

# ROSE POWDERY MILDEW CONTROL in Outdoor Roses

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TABLE 1. COMPARISON OF FUNGICIDES FOR THE CONTROL OF ROSE POWDERY MILDEW, ROSE HILLS, WHITTIER, FALL, 1974

Treatment	Disease Rating Nov. 19
El 22 12.5%, 50 ppm	1.1a*
Plondrel 50W, 8 oz.	1.5 ab
ICI PP 588, 200ppm	2.1 bc
Bay 6447 25W, 8 oz.	2.2c
Check or no treatment	2.7 c

\*Significant 5% level. Treatments with same letter are not significantly different from each other.

TABLE 2. COMPARISON OF SEVERAL FUNGICIDES FOR CONTROL OF ROSE POWDERY MILDEW, HEMET, SPRING, 1975

Treatment	Disease Rating
El 222 12.5%, 60ppm	0.7a*
El 222 12.5%, 40ppm	0.7 a
Triforine (Merk) 20%, 12 oz.	1.6 b
Dodemorph 2 pt.	1.9 b
Triforine (Chevron) 6.5%, 37.5 oz.	1.9 b
Benlate 50W, 8 oz. + 4 oz. X77	2.3 c
ICI PP 588 25%, 7 oz.	3.1 d
Check or no treatment	4.0 e

\*Significant 5% level. Treatments with different levels are significantly different from each other.

**P**owdery mildew of rose, caused by the fungus, *Sphaerotheca pannosa*, results in unsightly leaves and flowers, and may result in reduced growth. Several new fungicides were evaluated for the control of powdery mildew in southern California rose gardens, and are reported here.

## Fall trial—1974

Rose plants for the test were used through the courtesy of Rose Hills, Whittier. The varieties Pink Lafayette and Ole were used for two replicates each in the trial while Summer Sunshine was used for the other replicate. Powdery mildew was present in a light infestation before application of the first spray.

Fungicide treatments with rates of materials per 100 gallons of water were: Eli Lilly 222 12.5 percent, 50ppm; ICI PP 588, 200ppm; Plondrel 50W 8 oz.; Bay 6447 25W 8 oz.; and the check, or no treatment. Sprays were applied to runoff with a 2 gallon CO<sub>2</sub> pressurized Hudson

sprayer at 30psi. Applications were made on October 16 and 30, and November 13, 1974. Disease symptoms were rated on a scale of 0 to 4 on November 19—a 0 rating indicating no disease symptoms, a 4 rating indicating mildew completely covering both sides of the leaves and numerous mildew colonies on petiole and stem. Results of this trial are shown in table 1.

El 222 and Plondrel provided good control of powdery mildew of rose at Rose Hills and merit further consideration.

## Spring trial—1975

The spring trial was established on rose understock plants at the Howard Rose Company, Hemet. Again a light infestation of powdery mildew was present in the plot before application of fungicides. Twenty rose plants were used for each of four replications. Treatments and rates per 100 gallons of water were: El 222 12.5 percent at 40 and 60ppm; ICI PP 588 25 percent, 7 oz.; Trifor-

ine (Chevron) 6.5 percent, 37.5 oz.; Triforine (Merk) 20 percent, 12 oz.; Benlate 50W, 8 oz. + 4 oz. X77 spreader sticker; Dodemorph 2 pts.; and the check, or no treatment. Sprays were applied as before (on May 21 and 30, 1975).

Disease was rated on a scale of 0 to 4 with a 4 rating indicating leaves completely covered with powdery mildew. Results of this trial are shown in table 2.

El 222 at either 40 or 60 ppm provided good control of rose powdery mildew. Triforine, either Merk or Chevron formulation, and Dodemorph gave intermediate control. Benlate does not seem to provide the control adequate for most home owners or nurserymen.

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