

Mini data sheet on *Tetranychus mexicanus* (Acari: Tetranychidae)

Tetranychus mexicanus was added to the EPPO A1 List in 2023. A full datasheet will be prepared, in the meantime you can view here the data which was previously available from the EPPO Alert List (added to the EPPO Alert List in 2019 - deleted in 2023).

Why: In October 2018, *Tetranychus mexicanus* (Acari: Tetranychidae) was found for the first time in the Netherlands in a greenhouse on pot plants of *Beaucarnea recurvata* (RS 2018/223). In October 2019, this outbreak was officially declared eradicated. Considering that this spider mite is polyphagous and could be a risk for glasshouse crops in the EPPO region as well as outdoor crops in the Southern EPPO region, the Panel on Phytosanitary Measures suggested that *T. mexicanus* should be added to the EPPO Alert List.

Where: *T. mexicanus* has a neotropical distribution. It is reported from the Americas. A record in China in 1994 has not been confirmed.

EPPO Region: absent (an outbreak was detected in 2018 in the Netherlands but was subsequently eradicated)

North America: USA (Florida, Texas), Mexico.

Central America and the Caribbean: Costa Rica, Cuba, El Salvador, Guadeloupe, Honduras, Martinique, Nicaragua.

South America: Argentina, Brazil (Acre, Amapa, Amazonas, Bahia, Ceara, Distrito Federal, Goias, Maranhao, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Para, Paraiba, Pernambuco, Rio de Janeiro, Rio Grande do Sul, Santa Catarina, Sao Paulo, Sao Paulo, Sergipe), Colombia, Paraguay, Peru, Uruguay, Venezuela.

On which plants: About 100 species, belonging to 44 plant families, have been recorded as hosts (Migeon & Dorkeld 2018). The finding on *Beaucarnea recurvata* in the Netherlands adds a new plant family (Asparagaceae). The host range includes important crops in the EPPO region such as *Citrus* spp., *Malus domestica*, *Vitis vinifera*, as well as many plants used as ornamentals.

Damage: Damage is similar to other spider mites. Feeding punctures lead to whitening or yellowing of leaves, followed by desiccation, and eventually defoliation. Mites and their webbing can be seen on the underside of the leaf. Females are carmine in colour and bigger than males. The life cycle at 27°C is about 10-12 days. In its current area of distribution, *T. mexicanus* has been recorded as causing economic damage on soursop (*Annona muricata*), passion fruit (*Passiflora edulis*), cocoa (*Theobroma cacao*). In southern Brazil, the following symptoms were observed on Citrus: chlorotic spots on the leaves, shoots' death, as well as leaf and fruit fall. Bleaching of leaves of ornamental plants may affect their commercial value.

Dissemination: Over short distances, *Tetranychus* mites are mainly transported with their webs by wind. Trade of host plants can ensure long distance dissemination.

Pathways: plants for planting, cut foliage? fruits with green parts?

Possible risks: Although *T. mexicanus* mainly has a neotropical distribution, it could potentially establish in the Southern part of the EPPO region, as well as become a glasshouse pest in the entire EPPO region. Establishment in the EPPO region may affect export to certain regions in the world as it is a quarantine pest in several countries (e.g. Taiwan and Japan).

Sources

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