



International Ragweed Society

# INTERNATIONAL RAGWEED SYMPOSIUM

## Birdseeds : still a way of dispersal for *A. artemisiifolia* seeds ?

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## THE **RAISON D'ETRE** THAT IDENTIFIES US

Take good care of the plant world  
for our health and a healthy environment

- **1<sup>st</sup>** network in France of experts for plant, environment and people health
- **89** years of expertise
- **1** national federation
- **70** sites in France
- **400** employees



# WHO ARE WE ?

OUR MISSIONS  
3 field of activities



VEGETAL HEALTH



ENVIRONMENTAL HEALTH



HUMAN HEALTH



**One Health approach**

# OUR PRESENCE **IN FRANCE**



# WHO ARE WE ?

French Ministry of health



Ragweed Observatory  
FREDON France



# WHO ARE WE ?

Others ministries



French Ministry of health



Ragweed Observatory  
FREDON France



# WHO ARE WE ?

Others ministries



French Ministry of health



Ragweed Observatory  
FREDON France



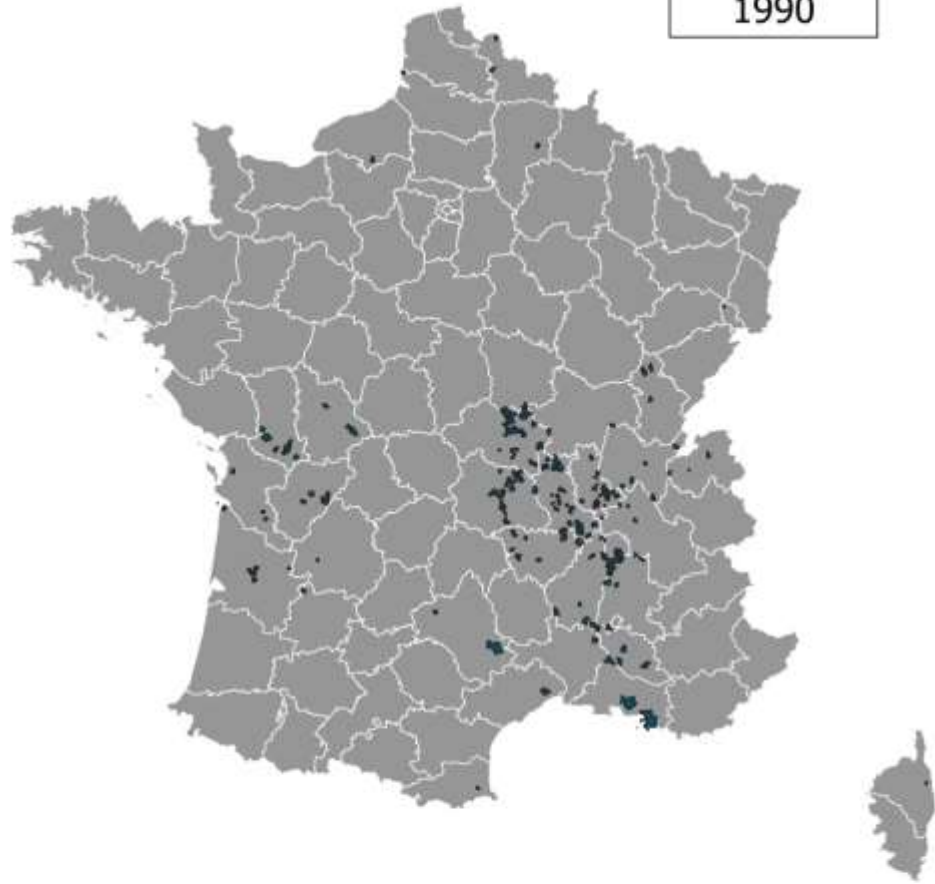
Partners



# CONTEXT – INVASION OF *A. ARTEMISIIFOLIA* IN FRANCE

Evolution de la répartition de l'Ambroisie à feuilles d'armoise en France

1990



First discovery in 1863



Sources des données : Atlasanté, Conservatoires botaniques nationaux et partenaires, Epiphyt.

