

Comparison of plant defense activators and bactericides for controlling bacterial spot on tomatoes, fall 2012.

On 25 Sept 2012, plots were established at the University of Florida's Gulf Coast Research and Education Center in Balm, FL to assess the effect of several plant defense activators and bactericides on the control of bacterial spot of 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. Tomato seedlings (cv. Charger) were transplanted at 18-in spacing along beds skipping a 4-ft alley between plots as a buffer. Treatments, including a water-treated control, were arranged in a completely randomized design with each treatment repeated four times. The treatments were applied on 09 Oct, 15 Oct, 22 Oct, 29 Oct, and 06 Nov (corresponding with applications 1 to 5 below). Foliar treatments were applied with a CO₂ back pack sprayer calibrated to deliver 60 (apps. 1-2), and 90 gal/A (apps. 3-5) at 40 psi. Plots were inoculated on 7 Oct and again on 12 Oct with a suspension (10⁶ cfu/ml) of *Xanthomonas perforans* using a backpack sprayer. Plots were monitored regularly for bacterial spot, and rated on 08 Nov, 21 Nov, and 29 Nov as disease developed. Noticeable phytotoxicity, in the form of stunting, was associated with BABS treatments.

Treatment, rate/A	8-Nov	21-Nov	29-Nov	AUDPC
42PhiCuMaxx, 0.5 pt (1-5).....	22.1	31.4	37.5	993 abc
42PhiCuMaxx, 1 pt (1-5).....	22.1	31.4	31.4	967 abc
42PhiCuMaxx, 2 pt (1-5).....	18.5	22.1	31.4	785 c
42PhiCuMaxx, 4 pt (1-5).....	18.4	22.1	35.7	807 bc
BABS26 - A, 44 mls/L; SS-9, 4.2 mls/L (1-2).....	31.4	31.4	37.5	1194 a
BABS26 - B, 44 mls/L; SS-9, 4.2 mls/L (1-2).....	22.1	31.4	42.6	1018 abc
BABS26 - C, 44 mls/L; SS-9, 4.2 mls/L (1-5).....	37.5	37.5	37.5	1388 a
Kocide 3000, 1.5 lb; Penncozeb, 1.25 lb (1-5).....	22.1	37.5	42.6	1071 abc
Water-treated Control.....	26.3	35.7	42.6	1154 ab
<i>P</i> =	0.1177	0.1635	0.3327	0.1076