

*Trial No. 1:* The treatments, applied once a week, were: Afugan (pyrazophos) 30% E.C., 500 ml/ha; Rubigan (fenarimol) 12% E.C., 300 ml/ha alternating with Afugan, 500 ml/ha; and control. The alternating treatment gave the best control.

*Trial No. 2:* The treatments were: Tilt, 1-[2-(2,4-dichlorophenyl)-4-propyl-1,3-dioxolan-2-ylmethyl]-1H-1,2,4-triazole, 25% E.C., 250 g/ha; Rubigan + Plondrel (ditalimfos) 50% E.C., 300+600 g/ha; Tilt, 0.02% and 0.03%; and control. Best disease control was achieved with Tilt, but some stunting and deformation of the plants was observed.

*Trial No. 3:* The treatments were: Baytan (triadimenol) 15% E.C., 250 g/ha; Baytan, 25% W.P., 250 g/ha; Bayleton (triadimefon) 25% W.P., 250 g/ha; Plondrel, 700 g/ha alternating with Rubigan 300 ml/ha; and control. The alternating treatment was the most effective. Bayleton was not effective in this trial; and Baytan E.C. was more effective than Baytan W.P.

*Trial No. 4:* The treatments were: Baytan E.C., 250 g/ha; Calixin (tridemorph) 75% E.C., 400 g/ha; Denmart (Marit; buthiobate) 10% E.C., 1000 ml/ha; Fungaflor (imazalil) 20% E.C., 500 ml/ha alternating with Rubigan, 300 ml/ha; and control. The most effective treatment was Calixin, and the alternating treatment also gave effective control. (L)

#### CROP LOSS AND PARTIAL CHEMICAL CONTROL OF BACTERIAL SCAB OF PEPPER CAUSED BY *XANTHOMONAS CAMPESTRIS* PV. *VESICATORIA*

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Bacterial scab of pepper appears in the field with typical symptoms but also causes damage in symptomless plants with an endophytic population of  $10^8$  bacteria/g tissue inside the plant. Damage of commercial significance could be caused by: (i) visible symptoms on the fruits, preventing marketing; (ii) decrease in the number of fruits on the plants. In severely diseased crops, losses of 44% were detected. In inoculated fields with symptomless plants, yield was decreased by 24%; (iii) direct damage resulted from massive defoliation causing fruit exposure to the sun; in this case all fruits were severely damaged. Maximum yield damage was recorded when the pathogen attacked young seedlings (4-6 leaves). The crop loss was less severe (6%) when infection occurred in mature pepper plants.

Pepper plants artificially infested with *Xanthomonas campestris* pv. *vesicatoria* were sprayed with various compounds: Kocide 101 [77%  $\text{Cu}(\text{OH})_2$ , Kocide Chem. Corp., Houston, Texas]; Coprox 50 [87%  $3\text{Cu}(\text{OH})_2 \cdot \text{CuCl}_2$ , Makhteshim, Be'er Sheva];  $\text{CuSO}_4$  + Biofilm surfactant (Chemitivon, Tivon); Bordeaux mixture; Captan 50% W.P. (Makhteshim); Manebgan (maneb 50% W.P., Agan Ltd., Ashdod); and Manzidan (mancozeb 80% W.P., Makhteshim). The compounds tested reduced the rate of disease development only slightly. Kocide was found to be the most effective compound. An increased Kocide dose (up to 0.6%) enhanced disease control but was phytotoxic to young plants. The most efficient control of bacterial scab was obtained by spraying 0.5% Kocide immediately prior to or after infestation and close to irrigation periods. (L)