

Mini data sheet on *Pezothrips kellyanus*

Added in 2004 - Deleted in 2006

Reasons for deletion:

An Italian PRA concluded that the risk for *Pezothrips kellyanus* was not significant for the EPPO. In 2006, it was therefore removed from the EPPO Alert List.

Pezothrips kellyanus (Thysanoptera: Thripidae - Kelly's citrus thrips)

Why	The EPPO Secretariat noticed several publications mentioning the presence of a new thrips species, <i>Pezothrips kellyanus</i> , causing problems in citrus orchards in Sicilia (IT). Although it is not entirely clear whether this species originates or not from the Mediterranean region, it is indeed an emerging problem, and the EPPO Secretariat felt that it was useful to draw citrus-growing countries attention to this 'new' thrips.
Where	<p>EPPO region: Italy (Southern Italy, first reported in 1998 in Sicilia), Greece (first reported in 1987, Peloponese), Spain (Cataluña), Turkey (Province of Izmir).</p> <p>Oceania: Australia (widespread), New Caledonia, New Zealand (first recorded in 1950).</p> <p><i>P. kellyanus</i> was first observed in Australia and as a consequence it was thought to originate from this part of the world. But <i>P. kellyanus</i> has recently been re-designated from <i>Megalurothrips</i> which is a tropical genus mainly from South East Asia, to <i>Pezothrips</i> which so far included only Mediterranean and Southern European species. It was then hypothesized that <i>P. kellyanus</i> did not originate from Australia but most probably from the Mediterranean area.</p>
On which plants	Citrus (all citrus can be attacked but lemons (<i>C. limon</i>) and Navel oranges (<i>C. sinensis</i>) are particularly susceptible). <i>P. kellyanus</i> has also been found in flowers of many other plant species, but further studies would be needed to know whether these are incidental or breeding hosts (e.g. <i>Acmena</i> , <i>Brassica</i> , <i>Camellia</i> , <i>Chrysanthemum</i> , <i>Helianthus</i> , <i>Lonicera</i> , <i>Lycopersicon esculentum</i> , <i>Mangifera indica</i> , <i>Medicago sativa</i> , <i>Passiflora</i> , <i>Prunus</i> , <i>Rosa</i> , <i>Sparmannia africana</i> , <i>Zantedeschia</i> , and weeds such as <i>Ranunculus repens</i> and <i>Rumex crispus</i>).
Damage	<p>Adults are black and 2-3 mm long. Life cycle consists of eggs, 2 larval stages, pre-pupa, pupa and adult. Pictures can be viewed on Internet: http://www.agric.nsw.gov.au/reader/cit-thrips.htm http://www.ento.csiro.au/aicn/name_s/b_2769.htm</p> <p><i>P. kellyanus</i> feeds on young tissues (flowers and fruits), particularly near the calyx, producing a circular stem-end scar. Damage is often restricted to a thin ring but heavy infestations can lead to complete scarring of the fruit. Damage to mature fruit is less common but usually more severe, initially showing silvering which leads to thin scarring over most of the fruit surface. Heavy scarring can render fruits unmarketable. It was observed that fruits were most susceptible to thrips infestations in the period shortly after petal-fall. In Sicilia, <i>P. kellyanus</i> is considered as a key pest in citrus orchards and during recent surveys it was found to be the predominant species (it was found in mixed populations with <i>Thrips tabaci</i> and <i>T. flavus</i>, which appeared to be secondary pests). In New Zealand, it is considered as the most serious pest affecting citrus production.</p>
Dissemination	Adults can fly and are probably carried by winds (but no data is available on how they can disseminate within an orchard). Over long distances trade of infested plants can ensure pest dissemination.
Pathway	Plants for planting of citrus (other hosts?), cut branches of citrus, citrus fruits (?)
Possible risks	Citrus is a major crop in several EPPO countries around the Mediterranean basin. Although data is lacking on its economic impact, <i>P. kellyanus</i> is reported as a pest which can seriously reduce fruit quality. Control measures are available (several chemicals can be used, predatory mites such as <i>Iphiseius (Amblyseius) degenerans</i> were found in infested orchards but their efficacy is not known yet) and research is being carried out on adequate IPM strategies. As for many other

thrips species, detection, identification and control are likely to be difficult in practice. More surveys would seem desirable to better know the geographical distribution of *P. kellyanus* within the EPPO region.

Source(s)

Conti, F.; Tumminelli, R.; Fiscaro, R.; Perrotta, G.; Marullo, R.; Liotta, G. (2003) An IPM system for new citrus thrips in Italy. OIBC wprs Bulletin, 26(6), 203-208.

Conti, F.; Tumminelli, R.; Amico, C.; Fiscaro, R.; Frittitta, C.; Perrotta, G.; Marullo, R.; (2001) Monitoring *Pezothrips kellyanus* on citrus in eastern Sicily. Proceedings of the 7th International Symposium on Thysanoptera (2001-07-02/07, Reggio Calabria, IT), 207-210. Also available on Internet: <http://www.ento.csiro.au/thysanoptera/Symposium/Section7/31-Conti-et-al.pdf>

Froud, K.J., Stevens, P.S.; Steven, D. (2001) Survey of alternative host plants for Kelly's citrus thrips (*Pezothrips kellyanus*) in citrus growing regions. New Zealand Plant Protection, 54, 15-20. Also available on Internet <http://www.hortnet.co.nz/publications/nzpps>

Marullo, R. (1998) *Pezothrips kellyanus*, un nuovo tripide parassita delle colture meridionali. Informatore Fitopatologico, 48(10), 72-74.

INTERNET

NSW Department of Primary Industries - Agriculture - Pezothrips (New South Wales, Australia). <http://www.agric.nsw.gov.au/reader/cit-thrips.htm>

CSIRO and Department of Agriculture, Fisheries and Forestry. Australia. *Pezothrips kellyanus*. http://www.ento.csiro.au/aicn/name_s/b_2769.htm

EPPO RS 2004/137

Panel review date

2006-03

Entry date 2004-09