Express PRA[1] for *Aculops gleditsiae* – Occurrence –

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Initiation: Occurrence on *Gleditsia triacanthos* in the Federal State Baden-Württemberg

Express PRA	***Aculops gleditsiae* (Keifer, 1959)**		
Phytosanitary risk for Germany	**high** ☐	**medium** ☐	**low** ☒
Phytosanitary risk for EU-Member States	**high** ☐	**medium** ☐	**low** ☒
Certainty of the assessment	**high** ☒	**medium** ☐	**low** ☐
Conclusion	Presumably, the gall mite *Aculops gleditsiae* is endemic to Eastern North America and has already been found in Germany and other EU-Member States and partly, it is already wide spread (Italy, Hungary). So far, it is not listed in the Annexes of Regulation (EU) 2019/2072 or by EPPO. *Aculops gleditsiae* is monophagous and infests three-thorned acacia (*Gleditsia triacanthos*). Due to suitable climatic conditions, it is likely that *A. gleditsiae* can establish outdoors in warmer parts of Germany if host plants are available, further establishment in warmer EU member states is also possible. In case of severe infestation, *A. gleditsiae* can cause significant damage to its host plants; since three-thorned acacias are ornamentals, the damage is of aesthetic nature. In Germany, three-thorned acacias are of minor importance, in southern EU-Member States they are planted as park and roadside trees and are at least partially classified as invasive. Due to the limited damage potential, *Aculops gleditsiae* is not classified as quarantine pest and hence, Article 29 VO (EU) 2016/2031 does not apply.		
Taxonomy[2], common name, synonyms	Acari, Eriophyoidea, Eriophyidae, Phyllocoptinae, Anthocoptini, *Aculops*, *Aculops gleditsiae* (Keifer, 1959) Synonym: *Vasates gleditsiae* Keifer, 1959		
EPPO Code	Only for the genus *Aculops*: 1ACUPG		

Express PRA	*Aculops gleditsiae* (Keifer, 1959)
Does a relevant earlier PRA exist?	No.
Biology	The mite lives and reproduces on the underside of the leaves of three-thorned acacias (Castagnoli, 1996). It is likely that *A. gleditsiae* has two juvenile stages as it is generally known for gall mites. No experimental data on the climatic requirements for the development of *A. gleditsiae* is available; however, the presence in North America, Italy, Hungary and Baden-Württemberg suggests that survival in moderate and sub-tropic climates is possible. From *A. fuchsiae* and other gall mites it is deduced that *A. gleditsiae* is oviparous and reproduces via arrhenotoky (males develop only from unfertilized eggs). Female fertilization takes place by means of spermatophores. It is assumed that *A. gleditsiae* feeds the same way as other gall mites that sting the plant parts with their stiletto-like mouthparts, suck the cell content and inject saliva leading to deformation of the plant organs (EFSA PLH Panel, 2014).
Is the pest a vector?[3]	Unknown.
Is a vector needed?[4]	No.
Host plants	*Gleditsia triacanthos*
Symptoms[5]	Rusty brown discolouration on the leaf underside of the host plant (Castagnoli, 1996).
Presence of the host plants in Germany[6]	In parks and as roadside trees, in gardens, not common.
Presence of the host plants in the Member States[7]	In parks and as roadside trees, in gardens, under warm and humid climate conditions (potentially) invasive (Stimm and Heinrichs, 2015).
Known infested areas[8]	North America, Italy, Hungary, Serbia, Montenegro (Navajas et al. 2010, Castagnoli, 1996, Ripka and De Lillo, 1997, Ripka, 2007, Glavendekić, et al. 2005).
Pathways[9]	Via infested plants.
Natural spread[10]	Presumably via wind, but as the gall mite is very host-specific, no effective natural spread is expected.