# DISPERSAL OF *AMBROSIA ARTEMISIIFOLIA* SEEDS

## • References : strong evidences

XII<sup>ème</sup> COLLOQUE INTERNATIONAL SUR LA BIOLOGIE DES MAUVAISES HERBES  
Dijon - 31 août - 2 septembre 2004

2004

POSSIBILITE DE DISSEMINATION D'*AMBROSIA ARTEMISIIFOLIA* L. VIA  
LES SEMENCES DE TOURNESOL

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Courriel : chauvel@dijon.inra.fr

**Ambrosia artemisiifolia in der Schweiz –  
eine herbologische Annäherung**

2005

Christian Bohren, Nicolas Delabays und Georges Mermillod, Agroscope RAC Changins, CH-1260 Nyon  
Christian Keimer, Stations cantonales agricoles, CH-1228 Plan-les-Oranges  
Christian Keimer, Station cantonale de protection des plantes, CH-1510 Moudon  
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Institut für Ökologie, Evolution und Diversität, Abt. Ökologie und Geobotanik, J.-W.-Goethe-Universität Frankfurt a. M. <sup>1</sup>  
Bundesamt für Naturschutz, Bonn <sup>2</sup>

**Biologie, Verbreitung und Einschleppungswege von  
*Ambrosia artemisiifolia* in Deutschland und Bewertung  
aus Naturschutzsicht**

Biology, distribution and pathways of introduction of *Ambrosia artemisiifolia* in Germany and assessment from a  
nature conservation point of view

Beate Alberterst<sup>1</sup>, Stefan Nawrath<sup>1</sup> und Frank Klingenstein<sup>1</sup>

2006

**Distribution of *Ambrosia artemisiifolia* L. – is birdseed a relevant vector?  
Ausbreitung der *Ambrosia artemisiifolia* L. – ist Vogelfutter ein bedeutender Vektor?**

M. Vitolov & G. Karrer  
University of Natural Resources and Applied Life Sciences Vienna: Department of Integrative  
Institute of Botany, Gregor-Mehdel-Strasse 33, 1180 Wien  
\* Corresponding author: gerhard.karrer@boku.ac.at

TECHNISCHE UNIVERSITÄT  
CAROLO-WILHELMINA  
ZU BRAUNSCHWEIG  
UNIVERSITÄTSBIBLIOTHEK  
BRAUNSCHWEIG

2007

Dietmar Brandes ; Jens Nitzsche

Verbreitung, Ökologie und Soziologie  
von *Ambrosia artemisiifolia* L. in Mitteleuropa

URL: <http://www.digibib.tu-bs.de/?docid=00020908>

**Can Birdseed Contribute to the Spread of  
Ragweed?** 2012

M Thibaudon,<sup>1</sup> C Colonnello,<sup>1</sup> JP Besancenot,<sup>1</sup> Y Toloba,<sup>2</sup>  
H François,<sup>2</sup> D Caillaud<sup>2</sup>

<sup>1</sup>French Network of Aerobiological Monitoring, Brussieu,  
France

<sup>2</sup>Pulmonary-Allergology Department, University Hospital,  
Clermont-Ferrand, France

Key words: Ragweed. Birdseed. Contamination. Spread. Invasive  
plant.

Palabras clave: Ambrosia. Alimento de pájaros. Contaminación.  
plantas invasivas.

2008

**Seed contaminants: an overlooked pathway for the introduction of non-native  
plants in Sardinia (Italy)**

Tiziana Antonella Cossu<sup>a</sup>, Vanessa Lozano<sup>b</sup>, Wolfgang Stuppy<sup>c</sup> and Giuseppe Brundu<sup>b</sup>

<sup>a</sup>Royal Botanic Gardens, Kew, Wellcome Trust Millennium Building, Wakehurst Place, Ardingly, Haywards Heath, West Sussex, UK;  
<sup>b</sup>Department of Agriculture, University of Sassari, Sassari, Italy; <sup>c</sup>Botanischer Garten der Ruhr-Universität Bochum, Bochum, Germany

**ABSTRACT**

The accidental introduction of alien plants through contaminated seed is a source of new incursions  
and subsequent invasions that can impact natural habitats, agriculture and forestry. While seed lots  
for agricultural crops are often well regulated through a certification process, the trade of many other  
types of seeds is largely unregulated. Here, we evaluate the risk of seed lots trade as a pathway for  
invasive alien plant species in Sardinia (Italy), by identifying and quantifying the presence of contaminant  
species. The study included uncertified commercial seeds as well as the ones sold as pet feed. We  
randomly sampled 39 seed packets, from multiple sources, including novel forage crops under experi-  
mental testing (Fz), flower mixtures (Fm), recreational lawn mixtures (Lm) and pet feed (P).  
Germination and viability were analysed on the seed commodity of Pz. A total of 231 contaminant  
species was found, belonging to 88 genera and 34 families. Moreover, among the contaminants, the  
non-native invasive agricultural weeds *Amaranthus* sp. pl. and *Echinochloa* sp. pl. were found. Our  
results showed that unregulated seed contaminants are associated with a high risk of non-native  
plants entry and their potential establishment in Sardinia.

