

First Record and Occurrence of *Macrosiphum euphorbiae* (Thomas) (Homoptera: Aphididae) on Cotton in Central Greece¹

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The potato aphid, *Macrosiphum euphorbiae* (Thomas), is a highly polyphagous species on secondary hosts feeding on over 200 plant species, but is especially found on *Solanum tuberosum* L. (Blackman and Eastop 1985). *M. euphorbiae* was first noticed on cotton (cv Zeta 2) at Thiva in central Greece in May 1988 during a study on the population dynamics of cotton aphids carried out in a cotton field in the above mentioned region. This species has been recorded on other host-plants in Greece (Santorini 1977, Santas 1980, Panayotou and Katis 1986). It resembles *Acyrtosiphon gossypii* Mordvilko, a species which also colonizes cotton but has not been recorded yet in Greece. They can be distinguished from each other since the former has shorter siphunculi, bearing a zone of polygonal reticulation on their apices, than the latter (Blackman and Eastop 1985). Moreover, it is easily distinguishable from *Aphis gossypii* Glover, *Aphis fabae* Scopoli and *Aphis craccivora* Koch, species which also colonize cotton.

A. gossypii is the most important aphid species attacking cotton at Thiva region (unpublished data) and has also been recorded previously on cotton by various authors (Pelekassis 1962, Stathopoulos 1964, Santas 1978, 1980, Kalambouka and Fimiani 1985). The species *A. fabae* and *A. craccivora* have also been recorded on cotton in Greece (Stathopoulos 1964, Santas 1978, 1980, Kalambouka and Fimiani 1985).

M. euphorbiae was found in the first three samplings that occurred between mid and the end of May when plants were young. From early June and during the rest of the growing season this species was not found in the field. In a total of about 50 plants sampled in each sampling only a few individuals were found. The majority of aphids were alatae, representing 69, 60 and 43 percent of the population at the first, second and third sampling dates, respectively. Alatae started to reproduce on the plants after their alightment, since first and second instar nymphs were present even from the first sampling which took place after the appearance of plants. However, the number of nymphs was kept low during the period *M. euphorbiae* was present, suggesting that this was possibly due either to the partial unsuitability of the cotton variety as host or to the effect of the systemic insecticide phorate which had been applied at sowing, but this needs further investigation. This species was found again in low numbers in another cotton field at Thiva region, from mid May to early June of 1989.

The fact that this species was not found from early June onwards in both years reveals that cotton is only a temporary secondary host-plant, possibly not very suitable for aphid development and reproduction. However, cotton may play some role on the population dynamics of *M. euphorbiae* on subsequent crops and mainly on potatoes, a crop which is widely planted at Thiva region. This might be of particular concern because *M. euphorbiae* is a vector of several viruses (Blackman and Eastop 1985, Panayotou and Katis 1986).

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KEY WORDS: *Macrosiphum euphorbiae*, Aphididae, Cotton aphids

Πρώτη Διαπίστωση και Εμφάνιση του *Macrosiphum euphorbiae* (Thomas) σε Βαμβάκι στη Στερεά Ελλάδα

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ΠΕΡΙΛΗΨΗ

Η αφίδα *Macrosiphum euphorbiae* (Thomas) σημειώθηκε για πρώτη φορά στο βαμβάκι στην περιοχή Θηβών το Μάιο 1988. Το είδος αυτό έχει αναφερθεί από άλλους ερευνητές πάνω σε άλλα φυτά στην Ελλάδα. Από δειγματοληψίες που έγιναν καθόλη την καλλιεργητική περίοδο επί δύο συνεχόμενα έτη, βρέθηκαν μικροί πληθυσμοί της αφίδας αυτής, όταν τα φυτά ήταν μικρής ηλικίας και μόνο στο χρονικό διάστημα από μέσα έως τέλος Μαΐου-αρχές Ιουνίου. Φαίνεται ότι το βαμβάκι είναι μόνο ένας προσωρινός ξενιστής του είδους αυτού και ίσως όχι ιδιαίτερα κατάλληλος για την ανάπτυξη και αναπαραγωγή του. Εν τούτοις, το βαμβάκι μπορεί να παίζει κάποιο ρόλο στη δυναμική των πληθυσμών του πάνω σε άλλες καλλιέργειες και κυρίως στην πατάτα, καθόσο και κατάλληλος ξενιστής είναι και καλλιεργείται ευρέως στην περιοχή.