

Mini data sheet on *Scirtothrips perseae*

Added in 2003 - Deleted in 2007

Reasons for deletion:

Scirtothrips perseae has been included in EPP0 Alert List for more than 3 years and during this period no particular international action was requested by the EPP0 member countries. In 2007, it was therefore considered that sufficient alert has been given and the pest was deleted from the Alert List.

Scirtothrips perseae (Thysanoptera: Thripidae - avocado thrips)

Why	Two pests of avocado (<i>Oligonychus perseae</i> and <i>Tetrалеurodes perseae</i>) have been found in Israel in 2001 (EPP0 RS 2003/044). The same species have also been introduced into California (US), most probably from Latin America. When looking at the Californian studies on these pests, it appeared that a third pest species <i>Scirtothrips perseae</i> was also reported as having been introduced from Latin America, and was causing economic damage to avocado orchards. Therefore, the EPP0 Secretariat felt that <i>S. perseae</i> should also be added to the EPP0 Alert List.
Where	<i>S. perseae</i> was first noticed in California (US) in July 1996. At the time of discovery, it was described as a new species with an unknown area of origin. Further studies showed that it occurs in Mexico and Guatemala, and probably originates from this area. It is hypothesised that it was introduced into California with illegally brought planting material.
On which plants	<i>Persea americana</i> (avocado).
Damage	Both adults and immature stages of <i>S. perseae</i> can be observed on upper leaf surfaces, but when disturbed they move to leaf edges and undersides. Feeding damage (leaf bronzing) can be observed on both leaf surfaces. Initially, damage follows leaf veins but as population increases, bronzing is observed in random patterns between leaf veins. Immature stages and adults also feed on young developing fruits while hidden under the calyx, resulting in fruit scarring. In California, outbreaks of <i>S. perseae</i> are observed in winter and spring when temperatures are low, and populations decrease in summer. <i>S. perseae</i> is currently considered as a pest of major economic importance in Californian avocado orchards.
Dissemination	Over short distances, thrips are poor flyers but can be transported by winds. Over long distances, movements of infested avocado plants can ensure thrips dissemination. The risk associated with movements of fruits appears very low.
Pathway	Plants for planting of <i>P. americana</i> , fruits (?).
Possible risks	Avocado is not widely grown in the EPP0 region but is of economic importance at least in Israel and Spain. It can be recalled that <i>Oligonychus perseae</i> and <i>Tetrалеurodes perseae</i> have recently been found in Israel and are under official control. In this case, it is also believed that they came with illegally introduced avocado planting material. Control methods are being studied in United States (use of biological control agents, use of abamectin), but thrips are usually difficult to control in practice. Trade essentially concern avocado fruits which are not a risky pathway, but more attention should perhaps be paid to the movements of planting material to avoid any introduction into the EPP0 region.
Source(s)	Nakahara, S. (1997) <i>Scirtothrips perseae</i> (Thysanoptera: Thripidae), a new species infesting avocado in southern California. <i>Insecta Mundi</i> , 11(2), 189-192 (abst.). Swirski E, Wysoki M & Izhar Y, 2002. Subtropical Fruits Pests in Israel, Fruit Board of Israel, 284 pp. NPPO of Israel, 2003-03. INTERNET Colegio de Postgraduados, Mexico. IV World Avocado Congress (1999-10-06). Overview of the world avocado production by J. Toerien. http://www.colpos.mx/ifit/aguacate2/ingles2/panoramic.htm University of California, Riverside (US). The biology and management of the avocado thrips, <i>Scirtothrips perseae</i> Nakahara (Thysanoptera: Thripidae) by M.S. Hoddle. http://www.biocontrol.ucr.edu/avocadothrips.html