



ABIM, Session 4:
Showcasing Biocontrol Innovations



**BPO project, seed applied
biological bird repellent**
*From ideation to market
introduction*

Marc Letroublon - Basel, 22 October 2024



Let's talk about...



...bird damages on corn in Europe



...project summary



...field performance



...regulatory path and closing message

About the complexity for corn growers to mitigate the risk of bird damages

/// A variety of bird species and damages

Different bird species and behaviors lead to different types of damages, and at different crop stages (grain feeding, seedlings dig up, stem cut...).

/// A growing need

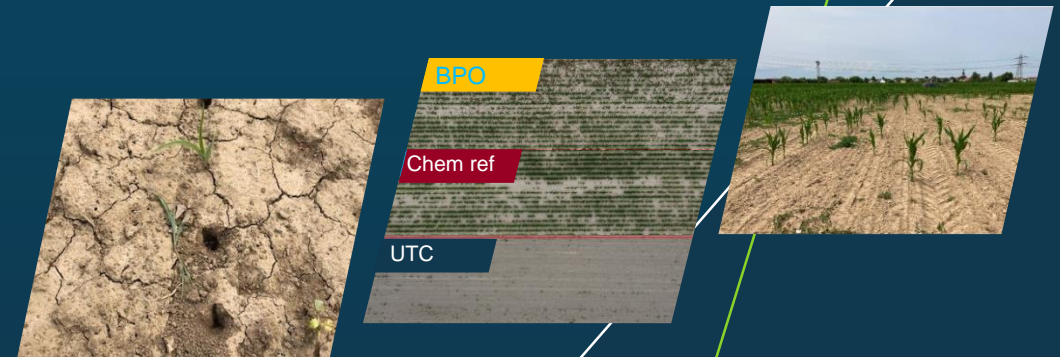
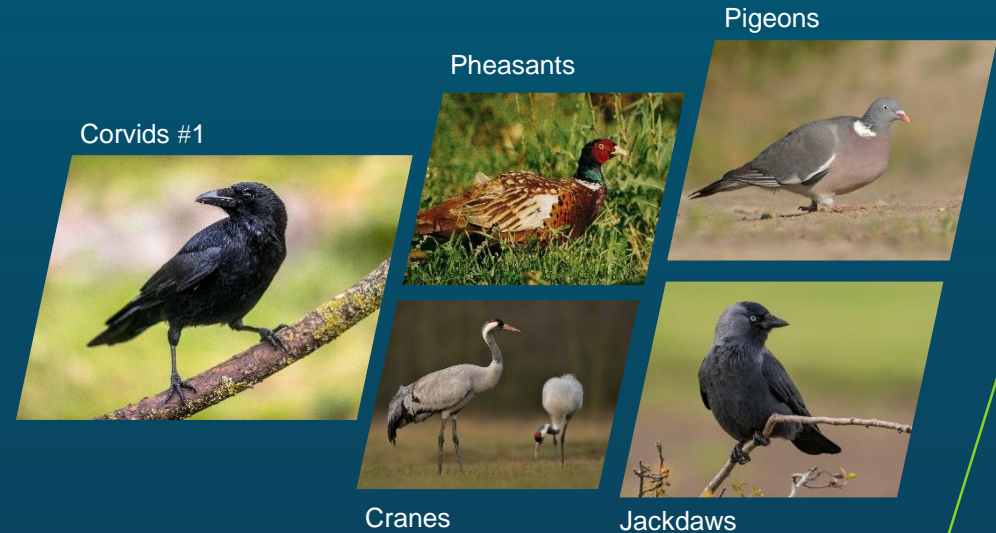
About 3 million hectares of corn are protected with a bird repellent chemical seed treatment in Europe.

/// A limited number of solutions

Only one chemical seed treatment remains registered as bird repellent on the EU market.

/// A need to combine levers

Other tools do exist to limit the risk (scarers, sowing depth, soil compaction, cover crops, sowing synchronicity...) but there is no single magic bullet: **levers have to be combined to optimize protection in high-risk situation.**



