

RESEARCH NOTES

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Recovery of an Exotic Parasitoid, *Leptomastix dactylopii* How., from *Planococcus citri* (Risso) Infesting Some Horticultural Crops

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Mealybug, *Planococcus citri* (Risso) is not only a serious pest of citrus but also at times serious on pomegranate, guava, grapes, etc. Insecticidal sprays have failed to give adequate control of this mealybug in recent years. Releases of an exotic parasitoid, *Leptomastix dactylopii* (How.) (Hym., Encyrtidae) in citrus orchards against *P. citri* in and around Bangalore have resulted in establishment of the parasitoid and complete control of mealybugs within four months in 1984-85 (Krishnamoorthy and Singh, 1987). Subsequently a survey was conducted by making field recoveries to evaluate the dispersal and establishment of the parasitoid in other areas on different crops, where releases were not effected. The details of field recovery of *L. dactylopii* are furnished in table 1.

L. dactylopii was known to attack *P. citri* when the latter was found even on pineapple (Clausen, 1978) and grapes (Rivnay, 1960; Roxanova and Loseva, 1963). In the present study, three additional host plants are recorded where *P. citri* incidence was observed. Though the parasitoid did not give complete control of mealybugs on collateral plants as obtained in citrus (Krishnamoorthy and Singh, 1987), atleast *P. citri* population sustained the parasitoid population which may ultimately result in the permanent establishment in the region. Such establishment is always warranted since the parasitoid would migrate back to citrus when *P. citri* population builds up. The study also suggests that the parasitoid could be mass released against *P. citri* on pomegranate, guava and grapes.

Table 1. Recovery of *L. dactylopii* from *P. citri* infested plants

Year of Collection	Crop	No. of mealybugs collected	No. of parasitoids recovered	% parasitism
1985 and 1986	Guava	1665	142	8.52
1986	Grapes	268	5	1.86
1987	Pomegranate	216	27	12.50
1986	Croton	1012	3	0.30

Field recovery of *L. dactylopii* was made from *P. citri*-infested pomegranate, guava, grapes and croton. This suggested that the parasitoid might have dispersed from released citrus orchards, which were 3-5 km away and got established on *P. citri* infesting collateral plants. The dispersal as such might be due to the resultant effect of complete control of *P. citri* in citrus orchards. However, the number of parasitoids recovered from these plants was very low. The poor recovery might be due to the fact that the mealybug population on these plant was very low and the infestation by and large in all collateral plants was less than 4% only. Among the collateral plants, maximum parasitization was noticed on pomegranate while croton was least attractive for the parasitoid.

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Key words: *Leptomastix dactylopii*, *Planococcus citri*, recovery.

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