Septoria Leaf Scorch of Azalea

disease especially severe in cloudy, damp weather controlled by spray treatment in tests on experimental plot in Eureka

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The fungus—*Septoria azaleae*—attacks only the leaves of azaleas and causes a disease that appears as irregular, angular, brown lesions.

In late stages of the disease—Septoria leaf scorch—the lesions are frequently surrounded by zones of yellow tissues. Usually the lower leaves are affected first, but occasionally lesions will be scattered through the foliage. Infected leaves tend to fall off and plants with severe infections may show only bare stems and branches except for a few whorls of new leaves at the top. Plant growth is slowed depending upon the amount of leaf drop.

Spray Trials

Because of the seriousness of the disease, especially during the winter months, control spray plots were established in Eureka. Preliminary spray trials were started following a pinch in June. The plants were sprayed five times at 10-day intervals. The spray materials—Zerlate, Captan, Karathane, Phygon XL, Fermate, Omazene, Dithane Z-78, Manzate, Dithane D-14, Vancide 51, Puratized Agricultural Spray and ammoniacal copper—were used at concentrations specified by the manufacturers. Because severe burning resulted from the Puratized Agricultural Spray the material was dropped from the tests.

At the end of the spray series, the treatments were graded and the fungicides showing most promise were used in a further test in which plants were given five sprays at 10-day intervals following a pinch in the fall and five sprays at 10-day intervals following a pinch about the first of February. No unsprayed checks were left, but plants sprayed with an ammoniacal copper spray during the regular nursery spraying were used as checks. In addition to plants which received test spray treatments both fall and spring, some were given only the regular copper spray in the fall but were sprayed with the various fungicides starting with the February and March spray series. Varieties used included Cottage Ruffles and Hartlieb.

Azalea leaf scorch symptoms
Photo by Mrs. Margery P. Mann, Plant Pathology, University of California, Davis.

In June following the treatments, 10 plants of each treatment were examined and the number of leaves having lesions were counted.

All treatments were considerably better than the check plants receiving only ammoniacal copper. Slight injury resulted in leaves of both varieties from the Vancide 51 but no injuries were noticed with the other materials. In addition to this, 10 plants from each treatment were graded according to size in September.

All fungicides tested gave better plants than the copper sprays which were used as checks. Few differences occur between the various fungicides or between the plants given a fall copper spray and a spring spray of the test fungicides.

Control Indicated

Results of the experiments indicate that Septoria leaf scorch can be controlled by a combination of fall and spring sprays following pinches. Dithane Z-78 and Zerlate gave the least number of infected leaves when used at concentrations specified by the manufacturer.

In recent tests, Dyrene gave excellent control of the disease on azaleas but injury on some varieties was reported. Additional tests are being continued.

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Septoria Leaf Scorch Control Tests

Fungicides used in trials	Number of infected leaves per 10 plants treated as follows: Feb. spray series + fall spray of ammoniacal copper	Spray series in fall + series in Feb. and March
Vancide 51	50	21
Captan	41	25
Dithane D-14	28	22
Dithane Z-78	11	5
Zerlate	16	7
Manzate	22	10
Ammoniacal copper (check)	150	

Azalea Plant Sizes as Graded After Treatments

Treatment: Fall	Spring	Number of plants in each of the following grades: 4 x 4	4 x 6	6 x 6	6 x 8	8 x 8	8 x 10	10 x 10
Ammoniacal copper	Vancide			1	5	3	1	
Vancide	Vancide			1	3	2	3	1
Ammoniacal copper	Captan				7	3		
Captan	Captan			3	1	5	1	
Ammoniacal copper	Dithane D-14			2	4	3	1	
Dithane D-14	Dithane D-14				4	5	1	
Ammoniacal copper	Dithane Z-78			1	3	4	2	
Dithane Z-78	Dithane Z-78			2	4	3	1	
Ammoniacal copper	Zerlate			2	3	5		
Zerlate	Zerlate			2	3	2	3	
Ammoniacal copper	Manzate				2	4	3	1
Manzate	Manzate				1	5	4	
Ammoniacal copper	Ammoniacal copper	1	3	5	1			
Ammoniacal copper	Ammoniacal copper		4	5	1			