EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

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PPM Point 7.9
(as prepared for WP2002)

Report of a pest risk assessment: *Stegophora ulmea*

This summary presents the main features of a pest risk assessment which has been conducted on the pest, according to EPPO Standard PP 5/3(1) Pest Risk Assessment Scheme.

Pest:	*Stegophora ulmea*
PRA area:	EPPO region
Assessor:	Original interception PRA: C. Sansford, CSL, UK. Report of the PRA: EPPO Secretariat.
Date:	2002-05

1. INITIATION

1.1 Reason for doing PRA:	*S. ulmea* has been repeatedly detected by the Netherlands and UK on *Ulmus* and *Zelkova* bonsais from China.
1.2. Taxonomic position of pest:	Fungi: Ascomycetes: Diaporthales: *Stegophora ulmea* (Schweinitz: Fries) Sydow & Sydow

2. PROBABILITY OF INTRODUCTION

2.1 Entry

2.1.1 Geographical distribution:	**EPPO region**: absent. Found in one glasshouse in the Netherlands and successfully eradicated. An old (1954) doubtful record for Romania has not been confirmed since. **North America**: Canada, USA. **Asia**: China (probable)
2.1.2 Major host plants:	Natural hosts are elm (*Ulmus*) species and *Zelkova*. In North America, *S. ulmea* occurs in forest and amenity trees. Found on *Ulmus* and *Zelkova* bonsai plants from China.
2.1.3 Which pathway(s) is the pest likely to be introduced on:	*S. ulmea* occurs on leaves, twigs, dormant buds, fruits. Plants for planting, bonsai plants, cut foliage could introduce the disease into new areas.

2.2 Establishment

2.2.1 Crops at risk in the PRA area:	*Ulmus* and *Zelkova*, grown in nurseries, amenity parks and gardens, hedgerows, as bonsai plants, and possibly in forests.
2.2.2 Climatic similarity of present distribution with PRA area (or parts thereof):	In North America, *S. ulmea* occurs within a wide range of climates (from Great Plains to Atlantic Ocean). Optimum temperatures for spore germination are 8°C for ascospores and 4-28°C for macroconidia. These observations tend to suggest that most European conditions would be favourable to disease development both outdoors and indoors.
2.2.3 Aspects of the pest's biology that would favour establishment:	Host plants occur in the EPPO region Wet and humid conditions prevailing in western and northern Europe would favour disease spread (rain, wind) Survival of the fungus in dormant buds makes it difficult to detect on dormant plants for planting during inspections
2.2.4 Characteristics (other than climatic) of the PRA area that would favour establishment:	*Ulmus* populations have already been largely depleted in Europe by Dutch elm disease. Resistant hybrids which are being planted have been shown to be very susceptible to *S. ulmea*.

2.2.5 Which part of the PRA area is the endangered area:	It is likely that cool and humid regions of northern and western Europe would be more at risk.

3. ECONOMIC IMPACT ASSESSMENT

3.1 Describe damage to potential hosts in PRA area:	Black leaf spots, lesions which girdle petioles. *S. ulmea* can cause severe defoliation and twig dieback on susceptible hosts. Ornamental plants are disfigured.
3.2 How much economic impact does the pest have in its present distribution:	In North America, the disease is rarely fatal to forest elms, but can cause problems in nurseries. Affected plants grown for ornamental purposes can be severely disfigured and completely lose their market value. No data on the situation in China.
3.3 How much economic impact would the pest have in the PRA area:	The economic impact is likely to be more important in nurseries and amenity areas.

4. CONCLUSIONS OF PRA

4.1 Summarize the major factors that influence the acceptability of the risk from this pest:	• *S. ulmea* has been detected more than 10 times by UK and the Netherlands on bonsais from China, which clearly shows that the fungus has a pathway to enter the EPPO region. • Conditions prevailing in its host range in North America are likely to be similar to climatic conditions in Europe (in particular in Northern and Western Europe). • *Ulmus* species grown in Europe, and in particular hybrids which were selected for their resistance to Dutch elm disease, are susceptible to *S. ulmea.* • Elm trees are valuable edgerows and amenity trees in Europe, whose populations have already been largely depleted by Dutch elm disease. • Control of the disease is difficult (lack of effective chemicals, difficulties of chemical application in amenity areas).
4.2 Estimate the probability of entry:	High (as shown by the repeated detections in imported consignments)
4.3 Estimate the probability of establishment:	Medium.
4.4 Estimate the potential economic impact:	Medium in nursery elm stocks, and amenity trees. Probably low in hedgerows or forests.
4.5 Degree of uncertainty	More data needed on the geographical distribution in Asia, and on the extent and severity of the disease in China. Data is also lacking on the biology and climatic preferences of the fungus to better estimate its probability of establishment in the various parts of the EPPO region.

5. OVERALL CONCLUSIONS OF THE ASSESSOR	The pest should be added to the EPPO A1 list.