

**Evaluation of fungicides for control of botrytis fruit rot on strawberry, 2001.**

Trials were performed in an established 3 year old planting on one of the Station research farms in Seneca Castle, NY. Plants were grown in a matted-row system, with fruiting rows approximately 1.5 ft wide on 4 ft centers. Individual plots consisted of 12 ft sections of row with 3 ft buffer zones on either end of the row and between treatments within the row. Treatments were replicated 4 times in a complete randomized block design. Fungicides were applied with a 2 gal hand sprayer (approx. 30 PSI) during bloom on 18, 23, and 31 May 2001, respectively. To ensure uniform disease pressure, berry halves inoculated with 3 different strains of *B. cinerea* were placed evenly throughout each plot, approx 6 berry halves per plot, after treatments were dry on each day applications were made. Fruit were harvested on 21, 25 and 28 Jun 01. The number and weight of berries with and without symptoms were recorded the same day they were harvested. Subsamples of unblemished, symptomless berries from each plot picked on 25 and 28 June were placed on individual 10 x 13 x 0.25 in. mesh screens in wooden flats, by inserting the stem end through the mesh. The number of fruit per sample was variable, being determined by the number of unblemished berries available for screening and the amount of berries that could fit on each screen without berry-to-berry contact. The berries were incubated 4 days at 68°F and 95-97% relative humidity. After incubation the number of healthy and diseased fruit were recorded to determine post harvest disease incidence. The final proportion of diseased fruit at harvest and post harvest (*n* fruit with *Botrytis*/total number fruit) are reported. Data were transformed (square root) before statistical analysis and analyzed with ANOVA. Means were separated using Fisher's protected LSD ( $P \leq 0.05$ ).

Weather was more hot and humid than usual during bloom and harvest, favoring moderate to severe disease development. All treatments, with the exception of Captan 50WP, gave significant disease reduction at harvest in comparison to the non-treated controls. Post harvest disease incidence was comparable to harvest disease incidence, but no significant differences between treatments were observed in this case because of the variability within treatment. No phytotoxicity was observed in any of the treatments.

Treatment (Rate/A)	Proportion of diseased fruit at harvest *	Proportion of diseased fruit postharvest
Switch 62.5 WG (14 oz) .....	0.041 a	0.041 a
Elevate 50 WDG (1.5 lb) .....	0.068 a	0.146 a
TM-40201+TM-40002, tank mix (1.0 lb and 3.0 lb, respectively) .....	0.121 ab	0.273 a
Elevate 50WDG then Switch 62.5WG, (1.5 lb and 14 oz, respectively) .....	0.127 ab	0.129 a
Captan 50 WP (6 lb) .....	0.179 bc	0.150 a
Control .....	0.327 c	0.368 a

\*Final proportion fruit infected with *Botrytis* at harvest and post harvest (*n* fruit with *Botrytis*/ total number fruit). Values are means of 4 replications per treatment with the exception of Captan 50 WP and Control, where only 3 replications were available. Treatment means within a column followed by the same letter are not significantly different from each other using Fisher's protected LSD ( $P \leq 0.05$ ). Analysis of final proportion diseased fruit at harvest and post harvest was done on square root transformed data and untransformed for presentation.