

Express – PRA¹⁾ for *Thrips setosus*

- Occurrence -

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Initiation: Pest outbreak in Hamburg

| Express - PRA | <i>Thrips setosus</i> Moulton | | |
|-------------------------------------|---|--|---|
| Phytosanitary Risk for Germany | high <input type="checkbox"/> | medium <input checked="" type="checkbox"/> | low <input type="checkbox"/> |
| Phytosanitary Risk for EU-MS | high <input type="checkbox"/> | medium <input checked="" type="checkbox"/> | low <input type="checkbox"/> |
| Certainty of Assessment | high <input type="checkbox"/> | medium <input type="checkbox"/> | low <input checked="" type="checkbox"/> |
| Conclusion | <p><i>Thrips setosus</i> which is native to Japan and Korea does not yet occur in Germany but is already established in the Netherlands. Up to now it is not listed in the Annexes of Dir. 2000/29/EC but is included in the EPPO Alert List.</p> <p><i>Thrips setosus</i> is a highly polyphagous species and infests amongst others sweet pepper, cucumber, pumpkin, tobacco, pea, sesame, tomato, potato, rice and hortensia. Furthermore it is capable to transmit Tomato spotted wilt virus.</p> <p>Due to suitable climate conditions it can be assumed that <i>Thrips setosus</i> is able to establish in outdoor areas in Germany. The establishment in other EU Member States is also possible. As the thrips was found in glasshouses in the Netherlands an establishment in protected cultivation can be expected.</p> <p>Due to its high damage potential for a manifold of vegetables and ornamental plants <i>T. setosus</i> represents a considerable phytosanitary risk for Germany and other EU Member States. Based on this risk assessment it is assumed that the pest is able to establish in Germany or other Member States and to cause considerable damage. Thus measures according to § 4a of the Plant Inspection Order should be taken to control the introduction risk and further spread of this potential quarantine pest. If necessary, a monitoring should be carried out in order to find out if the pest might already be wider spread than assumed to date.</p> | | |
| Taxonomy ²⁾ | Thysanoptera, Thripidae | | |
| Trivial names | Japanese flower thrips, tobacco thrips, | | |
| Synonyms | --- | | |
| Does a relevant earlier PRA exist? | Yes, Quicksan in the Netherlands (Anonymus, 2014) | | |
| Biology | Information is generally lacking. The thrips has a high reproduction rate, a high population increase and a broad host range. It does not feed pollen and thus is no typical flower thrips. | | |
| Is the pest a vector? ³⁾ | Yes, for Tomato spotted wilt virus (TSWV) | | |
| Is a vector needed? ⁴⁾ | No | | |
| Host plants | Highly polyphagous species; amongst others sweet pepper, cucumber, pumpkin, tobacco, pea, sesame, tomato, potato, rice, hortensia | | |
| Symptoms ⁵⁾ | Silvery spots with dark punctures on the foliage | | |

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|--|---|
| Presence of host plants in Germany ⁶⁾ | Wide spread, as well in outdoor areas as in protected cultivation |
| Presence of host plants in the MS ⁷⁾ | Wide spread, as well in outdoor areas as in protected cultivation |
| Known infested areas ⁸⁾ | Japan, Korea, the Netherlands |
| Pathways ⁹⁾ | Plants for planting, cut flowers, cut foliage, fruit, vegetables, soil and substrates |
| Natural spread ¹⁰⁾ | Relatively limited |
| Expected establishment and spread in Germany ¹¹⁾ | Possible because of suitable climate conditions, establishment also possible in glasshouses |
| Expected establishment and spread in the MS ¹²⁾ | Possible because of suitable climate conditions, establishment also possible in glasshouses |
| Known damage in infested areas ¹³⁾ | No severe damage known in the native area. The reason might be massive control measures against other pests, f. e. <i>Thrips palmi</i> , that are taken in that area and which are also effective against <i>T. setosus</i> . |
| Limitation of the endangered area in Germany | All of Germany |
| Expected damage in the endangered area in Germany ¹⁴⁾ | Feeding damage on vegetable and ornamental plants, transmission of TSWV. Possibly impact on the export because up to now the thrips occurs only in a few countries. |
| Expected damage in the endangered area in MS ¹⁵⁾ | Feeding damage on vegetable and ornamental plants, transmission of TSWV. |
| Control feasibility and measures ¹⁶⁾ | Difficult because of the littleness of the thrips and the high reproduction rate. Possibly plant protection agents against <i>Thrips palmi</i> could also be effective in this case. However, this assumption bears a high uncertainty. |
| Detection and diagnosis ¹⁷⁾ | See symptoms |
| Remarks | If necessary, a monitoring should be conducted to clarify if the thrips is further spread than expected up to now. |
| Literature | Anonymous, 2014. Quick Scan of the Netherlands on <i>Thrips setosus</i> , Quick Scan Number QS. Ent.2014.11 EPPO, 2014. EPPO Alert List <i>Thrips setosus</i> http://www.eppo.int/QUARANTINE/Alert_List/insects_thrips_setosus.htm |

Explanations

- 1) Compilation of the most important directly available information allowing a first preliminary estimation of the phytosanitary risk. This short assessment is necessary for the decision on a notification to EU and EPPO as well as the preparation of a complete risk analysis, for the information of the countries and as a basis for the possible initiation of eradication measures. Regarding the phytosanitary risk especially the possibility of the introduction into and spread in Germany and the Member States as well as possible damage are taken into account.
- 2) Taxonomic classification – also subspecies; in case that the taxonomical classification is uncertain the JKI-scientist initiates the taxonomic classification, as far as possible.
- 3) If so, which organism (which organisms) is (are) transmitted and does it (do they) occur in Germany / the MS?
- 4) If so, which organism serves as a vector and does it occur in Germany / the MS?
- 5) Description of the pattern of damage and the severity of the symptoms/damage on the different host plants
- 6) Presence of the host plants in protected cultivation, open field, amenity plantings, forest. Where, in which regions are the host plants present and to which extent? How important are the host plants (economical, ecological,..)? Possible origin
- 7) Presence of the host plants in protected cultivation, open field, amenity plantings, forest,; Where, in which regions are the host plants present and to which extent? How important are the host plants (economical, ecological,..)? Possible origin
- 8) f. e. acc. to CABI, EPPO, PQR, EPPO Datasheets
- 9) Which pathways are known for the pest and how important are they for the possibility of introduction? Primarily the transport of the pest over long distances is meant, normally with infested traded plants, plant products or other contaminated articles. This does not comprise the natural spread resulting from introduction.
- 10) Which pathways are known for the pest and of which relevance are they in respect of the possibility of spread? In this case the natural spread resulting from introduction is meant.
- 11) under the given prevalent environmental conditions
- 12) under the given prevalent environmental conditions (native areas and areas of introduction)
- 13) Description of the economic, ecological/environmental relevant and social damage in the area of origin resp. areas of occurrence up to now
- 14) Description of the economic, ecological/environmental relevant and social damage to be expected in Germany, as far as possible and required, differentiated between regions
- 15) Description of the economic, ecological/environmental relevant and social damage to be expected in the EU/other Member States, as far as possible and required, differentiated between regions
- 16) Can the pest be controlled? Which possibilities of control are given? Are plant health measures conducted in respect to this pest (in the areas of current distribution resp. by third countries)?
- 17) Description of possibilities and methods for detection. Detection by visual inspections? Latency? Uneven distribution in the plant (sampling)?