

## **Evaluation of products for the management of Botrytis gray mold and bacterial canker in greenhouse tomato**

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Two greenhouse tomato experiments were conducted from November 2010 through May 2011 at the Truck Crops Branch Experiment Station in Crystal Springs, MS. Each 24 by 96 ft. greenhouse was set up identical with each having 24 rows with 12 plants of variety 'Quest'. Each greenhouse and experiment tested six treatments replicated four times. When plants had grown to a height of about four feet, all plants in each greenhouse were artificially inoculated. For Botrytis, inoculum contained  $1 \times 10^5$  conidia/ml produced from 10-day-old cultures growing on ½ strength PDA, harvested and then suspended in distilled water. Inoculum for bacterial canker (*Clavibacter*) consisted of  $1 \times 10^8$  CFU/ml grown on NBY, harvested and suspended in sterile 0.02 M phosphate buffer (pH 7.0). Entire plants were sprayed with a suspension of inoculum to just before runoff. All products were mixed according to manufacturer specifications and were also applied to entire plants until just before runoff used hand-held commercial 1 L sprayers. Products tested in the Botrytis study were: (1) inoculated control, (2) Regalia, (3) Actinovate, (4) Oxidate, (5) KleenGrow, and (6) Cease + MilStop. Products tested in the bacterial canker study were: (1) inoculated control, (2) AgriPhage, (3) Tanos + Kocide, (4) Oxidate, (5) KleenGrow, and (6) Cease + MilStop. Percentage of leaf area affected by each respective disease was rated visually on a scale of 0 = no symptoms and 100 = whole plant showing symptoms. Area under the disease progress curve (AUDPC) and marketable yield (lbs/plot) were also determined. There were no significant differences among any of the variables measured in the bacterial canker trial. There were no significant differences in percentage of leaves affected by Botrytis gray mold. KleenGrow and Cease + MilStop did significantly reduce the progression of gray mold (AUDPC) compared to the inoculated control. A power failure interrupted irrigation cycles during late April 2011 resulting in severe wilting. Both trials were terminated on May 2, 2011.