



## March 2016 PEST Report - THE NETHERLANDS

**National Plant Protection Organization**  
POBox 9102  
6700 HC Wageningen  
The Netherlands

### **1.1 First finding of *Hemitarsonemus tepidariorum* (fern mite) in plants for planting of *Platyserium alcicorne* (fern plants) in a production greenhouse.**

#### **1.2 Executive summary**

This report concerns the finding of *Hemitarsonemus tepidariorum* in plants for planting of *Platyserium alcicorne* (fern plants) in a production greenhouse, in the Netherlands. In November 2015 several trays, with young fern plants were heavily affected, including leaf deformities and stunting of plants. The origin of the finding is unknown. In the past few occurrences in greenhouses in the United Kingdom and United States have been reported, but it is unclear if the species remained in those greenhouses for a longer period of time. The organism is not listed as a harmful organism in the EU directive 2000/29/EC and is not listed on the EPPO A1 or A2 list.

Identity of the pest (scientific name) *Hemitarsonemus tepidariorum* (Warburton, 1904)

Acari: Prostigmata: Tarsonemidae

Categorization of the pest (none)

Location: Municipality Uithoorn, village 'De Kwakel'.

Reason of the notification: First report

How the pest was found; (6) information submitted by professional operator

Information on the infested area, severity and source of the outbreak – See summary.

Official phytosanitary measures - Communication to stakeholders and inclusion in the survey programme 2017.

#### **4. Reason of the notification and pest status**

4.1 Select: (1) First presence of the harmful organism - First report

#### **4.4 Current Pest status**

(12) Other: Transient – non actionable in view of earlier records in the UK and uncertainty on the origin of the finding. A specific surveillance will be completed in 2017.

#### **4.3 Previous Pest status**

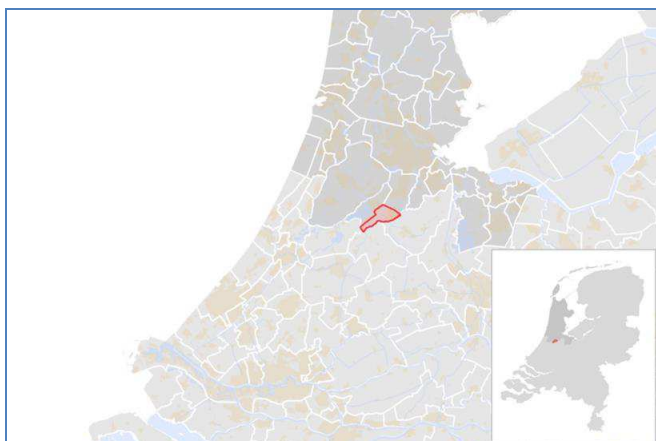
(8) Absent: no pest records

#### **1.3 Legal provisions – select (or include in cover letter)**

(2) full notification

### 3. Location of presence of harmful organism

#### 3.1 Municipality Uithoorn



### 5. Information relating to the finding.

#### 5.1 How the harmful organism was found.

(6) information submitted by professional operator

#### 5.2 Date of finding.

On 27 November 2015 the finding was reported by the operator.

#### 5.3 Submission of information concerning the sampling procedure for laboratory analysis, including date, method, and sample size.

On 1 December a sample consisting of two heavily infested leaves was provided to the National Reference Centres. Several mites, with all stages of development for both sexes could be isolated and these were positively identified by microscopic analysis.

#### 5.4 the name and the address of the laboratory

NPPO – The Netherlands

National Reference Centre

Ir. A.T.C. (Anton) van der Sommen (a.t.c.vandersommen@nvwa.nl) Tel: +31 88 223 2486

P.O.Box 9102

6700 HC Wageningen

The Netherlands

#### 5.5 Diagnostic method

A few phytophagous Tarsonemidae from ferns are known of which *Hemitarsonemus tepidariorum* is reported most often. All stages and both sexes of this mite are well described by Cameron (1925), Beer (1954) and Lindquist (1986). Cameron (1925) additionally describes the damage caused by the process of feeding (emptying parenchyma cells) on ferns.



