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FUNGICIDE TESTS FOR BLACK SPOT CONTROL ON ROSES - 1995

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Background. 'Peace' rose plants planted in February 1995 were used to evaluate fungicides for control of black spot (*Diplocarpon rosae* Wolf.). All plants were sprayed with a contact fungicide to protect against disease during the spring establishment period. Test fungicide treatments were initiated on 23 June 1995. Plants were sprayed on 7, 14, 21, or 28 day intervals. Plants were rated for disease development in July, September, and November 1995.

Research Findings. Sentinel 40 WG, a wettable granular formulation of cyproconazole, gave significantly better black spot control when a surfactant, Latron B-1956, was added to the spray solution (Table 1). Differences between treatments with and without surfactant were greater at lower rates than at higher rates of Sentinel. ConSyst controlled black spot on 7-day interval, but not when applied every 14 days. Disease control was no better than the standard Dithane treatment. Neemgard was not effective on the 14-day schedule tested. Tank mixing with chlorothalonil or thiophanate methyl did not significantly improve control. Neither Nova nor RH0611 was effective for black spot control.

Application. Based on current and prior year's data, the most economical rates for Sentinel 40 WG are either 1.76 oz/100 gal applied every 14 days or 3.52 oz/100 gal on a 21-day interval. These rates resulted in control equal to or better than other treatments that were applied on a 7-day spray interval. A more detailed report is available from the authors.

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Table 1. Average rose black spot disease, defoliation and control ratings for the variety 'Peace' treated with fungicides, Overton, TX, 1995*.

<u>Treatments</u>	<u>Rate/ 100 gal</u>	<u>Interval Days</u>	<u>NIS**</u>	<u>1 Sept</u>		<u>10 Nov</u>		<u>Control</u>
				<u>Dis</u>	<u>Def</u>	<u>Dis</u>	<u>Def</u>	
1. Sentinel 40 WG	1.76 oz	21	-	2.2	1.6	7.9	7.2	3
2. Sentinel 40 WG	3.52 oz	21	-	1.4	1.0	6.4	4.9	2.5
3. Sentinel 40 WG	7.04 oz	21	-	1.2	1.0	2.1	1.7	1.25
4. Sentinel 40 WG	1.76 oz	21	+	1.4	1.0	4.7	3.0	2.0
5. Sentinel 40 WG	3.52 oz	21	+	1.2	1.0	2.6	2.0	1.4
6. Sentinel 40 WG	7.04 oz	21	+	1.0	1.0	1.0	1.0	1.0
7. Daconil 2787 F	1.5 pts	7	-	1.0	1.0	1.2	1.1	1.0
8. Dithane T/O	1.5 lbs	7	+	1.5	1.0	5.4	2.9	2.0
9. ConSyst WDG	1 lb	7	-	1.1	1.0	5.4	1.5	1.63
10. ConSyst WDG	1.5 lb	14	-	3.1	1.5	5.7	3.7	2.25
11. Systane	4 oz	14	-	5.0	3.2	8.1	7.9	3.0
12. RH 0611	20 oz	14	+	3.4	2.1	8.1	7.6	3.0
13. NeemGard	1 gal	14	-	6.5	5.0	8.5	8.5	3.0
14. NeemGard + Daconil 2787 F	0.5 gal + 0.75 pt	14	-	3.7	2.2	7.7	7.1	3.0
15. NeemGard + Domain FL	0.5 gal + 20 oz	14	-	1.9	1.1	5.9	3.1	2.25
16. Check	-	-	-	8.0	7.6	9.1	8.2	3.0
17. Cyproconazole 100 SL	6.75 oz	21	-	2.7	1.3	6.2	5.8	2.67
18. Cyproconazole 100 SL	13.5 oz	21	-	1.0	1.0	1.5	1.8	1.0
19. Cyproconazole 100 SL	27 oz	21	-	1.0	1.0	1.0	1.0	1.0
20. Sentinel 40 WG	1.76 oz	14	-	1.67	1.0	7.3	5.7	2.67
21. Sentinel 40 WG	1.76 oz	14	+	1.0	1.0	1.8	1.5	1.0
22. Cyproconazole 100 SL	6.75 oz	14	-	1.0	1.0	2.8	2.2	1.67
23. Sentinel 40 WG	7.04 oz	28	+	1.0	1.0	1.2	1.2	1.0
24. Sentinel 40 WG	14.08 oz	28	+	1.0	1.0	1.0	1.0	1.0

*Black spot (Dis) based on a scale of 1-10, 1 = no black spot, 10 = all leaves infected and heavy defoliation. Defoliation based on a scale of 1-10, 1 = 0-10% defoliation, 10 = 91-100% defoliation. Control rated from 1-3, 1 = excellent, 2 = acceptable, 3 = unacceptable.

**NIS = nonionic surfactant