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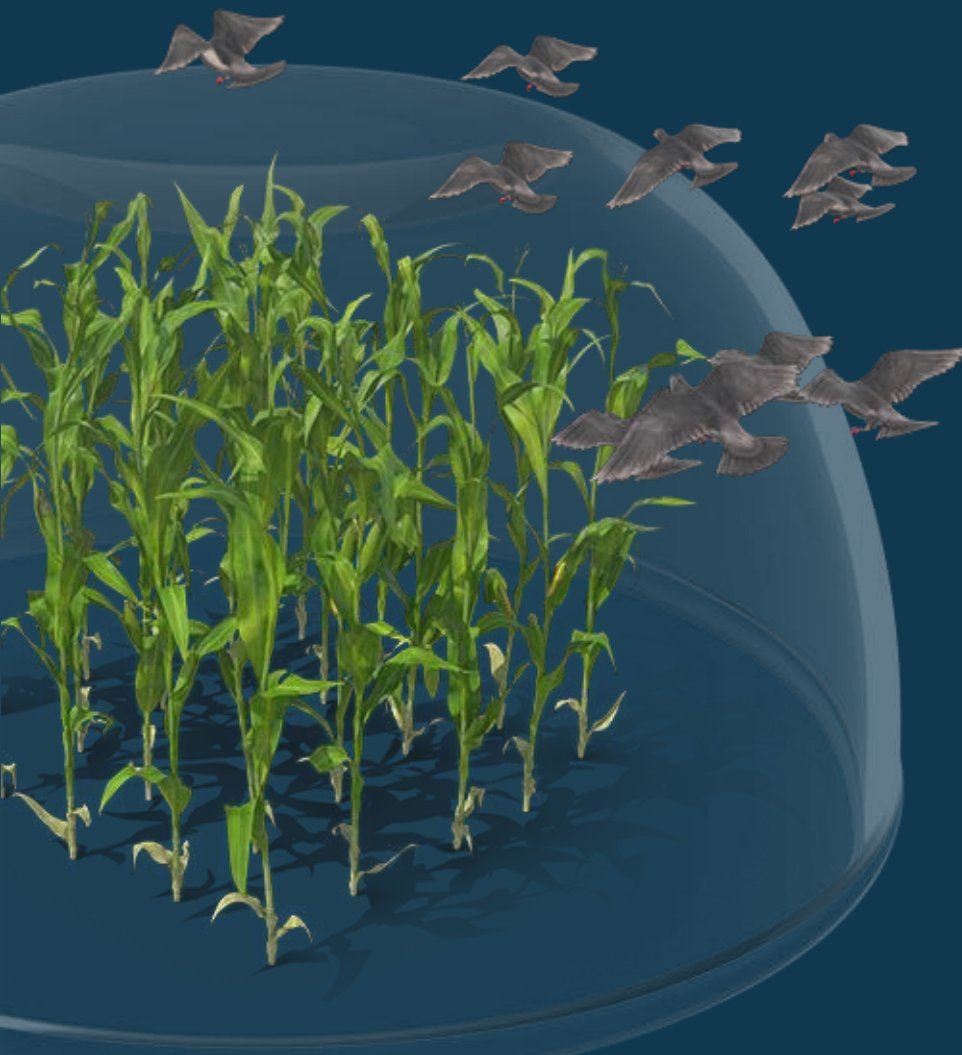


BPO project in a nutshell

Sustainable solution that effectively protects corn from bird damages



BPO project



/// About BPO as an ingredient

- // **Black Pepper Oleoresin (BPO)** is obtained by distillation and solvent extraction from the dry unripe berries of black pepper (*Piper nigrum* L).
- // **BPO** is a food grade botanical widely used in the food industry to flavour dishes and food preparations.
- // **Piperine**, one of the main component of BPO, is widely recognized as safe for human consumption.

/// Formulation development

- // The commercial product will be available as an **ES400 formulation**, specifically designed for application to corn and sunflower seeds by professionals.
- // Continuous improvement of the formulation and application recipes are being looked at (flowability, dust emission, seed safety...).

/// Time to market in EU

- // After many years of cage and field trials, technical package is ready.
- // Submission of the european active substance dossier done 09.2022 but **first country registration not before early 2027**.
- // **Emergency approvals** were already granted for corn sowing 2024 in ITA and CHE.

Let's talk about...



