

SERVICEBERRY (*Amelanchier canadensis*)  
Pacific coast pear rust; *Gymnosporangium libocedri*

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**Comparison of fungicides for management of rust on serviceberry, 2020.**

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 six single tree replicates. Fungicides were applied using a hydraulic handgun sprayer at 110 psi such that 1.5 gal of a spray suspension was applied per six trees (73 gal/A). Treatments were applied on 6 Mar (bud swell to bud break), 19 Mar (1 inch growth), 31 Mar (flowers separating, some white showing), 14 Apr (petal fall), 28 Apr (fruit set), and 10 May (cover). Trees were pruned 19 Nov to 26 Nov 2019 to reduce height. Makaze (64 fl oz/A) was applied on 21 Feb for management of weeds. No insecticides or fertilizers were applied in this block. Trees were not irrigated through the duration of the trial. The incidence of rust on fruit was evaluated on 22 May by examining 100 fruit arbitrarily selected from each tree. The incidence of rust on leaves was also evaluated on 22 May by examining all leaves on 15 terminal shoots (average 123 leaves with a range of 98 to 147), arbitrarily selected from each tree.

After half the normal rainfall during the dormant season, spring weather conditions were considered normal to wet. Rust was observed on a nearby planting of Incense Cedars (*Calocedrus decurrens*) which is the primary source of inoculum for the serviceberry block.. Telia (orange jelly-like masses on cedar scales) were just beginning to expand on 2 Mar, had swollen and dried by 9 Mar, were observed throughout April and up to 4 May after which no more were found. Rust was first observed on widely scattered leaves, petals and sepals of serviceberry trees on 13 Apr. Trees treated with Terraguard had a problem with phytotoxicity after the third application, which was easily seen on 7 Apr as wilted necrotic flower trusses and shoots. Even at half the rate (4 fl oz/100 gal), when Terraguard was applied once in late Apr, trees showed extensive foliar and flower burn within 1 week. No phytotoxicity was observed in trees treated with Cevya (BAS 75007) or Elatus. The highest amount of rust on fruit or leaves was found on non-treated trees and was significantly higher than the rust found on fungicide treated trees. There were no significant differences in the amount of rust found on fruit or leaves among the fungicide treatments evaluated.

Treatment & rate/100 gal water	Fruit with rust* (%)	Leaves with rust* (%)
Non-treated .....	55.4 a	39.7 a
Cevya (BAS 75007) at 6 fl oz...	0.0 b	0.2 b
Cevya (BAS 75007) at 8 fl oz...	0.1 b	0.7 b
Elatus (Mural) WG at 7 oz.....	4.8 b	0.5 b
Terraguard** SC at 8 fl oz.....	---	---

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

\*\* Terraguard treated trees were not rated due to phytotoxicity.