TOMATO (*Lycopersicon esculentum*)
Bacterial spot; *Xanthomonas perforans*

G. E. Vallad and C. -H. Huang
Department of Plant Pathology
University of Florida, GCREC
Wimauma, FL 33598

On-farm evaluation of Actigard and copper bactericides for the management of bacterial spot of tomato, spring 2011.

	Bacterial Spot Severity:						TYLCV Incidence:			
	5-May		20-May		AUDPC		5-May		20-May	
Actigard, 0.33oz	6.7%	bc	13.0%	c	291	c	13.7%	ab	25.9%	b
Actigard, 0.5oz	3.5%	d	6.4%	d	151	d	5.0%	c	22.7%	b
Actigard, 0.75oz	4.2%	cd	4.7%	d	156	d	13.2%	abc	18.7%	b
Cuprofix, 2lb + Penncozeb, 0.5lb	10.1%	ab	26.3%	ab	493	ab	11.6%	abc	22.0%	b
Kocide 3000, 1.5lb + Penncozeb, 0.5lb	9.0%	b	29.6%	ab	487	ab	7.7%	bc	16.0%	b
Nordox, 2lb + Penncozeb, 0.5lb	8.1%	b	18.4%	bc	378	bc	6.8%	bc	26.1%	b
Untreated Control	16.4%	a	36.3%	a	757	a	22.0%	a	41.2%	a
	P < 0.0001		*P < 0.0001*		*P < 0.0001*		*P = 0.0938*		*P = 0.0745*	
	α = 0.05		α = 0.05		α = 0.05		α = 0.10		α = 0.10	

Bacterial spot severity was assessed as the percentage of total leaf area affected by disease using the Horsfall-Barratt scale; values were converted to mid-percentages and fit to a lognormal distribution for final statistical analysis. Area under the disease progress curves (AUDPC) was calculated using the formula: $\Sigma([(x_i+x_{i-1})/2](t_i-t_{i-1}))$ where x_i is the rating at each evaluation time and (t_i-t_{i-1}) is the time between evaluations. The incidence of plants with TYLCV was recorded on two dates and presented as the percentage of total plants per plot. Means followed by the same letter are not significantly different at the listed level of confidence, either α=0.05 or α=0.10.