

Section I. Mites & Sap-sucking Insects

INSECTICIDES FOR CONTROL OF ONION THRIPS

D.F. Mayer and J.D. Lunden
Washington State University, IAREC
Rt. 2, Box 2953-A, Prosser, WA 99350

This study was designed to evaluate Karate 1E (Zenca), Mustang 1.5E (FMC), Pounce 3.2EC (FMC), Penncap M 2FM (Atochem), TD 2341-1 (Atochem), TD 2328-1 2FM (Atochem), TD 2321-1 40WP (Atochem) and TD 2342-1 2FM (Atochem) for control of onion thrips (Thrips tabaci) when applied to onions (Allium cepa).

Plots were established in a commercial field of 'Tango' onions located near Warden, WA. Onions were planted about 10 April 1993 on double rows. Standard fertility, irrigation, and weed control practices were followed. Plot size was 0.005 acre and arranged in a randomized complete block design with 4 replications. The rates of the insecticides used are given in Table 1. Spray applications were done 29 June with a R&D CO₂ pressurized sprayer at 26 gallons of water per acre with a hand-held boom with 4 (LF3) nozzles. Applications were at 1 pm. Temperatures were 20° C., solar radiation 694 W/SQ M, relative humidity 38% and winds less than 2 miles per hour. Spray water pH was 7.5. A second application was done on 7 July with the same equipment after counting the thrips in the plots. Applications were at 11 am. Temperatures were 21° C., solar radiation 875 W/SQ M, relative humidity 42% and no wind.

Evaluations were done 1, 7, 16 and 23 July by counting all thrips adults and nymphs found on 5 plants in the center rows of each of the plots.

Results:

Karate gave good control of onion thrips and the higher rates gave somewhat better control though there were no significant differences between rates. Mustang gave good control of onion thrips and there was little difference between rates. Penncap and the TD materials all gave fair to good control of onion thrips.

Table 1. Effect of insecticides applied to 0.005 acre plots of 'Tango' onions on onion thrips. Warden, WA. 1993.

Treatment	lb(AI)/a	% Reduction from check			
		1 Jul	7 Jul	16 Jul	23 Jul
Karate 1E	0.01	85	79	96	88
Karate 1E	0.02	88	92	99	94
Karate 1E	0.025	91	95	99	94
Karate 1E	0.03	91	95	99	94
Mustang 1.5E	0.0375	88	87	99	94
Mustang 1.5E	0.0488	88	84	99	94
Pounce 3.2EC	0.3	79	76	96	82
Penncap M 2FM	1 qt/A	56	34	20	71
TD 2341-1	1.5 pt/A	41	66	69	88
TD 2328-1 2FM	1 qt/A	35	16	41	29
TD 2321-1 40WP	2 lbs/A	71	76	53	59
TD 2342-1 2FM	1qt/A	44	24	36	71