**Taxon**  
*Aphis gossypii* Glover

<table>
<thead>
<tr>
<th>Taxon Family / Order / Class / Phylum</th>
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<tr>
<td>Aphididae / Hemiptera / Insecta / Arthropoda</td>
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**COMMON NAMES (English only)**
- Cotton aphid
- Melon aphid
- Melon and cotton aphid

**SYNONYMS**
- *Aphis bauhiniae* Theobald, 1918
- *Aphis citri* Ashmead of Essig, 1909
- *Aphis citrulli* Ashmead, 1882
- *Aphis cucumeris* Forbes, 1883
- *Aphis cucurbiti* Buckton, 1879
- *Aphis minuta* Wilson, 1911
- *Aphis monardae* Oestlund, 1887
- *Cerosypha gossypii* Glover, 1877
- *Doralis frangulae* Kaltenbach
- *Toxoptera aurantii* var. *limonii* del Guercio, 1917

**SHORT DESCRIPTION**
Small aphid, about 2mm long, phloem-feeding with two virginiparous forms. Winged and wingless, highly variable in colour from yellowish green to partly black; immature stages (nymphs) pale yellow to pale green. It is a highly polyphagous species, major pest of cultivated plants in the families Cucurbitaceae, Rutaceae and Malvaceae, and of Citrus trees.

**BIOLOGY/ECOLOGY**

**Dispersal mechanisms**
Flight range of winged adults is very limited. Long-range dispersal of eggs, immature stages and adults is mediated with the transport of infested plant material.

**Reproduction**
The taxonomic status of this alien aphid is problematic, and hence the interpretation of biological information is difficult. Moreover, different biotypes exhibiting host preferences have been reported and a genetically differentiated cucurbit host race has been identified. In Europe, it reproduces exclusively by asexual parthenogenesis, and can produce nearly fifty generations a year under favourable conditions. In the USA, it can be holocyclic with a broadleaved tree (e.g., *Catalpa*, *Rhamnus*) as the primary host. However, sexual reproduction has been occasionally observed in France on *Hibiscus syriacus* as primary host. This aphid is closely related to European *Aphis* species of the *frangulae* group utilizing *Frangula alnus* as primary host. In the USA, Japan and China, they can be holocyclic with *Hibiscus*, *Catalpa* or *Rhamnus* trees as primary hosts. The optimal temperature for reproduction is reported to be about 21-27°C. Viviparous females produce a total of about 70-80 offspring at a rate of 4.3 per day. Developmental periods of immature stages vary from 20.7 days at 10°C to 3.8 days at 30°C.

**Known predators**
Predators include midges, anthocorid bugs, lacewings, syrphid fly larvae and ladybeetles. Several aphidiid and aphelinid hymenopteran are parasitoids.

**Resistant stages (seeds, spores etc.)**
Unknown.
HABITAT
Native (EUNIS code)
Unknown.

Habitat occupied in invaded range (EUNIS code)
I1: Arable land and market gardens, I2: Cultivated areas of gardens and parks; glasshouses.

Habitat requirements
Good resistance to summer heat. Dry weather conditions are favourable but heavy rainfall decreases population sizes.

DISTRIBUTION
Native Range
Unknown.

Known Introduced Range
Found in tropical and temperate regions throughout the world except northernmost areas. It is common in Africa, Australia, Brazil, East Indies, Mexico and Hawaii. Present in most of Europe. Can develop outdoors in southern Europe but surviving only in glasshouses in northern Europe.

Trend
Increasing introductions all over Europe.

MAP (European distribution)

Legend

Known in country
Known in CGRS square
Known in sea

INTRODUCTION PATHWAY
Passive transport with plant trade including vegetables, fruits, cut flowers, ornamental plants, bonsais, and nursery stock.

IMPACT
Ecosystem Impact
Not really known; attracts ants because of mutually beneficial relationships in using honeydew.

Health and Social Impact
Unknown.
**Economic Impact**
Nymphs and adults feed on the underside of leaves, or on growing tip of vines, sucking nutrients from the plant. The foliage may become chlorotic and die prematurely. Their feeding also causes a great deal of distortion and leaf curling, hindering photosynthetic capacity of the plant. In addition, they produce honeydew which allows growth of sooty moulds, resulting in a decrease of fruit/vegetable quantity and quality. The species is also vector of crinkle, mosaic, rosette, Tristeza citrus fruit (CTV) and other virus diseases. Its impact is especially important on economically-important vegetable and fruit crops such as courgette, melon, cucumber, aubergine, strawberry and on cotton, mallow and citrus.

**MANAGEMENT**

**Prevention**
Unknown.

**Mechanical**
Unknown.

**Chemical**
It has become resistant to many pesticides. Insecticides should be used sparingly and in conjunction with other non-chemical control methods.

**Biological**
Parasitoid aphidiid wasps (e.g., *Aphidius colemani*, *Lysiphlebus testaceipes*), aphelinid wasps (e.g., *Aphelinus gossypii*), predatory midges (e.g., *Aphidoletes aphidimyza*), predatory anthocorid bugs (*Anthocoris* spp.), predatory coccinelids, and entomopathogenic fungi (e.g., *Neozygites fresenii*) are efficient for biocontrol in greenhouse crops.

**REFERENCES**

**OTHER REFERENCES**

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