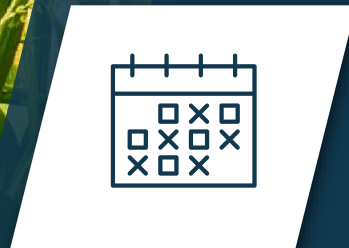
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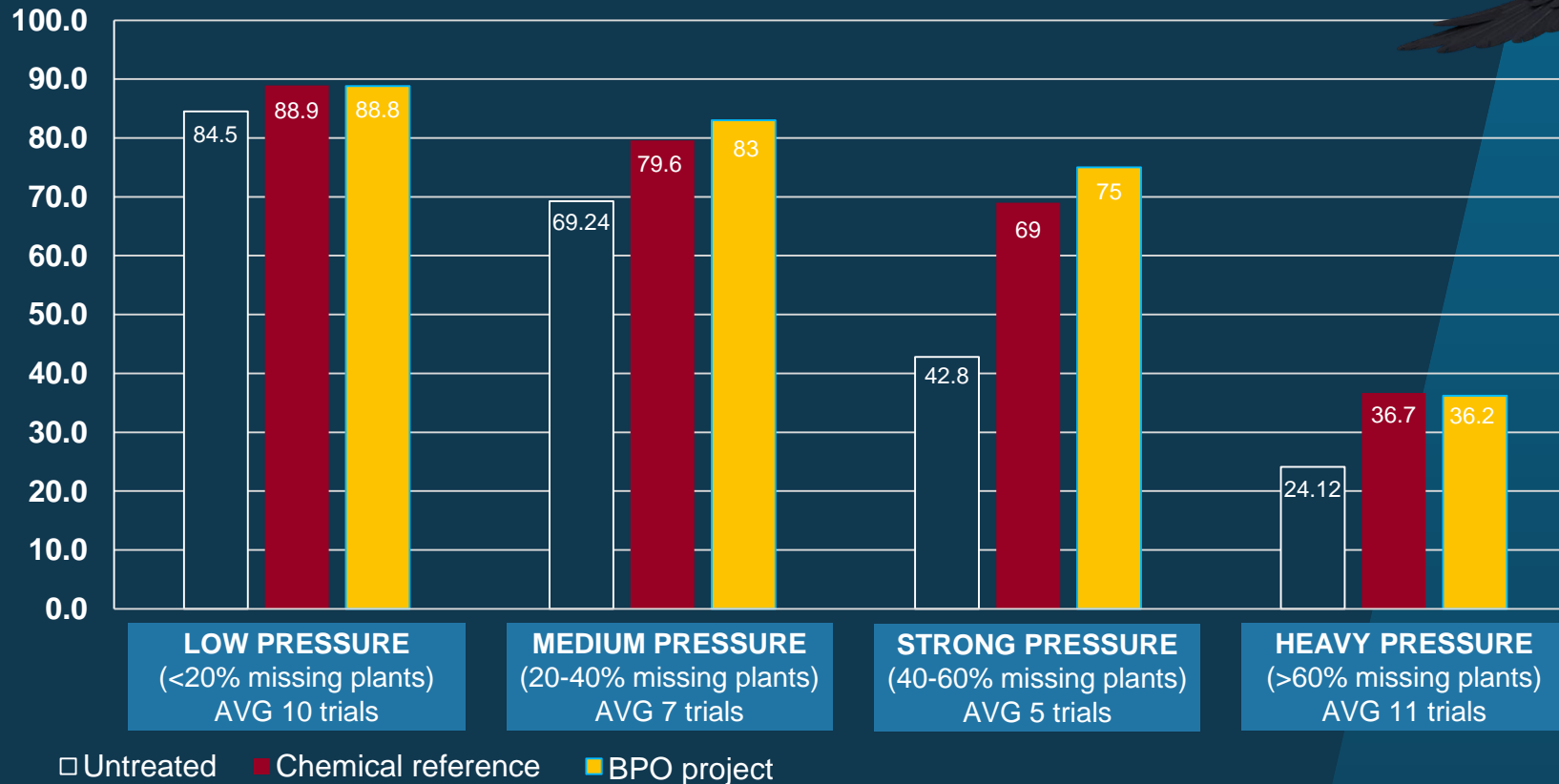


Summary of regulatory field trials 2020–2023



BPO project

% Healthy corn plants at final count

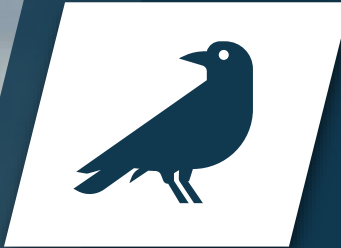


Key parameters:

- 33 regulatory trials
- FRA, ITA, ROU, POL, CHE, HRV, DEU, ESP, BEL, HUN, AUT,
- Special trial design incl. plot size: 600 m²
- Fungicide coverage on all variants: Redigo M
- Main birds reported: Crows, Pheasants (Pigeons)

For optimal protection, seed treatment needs to be combined with other levers (sowing depth, scarers, soil compaction...), particularly in risky situations

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Regulatory path with Learnings & Closing messages



BPO project

- // **Meetings with Rapporteur Member State** allowed to clarify data requirements and lead components concept application according to the **botanical guidance document** into the European dossier depending on sections, e.g., Physico-chemistry, Ecotoxicology, Environment.
- // The **EU approval process** of this type of botanical active substance and product **is expected to be long**, impacting the product availability to farmers of this biological solution for this use.
- // Market access in some countries *via* **emergency approvals requested by grower associations** is not possible while existing chemical solution is still in the market.
- // Expectation is that recent application of the **EU Guidance on Problem formulation for environmental risk assessment** in the context of Regulation (EC) No 1107/2009 will allow harmonized and faster evaluations at European level across member states of dossiers where scenarios have limited environmental impacts, e.g., seed treatments use with expected limited data package.
- // More generally, we need clear recommendations in **guidances for botanicals** to be agreed/aligned in between member states and EFSA to support quicker approval of this kind of technology in Europe (e.g. RATION project, OECD working groups).



*Thank
you*

