

Chemical Control/New Products

Control of Apple Aphid on Apple

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This study was designed to evaluate Admire 240FS (Miles), Penncap MS 2FM (Atochem), Pirimor 50DF (Zeneca), RH 7988 4E (Rohm & Haas), Sterling 50WP (Ciba-Geigy), TD 2342-1 2FM (Atochem), TD 2348-1 2FM (Atochem) and Vydate 2L (Dupont) for control of apple aphid (AA) (*Aphis pomi*) when applied to apple (*Malus domestica*).

Ten plots were established in a 3-year-old commercial orchard of Red Delicious apples located near Milton-Freewater, OR. Plot size was 0.17 acre. Individual plots were treated with insecticides and one plot was not treated. Insecticides were applied 15 June between 1 pm and 2 pm. Temperatures were about 18°C, relative humidity 50%, solar radiation 817 W/SG M and no wind. Sprays were applied with a Rears (Eugene, OR) Pak-Blast airblast sprayer using 100 gal water per acre.

Evaluations were made pre-application on 15 June and post-application 18 and 25 June by counting the number of aphids on 8 shoots of 8 randomly tagged terminals on 8 randomly selected trees per plot.

Conclusions

Admire gave good control of apple aphid. Penncap MS gave poor control of apple aphid. Pirimor gave good control of apple aphid. RH 7988 gave good control of apple aphid. Sterling at the low rate gave poor control of apple aphid. Sterling at the high rate gave fair control of apple aphid. TD 2342-1 gave poor control of apple aphid. TD 2348-1 gave good control of apple aphid. Vydate gave fair control of apple aphid.

Table 1. Effect of insecticide treatments applied to Red Delicious apple trees on 15 June on apple aphids, Milton-Freewater, OR, 1994.

Treatment	Rate	Mean no. apple aphids/shoot		
		Pre-application	Post-application	
		15 Jun	17 Jun	25 Jun
Admire 240FS	6.4 oz	98a	10ab	28b
Pennacp MS 2FM	1 gal	58a	135b	391c
Pirimor 50DF	12 oz	289a	1b	89c
RH 7988 4E	0.375 lb (AI)/acre	76a	2b	22c
Sterling 50WP	0.167 lb (AI)/acre	109a	88a	500b
Sterling 50WP	0.25 lb (AI)/acre	155a	78b	109ab
TD 2342-1 2FM	1 gal	125a	135a	695b
TD 2348-1 2FM	1 gal	419a	8b	25b
Vydate 2L	2 pt	86a	7b	155c
Untreated check	--	41a	48a	325b

Means within a line followed by the same letter are not significantly different at the P=0.05 level, Newman-Keuls studentized range test.

Table 2. Effect of insecticide treatments applied to Red Delicious apple trees on 15 June on apple aphids, Milton-Freewater, OR, 1994.

Treatment	Rate	Percent reduction of apple aphids from pre-application (post-application)	
		18 Jun	25 Jun
		Admire 240FS	6.4 oz
Pennacp MS 2FM	1 gal	0	0
Pirimor 50DF	12 oz	99	69
RH 7988 4E	0.375 lb (AI)/acre	98	71
Sterling 50WP	0.167 lb (AI)/acre	19	0
Sterling 50WP	0.25 lb (AI)/acre	50	0
TD 2342-1 2FM	1 gal	0	0
TD 2348-1 2FM	1 gal	98	94
Vydate 2L	2 pt	81	0
Untreated check	--	0	0