



Title: Effect of fungicides on Alternaria leaf spot on Impatiens

Host: *Impatiens x Wallerana* 'Dazzler Rose'

Pathogen: *Alternaria alternata*.

Inoculation: Plants were artificially infected with spores of *Alternaria* sp. adjusted to about 1000 spores/ ml, and sprayed to the point of drip on 9 June and again 28 June. The plants were then bagged for 1 day and maintained under intermittent mist (1 minute 30 minutes for 12 hours per day). Cultures were about 14 days old and grown on potato dextrose agar medium.

| Treatments: | Rate/ 100 gal |
|------------------------|---------------|
| A. Noninoculated | ----- |
| B. Inoculated | ----- |
| C. Daconil Ultrex | 22.4 oz |
| D. Daconil Weatherstik | 22 oz |
| E. Pathguard 6F | 22 oz |
| F. Pathguard 90DF | 20 oz |
| G. Phyton 27 | 15 oz |
| H. Medallion | 1 oz |
| I. Fludioxinil TR | 16 g |
| J. Compass 50WDG | 1 oz |
| K. Heritage 50WDG | 1 oz |
| L. Terraguard | 4 oz |

Chemical application dates: Products were applied as foliar sprays to drip on the following dates: 2, 12, 22 and 30 June 2000. The gas treatment was applied in a separate structure on the same evening and moved back into the test site the next morning.

| Treatments | Rate/100 gal | Phytotoxicity (110 F) 6/15/00 | Phytotoxicity 6/23/00 | Top Grade 7/6/00 | No. Lesions/Plant 7/6/00 |
|---------------------|--------------|-------------------------------|-----------------------|------------------|--------------------------|
| Noninoculated | ----- | 1.0 a | 1.0 a | 4.6 c | 0.2 a |
| Inoculated | ----- | 1.0 a | 1.0 a | 4.4 bc | 17.1 c |
| Daconil Ultrex | 22.4 oz | 3.2 b | X | X | X |
| Daconil Weatherstik | 22 oz | 4.8 d | X | X | X |

| | | | | | |
|-------------------|-------|-------|-------|--------|-------|
| Pathguard 6F | 22 oz | 4.6 e | X | X | X |
| Pathguard 90DF | 20 oz | 4.4 c | X | X | X |
| Phyton 27 | 15 oz | 1.0 a | 1.0 a | 4.4 bc | 8.5 b |
| Medallion | 1 oz | 1.0 a | 1.0 a | 4.3 bc | 0.5 a |
| Fludioxinil Gas | 16 g | 1.0 a | 1.2 a | 4.0 bc | 0.2 a |
| Compass 50WDG | 1 oz | 1.0 a | 2.2 d | 3.0 a | 2.3 a |
| Heritage 50WDG | 1 oz | 1.0 a | 1.5 b | 3.9 d | 2.0 a |
| Terraguard | 4 oz | 1.0 a | 1.8 c | 2.8 a | 0.2 a |

Phytotoxicity as a result of extreme heat in the greenhouse (greater than 110F) was rated using the following scale: 1 - no damage, 2 - slight damage, 3 - moderate damage, 4 - severe damage, to 5 - dead. The damage to all of the chlorothalonil treatments was severe and we discarded the plants at this time.

Top grade was rated using the following scale: 1 - dead, 2 - poor, unsalable, 3 - moderate, salable, 4 - good, salable, and 5 - excellent, salable.