Netherlands Food and Consumer
Product Safety Authority
Ministry of Economic Affairs

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National Plant Protection Organization
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Follow-up

***Diaporthe vaccinii* – Blueberry twig blight - on one blueberry plant at one fruit production facility in The Netherlands**

Introduction

This report concerns a follow-up on a previous report on the first finding of the fungus *Diaporthe vaccinii* in the Netherlands on one blueberry plant at one fruit production facility. *D. vaccinii* is listed as a harmful organism in the EU directive 2000/29/EC (annex IIAI) and is regulated for plants for planting of blueberry. The infected plant was found in 2006 and the pathogen in 2007 identified as *Diaporthe vaccinii* (see First pest report of April 2009). Identification of the pest is difficult. In May 2011 symptoms of fungal damage was found at another fruit production facility in the same area of the Netherlands as the first finding. In the same year the similar symptoms were detected in a forest. In December 2012 the pest was identified as *Diaporthe vaccinii*. Note that identification of this pest on morphological criteria is generally very difficult and identification of species found on *Vaccinium* sp. is further complicated by the fact that *V. corymbosum* can be infected by various *Diaporthe* spp. Therefore a more wider distribution of this pest can be expected in Europe.

Reason for reporting: Update situation following findings at one fruit production facility and in a forest.

Identity of the pest: *Diaporthe vaccinii* Shear
Diaporthales, Diaporthaceae, Diaporthe

Categorization of the pest EPPO A2 (2010, transferred from A1 (1995))

Location**:**

1. America-Horst, Province of Limburg. Found in a production field of blueberries (*Vaccinium corymbosum*)
2. Forest/moor Planken Wambuis, near Ede, Province of Gelderland (*Vaccinium myrtillus*)

Pest status: Transient – under surveillance.

Pest significance

Date of findings

In May and June 2011 several samples were taken at aforementioned places. These samples were taken by the National Reference Centre (Wageningen) of the NPPO.

Detection and identification

First symptoms appear usually at the tip of non-woody shoots or around flower buds. Infected current-years shoots wilt in 4-6 days and become covered with minute lesions. On stems, *D. vaccinii* causes a brown discoloration of the xylem below wilt symptoms. Normally, pycnidia of the anamorph *Phomopsis vaccinii* are seen on infected shoots/twigs in the field, ascomata (belonging to the teleomorph *D. vaccinii*) have very rarely been reported.

Identification can be done on the basis of morphological characteristics of pycnidia, conidia and growth characteristics of colonies on agar media, but certainly needs confirmation by DNA sequencing. It is highly recommended to perform ITS and EF (elongation factor) amplicon sequencing on a pure culture to confirm the identification. This is described in a scientific publication, lead by scientists from the 'Centraal Bureau voor Schimmelcultures' in Utrecht, NL, which will be published towards the end of 2013. The consensus sequences for test samples should be compared with those from reference strains (e.g. CBS 160.32) deposited in NCBI database Genbank (EPPO, 2009).

Impact
Some visual symptoms were observed on twigs of the affected plants. No impact on yield or harvest of the crop was recorded at the affected company.

Origin of the pest
The pest is known to occur in North America (USA, Canada) and Chili. Since many years there are regular imports of *Vaccinium* plants for planting from North America which could be pathway for this pest. In Europe there have been some findings in the past, which have all been eradicated in Germany, Lithuania, United Kingdom and Romania (EPPO PQR, last access 15th March 2013). Also incidental findings have been reported in Latvia (personal communication, ….).

Phytosanitary Measures
In 2013 a survey will be conducted at production-sites and in public green, to gain further information about the distribution of this organism in the Netherlands.
Measures will only be applied on plants for planting. The infected plants will be destroyed.

References:
- NPPO The Netherlands
- EPPO, 1995. Data sheets on Quarantine Pests, Diaporthe vaccinii, www.EPPO.org
- EPPO, PQR-database (last access 15th March 2013)
- EPPO, 2009. EPPO Standards, Diagnostic protocols *Diaporthe vaccinii*. EPPO Bulletin 39(1): 18-24