

**Evaluation of fungicides for management of anthracnose on pepper, spring 2010.**

On 20 Mar 2010, plots were established at the University of Florida’s Gulf Coast Research and Education Center in Balm, FL to assess the effect of fungicides on the control of anthracnose on pepper. Plots consisted of 25 ft-long bed sections within 300 ft-long, raised beds with 5 ft center-to-center bed spacing. Beds were covered with black virtually impermeable mulch and irrigated with a drip system. Seedlings (cv Tom Cat) were transplanted at 15-in spacing along two-row beds skipping a 4 ft alley between plots as a buffer. Fungicide treatments were applied on 22 Apr, 29 Apr, 6 May, 13 May, 21 May, and 27 May (corresponding with applications 1 to 6 below) with a CO<sub>2</sub> back pack sprayer calibrated to deliver 60 (apps. 1,2,3,4) and 90 gal/A (apps. 4,5,6) at 40 psi. The treatments including a non-treated control were arranged in a completely randomized block design with each treatment repeated four times. Plants were inoculated on 2 May and 10 May with suspensions containing  $3.06 \times 10^6$  and  $1.60 \times 10^5$  conidia/ml collected from 14 d old cultures of a field isolate of *C. acutatum* grown on half-strength PDA. Plots were monitored regularly for anthracnose, and diseased fruits and the yield were assessed from a single harvest on 11 Jun when disease reached appreciable levels.

Significant difference was detected in disease incidence of fruit and fruit yield, respectively. Weekly applications of Bravo WeatherStik alone or including Luna Sensation significantly reduced disease incidence of fruit in comparison to the non-treated control. The reduction in disease incidence was 74.8% for the Bravo WeatherStik treatment and 76.2% for Bravo WeatherStik-Luna Sensation. In contrast, the other fungicides did not confer significant protection against anthracnose compared to the untreated control. Except Actigard and OxiDate, the other treatments numerically increased fruit yield compared with the untreated control, but this increase was not statistically significant. Actigard and OxiDate reduced the yield up to 11.8 and 6.14 %, respectively.

Treatment, rate/A (application) <sup>z</sup>	Disease incidence of fruit (%)	Fruit yield (lbs/plot)
Bravo WeatherStik 6SC, 1.5 pt (1-6).....	5.12 b <sup>y</sup>	77.0 a
Catamaran, 5 pt (6).....	14.2 ab	69.9 abc
BC EXP1, 6.84 oz (drip 3,5).....	20.2 a	67.7 a-d
Luna Sensation, 5 oz (6).....	13.7 ab	65.0 a-d
Bravo WeatherStik 6SC, 1.5 pt (1-5); Luna Sensation, 5 oz (6).....	4.84 b	76.0 a
Actigard 50WG, 0.11 oz (1,3,5).....	20.0 a	56.0 d
Penncozeb 75DF, 3 lb/A (6).....	10.3 ab	75.0 ab
OxiDate, 1:100 dilution (6).....	21.0 a	59.6 cd
Bravo WeatherStik 6SC, 1.5 pt (6).....	12.9 ab	70.8 abc
Tanos, 10 oz (6).....	13.7 ab	73.8 ab
Quadris 2.08 FL, 12 fl oz (6).....	15.8 ab	69.0 abc
Non-treated control.....	20.3 a	63.5 a
<i>P &gt; F</i>	0.0446	0.0155

<sup>z</sup> Listed treatment rates are on a per acre basis unless noted otherwise.

<sup>y</sup> Values followed by the same letter are not statistically significant ( $P = 0.05$ ) according to Fisher’s LSD test.