

Practical case studies regarding atmospheric transport of synthetic pesticides

Civil Dialogue Group Organic Production
24 October 2023

ABOUT OPTA EUROPE

OPTA Europe is the voice of leading organic processing and trade companies in Europe.

opta europe



Leading Companies and Associations

12 EU countries

2 Non-EU countries

A large share of total EU import & export and processing of organic products.

About the company

- ✓ EU-based processing company obtaining several raw materials in different third countries
- ✓ Longstanding and trusting relationship with suppliers
- ✓ Proven practical standards of competence and professional qualifications



MartinBauer



Background

Analyses of incoming goods by commissioned lab indicate that pesticide residues in organic raw materials occur more frequent in certain countries of origin.



Distinctive features (\neq active use)



Residues of many different plant protection substances are detected, both in individual batches and overall



Residue levels are mostly low and only just exceed the minimum level of analytical determination



Residue findings occur across all of EU company's suppliers from those countries



Residues cannot be attributed to specific crops but occur randomly



Hypothesis = cross-contamination

Case 1 Egypt Chlorpyrifos

Universally applied in Egypt.

Increased risk of cross-contamination due to ownership structure (small plots) & size of buffer zones constrained by scarcity of cultivable land

Data collection



- ✓ 2 production sites covered by the data collection
- ✓ Installation of passive air sampler to evaluate the contamination in the air.
- ✓ To get the most accurate picture possible, different samples have been collected for every site and for every sample round:
 - soil sample
 - fresh sample of the respective crop
 - dried sample of the respective crop: dried under controlled conditions, where any contamination can be excluded.
 - samples of water supplies (irrigation, groundwater, etc.) excluded since Chlorpyrifos(-ethyl) is not very soluble in water



Results Case 1

Passive Air Sampler 1



CPE [mg/kg]	Aug 2021	Sep 2021	Dec 2021	Feb 2022	Apr 2022	Aug 2022
Samples	Result 1	Result 2	Result 3	Result 4	Result 5	Result 6
PUF	0,120	0,150	n. a.	0,029	0,058	0,095
Soil Sample	0,000	0,000	0,000	0,000	0,000	0,000
Fresh Sample	0,002	0,003	0,000	n. a.	0,000	n. a.
Dry Sample	0,009	0,013	n. a.	0,000	0,000	0,013



Location: Al-Agmyeen, Fayoum
 Installation date: 01.08.2021
 Investigated Crop: peppermint

Distance from neighbor: 2 m
 Installation height: 1 m
 Neighboring crop: Corn & Sesame

Passive Air Sampler 2

Location: Al-Hekma, Aswan
 Installation date: 01.08.2021
 Investigated Crop: Spearmint

Distance from neighbor: 2 m
 Installation height: 1 m
 Neighboring crop: Sugarcane

CPE [mg/kg]	Aug 2021	Sep 2021	Dec 2021	Feb 2022	Apr 2022	Aug 2022
Samples	Result 1	Result 2	Result 3	Result 4	Result 5	Result 6
PUF	0,023	0,061	n. a.	0,027	0,056	0,102
Soil Sample	0,000	0,000	0,000	n. a.	n. a.	0,000
Fresh Sample	0,000	0,001	0,006	0,000	0,002	0,009
Dry Sample	0,000	0,007	n. a.	n. a.	0,000	0,020

