

EVALUATION OF FUNGICIDES FOR PHYTOPHTHORA FRUIT ROT AND TIP BLIGHT OF SUMMER SQUASH, 1999: An experiment was conducted at the Long Island Horticultural Research & Extension Center in Riverhead, NY, in a field (Haven loam soil) where *Phytophthora* occurred in 1991-1993 and 1995-1998. Fertilizer (1000 lb/A of 10-10-10) was broadcast and incorporated on 12 Jul. On 16 Jul, 17-day old seedlings were transplanted at 24-in. plant spacing and hand-watered. There were 8 treatments and 6 reps in a randomized complete block design. Annual ryegrass was planted between plots on 4 Aug as a buffer to reduce plot-to-plot spread of disease. Cucumber beetles were managed by applying Sevin XLR (1 qt/A) on 25 Jul. Average monthly high and low temperatures (F) were 83/62 in Jun, 89/69 in Jul, 83/66 in Aug, and 77/61 in Sep. Rainfall (in) was 0.8, 3.7, 8.2, and 5.3 for these months, respectively, with heavy rain events on 22 Jul (3.1 in), 11 Aug (1.7 in), 26 Aug (3.6 in), 27 Aug (1.1 in), 10 Sep (1.5 in) and 16 Sep (3.1 in; Hurricane Floyd). Treatments were applied to foliage weekly on 27 Jul and 5, 16, 23 and 30 Aug using a tractor-mounted boom sprayer equipped with D3-45 hollow cone nozzles spaced 11 in apart that delivered 100 gpa at 250 psi. On 25 Aug, the infected fruit out of total fruit per plant were counted and the number of plants with vine tip blight per plot were counted. Data were log-transformed and analyzed by analysis of variance, with treatment as the main factor.

Wet weather led to strong but erratic disease pressure. Although some plots had no disease when ratings were made, all fruit eventually became infected. There was no significant control detected for any fungicide tested.

Treatment and Rate/A	Disease Incidence	
	Fruit Rot (% diseased fruit/total fruit per plot)	Tip Blight (% diseased plants/total plants per plot)
Acrobat MZ (2.25 lb) .....	1.3	13.5
Acrobat 50WP (0.4 lb ) + Kocide 2000 (2 lb) .....	2.3	1.7
Aliette 80WG (5 lb) .....	7.0	22.8
Dithane Rainshield (3 lb) + Latron B-1956.....	6.5	16.7
Kocide 2000 (2 lb).....	17.4	20.7
RH-141457 75DF (2.25 lb) + Latron B-1956 .....	14.4	22.0
RH-7281 80W (0.25 lb) + Latron B-1956.....	11.8	30.9
Control (no treatment).....	13.0	16.7
P-value	0.42	0.25