Figure 1: two trays with healthy (front) and two with damaged *Platycerium* plants (back);

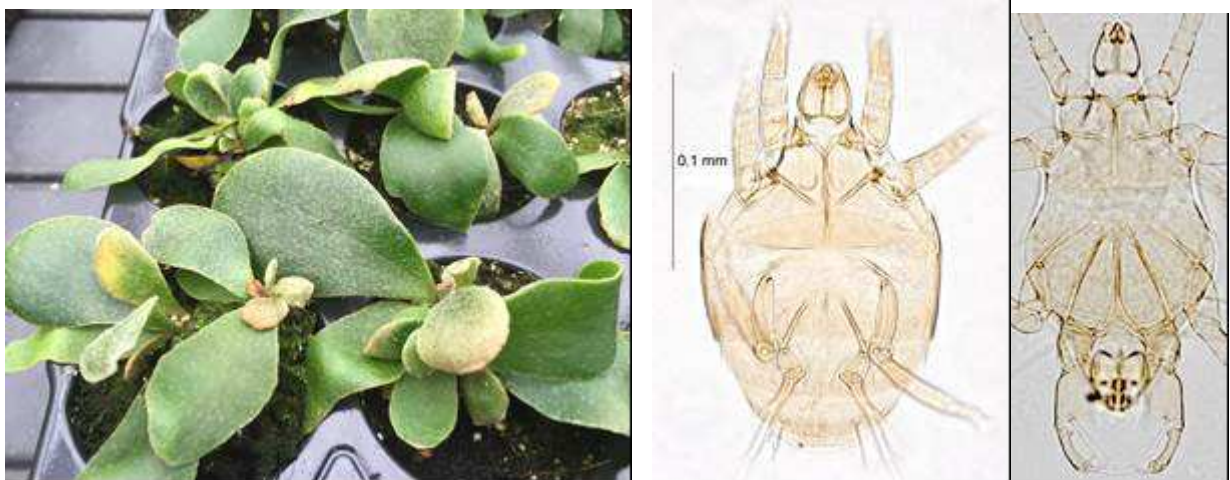


Figure 2. Left: symptoms in detail of heavily damaged young plants;  
Middle and right: respectively female and male in microscopic slide.

## **6. Information related to the area, severity of the finding and source of the finding**

6.1. Size and delimitation of the infested area.

(2) number of infested plants (pieces): heavily infested propagation material

6.2. Characteristics of the infested area and its vicinity.

(3) Physically closed conditions

(3.1) greenhouse; plants for planting.

6.3. Host plants in the infested area and its vicinity.

Unknown

6.4. Infested plant(s), plant product(s) and other object(s). Indication of the scientific name of the infested host plant(s).

*Platyserium allicorne*

6.6. Severity of the outbreak. Description of the current extent of infestation, symptoms and the damage caused, and, where appropriate, inclusion of forecasts as soon as this information is available.

Several trays of young fern plants were heavily affected, including leaf deformities and stunting of plants.

6.7. Source of the outbreak.

The origin of the finding is unknown. In the past few occurrences in greenhouses in the United Kingdom and United States have been reported, but it is unclear if the species remained in those greenhouses for a longer period of time.

## **7. Official phytosanitary measures**

7.1. Adoption of official phytosanitary measures.

(4) Decision on whether official phytosanitary measures will be taken is pending.

Communication to stakeholders and inclusion in the survey programme 2017.

## **8. Pest risk analysis/assessment.**

Indication of the following options: (3) Preliminary pest risk analysis is available.

## **9. Links to relevant websites, other sources of information.**

### **References:**

NPPO The Netherlands

Beer RE (1954) A revision of the Tarsonemidae of the Western Hemisphere (Order Acarina). University of Kansas Science Bulletin 36: 1091-1387.

Cameron WPL (1925) The fern mite (*Tarsonemus tepidariorum*, Warburton). The Annals of applied Biology 12: 93-112.

Lindquist EE (1986) The world genera of Tarsonemidae (Acari: Heterostigmata): a morphological, phylogenetic and systematic revision, with a reclassification of family group taxa in the Heterostigmata. Memoirs of the Entomological Society of Canada 136: 1-517.