

Improvement of spraying technique and chemical screening on control of *Bemisia argentifolii* Bellows & Perring¹

Yi-Yuan Chuang and Ming-teh Chiu²

Abstract

The silverleaf whitefly (*Bemisia argentifolii* Bellows & perring) has become a serious problem, causing heavy damage to vegetable soybean in southern Taiwan since 1997. The purpose of this experiment was to screen 10 insecticides for the controll of the silverleaf whitefly both indoor and in the field, including 9.6% Imidacloprid S. 2% Abamectin E. C. 25% Deltamethrin W. P. 9.4% Hexaflumuron S. C. 25% Buprofezin W. P. 2.8% Bifenthrin E. C. 25% Pymetrozine W. P. 50% Chlorpyrifos W. P, 23.5% Mevinphos E. C, 2.8% Cyhalothrin E. C. The results from the field test indicated that 25% Buprofezin W. P. and 9.6% Imidacloprid S. provided a good control with a control rate of 83.21% and 63.3% respectively. Whereas 9.6% Imidacloprid S. and 25% Pymetozin W. P. also provided a good effective control as shown in the indoor test. Emergence of 4th-instar larvae was only 9.2% for 9.6% Imidacloprid S. and 11.8% for 25% Pymetrozin W. P. Improvement of the sprayer, using a knapsack power spray on lateral side appeared to increase the effectiveness of the chemicals by 11.1% in 7 days after the second spray and 13.1% in 14 days after the second spray as compare to the spray chemicals traditional used by farmers.

Key words: *Bemisia argentifolii*, Chemical screen.

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² Assistant Researcher Entomologist and Entomologist of Kaohsiung District Agricultural Improvement Station respectively.