

ROSE (*Rosa* sp. 'Pink Simplicity')
 Rust; *Phragmidium* sp.
 Black Spot; *Diplocarpon rosae*
 Powdery Mildew; *Sphaerotheca pannosa* var. *rosae*

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EFFECT OF FUNGICIDES ON ROSE DISEASES, 2002: Fungicide treatments were arranged in a randomized complete block design in a block of 'Pink Simplicity' roses on 'Dr. Huey' rootstock planted in 1999 on 6 x 6 ft spacing. Each treatment consisted of 5 single bush replicates. Fungicide treatments were applied using a pump-style backpack sprayer at a rate of 86 gal water/A. Approximately 0.5 gal of a spray suspension were applied per 5 bushes. Treatments were applied on 5 Apr (past buds break and into early shoot growth), 18 Apr, and 2 May. Additional applications were not made due to low disease pressure. Small caliper canes were removed while large caliper canes were pruned to 2 buds on 5 Mar. These prunings were mowed down and blown out of the plot on 11 Mar, along with past leaf debris, for eventual burning. Weeds were controlled using Roundup Ultra Max (3 qt/A) applied on 4 Dec 01, Casoron 4 G (150 lb/A) broadcast on 1 Feb 02, and Glyphos (2.56 fl oz/gal water) applied on 3 May 02. Plots were fertilized with a 16-16-16 fertilizer at 2.3 oz/bush on 22 Mar. Insecticides were applied to the entire block on 23 Apr (Marathon G 1% at 2 Tbsp/bush) and 3 May (Diazinon Plus at 1.33 oz/gal) for selective management of aphids. A rose plant heavily infected with powdery mildew was moved into the trial area on 3 May to encourage disease development. Phytotoxicity due to interactions between pesticides in another trial was evaluated on 17 May by rating each bush on a 0 to 10 scale where 0 = healthy plants and 10 = all leaves necrotic. The incidence of a leaf spot suspected to be rust was determined on 7 Jul by examining all leaves from 10 vegetative shoots (average of 65 leaves) randomly selected from each bush.

Spring and summer weather conditions in Western Oregon were considered dry with below normal rainfall. Disease pressure was considered very low. Rust was observed on 22 May but only as very small spots on only a few widely scattered plants. There were no significant differences in rust control between the various treatments. Black spot was observed on 13 Jun also on only a few plants. Black spot was observed on 2 out of 5 plants of the nontreated bushes on 19 Jun but on only 1 out of 5 plants treated with either Terraguard or Funginex. Rust, black spot and powdery mildew were not observed as significant diseases until very late in the growing season during Oct. It is suspected that the pruning, destruction of infected plant debris, weed control and lack of wet weather all combined to result in very little disease. There were no significant differences in phytotoxicity between the various treatments.

Treatment & Rate	Leaves with Rust spots* (%)	Phytotoxicity* (1-10 rating scale)**
Nontreated	27.7	1.0
Terraguard 50 W 8 oz/100 gal water	18.2	0.9
Rose Pride Funginex 0.5 fl oz/gal water...	30.0	0.7

* Means did not differ significantly based on Fisher's protected LSD (P=0.05).

** 0 to 10 scale where 0 = healthy plants and 10 = all leaves necrotic.