Preliminary Report On Systemic Trials On Ace Lilies

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Five systemic chemicals were evaluated this past season for possible utilization as aphicides on lilies. Twenty 6-inch pots of lilies were drenched with either 3 or 6 ounces of each of the following materials:

8 oz 46% Phosphamidon emul. conc. per 100 gal.
5 oz 47% Phorate (Thimet) emul. conc. per 100 gal.
33 oz 50% Dimethoate wettable powder per 100 gal.
8 oz 90% Disyston emul. conc. per 100 gal.
8 oz 49% Meta-demeton (meta-systox) emul. conc. per 100 gal.

The data thus far indicates that aphid populations were too low for proper evaluation of aphid control with these materials. Plant damage reports were fragmentary due to the high increase of root rot. However, it appears that 2 of the materials, Disyston (at 3 & 6 oz.) and Phosphamidon (at 3 oz.) did not produce heavy tip burn (Table 1). The other materials tested produced tip burns in 25 to 36 days. None of the chemicals appeared to reduce the number of buds per plant.

Further trials with these materials are planned for next year.

Table 1. The effect of 5 systemic drenches on the number of aphids per tip and the phytotoxicity on the Ace lily.

Chemical	Rate oz/pot	Av. number of Aphids per tip			Phytotoxicity[c]		
		8 days	25 days	36 days	8 days	25 days	36 days
Phosphamidon	6	0	0	0	—	—	+[a]
	3	0	0	0	—	—	—
Phorate	6	0	0	0	—	+	+
	3	0	0	0	—	+	+
Dimethoate	6	0	0	0	—	—	+
	3	0	0	0	—	—	+
Disyston	6	0	0	0	—	—	—
	3	0	0	0	—	—	—
Meta-demeton	6	0	0	0	—	+	+
	3	0	0	0	—	—	+
Check	..	.5-1.1	4.-.7		—	—[b]	—[b]

[a] burn of leaf tips; more extensive at 6 oz. than 3 oz.

[b] checks as well as treated plants showed yellowing of basal leaves. For this tabulation, this yellowing was not considered as phytotoxicity.

[c] + equals phytotoxicity
— equals no phytotoxicity