

EVALUATION OF FUNGICIDES FOR PHYTOPHTHORA FRUIT ROT AND TIP BLIGHT OF SUMMER SQUASH, 1998: An experiment was conducted at the Long Island Horticultural Research Laboratory in Riverhead, NY, in a field (Haven loam soil) where the pumpkin crop had been damaged by fruit rot caused by *P. capsici* the previous year. Fertilizer (1000 lb/A of 10-10-10) was broadcast and incorporated on 23 Jun. Three-wk old seedlings were transplanted 8 Jul at 18-in. plant spacing and hand-watered. There were 6 treatments and 6 reps for 36 plots total in a randomized complete block design. Cucumber beetles were managed by applying Asana XL (9.6 oz/A) on 30 Jul, 12 Aug and 21 Aug. Powdery mildew was controlled by applying Bravo Weatherstik (2-4 pt/A) and Nova 40W (2.5-4 oz/A) on 12 Aug, 21 Aug, and 11 Sep. The field was irrigated (approx. 1.0 in.) on 15 Jul, 16 Jul, 22 Jul, 4 Aug, 11 Aug, 25 Aug, 31 Aug, 1 Sep, and 16 Sep to provide favorable conditions for *Phytophthora*. Average monthly high and low temperatures (F) were 85/66 in Jul, 86/66 in Aug, and 79/61 in Sep. Rainfall (in.) was 3.16, 2.28, and 3.03 for these months, respectively. Treatments were applied starting on 1 Aug. Acrobat MZ (2.25 lb/A), Aliette 80 WP (5 lb/A), Ridomil Gold 4EC (1 qt/A) and Dimethomorph 50 WP (6.4 oz/A) plus Kocide 2000 (2 lb/A) were applied to foliage weekly on 1, 7, 15, 21 and 27 Aug and 5, 11, 19 and 25 Sep using a tractor-mounted boom sprayer equipped with D3-45 hollow cone nozzles spaced 11 in. apart that delivered 100 gpa at 250 psi. A final treatment used Acrobat MZ (2.25 lb/A) alternating weekly between foliar sprays applied as described above and soil drenches applied using a CO₂-pressurized backpack sprayer and hand-held boom equipped with one 110 twin jet nozzle that delivered 550 gpa at 50 psi. On 28 Sep, the plants with fruit rot or vine tip blight were counted.

No significant differences among treatments were observed.

| Treatment and Rate/A | Disease Incidence | |
|---|---|--|
| | Fruit Rot (% diseased fruit/total fruit per plot) | Tip Blight (% diseased plants/total plants per plot) |
| Acrobat MZ (to foliage) | 22.3 | 23.4 |
| Acrobat MZ (alternating foliar spray and soil drench) | 16.7 | 12.0 |
| Aliette 80WG | 26.1 | 26.6 |
| Dimethomorph 50WP +Kocide 2000 | 17.2 | 23.2 |
| Ridomil Gold EC | 32.1 | 26.6 |
| Control (no treatment)..... | 33.3 | 38.0 |
| P-value | 0.87 | 0.81 |