

PEPPER, BELL (*Capsicum annuum* 'Jupiter')
 Bacterial leaf spot; *Xanthomonas campestris* pv.
vesicatoria

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Evaluation of fungicides for control of Bacterial Leaf spot of pepper, Clayton 2018.

The experiment was conducted at the Central Crops Research Station in Clayton, NC. Plots were single raised beds on 5-ft centers covered with white plastic mulch; 12-ft long with 5-ft fallow borders on each end. The previous year the field was fallow. Pepper was transplanted on 22 Jun (1-ft in-row spacing, 12 plants/plot). Irrigation and fertilization (4-0-8, N-P-K) were applied via drip tape. Treatments were randomized into four complete blocks. Fungicide treatments were applied using a CO₂-pressurized backpack sprayer equipped with a hollow cone nozzle (TXVS-26). Applications were made on 22 and 29 Jun and 6, 13, 20 and 27 Jul and 3, 10, 17 and 24 Aug. Disease severity was assessed on 14, 21, 24, 28 and 31 Aug. Data were analyzed in the software ARM (Gylling Data Management, Brookings, SD) using analysis of variance (AOV) and Fisher's Protected LSD test to separate means.

Bacterial leaf spot was first observed on 7 Aug at very low levels (1% severity or less) in the field and progressed throughout the course of the trial. Miravis Prime had the lowest level of *X. campestris* pv. *vesicatoria*. All other treatments provided control of bacterial leaf spot when compared to the non-treated. No phytotoxicity was observed

Treatment and rate of product per acre	Application no. ^y	Disease severity ^z (%)		
		14 Aug	24 Aug	31 Aug
Miravis Prime 3.33SC 11.4 fl oz	1-10	1.0 bc ^x	5.5 b	11.0 c
Kocide 3000 46.1DF 1.5 lb	1-10			
Manzate Pro Stick 75DG 2 lb	1-10	0.3 c	8.3 b	15.8 bc
LifeGard 40WG 2 oz/100 gal	1-10	2.8 ab	9.0 b	17.5 b
LifeGard 40WG 4.5 oz/100 gal	1-10	1.8 bc	10.3 b	19.0 b
LifeGard 40WG 2 oz/100 gal	1-4, 6, 8, 10			
Kocide 3000 46.1DF 1.5 lb	5, 7, 9			
Manzate Pro Stick 75DG 2 lb	5, 7, 9	2.3 abc	8.3 b	19.8 b
Non-treated	N/A	4.0 a	15.8 a	26.3 a

^z Disease severity based on percent necrotic foliage caused by *X. campestris* pv. *vesicatoria*.

^y Application dates: 1=22 Jun, 2=23 Jun, 3=6 Jul, 4=13 Jul, 5=20 Jul, 6=27 Jul, 7=3 Aug, 8=10 Aug, 9=17 Aug and 10=24 Aug.

^x Treatments followed by the same letter(s) within a column are not statistically different ($P=0.05$, Fisher's Protected LSD).