

(E42)

PEPPER ‘Jalapeño’ *Capsicum annuum* (L.), ‘Tormenta’

INSECTICIDAL CONTROL OF BROADMITE ON ‘JALAPENO’ PEPPER WITH OBERON AND MOVENTO, 2010

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Broad mite: *Polyphagotarsonemus latus* (Banks)

Broadmite can be a destructive pest on peppers in south Florida and elsewhere, causing malformed leaves, aborted blooms and russeted fruit. This trial was conducted at the Southwest Florida Research and Education Center in Immokalee Florida. Greenhouse-raised pepper plants were transplanted on 15-Sep at 24 inch spacing in single rows on a set of 4 beds, and covered with white polyethylene film mulch. Approximately 25 % of the fertilizer was preplant soil incorporated (granular 15-2-15) with the remainder applied as liquid 7-0-7 delivered by Dosatron® via drip irrigation provided with four inch emitter spacing. Plots were assigned in a RCB design across the four rows. Each plot contained 12 plants with a 12 foot buffer space between plots. Movento 2SC at 5.0 oz/ac and Oberon 2 SC at 8.5 oz/ac were applied on 2 and 11- Nov using a high clearance sprayer operating at 180 PSI and 2.3 miles per hour. Spray was delivered through two vertical booms fitted with yellow Albus® hollow cone nozzles discharging 10 gpa each. The first application was made at 40 gpa using 4 nozzles and the second at 60 gpa using 6 nozzles. Populations of broadmite and whitefly were monitored on 8, 15, 22, 29 – Nov and 6-Dec by collecting a terminal leaf from 10 plants in each plot and counting eggs, nymphs, and adults under a stereoscopic microscope.

Both products effectively reduced the number of adults and nymphs throughout the trial when compared to the untreated control until the population in the control plots collapsed due to cold weather. No differences were seen between sprayed treatments. Broadmite eggs per leaf followed similar trends except that the number observed on Oberon-treated plants 15-Nov was not significantly different from the untreated check. This research was supported by industry gift(s) of pesticide and/or research funding.

Treatment/Formulation	Rate (Product/acre)	Broadmite nymphs + adults per leaf					Broadmite eggs per leaf				
		8-Nov	15-Nov	22-Nov	29-Nov	6-Dec	8-Nov	15-Nov	22-Nov	29-Nov	6-Dec
Untreated check		3.78a	4.05a	4.08a	3.13a	0.28	6.23a	2.22a	4.65a	1.80a	0.30
Oberon 2SC	8.5 oz	0.80b	1.03b	0.03b	0.03b	0.00	1.80b	1.02ab	0.00b	0.00b	0.08
Movento 2SC	5 oz	0.13b	0.03b	0.00b	0.03b	0.00	0.18b	0.00b	0.03b	0.00b	0.03

Means followed by same letter are not statistically different (LSD, P>0.05)