**ARTICLE HISTORY**

Received 15 April 2019  
Accepted 26 November 2019


**KEYWORDS**

Accidental introduction;  
alien species; pathway of  
introduction; seed  
contaminant; seed  
lots trade



# DISPERSAL OF *AMBROSIA ARTEMISIIFOLIA* SEEDS

- References : strong evidences



2010

EFSA Journal 2010; 8(6):1566

SCIENTIFIC OPINION

Scientific Opinion on the effect on public or animal health or on the environment on the presence of seeds of *Ambrosia* spp. in animal feed<sup>1</sup>

EFSA Panel on Contaminants in the Food Chain (CONTAM), EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA) and EFSA Panel on Plant Health (PLH)<sup>2,3</sup>

European Food Safety Authority (EFSA), Parma, Italy



Between **20 % and 91 %** of commercially available bird feeds can be **contaminated with ragweed seeds**



Seed counts vary between **0 and 2781 seeds per kilogram** bird feed



# A EUROPEAN REGULATION

17.8.2012 EN Official Journal of the European Union L 219/5

**COMMISSION REGULATION (EU) No 744/2012**  
**of 16 August 2012**  
**amending Annexes I and II to Directive 2002/32/EC of the European Parliament and of the Council as regards maximum levels for arsenic, fluorine, lead, mercury, endosulfan, dioxins, *Ambrosia* spp., diclazuril and lasalocid A sodium and action thresholds for dioxins**  
 (Text with EEA relevance)

maximum content =  
**50 mg/kg** of animal feed  
 ~15 - 30 seeds



Undesirable substance	Products intended for animal feed	Maximum content in mg/kg (ppm) relative to a feed with a moisture content of 12 %
11. Seeds from <i>Ambrosia</i> spp.	Feed materials <sup>(3)</sup> with the exception of	50
	— Millet (grains of <i>Panicum miliaceum</i> L.) and sorghum (grains of <i>Sorghum bicolor</i> (L) Moench s.l.) not directly fed to animals <sup>(3)</sup> .	200
	Compound feed containing unground grains and seeds.	50'

# IS IT SUFFICIENT ?

- Still a lot of testimonies



Seeds found in foot  
of a bird feeder,  
Normandy- France



Rawgeeds seeds instead of parsley seeds !



The most explicit  
picture !

# SURVEY UNDER THE FEEDERS IN FRANCE AND BELGIUM TO KNOW IF IT'S A MAJOR PROBLEM

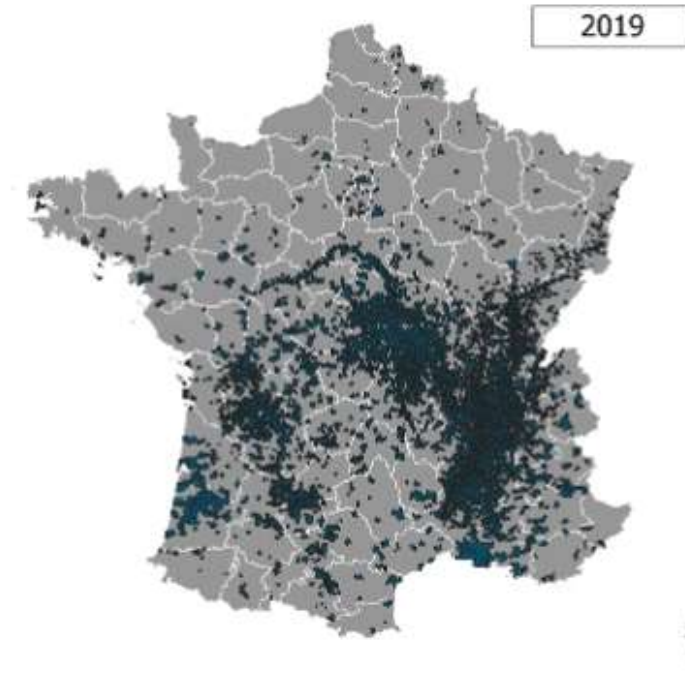


# SURVEY UNDER THE FEEDERS

- First and few results



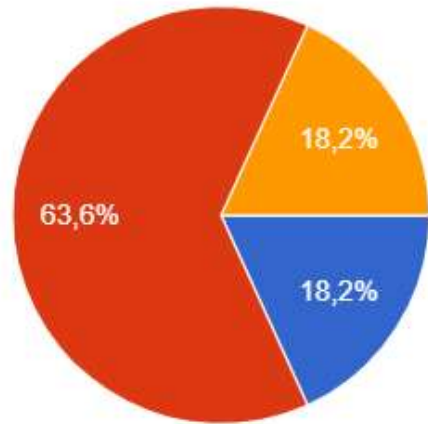
Map of the localisations of ragweed sawns in foot of bird feeders  
Data : French and Walloon observatories



