Netherlands Food and Consumer Product Safety Authority
Ministry of Economic Affairs

National Plant Protection Organization, the Netherlands

Quick scan number: QS.ent.2015.6

	Quick scan date: 19 February 2016	
1	What is the scientific name (if possible up to species level + author, also include (sub)family and order) and English/common name of the organism? *Add picture of organism/damage if available and publication allowed*.	*Hercinothrips dimidiatus* Hood, 1937 Thysanoptera (thrips): Thripidae: Panchaetothripinae
2	What prompted this quick scan? *Organism detected in produce for import, export, in cultivation, nature, mentioned in publications, e.g. EPPO alert list, etc.*	Finding by a private person/organisation on *Aloe vera* in a commercial greenhouse in the Netherlands, October 2015.
3	What is the current area of distribution?	South Africa, probably endemic. Introduced in Portugal in 2012 (EPPO, 2015; Mateus et al., 2015).
4	What are the host plants?	Found on *Aloe arborescens* in Portugal (Aloaceae; Mateus et al., 2015), other records are from a "liliaceous plant" (Hood, 1937), *Haworthia altilinea* (Aloaceae; USDA, 1941). Doubtful record (see 12): *Cineraria geifolia* (Asteraceae; Hood, 1937).
5	Does the organism cause any kind of plant damage in the current area of distribution and/or does the consignment demonstrate damage suspected to have been caused by this organism? *Yes/no + plant species on which damage has been reported + short description of symptoms. Please indicate also when the organism is otherwise harmful (e.g. predator, human/veterinary pathogen vector, etc.).*	Damage to leaves of *Aloe arborescens* can be serious. Mateus et al. (2015) states: "The older leaves of the damaged plants were dark brown to almost black. Mature leaves showed silvering areas on the upper surface, associated with small discoloured scarifications and covered with dark coloured excrement droplets, indicating the presence of thrips. Some of those mature leaves had dark red areas associated with small black necroses. A general silver appearance was observed in the most necrotic clusters". "Apparently, the feeding discoloured spots in a later stage give rise to larger black necroses which are surrounded by dark reddish areas. These areas may expand up to all the surface of the leaf, including the lower surface. Frequently, leaves turn black in colour and die".

6	Assess the probability of establishment in the Netherlands (NL) (i.e. the suitability of the environment for establishment). a. In greenhouses (low, medium, high) b. Outdoors (low, medium, high) c. Otherwise (e.g. storage facilities, human environment)	a. *Haworthia* spp. and *Aloe* spp. are commonly cultivated succulents in greenhouses. Until the recent finding in the Netherlands, reports of occurrence of *Hercinothrips dimidiatus* in greenhouses are lacking. It is, however, still uncertain if the species can maintain itself in a commercial greenhouse throughout the year (medium probability of establishment with a high uncertainty) b. Outdoors, Aloaceae cannot survive winter in the Netherlands. Therefore, the probability of establishment of *H. dimidiatus* outdoors is low with a low uncertainty.
7	Assess the probability of establishment in the EU (i.e. the suitability of the environment for establishment).	In southern Europe, the species has established in Portugal. Therefore the probability of establishment in other southern European countries is high.
8	What are the possible pathways that can contribute to spread of the organism after introduction? How rapid is the organism expected to spread (by natural dispersal and human activity)?	Almost nothing is known about the biology of the thrips. As a winged insect, thrips can be blown by wind over long distances. The species may also spread by trade of its host plants.
9	Provide an assessment of the type and amount of direct and indirect damage (e.g. lower quality, lower production, export restrictions, threat to biodiversity, etc.) likely to occur if the organism would become established in NL and the EU, respectively?	Chemical treatment will be necessary but probably effective to continue cultivation of Aloaceae. All stages of the thrips can be found on and in the plant (Mateus et al., 2015). Due to international trade in plants some minor pest species in Panchaetothripinae have been distributed worldwide. No vectors of tospoviruses are known in this subfamily. Third countries may, however, require guarantees that plants of Aloaceae imported from the EU are free of the pest.
10	Has the organism been detected on/in a product other than plants for planting (e.g. cut flowers, fruit, vegetables)? *If "no", go to question 12*	No.
11	If the organism has been found on/in a product other than plants for planting (e.g. cut flowers, fruit, vegetables), what is the probability of introduction (entry + establishment)? *Only to be answered in case of an interception or a find.*	
12	Additional remarks	1. The record on *Cineraria* by Hood (1937) is doubtful, because he refers to a brachypterous form (with reduced wings), which may belong to another species of *Hercinothrips*. 2. In its original area of distribution South Africa, males as well as females occur, but in Portugal and Netherlands only females were found. Thrips strains with asexual reproduction (in this case: thelytokous) are often more successful in colonizing a new

		environment. 3. Because little is known about the biology of *Hercinothrips dimidiatus,* it cannot be excluded that part of the reproduction takes place in the soil (prepupae and pupae). If pupation can take place outside the plant than this hampers effective control.
13	References	• EPPO (2015) First report of *Hercinothrips dimidiatus* in Portugal. EPPO Reporting Service 2015/025. https://gd.eppo.int/reporting/article-4451 [last access 23-10-2015] • Hood JD (1937) New genera and species of Thysanoptera from South Africa. Annals and Magazine of Natural History (10) 19: 97–113. • Mateus C, Franco JC, Caetano MF, Silva, EB da, Ramos AP, Figueiredo E & Mound LA (2015) *Hercinothrips dimidiatus* Hood (Thysanoptera: Thripidae), a new pest of *Aloe arborescens* Miller in Europe. Phytoparasitica 10/2015; DOI: 10.1007/s12600-015-0492-z. http://link.springer.com/content/pdf/10.1007%252Fs12600-015-0492-z.pdf [last access 23-10-2015] • USDA (1942) List of intercepted plant pests (List of Pests Recorded During the Period July 1, 1940, to June 30, 1941, Inclusive, as Intercepted in, on, or with Plants and Plant Products Entering United States Territory.). United States Department of Agriculture, Bureau of Entomology and Plant Quarantine, Service and Regulatory, Washington, USA.https://archive.org/stream/inte41unit/inte41unit_djvu.txt [last access 23-10-2015]
14	**Conclusions**	This Quickscan was initiated after the finding of the thrips species *Hercinothrips dimidiatus* on plants of *Aloe vera* by a private person/organisation in a commercial greenhouse in the Netherlands. The species is known to occur in South Africa and has been found in Europe (Portugal) in 2014. Very little is known about the species. In Portugal, it causes damage in *Aloe* spp.
15	**Follow-up measures**	Communication and inclusion in the survey programme