



Newsletter of the french ragweed observatory

Dear colleague,

You receive this letter because you were identified as a person who is likely to work on ragweed species. If you no longer want to receive this letter, please [click here to unsubscribe](#) and we are sorry for any inconvenience.

If you know someone who could be interested to read these letters, please share this link : [subscribe to the newsletter](#).

The new version of the newsletter of the french ragweed observatory is a report focusing on scientific news about ragweed. It aims to share information in the scientific community about this plant. If you have any suggestion, please contact us at ambrosie-risque@fredon-france.fr.

We wish you an interesting reading and look forward to receive your reactions !

New Page on Ambrosia Worldwide

We are pleased to announce the launch of a new section on our website dedicated to *Ambrosia*. This resource provides detailed information on its **biology, distribution, and management across the globe**, featuring country-specific articles and an interactive map.

Please note that articles are available in French, but can be translated via your browser.

For any feedback, feel free to contact us via email.



Sublingual Immunotherapy (SLIT) against Ragweed allergy

Nagy, A., Balogh, K., Csáki, C., Fábos, B., Mohácsi, E., & Papp, G. (2024). Real-World Study of Ragweed Sublingual Immunotherapy in Hungary. *Allergologia et Immunopathologia*, 52(5), 80-84.

This study assessed the benefits of ragweed SLIT, a sublingual immunotherapy, in 57 Hungarian patients. SLIT was compared to conventional immunotherapy, which is usually injected. Both groups showed **significant symptom improvement**, with no adverse reactions. The study highlighted SLIT's superior safety profile, with only mild local reactions and no systemic side effects. Results support SLIT is a **safe, effective alternative to traditional immunotherapy** for ragweed allergy.

Giant Ragweed as a corrosion inhibitor ?

Sun, X., Tian, H., Zou, F., Li, W., Qiang, Y., & Hou, B. (2024). Turning Waste into Treasure: Invasive Plant *Ambrosia trifida* L Leaves as a High-Efficiency Inhibitor for Steel in Simulated Pickling Solutions. *Materials*, 17(15), 3758.

This study presents *Ambrosia trifida* leaf extract (ATL) as a natural and eco-friendly **corrosion inhibitor**. Prepared through a simple water-based process, ATL contains organic compounds that bond effectively to steel surfaces. Tests showed that ATL **significantly reduces corrosion** and forms a strong protective layer over time, even in harsh acidic environments. These results suggest ATL could be a promising green alternative for industrial corrosion prevention.

Ragweed in Azerbaijan

Rena, A., Aida, I., Kamala, A., & Svetlana, L. (2024) Distribution of *Ambrosia Artemisiifolia* (Asteraceae) invasive plant species in Azerbaijan (South Caucasus), *Pak. J. Bot*, 57, 1.

This article details the **spread of *Ambrosia* species in Azerbaijan**, exploring specific characteristics and dynamics shaped by the region's climate and biodiversity.

Combatting Ragweed antigenicity with CAP filters

Hojnik, N., Shvalya, V., Zavašnik, J., Šribar, J., Križaj, I., & Walsh, J. L. (2024). Combatting the antigenicity of common ragweed pollen and its primary allergen Amb a 1 with cold atmospheric pressure air plasma. *Journal of Hazardous Materials*, 135640.

Current methods for indoor allergen control, like HEPA filters, trap particles but **face issues** such as high energy use, reduced efficiency when saturated, and inability to capture chemical vapors. Poor maintenance can worsen allergy symptoms. This study **used cold atmospheric pressure plasma (CAP)** to treat *A. artemisiifolia* pollen,

achieving **over 90% reduction in allergenicity**. CAP caused significant protein and chemical changes in the pollen, including increased amide peaks and oxidation of lipids and polysaccharides. These chemical modifications led to morphological changes in the pollen grains, suggesting that **CAP could be an effective method** for reducing pollen allergenicity and understanding its chemical mechanisms.

Integrated approaches for Giant Ragweed management

Chudzik, G. (2024), Integrated approaches for giant ragweed (*Ambrosia trifida* L.) management in Wisconsin: cereal rye cover crop, soybean planting strategy, and farmer and crop consultant perception, University of Wisconsin-Madison (doctoral dissertation).

This study evaluated strategies for **managing giant ragweed** (*Ambrosia trifida*), focusing on cereal rye biomass, soybean planting timing, and pre-emergence herbicides. Results demonstrated that 3.8 to 4.8 mg/ha of cereal rye biomass **reduced giant ragweed biomass and density by 50%**. Optimal soybean planting timing and pre-emergence herbicides were crucial, with delayed planting reducing ragweed density but potentially decreasing soybean yield. Pre-emergence herbicides effectively controlled ragweed and preserved yields. The findings highlight that **integrating cover crops and strategic management can effectively control giant ragweed**, with varying approaches based on regional emergence patterns.

[More Information](#)

The observatory of high-stake species for human health is doing an international watch

The observatory publishes information on proliferating species that may pose a risk to human health around the world [www.especes-
risque-sante.info](http://www.especes-risque-sante.info).

If you have information about a species we might be interested in, please send us an email.

[Contact us](#)

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