FIELD DAY REPORT - 1996

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FUNGICIDE TESTS FOR BLACK SPOT CONTROL ON ROSES - 1994

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Background. A new block of 'Peace' rose plants was planted on 3 March and spray applications were initiated on 5 May 1994. Treatments are listed in Table 1. Drip irrigation was used to supplement rainfall and balanced fertilizer and herbicides were applied as needed. All plots were sprayed with a backpack sprayer that was pressurized to approximately 50 lbs psi. Disease ratings were taken in May, July, September, and November. A defoliation rating of 1-10 (0-100%) was assigned to indicate loss of foliage due to black spot infection. A disease rating of 1-10 corresponding with 1 = no black spot and 10 = all leaves infected and heavy defoliation was also taken. The amount of the canopy infected included the portion lost due to defoliation from the disease.

Research Findings. Black spot developed early and was present when spraying was started. Disease pressure was heavy during the entire season. Daconil applied every 7 days gave excellent black spot control and was significantly better than any other treatment, but did not perform well on 14-day intervals (Table 1). Triforine and Dithane, alone or in combination, Sentinel, RH 7592, Eagle, and RH 0611 did not give adequate control at the rates tested. Phytotoxicity was not a factor in fungicide performance.

Application. Some fungicides such as Sentinel did not perform as well as the same treatments used in earlier tests. The poor performance this year is likely due to disease pressure. However, Sentinel, a wettable granule, may give better control if a surfactant is added to the spray mix. Minor, but noticeable plant growth regulator effects (dark green foliage, smaller leaflets) were apparent at the end of the season on several Sentinel plots at the higher rates indicating absorption by the plants of the active ingredient. Comparison of the formulation, with and without surfactant, is suggested.

A more detailed report is available from the authors.

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Table 1. Average rose defoliation and black spot disease ratings for 'Peace' plants treated with fungicides.

Treatment	Rate per 100 gallons	Surfactant[z]	Interval	31 May		14 Sept		16 Nov	
				Def[y]	Dis	Def	Dis	Def	Dis
RH 7592 (2F)	2 oz	+	14	3.2	5.6	3.4	5.9	6.2	7.5
RH 7592 (2F)	4 oz	+	14	1.2	3.9	3.1	5.7	5.6	7.2
Eagle 40 W	4 oz	+	14	3.6	6.5	7.4	8.6	5.7	7.2
RH 0611 WP	32 oz	+	14	2.9	6.0	6.5	8.2	8.9	9.2
Daconil 2787 F	1 1/2 pt	-	7	4.7	6.1	1.1	1.5	1.0	1.7
Daconil 2787 F	1 1/2 pt	-	14	6.5	8.0	3.2	5.9	7.1	8.7
Daconil 825 SDG	1.26 lbs	-	7	4.1	6.1	1.0	1.4	1.0	1.4
Daconil 825 SDG	1.36 lbs	-	14	5.5	7.4	2.9	5.6	4.6	7.5
Triforine EC	18 oz	-	7	4.2	7.0	5.7	7.7	7.5	8.6
Triforine EC +	9 oz	-	7	3.1	5.6	4.9	6.2	6.7	8.1
Dithane F45	0.6 qts								
Dithane F45	1.2 qts	+	7	6.9	8.2	5.2	6.7	5.5	8.0
Untreated Control				6.4	8.5	8.4	9.0	9.5	9.7
Triforine EC +	18 oz	-	7	3.6	5.6	2.9	5.2	4.9	5.9
Dithane F45	12 qts								
Sentinel 40 WG	0.88 oz	-	14	3.7	5.5	3.2	5.9	6.9	7.4
Sentinel 40 WG	1.32 oz	-	14	1.5	2.6	4.6	6.5	6.5	7.6
Sentinel 40 WG	1.76 oz	-	14	3.0	4.0	3.1	4.4	5.0	5.4
Sentinel 40 WG	1.76 oz	-	21	2.1	3.5	5.9	7.5	6.0	6.7
Sentinel 40 WG	2.64 oz	-	21	1.1	1.9	5.2	7.4	5.4	6.0
Sentinel 40 WG	3.52 oz	-	21	1.4	3.0	4.2	6.6	5.2	5.5
Untreated Control				7.9	9.0	8.6	9.2	9.6	9.6

Def = Defoliation rating based on a scale of 1-10, 1 = 0-10% defoliation, 10 = 91-100% defoliation.
[y]Dis = Black spot disease rating based on a scale of 1-0, 1 = no blackspot, 10 = all leaves infected and heavy defoliation.