Mini data sheet on *Tetranychus evansi*

Tetranychus evansi was added to the EPPO A2 List in 2008. 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 2004 – deleted in 2008).

Tetranychus evansi (Acari: Tetranychidae) – red spider mite

Why	The EPPO Secretariat was informed by Dr Reynaud (FR) that a new spider mite species, *Tetranychus evansi* was spreading within Mediterranean countries. As it is considered as an invasive species and a damaging pest of tomatoes and other solanaceous crops, it was felt useful to add it to the EPPO Alert List.
Where	*T. evansi* is of South American origin and has been accidentally introduced into other parts of the world (e.g. in the 1980s in Southern Africa, at the end of 1980s - early1990s in north Africa, 1995 in Spain, 2000 in Portugal). **EPPO region**: Israel, Italy, France (Pyrénées-Orientales), Greece (Crete), Morocco, Spain (along the Mediterranean coast from Valencia to Almería, also found on protected crops in Tenerife), Portugal, Tunisia. **Africa**: Democratic Republic of Congo, Kenya, Malawi, Mauritius (including Rodrigues island), Mozambique, Namibia, Réunion, Senegal, Seychelles, Somalia, South Africa, Zambia, Zimbabwe. **Asia:** Taiwan. **South America:** Brazil. **Caribbean**: Puerto Rico. **North America:** USA (Arizona, California, Florida, Texas).
On which plants	*T. evansi* tends to prefer solanaceous crops: tomato (*Lycopersicon esculentum*), aubergine (*Solanum melongena*), potato (*S. tuberosum*), tobacco (*Nicotiana tabacum*). But it is also found from several other vegetables (e.g. beans, citrus, cotton, castor bean) and ornamental crops (e.g. *Rosa*), as well as on many weed species (e.g. *Amaranthus, Chenopodium, Convolvus, Conyza, Diplotaxis, Hordeum murinum, Lavatera, Sonchus, Solanum nigrum*).
Damage	Damage is similar to other spider mites. Feeding punctures led to whitening or yellowing of leaves, followed by desiccation, and eventually defoliation. In case of severe attacks, plants may die. Mites and their webbing can be seen on the underside of the leaf. Adult females are 0.5 mm long, oval, orange red with and indistinct dark blotch on each side of the body. They can lay up to 200 eggs. Males are smaller and straw to orange coloured. At 25°C, the life cycle is completed in 13.5 days. Development is favoured by hot dry conditions (minimum temperature 10°C, optimum temperature 34°C). In Southern Africa, it is considered as the most important dry season pest of tomatoes. In Zimbabwe, up to 90% yield losses have been recorded from field trials.
Dissemination	Over short distances, mites can be spread by wind, irrigation water, and field workers (clothing, tools). Trade of host plants can ensure long distance dissemination. The small size of *T. evansi*, and its morphological similarity with other spider mite species renders its detection difficult on consignments.
Pathway	Plants for planting of *Solanaceae*, fruits (?)
Possible risks	*Solanaceae* are important crops in the EPPO region both outdoor and under protected cultivation. In many countries where *T. evansi* has been introduced, it is reported as a serious pest (in particular on tomato) which may displace the already existing spider mite species. *T. evansi* is morphologically similar to other spider mite species already present in Europe (e.g. *T. urticae*), it can easily be confused with them and therefore remain undetected. Unlike other spider mite species, biological control with predatory mites such as *Phytoseiulus persimilis* and *Neoseiulus californicus* is not effective. Chemical control is possible, but data is lacking on the ability of *T. evansi* to develop resistance.

Source(s)

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