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Short communication

Record of thrips on mango

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ABSTRACT

During a trial in 2009 at Moorapoor Village, Dharmapuri district, Tamil Nadu, for control of mango hoppers and thrips using entomo-pathogens, inflorescences were seen to harbour different species of thrips. Close microscopic observation revealed presence of *Frankliniella schultzei* (Tryb.), *Thrips palmi* Karny, *T. hawaiiensis* (Morgan) and *T. subnudula.* However, *Thrips palmi* was the predominant species whereas, for the first time *Frankliniella schultzai* and *Thrips subnudula* (Karny, 1927) are reported here on inflorescence of mango in India.

Key words: Mango, thrips

Mango (*Mangifera indica* L.), one of the major fruit crops of India, is known as the king of fruits for its sweetness, excellent flavour, delicious taste and high nutritive value (Singh, 1968). It is attacked by several pests during its vegetative and reproductive phases, and the pests have been studied in detail (Tandon and Verghese, 1985). During the reproductive phase of the crop, pests like hoppers and thrips pose a threat to mango production. Control of these pests, particularly in organically-grown orchards, is a challenge. During a trial in 2009 at Moorapoor Village, Dharmapuri district, Tamil Nadu for control of hoppers and thrips using entomo-pathogens, inflorescences showed incidence of thrips. Samples of inflorescences collected at random were brought in pin-hole aerated polythene bags to the laboratory, for segregation of the thrips under microscope based on morphological differences. The thrips were held in 80% alcohol until identification. Level of infestation was scored as follows:

Thrips population (No. of nymphs + adults per inflorescence)	Infestation level	Difenoconazole
No thrips	Nil	0
1-5	Low	1
6-10	Medium	2
11-20	Heavy	3
> 21	Very heavy	4

Following thrips species were collected from Moorapoor Village on mango inflorescences:

Date of collection	Type of orchard	Species collected	Level of infestation
26/02/2009	Organic cultivation	*Frankliniella schultzei*	1
09/03/2009	Organic cultivation	*-do-*	1
20/03/2009	Organic cultivation	*-do-*	1
	Organic cultivation	*Thrips palmi*	3
	Organic cultivation	*Thrips hawaiiensis*	2
	Organic cultivation	*Thrips subnudula*	1

Of the four species of thrips collected from mango inflorescence, *Thrips palmi* Karny was observed to be dominant, followed by *T. hawaiensis* (Morgan). All the species of thrips however, were seen around the same time but never produced severe lesions on fruits, except in isolated samples. But, the grower reported severe lesions on fruits in 2008, which led to discard of many of the fruits from organic mango export. Mango inflorescence is known to be attacked by *Thrips palmi* (Verghese *et al*, 1988). Also, *Megalurothrips distalis* (Karny), *Thrips hawaiiensis* and *Haplothrips tenuipennis* Bagnall have been recorded from Andhra Pradesh (Ramasubbarao and Thammiraju, 1994; Kannan and Rao, 2006a, b). *Scirtothrips mangiferae* Hood and *S. dorsalis* Hood were reported by Kumar and Bhatt (1999) and Kumar *et al* (1994), respectively, from Gujarat.

Scirtothrips mangiferae, *S. dorsalis*, *Rhipiphorothrips cruentatus* Hood were reported on mango from Cuttack by Sushil Kumar *et al* (2002) and *R. cruentatus* was reported from Haryana (Dahiya and Lakra, 2001). *Pantachaetothrips* sp., *Selenothrips rubrocinctus* Giard, *Caliothrips impurus* Priesner, besides *Scirtothrips dorsalis*, were reported on mango rootstock (Patel *et al*, 1997). However, *Selenothrips rubrocinctus* was reported from Kerala on mango (Ananthakrishnan and Muraleedharan, 1974). Earlier, *Frankliniell schultzei* (Tryb.) has been observed in India on flowers of sesame (Kumar and Ananthakrishnan, 1984) and groundnut (Palmer *et al*, 1990). Whereas, for the first time, *F. schultzei* and *Thrips subnudula* (Karny, 1927) are reported here on inflorescence of mango in India. Perhaps more intensive study is warranted on natural-enemy complex of the thrips species collected from mango orchards before biocontrol agents can be applied as a control measure.

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