Repartition of ragweeds in France in 2019  
Data : Atlasanté, Conservatoires Botaniques nationaux, partenaires Epiphyt

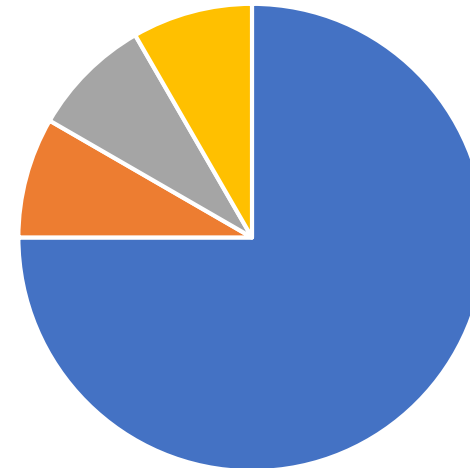
# SURVEY UNDER THE FEEDERS

- First and few results



■ No ■ Yes ■ I don't know

Answers to the question :  
« do you know if ragweeds has been seen at proximity of birds feeders”



■ In foot of birds feeders ■ In bird seed packets ■ I don't know ■ No

Answers to the question : “Have you ever seen ragweed plants at the foot of bird feeders or ragweed seeds in bird seed packets?”

# SURVEY UNDER THE FEEDERS

Two European partners of the survey :



But what about more ?

- Do you want to participate in your own country ?



**WE NEED YOU**

# TAKE HOME MESSAGES

- Large variety of sources from different countries have implicated **bird feed as a possible vector** in the dissemination of ragweed
- A European regulation did exist
- It may not be sufficient
- A survey by France and Belgium
- If you are interested, let's talk: [observatoire.ambroisie@fredon-france.org](mailto:observatoire.ambroisie@fredon-france.org)
- **Still a lot of communication to do to inform the public about this problem !**



**Vous aimez les oiseaux, mais ATTENTION : les oiseaux sèment !**

**ILS PEUVENT SEMER L'AMBROISIE**

Les mélanges de graines pour oiseaux peuvent contenir des graines d'ambroisie, particulièrement les mélanges incluant des graines de tournesol.

Les oiseaux, en recherchant leurs graines préférées, dispersent les graines d'ambroisie, plus légères autour des mangeoires.

Les oiseaux des jardins, en les parcs d'arbres et dans les parcs publics, peuvent transporter ces graines avec eux de leur point de départ.

Si elles trouvent un terrain favorable, ces graines germent à partir des mois de mai-juin et même au cours des années suivantes.

**AMBROISIE = ALLERGIE**

L'ambroisie est l'origine de la réaction d'allergie à septentrion de très grandes quantités de pollen. Ce pollen provoque allergies (nez, conjonctivite, urticaire et même asthme chez les personnes sensibles).

**VOUS DEVEZ SURVEILLER ET DÉTRUIRE L'AMBROISIE !**

La lutte contre l'ambroisie est une affaire de sécurité publique : elle a un caractère obligatoire par des arrêtés préfectoraux dans plusieurs départements (voir sur internet à l'adresse [www.ambroisie.info/pages/legis2.html](http://www.ambroisie.info/pages/legis2.html)).

Vous recevrez au verso des informations pour répondre à la nécessité.

**Si vous découvrez la présence d'ambroisie, vous devez la détruire impérativement.**

Les graines d'ambroisie (à droite sur la photo ci-dessus) sont d'une taille très minuscule (moins de 1 mm) et sont très légères : un simple souffle peut les disperser.

