
Netherlands Plant Protection Service

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agriculture, nature
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PEST REPORT

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

Introduction

This report concerns the first official finding of *Diaporthe vaccinii* (anamorph *Phomopsis vaccinii*) in The Netherlands on one single plant of *Vaccinium corymbosum* at a company producing blueberry fruits, as a result of annual survey activities in blueberry. *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 initially identified as *Phomopsis* sp. Only in 2007, the pest could be more specifically identified as *Diaporthe vaccinii*.

Geographical distribution

North America (USA, Canada), Chile, Lithuania.

Pest status in the Netherlands

Absent, only isolated finding

Host plant range

Vaccinium corymbosum, *V. oxycoccus*, *V. macrocarpon*

Impact

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

Biology

D. vaccinii infects current-years shoots, leaves, buds and fruits of *Vaccinium*. The fungus mainly overwinters on infected and dead twigs. Under wet or humid conditions in springtime conidia are disseminated by wind, rain, etc. It is believed that blueberry blight, as the disease is called, develops primarily from infections of flower buds at budbreak through bloom (Milholland, 1982).

Detection/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, ascumata (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. This needs very skilled and experienced diagnosticians. It is highly recommended to perform ITS amplicon sequencing on a pure culture to confirm the identification. 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).

Pest significance

D. vaccinii is a serious pest for *Vaccinium* spp. Significant risk for spread of this pest is by means of movement of plants. In case of production of blueberries, the plants remain on the same field for many years. The risk of spread of the organism to other production locations is considered to be low in this specific situation.

Origin of the finding

Horst, province of Limburg. Found in a production field of blueberries (*V. corymbosum*)

Phytosanitary measures

Survey is conducted at blueberry production facilities to confirm pest absence. Results are expected in 2009.

References:

- NPPO of the Netherlands
- EPPO, 2009. EPPO Standards, Diagnostic protocols *Diaporthe vaccinii*. EPPO Bulletin 39(1): 18-24
- Milholland RD, 1982. Blueberry twig blight caused by *Phomopsis vaccinii*. Plant Disease 66(1): 1034-1036
- Weingartner DP & Klos EJ, 1975. Etiology and symptomatology of canker and dieback diseases of highbush blueberries caused by *Godronia (Fusicoccum) cassandrae* and *Diaporthe (Phomopsis) vaccinii*. Phytopathology 65: 105-110