

**Evaluation of a 2-spray fungicide program for control of botrytis fruit rot, 2002.**

Trials were performed in a 2-year-old planting on a Cornell research farm at the Geneva Experiment Station. Plants were grown in a matted-row system, with fruiting rows approx. 1.5 ft wide on 4 ft centers. Individual plots consisted of 12 ft sections of row with 3 ft buffer zones on both ends of each treatment. Treatments were replicated 4 times in a randomized complete block design. Fungicides were applied with a 2 gal hand sprayer (approx. 30 PSI) at 10-20% bloom on 23 May and 7 days later on 30 May 2002. To provide disease pressure, approximately 3 berry halves inoculated with 3 strains of *B. cinerea* were placed evenly throughout each plot after treatments were dry on each day applications were made. Fruit were harvested on 19, 24, and 27 Jun. The number of berries with and without symptoms was recorded the same day they were harvested and the percent of berries infected was calculated. Subsamples of unblemished, symptom-less berries from each plot were placed on individual deep-well plastic trays. The number of fruit sampled per replication per harvest date was typically 25, unless the number of unblemished berries available for screening was less than 25 in which case all unblemished berries were used. The berries were incubated 4 days at 68 F and 95-97% relative humidity. After incubation the percent of diseased fruit was recorded. Data were transformed (log) before statistical analysis and analyzed in an ANOVA. Means were separated using Tukey's Studentized Range Test ( $P \leq 0.05$ ).

Three infection events occurred during bloom. For each event, the date, inches of precipitation, and the average temperature for the date were: (1) 25 May, 0.26 in, 54 F; (2) 29-31 May, 1.46 in, 70 F; and (3) 4-5 Jun, 0.75 in, 63 F. All 2-spray programs provided significantly better control than the untreated check when berries were rated at harvest. Switch 62.5WG and Elevate 50WG provided significantly better control of gray mold than the untreated check when rated after post harvest treatment. However, the untreated check had significantly less gray mold than the Captan 50WP treatment at post harvest evaluation.

Treatment (Rate/A)	% disease at harvest*	% disease post harvest
Switch 62.5WG (0.875 lb/A) .....	4.1 a	9.3 a
Elevate 50WG (1.5 lb) .....	10.2 ab	13.0 ab
Rovral 4F (2 lb/A) .....	8.0 ab	14.3 abc
Topsin-M WSB (1 lb/A) .....	10.1 ab	18.0 bc
Thiram 65WSB (2.5 lb/A) .....	12.1 b	19.9 bc
Captan 50WP (6 lb/A).....	11.7 b	28.1 d
Untreated check .....	20.9 c	20.3 c

\* Values are actual means of 4 replications per treatment. Treatment means within a column followed by the same letter are not significantly different from each other using Tukey's Studentized Range Test ( $P \leq 0.05$ ).