

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, 2013.**

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 109 to 136 gal water/A depending on time of year and growth of trees. All treatments received approximately 4 to 5 gal of a spray suspension per 4 trees. Fungicide treatments were applied on 26 Mar (green cluster), 2 Apr (white bud), 9 Apr (full bloom), 23 Apr (petal fall), 7 May (1<sup>st</sup> cover) and 23 May (2<sup>nd</sup> cover). No fertilizer was applied to this block of trees. Dormant oil (Omni Supreme oil at 2 gal/100 gal water) was applied to the entire block on 14 Feb, for pear psylla control. MCPA (32 fl oz/A) was applied on 12 Feb, Makaze (generic glyphosate at 32 fl oz/A) plus Diuron (64 fl oz/A) were applied 11 Mar, and Rely (60 fl oz/A) plus Aim (2 fl oz/A) were applied on 21 Jun for weed control. Pear scab infection periods were monitored using an Adcon A730 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 2 infection periods (14 Apr and 21 May) were detected during the spring. The incidence of leaf scab and rust was determined on 8 May, by examining 500 leaves arbitrarily selected from the lower portion of each tree. Incidence of fruit scab was evaluated on 10 Jul by examining 100 fruit arbitrarily selected from the lower portion of each tree.

Spring growing conditions were unusually dry with 3 weeks of warm 80 F weather beginning at the end of April. Rust was first observed on leaves on 8 Apr and scab was first observed on leaves on 15 Apr and on fruit on 6 May. All fungicide-treated trees had significantly fewer fruit or leaves with scab than non-treated trees. There were no significant differences among the various treatments with respect to fruit or leaf scab. All fungicide-treated trees had significantly fewer leaves with rust than non-treated trees. There were no significant differences among the various treatments with respect to rust. 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
Non-treated.....	none .....	68.0 a	4.7 a	1.8 a
Koverall 75 WG at 3 lb plus Flint at 2.5 oz alternate	A, C, E			
Koverall 75 WG at 3 lb plus Procure 480 at 12 fl oz.....	B, D, F.....	19.0 b	0.0 b	0.0 b
Vanguard 75 WG at 5 oz then Koverall 75 WG at 3 lb plus Procure 480 at 12 fl oz then	A B			
A15457 at 5.5 fl oz alternate Inspire Super 2.82 EW at 13.7 fl oz.	C, E D, F.....	21.8 b	0.2 b	0.1 b
Vanguard 75 WG at 5 oz then Koverall 75 WG at 3 lb plus Procure 480 at 12 fl oz then	A B			
A15457 at 6.84 fl oz alternate Inspire Super 2.82 EW at 13.7 fl oz.	C, E D, F.....	23.5 b	0.1 b	0.1 b
Vanguard 75 WG at 5 oz then Koverall 75 WG at 3 lb plus Procure 480 at 12 fl oz then	A B			
A19334 at 7.04 fl oz alternate Inspire Super 2.82 EW at 13.7 fl oz.	C, E D, F.....	19.5 b	0.1 b	0.0 b

\* Treatments were applied on A = 26 Mar (green cluster), B = 2 Apr (white bud), C = 9 Apr (full bloom), D = 23 Apr (petal fall), E = 7 May (1<sup>st</sup> cover) and F = 23 May (2<sup>nd</sup> cover).

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