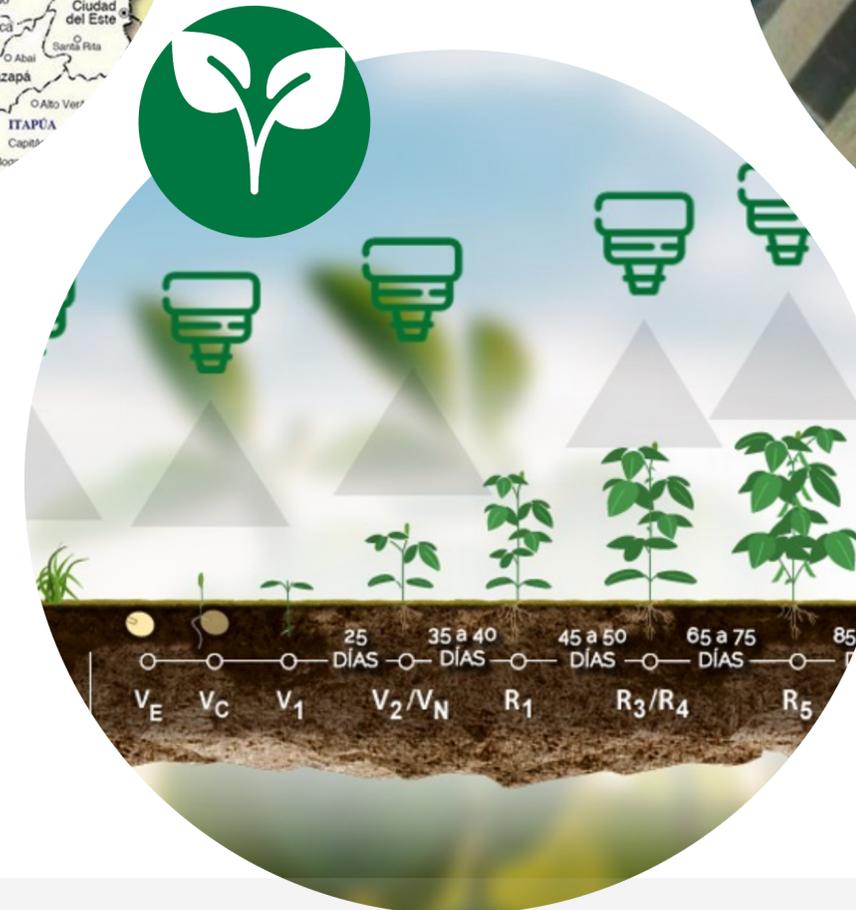


Case 2 Paraguay Multiple PPP



Production site of lemon verbena, lemon grass and orange peels and leaves in San Pedro district, dominated by huge soybeans and corn fields.

Organic small plots surrounded by soybean and corn fields. Usually a row of eucalyptus trees act as a buffer zone.



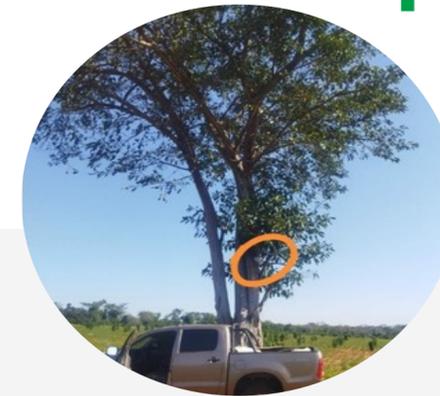
Cultivation of soy is done from September to December, followed by corn, from January to May. The cover crops are removed by end of winter with application of preemergence herbicides.

Results Case 2



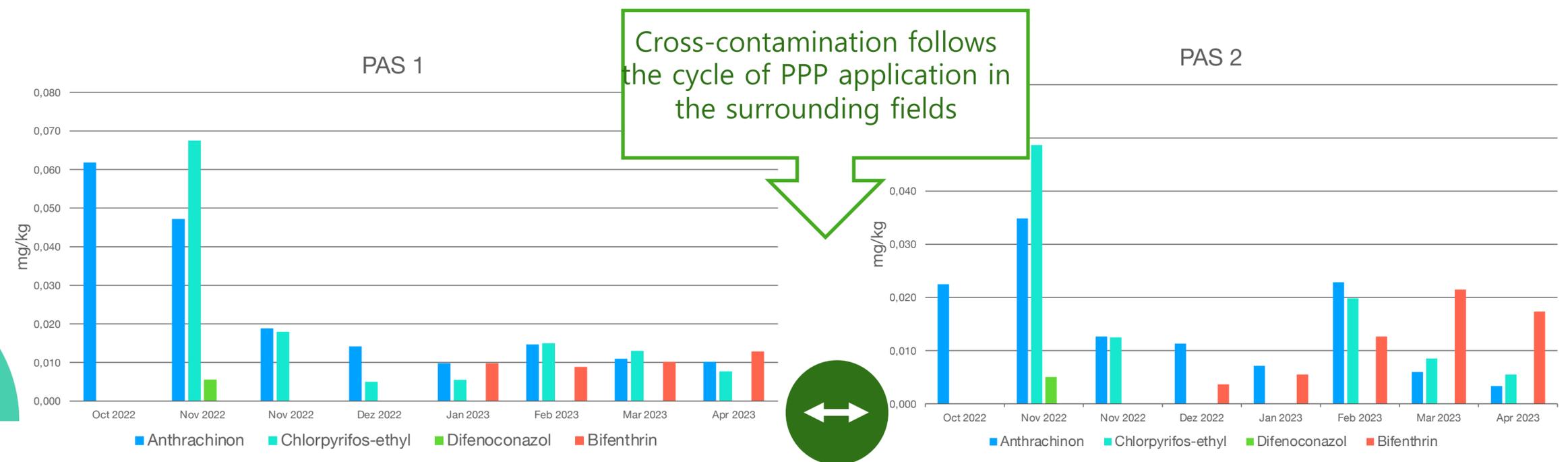
Passive Air Sampler 1

Location: Field 1, Lima, Paraguay
 Installation date: 18.09.2022
 Investigated Crop: Lemon verbena
 Distance from neighbor: 160 m /190m
 Installation height: 3 m
 Neighboring crop: Corn & Soybean



Passive Air Sampler 2

Location: Field 4, Lima, Paraguay
 Installation date: 18.09.2022
 Investigated Crop: Lemon verbena
 Distance from neighbor: 160 m /180m
 Installation height: 3 m
 Neighboring crop: Corn & Soybean



Impact



OFIS in practice



Organic orange leaves from Paraguay

External Stakeholder

Priority

Imported via Portugal to Spain
Residues of antrachinon below quantification limit.