**Avant de donner des graines aux oiseaux, tamisez-les !\***

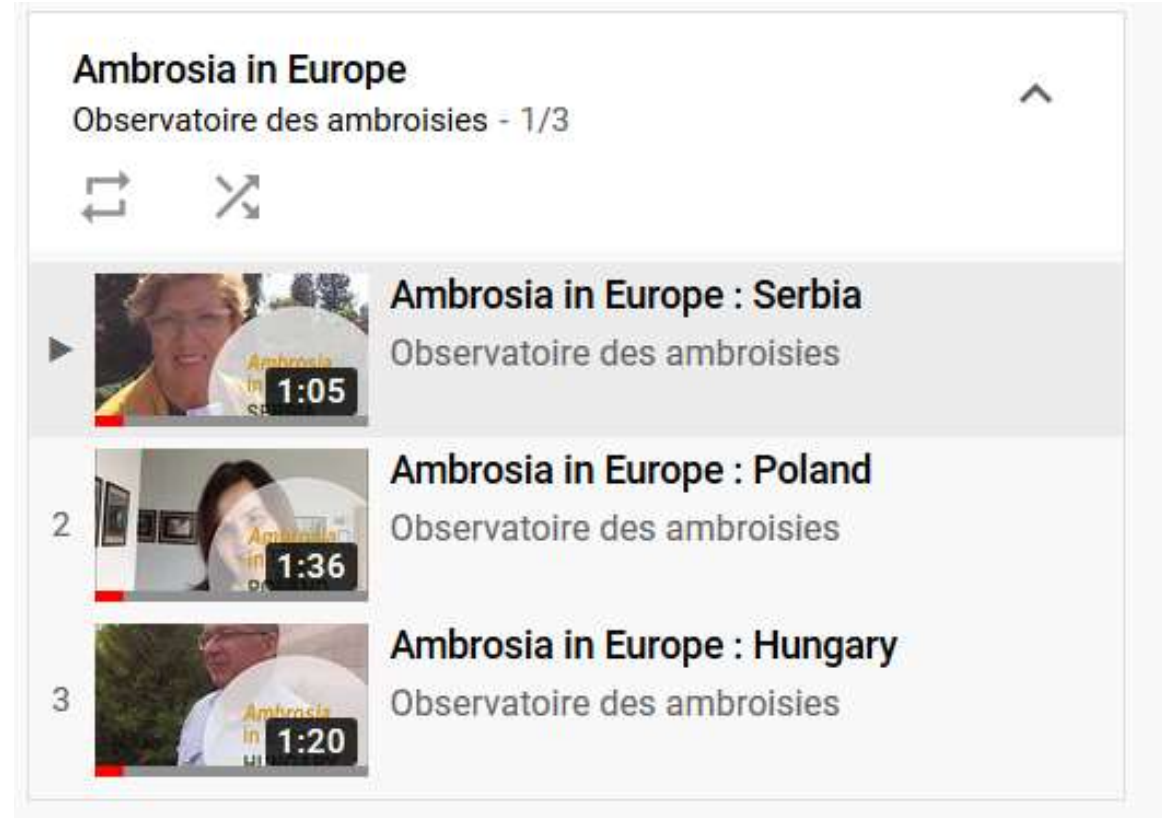
\* Le producteur de graines pour oiseaux, lorsque sa livraison, sa provenance et l'absence de graines de mauvaises herbes ont été vérifiées, doit vous fournir des graines pour oiseaux. Une garantie à son responsable de fournir ces graines sans de la contamination est donnée, au titre d'un acte de bonne foi, à l'attention de l'utilisateur des graines d'ambroisie.



**FINALLY...**

Youtube : “*Ambrosia in Europe – Observatoire des ambrosies*”

[https://www.youtube.com/playlist?list=P\\_LEJX7ly3C1b71QugQj\\_qINwMOPCfvB\\_Z5](https://www.youtube.com/playlist?list=P_LEJX7ly3C1b71QugQj_qINwMOPCfvB_Z5)



Ambrosia in Europe  
Observatoire des ambrosies - 1/3

1 Ambrosia in Europe : Serbia  
Observatoire des ambrosies  
1:05

2 Ambrosia in Europe : Poland  
Observatoire des ambrosies  
1:36

3 Ambrosia in Europe : Hungary  
Observatoire des ambrosies  
1:20



# Thank you for your attention



## Useful links (in French) :



Website of French Ragweed Observatory : [ambrosie.info](http://ambrosie.info)



Website of Walloon Ragweed Observatory : <https://ambrosie.wallonie.be/>



National Network of Aerobiologic Survey : [pollens.fr](http://pollens.fr)



French Foundation For Ragweed Study (AFEDA): [ambrosie-afeda.org](http://ambrosie-afeda.org)



Follow us !

**For any questions : [observatoire.ambrosie@fredon-france.org](mailto:observatoire.ambrosie@fredon-france.org)**