

Comparison of fungicides for control of rust on serviceberry, 2006.

Fungicide treatments were arranged in a randomized complete block design in a block of serviceberry trees planted in 2004 on 10 x 15 ft spacing. Each treatment consisted of 6 single tree replicates. Fungicides were applied using a Solo pump style backpack sprayer at a rate of 12 to 25 gal water/A depending on amount of foliage present on plants. Approximately, 0.5 to 1 gal of a spray suspension were applied per 6 bushes. Fungicide treatments were applied on 22 Mar (budbreak), 5 Apr (prebloom), 18 Apr (petal fall), and 2 May. Rely (3 qts/A) was applied on 11 May and Round-Up Ultra-Max (2 qts/A) was applied on 26 Jul for weed control. Fertilizer (16-16-16-7 at 16 lbs/A) was sprinkled around the base of each tree on 12 Apr. Trees were irrigated 3 Jun, 21 Jun and then regularly during Jul and Aug. Incidence of rust was evaluated on 15 May by examining 100 leaves and 16 May by examining 100 fruit arbitrarily selected from each tree. The incidence of rust was evaluated again on 20 Jul examining all leaves on 10 terminal shoots (average 116 leaves with a range of 56 to 163), arbitrarily selected from each tree. Shoots from nontreated trees were not examined at this time as trees were in poor shape due to winter injury and high rust pressure.

Rust was observed on a nearby planting of Incense Cedars (*Calocedrus decurrens*). Telia (orange jelly-like masses on cedar scales) were just beginning to expand on 20 Mar, many were swollen and bright orange by 27 Mar, trees were covered with active telia on 31 Mar and all telia appeared dry and past maturity by 4 Apr. Mature telia were again observed from 10 Apr to 17 Apr and again on 22 May. Rust was first observed on widely scattered leaves of serviceberry trees on 10 Apr. All fungicide treated trees had significantly less rust on leaves and fruit than nontreated trees. Leaf rust did not develop on trees treated with Banner MAXX, however, leaf rust on trees treated with Strike, Eagle, Terraguard, Heritage or Compass O were not significantly different. Rust on fruit did not develop on trees treated with Banner MAXX, Eagle, or Terraguard, however, fruit rust on trees treated with Contrast, Strike, Heritage or Compass O were not significantly different. Leaf rust was not significantly different among the various fungicide treatments on 20 Jul. We suspect this may be due to late telial development on cedar trees on 22 May, 3 weeks after the last spray application.

Treatment & Rate/100 gal water	Leaves with Rust*	Fruit with Rust *	Leaves with Rust *
	(15 May) (%)	(16 May) (%)	(20 Jul) (%)
Nontreated	58.8 a	78.5 a	---**
Bravo Weather Stik at 22.4 oz	11.2 b	11.8 b	25.7
Contrast 70 WSP at 6 oz.....	11.5 b	9.0 bc	32.0
Banner MAXX at 8 fl oz.....	0.0 c	0.0 c	41.2
Strike 50 WDG at 2 oz.....	0.8 c	2.3 c	34.8
Eagle 20 EW at 12 fl oz.....	0.8 c	0.0 c	33.0
Terraguard 50 W at 8 oz.....	0.7 c	0.0 c	37.2
Heritage at 4 oz.....	0.2 c	0.3 c	33.2
Compass O 50 WDG at 4 oz.....	0.7 c	0.7 c	34.8
Eagle 20 EW at 12 fl oz alternate			
Compass O 50 WDG at 4 oz.....	0.8 c	0.5 c	25.8

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

** Shoots from nontreated trees were not examined as trees were in poor shape due to winter injury and high rust pressure.

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