Pacific Pests, Pathogens, Weeds & Pesticides - Online edition

Tomato red spider mite (477)

Summary

- Worldwide distribution. In Australia, New Zealand, but NOT in Pacific island countries.
- Serious pest, mainly Solanaceae. White speckling of leaves; later, as populations increase, webbing on undersides and leaves turn yellowish then brown and fall. Females about 0.5mm, oval, orange-red; males smaller.
- Spread: carried on wind, water, clothing and tools, and via domestic and international trade in plants. When food depleted, mites congregate at tops of plants awaiting dispersal.
- Biosecurity: quarantines for trade in fresh fruit and living plants.
- Natural enemies: ladybird beetles, lacewing larvae, pirate bugs, big-eyed bugs, and predatory thrips.
- Cultural control: weed, especially potato family; check nursery plants before replanting out; avoid water-stressed plants; use mulches; avoid planting next to mite-infested crops or planting downwind from those infested; plough in or collect and burn debris after harvest.
- Chemical control: (i) use soap, white or horticultural oils; (ii) sulphur; or (iii) abamectin. Avoid organophosphates and synthetic pyrethroids.

Common Name

Tomato red spider mite

Scientific Name

Tetranychus evansi; previously known as *Tetranychus takafujii*. Note, it is similar to the two spotted mite, *Tetranychus urticae* (**see Fact Sheet no. 024**).

Photo 1. Underside of *Solanum aviculare* showing red eggs of tomato red spider mite, *Tetranychus evansi*, laid in furrows left (possibly) by leaf-eating insect.

Photo 2. Adult tomato red spider mite, *Tetranychus evansi.*

Photo 3. Heavy infestation of tomato red spider mite, *Tetranychus evansi*, on tomato. Note, the gathering of spider mites at the top of the plant.

Photo 4. Heavy infestation of tomato red spider mite, *Tetranychus evansi*, with copious production of webbing holding the young leaves together preventing expansion.

Photo 5. Russeting of tomato caused by feeding of tomato red spider mite, *Tetranychus evansi.*

Photo 6. White speckling of the top of tomato leaves by the feeding of the tomato red spider mite, *Tetranychus evansi*, on the underside.

Photo 7. Gathering of tomato red spider mite, *Tetranychus evansi*, at the top of tomato leaves ready for spread on the wind.

Photo 8. Tomato red mites, *Tetranychus evansi,* migrating to the tip of a root of *Solanum americanum* (nightshade) that has become the highest point on a pulled-up plant by bush regenerators unaware of the infestation.

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Information from Tomato red spider mite (2019) Business Queensland. Queensland Government. (https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/crop-growing/priority-pest-disease/tomato-red-spider-mite#:~:text=Tomato%20red%20spider%20mite%20(Tetranychus,legs%20and%20insects%20have%206); and Plant Biosecurity and Product Integrity (2018) Tomato red spider mite. Department of Primary Industries, NSW, Australia. (https://www.dpi.nsw.gov.au/biosecurity/plant/insect-pests-and-plant-diseases/Tomato-red-spider-mite); and Migeon A, Dorkfeld F (2020) Spider Mites Web: a comprehensive database for the Tetranychidae. (http://www1.montpellier.inra.fr/CBGP/spmweb); and from Maulana T, *et al.* (2016) Red spider mite on tomato. Pest management decision guide: green and yellow list. CABI Plantwise. (https://www.cabi.org/ISC/FullTextPDF/2016/20167801479.pdf). Photos 2-7 Alain Migeon INRA, UMR CBGP (INRA/IRD/Cirad/Montpellier SupAgro), Campus International de Baillarguet, CS 30016, 34988, Montferrier-sur-Lez Cedex, France. Photos 1&8 Ray & Elma Kearney The dreaded Red Spider Mite - *Tetranychus evansi* - in Sydney and what it means to Biosecurity and NSW Dept. Primary Industry. (https://www.bushcarebluemountains.org.au/wp-content/uploads/2014/12/Biosecurity-Submission-Red-Mite-_R.-E.-K_-21.6.14-HQ.pdf).

Produced with support from the Australian Centre for International Agricultural Research under project HORT/2016/185: *Responding to emerging pest and disease threats to horticulture in the Pacific islands*, implemented by the University of Queensland and the Secretariat of the Pacific Community.