Express PRA	*Aculops gleditsiae* (Keifer, 1959)
Establishment and spread to be expected in Germany[11]	Establishment can be expected in warmer regions of Germany when three-thorned acacias are present. An extensive spread is not expected, as three-thorned acacias are not widespread.
Establishment and spread to be expected in the Member States[12]	The mite is already established in Italy and Hungary, further establishment, especially in warmer Member States where three-thorned acacias are frequent, is expected. More extensive, but presumably slow, spread is also expected there.
Known damage in infested areas[13]	Navajas et al. (2010) indicate economic damage caused by the gall mite but without explaining this further.
Limitation of the endangered area in Germany	Warmer regions where three-thorned acacias are present.
Damage to be expected in endangered area in Germany[14]	No significant damage is expected.
Damage to be expected in endangered area in the Member States[15]	Damage on three-thorned acacias in warmer regions is possible, but since three-thorned acacias are potentially invasive there, no economic damage by the mite is expected, even if the discolouration by the mites on the leaf underside represent a significant damage (Castagnoli, 1996).
Control feasibility and measures[16]	During the movement of three-thorned acacias, as much as possible care should be taken to keep the plants free of pests to prevent further spread.
Detection and diagnosis[17]	Normally, the presence of *A. gleditsiae* is determined via plant symptoms (rusty brown leaf undersides on *Gleditsia triacanthos*). The mite is tiny and inconspicuous and can very easily be overlooked in symptomless plants. A high level of taxonomic expertise is required for species identification.
Remarks	Information on *Aculops gleditsiae* is very limited; some information was deduced from the EFSA Pest Categorisation for *A. fuchsiae* (EFSA PLH Panel, 2014).
Literature	CASTAGNOLI, M. (1996): Ornamental coniferous and shade trees. World Crop Pests, 6, 661-671. EFSA PLH PANEL (2014): Scientific Opinion on the pest categorisation of *Aculops fuchsiae*. EFSA Journal 12 (10): 3853, 29 Seiten. doi:10.2903/j.efsa.2014.3853 GLAVENDEKIĆ, M., MIHAJLOVIĆ, L., PETANOVIĆ, R. (2005): Introduction and spread of invasive mites and insects in Serbia and Montenegro. In Plant protection and plant health in Europe.

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STIMM, B., HEINRICHS, S. (2015): 4.5 Gleditschie (*Gleditsia triacanthos* L.). Potenziale und Risiken eingeführter Baumarten: Baumartenportraits mit naturschutzfachlicher Bewertung, 7, 85.

Remarks

Erläuterungen

[1] Compilation of the most important and directly available information that renders possible a first preliminary evaluation of the phytosanitary risk. This short evaluation is necessary for the decision on a notification to EU and EPPO as well as the preparation of a complete risk analysis, to inform the countries and as the basis for the possible initiation of eradication measures. In the case of phytosanitary risk especially the possibility of the introduction and spread in Germany and in the Member States as well as possible damage are taken into account.

[2] Taxonomic classification - also subspecies - as the case may be; in the case that the taxonomic classification is uncertain, the JKI-scientist initiates the taxonomic classification as far as possible.

[3] If so, which organism (organisms) is (are) transmitted and does it (do they) occur in Germany / the Member States?

[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 strength of the symptoms/damage on the different host plants.

[6] Presence of the host plants in protected cultivation, open field, public gardens, forest,....;
Where, in which regions are the host plants present and to which extent?
How important are the host plants (economic, ecological, ...)?

[7] Presence of the host plants in protected cultivation, open field, public gardens, forest,....;
Where, in which regions are the host plants present and to which extent?
How important are the host plants (economic, ecological, ...)?, possible origin.

[8] E. g. according to CABI, EPPO, PQR, EPPO Datasheets.

[9] Which pathways are known for the pest and how important are they for the probability of introduction. Primarily the transport of the pest over long distances is meant, normally with infested traded plants, plants 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 probability of the 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 (domestic areas and areas of introduction).

[13] Description of the economic, ecological /environmental relevant and social damage in the area of origin resp. areas of previous occurrence.

[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 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 previous occurrence resp. by third countries)?

[17] Description of possibilities and methods of detection. Detection by visual inspections? Latency? Uneven distribution in the plant (sampling)?