Leaves**	
			Pear Scab	Rust
Nontreated.....	none .....	73.3 a	5.2	0.3
Koverall 75 WG at 3 lb plus				
Captan 80 WP at 2.5 lb.....	All except E..	33.8 b	4.1	0.4
Vanguard 75 WG at 5 oz then	A			
Koverall 75 WG at 3 lb plus				
Captan 80 WP at 2.5 lb then	B			
Aprovia (A15457) at 6.84 fl oz	C, F			
alternate				
Inspire Super 2.82 EW at 12 fl oz.....	D, G.....	39.8 b	5.3	0.2
Vanguard 75 WG at 5 oz then	A			
Koverall 75 WG at 3 lb plus				
Captan 80 WP at 2.5 lb then	B			
Aprovia (A15457) at 6.84 fl oz	C, E			
alternate				
Inspire Super 2.82 EW at 12 fl oz.....	D.....	31.3 b	2.5	0.2
Vanguard 75 WG at 5 oz then	A			
Koverall 75 WG at 3 lb plus				
Captan 80 WP at 2.5 lb then	B			
Aprovia Top (A19334) at 7.04 fl oz	C, F			
alternate				
Inspire Super 2.82 EW at 12 fl oz.....	D, G.....	31.5 b	3.5	0.1

\* Treatments were applied on A = 19 Mar (bud break), B = 1 Apr (white bud), C = 15 Apr (full bloom), D = 29 Apr (fruit set), E = 6 May (1<sup>st</sup> cover), F= 14 May (2<sup>nd</sup> cover), and G = 27 May (3<sup>rd</sup> cover). Treatment 4 was applied according to the Spotts forecasting program after bloom and used one fewer application than other treatments.

\*\* Means followed by the same letter do not differ significantly based on Fisher's protected LSD ( $P=0.05$ ). Means without letters do not differ significantly ( $P=0.05$ ).