

# EVALUATION OF FUNGICIDES FOR CONTROL OF PHOMOPSIS BLIGHT IN EGGPLANT, 2007

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## **Introduction**

Eggplant is an important but low acreage crop (1,102 acres) grown in Georgia. In 2007 the farm gate value was \$11,854,923. The most destructive and reoccurring disease of eggplant is Phomopsis blight caused by the fungus *Phomopsis vexans*. Little to no data exists to indicate efficacy of fungicides that could be used to suppress this disease. Therefore this trial was conducted to do just that.

## **Materials and Methods**

Eggplant transplants were planted on 13 Apr on black plastic mulch covered beds at Tifton Vegetable park, a unit of the Coastal Plain Experiment Station in Tifton, GA. Mulched beds had a 36-in. top, were laid on 6-ft centers, were drip-irrigated, and were fumigated with 350 lbs/A of 98:2 (98% methyl bromide: 2% chloropicrin) prior to planting. Transplants were set in one row per bed and were spaced 2 ft apart within the row, resulting in 8 plants per plot. Plots were 15 ft long, and separated on each end by 5 ft of bare plastic, and were arranged in a randomized complete block design with four replications. Fertility, insects and weeds were managed according to standard University of Georgia Extension Service recommendations. Fungicide treatments were applied with Lee Spider Spray Trac® calibrated to deliver 40 gal/A at 75-80 psi through TX-18 hollow cone nozzles mounted on drop-booms. Plots were harvested on 28 May, 5 Jun and 26 Jun. Severe drought conditions were experienced during most of the test and rainfall accumulation was 7.3 in. total for Apr, May, and Jun which was 4.4 in. below the 92 yr average.

## **Results**

Phomopsis blight was first observed on fruit on 28 May and increased to high levels by 26 June. All treatments significantly reduced the percentage of infected fruit. The treatment containing Topsin M had less than half of the infected fruit recorded in the non-treated check. No phytotoxicity was observed with any treatments.

Evaluation of fungicides and fungicide programs for control of Phomopsis blight of eggplant fruit.

| Treatments, rates/A, and (spray times) <sup>z</sup>  | Percent Phomopsis Infected Fruit <sup>y</sup> |
|--|---|
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Topsin M 70WP, 2.0 lb (2,4) .....  | 31.2 c <sup>x</sup>                           |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Cabrio 20EG, 12.0 oz (2,4).....    | 39.6 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Scala 600SC, 7.0 fl oz (2,4) ..... | 40.2 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Indar 75WSP, 2.0 oz (2,4) .....    | 41.9 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5) .....                                 | 42.6 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Tanos 50DF, 10.0 oz (2,4) .....    | 43.6 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Endura 70WG, 3.5 oz (2,4).....     | 44.8 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Captan 50WP, 5.0 lb (2,4) .....    | 47.7 bc                                       |
| Kocide 3000, 0.75 lb (1-5)<br>Maneb 70WP, 2.0 lb (1-5)<br>Switch 62.5WG, 14.0 oz (2,4) ..... | 48.4 b  |
| <u>Non-treated .....</u>   | <u>65.6 a</u>                                 |

<sup>z</sup>Spray dates were: 1=7 Jun; 2=15 Jun; 3=21 Jun; 4=28 Jun; 5=4 Jul.

<sup>y</sup>Incidence of symptomatic vs. asymptomatic fruit was pooled over all harvests to calculate percentage infected fruit.

<sup>x</sup>Means followed by the same letter(s) are not significantly different according to Fisher's protected LSD test at P=0.05.