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NEWSLETTER OBSERVATORY OF HIGH-STAKE SPECIES FOR HUMAN HEALTH



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International

AN INTERNATIONAL RAGWEED SOCIETY CONFERENCE IN BUDAPEST

Ambrosia species are a problem in many countries around the world. On September 8 and 9th 2022, scientists from nearly fifteen countries met in Budapest for an international conference organized by the International Ragweed Society (IRS).

The weight and importance of the conference is increased by the fact that the common ragweed spreads further north with climate change and its pollen concentration increases. On one hand, its health effects also increase and extend to new areas, and on the other hand it causes enormous damage to the cultivated agricultural crops, which – as food shortage is one of the future greatest risk – is a huge challenge for science.

During this conference, **nearly thirty oral communications were presented.** The topics covered at the conference were the following: Distribution of ragweed species; Agricultural impacts; Economic costs; Authorities and institutions; Aerobiology: expansion of ragweed, spread of ragweed pollen; Pollen transport; Monitoring (classic and real-time); Forecast; Treatment and control methods (chemical, physical, biological, cultural, integrated, etc.); Ragwort and climate change, as well as health aspects (allergen, effect, diagnosis, therapy, etc.).

This congress was also an opportunity for the IRS committee to meet for its **general assembly and to elect its new members**. Thus, **László MAKRA** from the University of Szeged in Hungary was **elected as the new president of the IRS**. He succeeds **Michel THIBAUDON** (France) who has been the IRS chair since 2018.

You will find more information with some slides presented during the congress at international ragweed society.org and the abstract volume with the introductory article in a special issue of the journal Ecocycles: https://www.ecocycles.net/ojs/index.php/ecocycles/issue/view/21





Interviews

INTERVIEWS «AMBROSIA IN EUROPE»: VIDEOS



During the international conferences EMAPI 2019 Prague and IRS 2022 Budapest, the French Ragweed Observatory interviewed some researchers about Ambrosia species in their country. Belgium, Italy, Austria, France, Ukraine, etc.

You can find all the interviews on our YouTube channel here.

AMBROSIA: AN OPEN LETTER TO EUROPEAN INSTANCES

The International Ragweed Society adresses an open letter to the European Commission, the European Council and the European Parliament to adapt the regulation relative to crop seeds in Europe by taking into account the case of *Ambrosia* spp.

Common, giant and western ragweeds (*Ambrosia artemisiifolia* L., *A. trifida* L. and *A. psilostachya* DC.), native to North America, have invaded different parts of the world. They are considered invasive in many European countries (see the EPPO Global Database) and their spread and impact are likely to increase with climate change.

Annual ragweeds have an enormous invasive potential through the **production of large quantities of seeds** with very potent germination capacity. Different pathways allow the plant to disseminate. Indeed, seeds of *A. artemisiifolia* are **dispersed mostly**



through human activities: field work like harvesting, transports of soil while doing construction work, birdseeds, etc. **One of these pathways is the exchanges of contaminated seed lots (sowing material contaminated with seed of** *Ambrosia***) within or between countries**. *Ambrosia* seeds in the sowing material can germinate in the fields and hence subsequently cause heavy infestations. This situation requires a tight monitoring of commercial trade to avoid the further spread of this species throughout Europe.

Seed marketing Directives define the quality standards that must be met in the field for seed production of agricultural plant species and seed lots. As it is the case for some unwanted species (i.e. *Avena fatua*), **European regulations should prohibit the presence of** *Ambrosia* **seeds in sowing material.** This regulation is currently reviewed and could be upgraded with new rules.

In this context, the International Ragweed Society and signatories of this letter ask the European instances to adapt the regulation in Europe with the addition of *Ambrosia* spp. in the list of prohibited species (zero *Ambrosia* seed allowed in a sample of crop seeds).

You want to be part of this initiative?
You can add your name in the list of signatories **here.**



AMBROSIA PSILOSTACHYA: THE UNKNOWN RAGWEED?

Science

During the Budapest conference, Chiara Montagnani from the University of Milano-Bicocca discussed the recent spread of this understudied species in Italy¹.

Ambrosia psilostachya is a perennial ragweed which has the particularity of spreading thanks to its resistant below-ground rhizomes and vegetative propagation. Native to Western North America, it's now listed as an exotic species in 40 countries in the world. Since the 1960s, Italy has seen a great expansion of this species in its territory.

More problematic: it seems to have extended its adaptability and can colonize spaces outside its initial niche.

Despite its great capacity for colonization and the danger it represents for endemic species, it has been the least studied ragweed since 2010... We will therefore repeat word for word the conclusion of the presentation: "Pay attention to *A. psilostachya*!".





INFORMATION SOURCES

 Montagnani et al. (2022), Ambrosia psilostachya DC. (Asteraceae): the almost unknown ragweed gaining ground. Oral communication IRS Budapest 2022. Work in progress.

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Former Ragweed Obervatory letters can be consulted here