

NOTE

Establishment of *Calcomyza lantanae* Frick on Guam for Control of the Weed Lantana

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Lantana, *Lantana camara* L. (Verbenaceae), is a neotropical plant introduced to Guam because of its colorful flowers. In most countries where this plant has been introduced, it has escaped cultivation and become a serious weed. Now, it is considered as one of the top ten worst weeds in the world.

Muniappan (1988) listed a number of natural enemies introduced and established on Guam for biological control of this weed. To further suppress this weed and to increase the number of natural enemies, the lantana leafminer, *Calcomyza lantanae* Frick (Agromyzidae) was introduced.

C. lantanae was introduced to Australia from Trinidad in 1974 (Waterhouse & Norris 1987), and its fortuitous establishment has been reported in Papua New Guinea, Sulawesi (Indonesia), Singapore and Malaysia (Ooi 1987) and the Philippines (Cock & Godfray 1985). Female flies puncture the leaf surface with their ovipositors and both males and females feed on the liquid oozing out. Eggs are inserted under the epidermis of the leaves. Maggots mine the leaves, which develop blotches. Mature maggots leave the blotches and pupate in the soil.

On March 4, 1992, a shipment of about 500 puparia of the lantana leafminer was received from the Alan Fletcher Research Station, Department of Lands, Queensland, Australia, from which 292 adult flies emerged. Of these, 96 flies were retained on potted lantana plants kept in an outdoor screen cage. The remainder were released on lantana plants in the field (77 in Mangilao, 29 in Dededo, 42 in Yigo and 48 in Tumon).

Lantana leafminer readily established in the outdoor cage, and the emerging adults were periodically collected and released on lantana plants at various locations as shown in Table 1. Surveys on July 7th and 8th, 1992 revealed the establishment of the lantana leafminer in the fields at Mangilao and Agana.

Because of its high reproductive potentials and short life cycle, *C. lantanae* is capable of causing serious defoliation of lantana. Its establishment on Guam should compliment the efforts of other natural enemies of lantana and help to reduce the spread and to suppress the population of lantana.

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Table 1. Adult *Calcomyza lantanae* released on various locations on Guam.

Locality	Date	Number of Flies
Mangilao	March 10, 1992	77
	June 30, 1992	115
	July 5, 1992	215
Dededo	March 11, 1992	29
Yigo	March 11, 1992	42
	June 1, 1992	82
	June 2, 1992	88
	June 4, 1992	123
	June 22, 1992	135
Tumon	March 11, 1992	48
Agana	June 4, 1992	135
Piti	June 3, 1992	98
Inarajan	June 5, 1992	80
	June 30, 1992	104

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