EUROPEAN AND MEDITERRANEAN PLANT PROTECTION ORGANIZATION

99/7775
WP PR Point 13.2

Report of a Pest Risk Assessment

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:	*Ambrosia* spp. (*A. artemisiifolia*, *A. psilostachya*, *A. trifida*)
PRA area:	Poland
Assessor:	Witold Karnkowski, Main Inspectorate of PLant Prtoection, Toruń, Poland
Date:	July, 1999

1. INITIATION

1.1 Reason for doing PRA:	Frequent interception of the pests on grain, and a re-consideration of phytosanitary measures
1.2. Taxonomic position of pest:	*Ambrosia artemisiifolia* *Ambrosia psilostachya* *Ambrosia trifida* Asteraceae

2. PROBABILITY OF INTRODUCTION

2.1 Entry

2.1.1 Geographical distribution:	Present, of limited distribution, in Poland Originates in North America **Europe**: Austria, Belgium, Croatia, Czechia, France, Germany, Hungary, Italy, Luxembourg, Moldova, Poland, Portugal, Romania, Russia (Krasnodar territory), Slovakia, Sweden, Switzerland, Turkey, UK, Ukraine, Yugoslavia **Asia**: Azerbaijan, China, Japan, Kazakhstan, India, Korea, Russia (Primorski territory), Taiwan, Turkey **North America**: Canada, Mexico, USA **Central America & Caribbean**: Cuba, Jamaica, Guadeloupe, Guatemala, Martinique **South America**: Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay **Oceania**: Australia, New Zealand
2.1.2 Major host plants:	Every kind of cereal crops (wheat, rye, barley, oat) and root crops (sugar-beet, potatoes), sunflower, maize, meadows and pastures
2.1.3 Which pathway(s) is the pest likely to be introduced on:	Siconia of plants of the genus Ambrosia may be carried on imported sowing material and grain of cereals, maize, soya bean, sunflower as well as with products of their processing,

	especially soya meal. Also with packages, means of transport and by natural means.

2.2 Establishment

2.2.1 Crops at risk in the PRA area:	Every kind of cereal crops (wheat, rye, barley, oat) and root crops (sugar-beet, potatoes), sunflower, maize, meadows and pastures
2.2.2 Climatic similarity of present distribution with PRA area (or parts thereof):	Climatic conditions in Poland are similar to conditions in the area of origin of such species, i.e. the temperate zone of North America
2.2.3 Aspects of the pest's biology that would favour establishment:	The species are genetically adaptable.
2.2.4 Characteristics (other than climatic) of the PRA area that would favour establishment:	Suitable ecological niches are available throughout the PRA area
2.2.5 Which part of the PRA area is the endangered area:	The whole of Poland

3. ECONOMIC IMPACT ASSESSMENT

3.1 Describe damage to potential hosts in PRA area:	Because of the strong development of both aerial and underground parts, these species overgrow cultivated plants, and cause quick drying and impoverishment of the soil. The pollen produces hay fever in humans.
3.2 How much economic impact does the pest have in its present distribution:	In the majority of areas of their occurrence, *Ambrosia* spp are noxious weeds having big economic importance. the reduction of yield of cereal crops comes up to 15-18%
3.3 How much economic impact would the pest have in the PRA area:	In Poland, a yield reduction of 15-18% would reduce yield in the country overall by 4.5 million tonnes.

4. CONCLUSIONS OF PRA

4.1 Summarize the major factors that influence the acceptability of the risk from this pest:	These species are • is frequently intercepted, • comes from an area with similar climatic conditions to the PRA area and causes serious economic damage there • could easily establish throughout the country • is the pest of cereals and other very important crops
4.2 Estimate the probability of entry:	very high (6.62)
4.3 Estimate the probability of establishment:	very high (7.18)

4.4 Estimate the potential economic impact:	very high (6.11)
4.5 Degree of uncertainty	There is little uncertainty in this assessment
5. OVERALL CONCLUSIONS OF THE ASSESSOR	In Poland, Ambrosia spp. occur on non-agricultural land, and rarely in field crops. They do not cause economic losses at present. However, taking account of climatic factors and structure of crops in Poland, the pests are likely to cause economic losses (in agricultural production, export of agricultural products and allergic diseases in humans) if allowed to be introduced into field crops by import of seeds, grain and possibly other commodities. Phytosanitary measures could prevent this introduction.