Studies on Chemical Control of Crucifer Black Rot Caused by <u>Xanthomonas</u> campestris pv. campestris¹

Tze-Chung Huang²

Key word: Xanthomonas campestris, chemical control

SUMMARY

Two chemicals, 30% Bacbicure 3811 WP and 77% Kocide WP were found to be effective, especially Bacbicure 3811, on the control of crucifer black rot caused by <u>Xanthomonas campestris</u> pv. campestris under field conditions. After two and three applications of Bacbicure 3811 at the rate of 2g/1, the average disease incidence of treated plots were just 8.4% and 11.9%, much lower than those of untreated control, 75.3% and 95.6%, respectively. When applied at the rate of 0.5g/l, Bacbicure 3811 was still significantly effective on the control of crucifer black rot. Whereas, it was not inhibitory to the in vitro growth of X. campestris pv. <u>campestris</u>. Bacbicure 3811 was found to be rather preventive than curative for the control of black rot. Being sprayed with Bacbicure 3811, with control rate of 100%, the cabbages were completely free from the infection of X. campestris pv. campestris within 6 days. Fifteen days after spraying, Bacbicure 3811 still had control rate of 45.5% against the infection of the pathogen. Whereas, it failed to inhibit the development of lesion incited by the pathogen before spraying. The most appropriate duration of spraying Bacbiure 3811 for disease control was found to be 7-10 days, lasting for 3 successive times.

^{1.} The author would like to acknowlege the Council of Agriculture of Executive Yuan for its financial support, and Mr. Hung Gwo-Hsing and San Chang-Min for their field assistance.

^{2.} Associate researcher of Taitung DAIS.