OFIS response from the supplier's CB was rejected by Portuguese authority. Further investigations expected. Conclusion after nearly 4 months -> no infringement, organic status maintained.



-  Imported as conventional to minimise economic damage
-  Issuing of COIs for the supplier blocked by the CB during the investigation-> for fresh products entire crop year's harvest off-track.

Impact



Delays

Supply contracts can not be respected



Additional cost

Replacement of goods – additional storage – on-site inspection -sampling - analysis



Damage to reputation



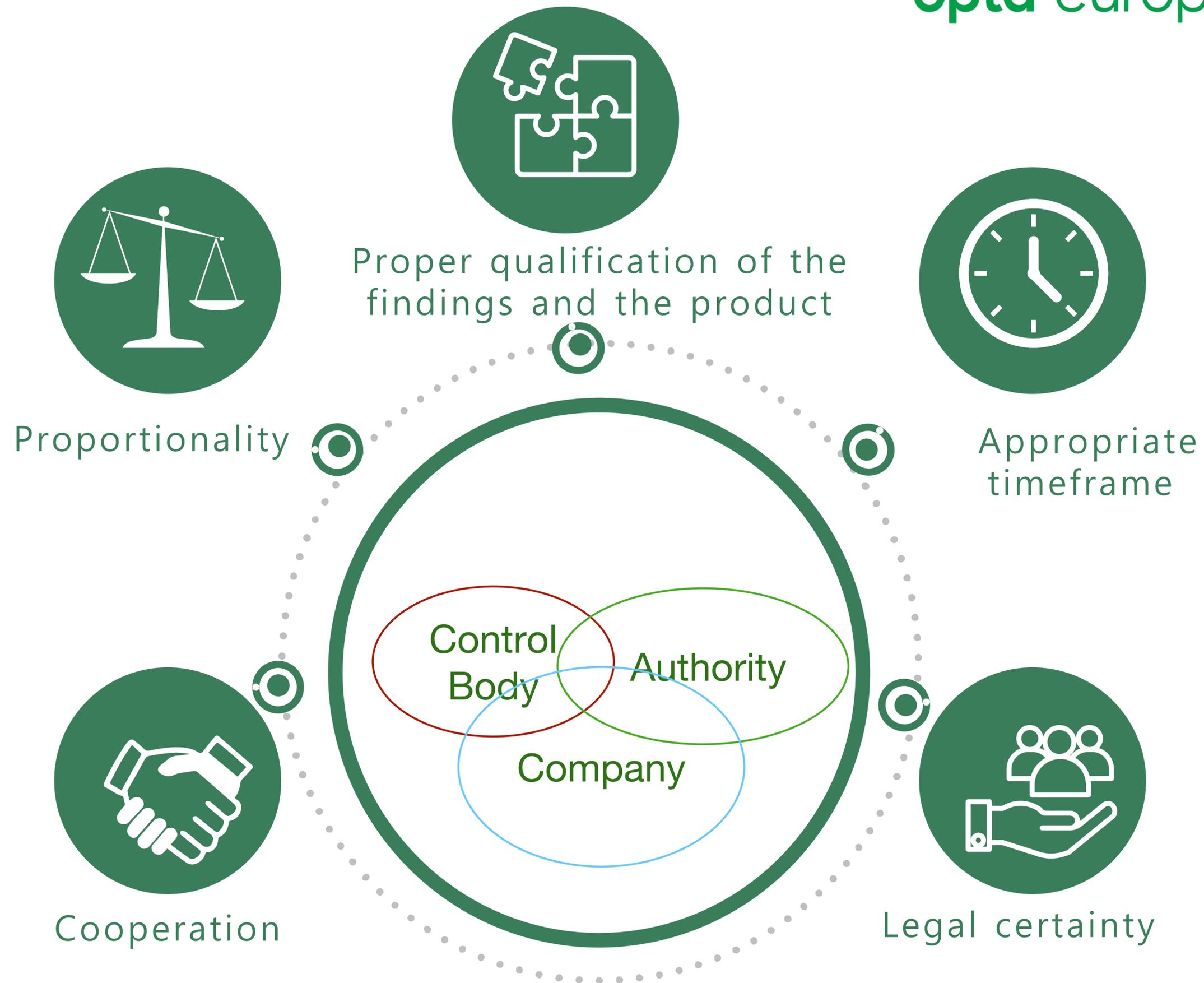
Supplier and inspection bodies in EU records

OFIS notification, regardless the content and outcome

Imports of organic raw materials increasingly burdensome and costly and in some cases no longer economically viable -> switch to conventional.



What is needed



THANK YOU

**For any question
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