

## Mini data sheet on *Thrips setosus* (Thysanoptera: Thripidae)

Added to the EPPO Alert List in 2014 - Deleted in 2018

### Reasons for deletion:

*Thrips setosus* has been included in EPPO Alert List for more than 3 years. Although, its presence has been monitored by several EPPO member countries, no specific phytosanitary measures were taken. Therefore, the Panel on Phytosanitary Measures proposed its deletion in 2018-03. In 2018-06, the Working Party on Phytosanitary Regulations agreed that it could be deleted.

**Why:** The presence of *Thrips setosus* has recently been reported by the Netherlands on *Hydrangea* plants. Following this initial record, other European countries also found the pest. *T. setosus* is a polyphagous species which can transmit *Tomato spotted wilt virus* (*Tospovirus*, TSWV - EPPO A2 List). Because this was the first time that this potentially damaging thrips species was reported in the EPPO region, the EPPO Secretariat decided to add it to the EPPO Alert List.

**Where:** until recently, *T. setosus* was only known to occur in parts of the Asia.

**EPPO region:** Croatia, France, Germany, Netherlands, United Kingdom. The pest was first found in autumn 2014 in the Netherlands in one production site of *Hydrangea* plants for planting grown indoors and outdoors. Subsequent surveys detected the pest in other Dutch production sites and in other European countries. No specific official measures have been taken in countries concerned.

**Asia:** Indonesia (Sumatra), Japan (widespread), Korea (Republic of).

**On which plants:** *T. setosus* is a highly polyphagous species. In Japan, it has been found on many plant species including crops [e.g. *Capsicum annuum* (sweet pepper), *Cucumis sativus* (cucumber), *Cucurbita moschata* (pumpkin), *Dioscorea japonica* (Japanese mountain yam), *Momordica charantia* (bitter melon), *Nicotiana tabacum* (tobacco), *Pisum sativum* (pea), *Sesamum* (sesame), *Solanum lycopersicum* (tomato), *Solanum melongena* (aubergine), *Solanum tuberosum* (potato), *Vicia sativa* subsp. *angustifolia* (narrow leaf vetch)], ornamental plants [e.g. *Abelia spathulata*, *Brassica oleracea* var. *acephala* (ornamental cabbage), *Chrysanthemum morifolium*, *Dahlia*, *Hippeastrum*, *Iris*, *Liriope platyphylla*, *Oenothera*, *Ophiopogon jaburan*, *Tagetes*], weeds and wild plants [*Ailanthus altissima*, *Cirsium japonicum*, *Lamium amplexicaule*, *Polygonum*, *Pueraria lobata*]. In the Republic of Korea, it was reported on rice (*Oryza sativa*). In Japan, it is considered to be a pest of tobacco (*Nicotiana tabacum*) and tomato (*Solanum lycopersicum*). In European countries, *T. setosus* was found on *Hydrangea* plants, as well as on several weeds (e.g. *Heracleum sphondylium*, *Lamium purpureum*, *Urtica dioica*) growing in their vicinity.

**Damage:** *T. setosus* feeds on leaves but not on pollen. Damage is typical of leaf-feeding thrips (silvery spots with dark punctures on the foliage). In the Netherlands, feeding damage was also observed on the sepals of *Hydrangea* flowers. *T. setosus* has been shown to be a vector of TSWV, a virus which has a very large host range, including economically important vegetable and ornamental crops.

**Dissemination:** the potential of *T. setosus* for natural spread is relatively limited. Over long distances, the international trade of plants for planting is probably the main pathway.

**Pathway:** Plants for planting, cut flowers and foliage, fruit and vegetables, soil and growing media.

**Possible risks:** Information is generally lacking on the biology, distribution and economic impact of *T. setosus*. In the available literature, there is no indication that *T. setosus* is causing severe direct or indirect damage in its area of origin. However, studies carried out in Japan have shown that *T. setosus* has a fast development, high fecundity and high potential for population increase. These studies also concluded that the broad host plant range, high population growth rate, and virus transmission ability would have the potential to make *T. setosus* an important pest, in particular in glasshouse crops. As is the case for other thrips species, due to its small size and high rates of reproduction, *T. setosus* is likely to be difficult to detect and control. Finally, considering the impacts of earlier introductions of thrips species such as *Frankliniella occidentalis*, as direct plant feeders and virus vectors, it seems desirable to prevent any further spread of *T. setosus* in the EPPO region.

## Sources:

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