

ROSE (*Rosa* sp. 'Pink Simplicity')
 Rust; *Phragmidium* sp.
 Black Spot; *Diplocarpon rosae*

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Effect of plastic tents and fungicides on rose diseases, 2004.

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 4 single bush replicates, except plastic shelters, which covered 2 plants in each replicate. Fungicide treatments were applied using a pump-style backpack sprayer at a rate of 76 to 113 gal water/A. Approximately 0.25 to 0.375 gal of a spray suspension were applied per 4 bushes depending on plant growth. Treatments were applied on 19 Mar (bud break and early shoot growth), 2 Apr, 16 Apr, and 30 Apr. Open ended, Quonset style plastic shelters were built around plants during early Mar, however, the plastic was not installed until 19 Mar. Plastic shelters were removed on 16 Jun. Small caliper canes were removed while large caliper canes were pruned back to a few buds on 11 to 13 Mar. These prunings were raked out on 15 Mar for eventual burning. Weeds were controlled using Rely (6 qt/A) tank mixed with Surflan AS (4 qt/A) applied on 8 Mar. Plots were not fertilized this year. The total leaf area affected by blackspot and rust was determined on 20 Jul by visually examining the whole canopy and assigning a % value.

The spring season was characterized as extremely dry with below average rainfall. Rust was observed on 5 Apr as small spots on a few widely scattered, well leafed out plants. By 5 Jun, both rust and blackspot were increasing quickly. A minor amount of powdery mildew was observed at the time of rating. All treatments resulted in bushes with significantly less blackspot than nontreated bushes, except those treated with Safer Garden Fungicide. No blackspot was observed on bushes treated with the Daconil/Immunox alternation. Levels of blackspot found on bushes treated with Funginex, Daconil alone, or Immunox alone were not significantly different from levels found on bushes treated with the Daconil/Immunox alternation. Bushes covered with plastic tents had levels of blackspot not significantly different from bushes treated with these same fungicides. However, bushes covered with plastic had one of the highest leaf areas with rust. Only bushes treated with Immunox (alone or in rotation) had leaf area with rust significantly lower than nontreated bushes.

Treatment & Rate/gal	Leaf area with Blackspot* (%)	Leaf area with Rust* (%)
Nontreated	25.0 a	57.5 a
Plastic Shelters.....	0.5 b	70.0 a
Rose Pride Funginex 0.5 fl oz	2.3 b	58.8 a
Ortho Daconil 2787 Multi Purpose		
Fungicide 0.3 fl oz	1.8 b	70.0 a
Immunox 1 fl oz	0.8 b	29.5 b
Safer Garden Fungicide 1.5 fl oz	22.5 a	57.5 a
Ortho Daconil 2787 Multi Purpose		
Fungicide 0.3 fl oz alternate		
Immunox 1 fl oz	0.0 b	35.0 b

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