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, 2003.

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 7 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 86 to 173 gal water/A. Approximately 0.5 to 1.0 gal of a spray suspension were applied per 7 bushes. Treatments were applied on 17 Mar (bud break and early shoot growth), 5 Apr, 19 Apr, and 2 May. Open ended, Quonset style plastic shelters were built around plants during early Mar, however, the plastic was not installed until 17 Mar. Plastic shelters were removed on 27 May. Small caliper canes were removed while large caliper canes were pruned back on 7 to 8 Jan. These prunings were raked out on 14 Mar for eventual burning. Weeds were controlled using Surflan AS (4 qt/A) tank mixed with Glyfos X-TRA (96 oz/A) applied on 17 Mar. Some herbicide injury was observed on lower leaves beginning 18 Apr. Plots were fertilized with a 16-16-16 fertilizer at 2.2 oz/bush on 17 Mar. The incidence of blackspot and rust was determined on 20-22 May by examining all leaves from 10 vegetative shoots (average of 84 leaves) randomly selected from each bush.

March and April had above normal rainfall. Rust was observed on 24 March as small spots on a few widely scattered, well leafed out plants. Blackspot was observed starting on 7 April. Powdery mildew was not observed on bushes this year. All treatments resulted in bushes with significantly less blackspot than nontreated bushes. 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 the highest incidence of rust. Rust incidence on plastic covered bushes was significantly higher than the incidence on bushes not covered and not treated with fungicide. Only bushes treated with Immunox (alone or in rotation) or Funginex had incidence of rust significantly lower than nontreated bushes.

Treatment & Rate/gal	Leaves with Blackspot* (%)	Leaves with Rust spots* (%)
Nontreated ……	36.1 a	56.8 b
Plastic Shelters……..….	1.1 d	73.1 a
Rose Pride Funginex 0.5 fl oz ……..	0.3 d	14.0 c
Safer Garden Fungicide 1.5 fl oz …….	11.6 b	57.6 b
Halt at 2.5 Teaspoons (7.5 grams) …..	13.5 bc	55.6 b
Terraguard 50 W 8 oz/100 gal water …	8.2 bc	46.8 b
Ortho Daconil 2787 Multi Purpose Fungicide 0.3 fl oz ……..	4.2 cd	52.6 b
Immunox 1 fl oz ……...	0.5 d	0.2 d
Ortho Daconil 2787 Multi Purpose Fungicide 0.3 fl oz alternate Immunox 1 fl oz ……..	0.0 d	0.7 d

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