# Biological control in the pipelines

**Key alternatives to reach EU Green Deal goals** 





### What is Biocontrol?









Semiochemicals





# Biocontrol is so much more than pest and disease control





#### **BIODIVERSITY**

- Biocontrol respects nontargeted fauna and flora
- Example of organic farming



#### **FARM ECONOMICS**

- Proven efficacy of Biocontrol
- Response to chemical pesticide ban/restrictions
- High benefits/cost ratio



- Biocontrol enhances soil life and soil health
- It reduces risks of chemical contamination



#### **CLIMATE**

- Potentially less emissions
- Enabler for sustainable farming





#### **HUMAN HEALTH**

• Less exposure to pesticides for farm workers



#### **GOVERNANCE**

 Biocontrol goes together with ecosystem knowledge and holistic approach

# Background, Objectives and Approach



- The Sustainable Use Regulation aims to reduce chemical pesticide use and risk by 50% through Integrated Pest Management
- Alternatives to control pests and diseases are needed to enable IPM
- Objective
  - Provide a consolidated pipeline of biocontrol for EU submission between 2023-2028 including crop, type of biocontrol, area covered and chemical competitor
  - Provide non EU biocontrol pipeline where available and relevant
- Submissions across all companies have been consolidated to provide information by biocontrol type and crop providing an indicative area of biocontrol use.

# Biological control - 129 substances ready for submission



- Biocontrol is key to IPM alongside other practices <u>read more on our website</u>
  - Biocontrol has high potential to reduce chemical insecticides and fungicides
  - Biocontrol is important in resistance management programmes
  - Biocontrol against weeds is currently less well developed and other practices including precision agriculture and mechanical weeding are important
- Biocontrol developments on 129 substances are planned for submission by 2028 in the EU see Appendix
  - 75 new active substances
  - 54 label expansions
  - 28 M ha of potential use of which 23M ha in arable uses
  - 26 companies completed the survey representing ca 15% of the 160 companies actively developing biocontrol
- Allowing provisional authorisation and extension of use on one crop to all other crops without upfront efficacy
  would significantly speed up market access and increase availability of biocontrol to farmers
  - Global biocontrol companies no longer prioritise investment in the EU but rather invest in US and Brazil where biocontrol authorisation processes are 2-3 years and predictable.
- The role of invertebrate biocontrol agents in outdoor uses represent significant potential due to the conservation biological control effect and their application
  - IPM managed as a hierarchy of actions maintains and enhances field biodiversity reducing the need for intervention
  - Drone application of beneficials provides effective control in outdoor crops e.g. maize in EU, soybean in Brazil
- Yield is maintained with IPM and biocontrol as illustrated by French DEPHY farms and multiple EU funded research projects

# Brazil Case Study – the growth of biocontrol



Year	Actions	Biocontrol authorisations (product)
2014	<ul> <li>Authorisation Process Change</li> <li>Accelerate process - duration 1-2 years</li> <li>Allowed use on one crop to be extended to other crops without upfront efficacy data</li> </ul>	107 (number is from 2013)
2019	Market Penetration biocontrol 10 M ha	433
2021	Market Penetration biocontrol 23 M ha	
2022	40% of nematicides are biocontrol 30% of insecticides are biocontrol 10% of fungicides are biocontrol	
2018	Farmer survey showed 98% of farmers would use the same biocontrol product again	





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# Appendix (20/03/2023): Summary of pipeline from 26 companies (2023-2028 submission)



Total Number	Type of Biocontrol	Total		Active substance based in PPP		
				New	Existing	Other status*
73	Microbials			43	14	16
22	Semiochemicals			9	13	0
34	Natural substances	20	Plant extracts	13	0	7
		5	Peptides/ proteins	4	1	0
		9	Other NS	6	3	0

<sup>\*</sup> Other status includes "Pending", "no plans to submit" or "label extension"

Area (ha covered)	Total (M ha)	Arable (M ha)	Speciality (M ha)	Protected (000ha)
EU	18.2	14.6	3.5	94
Non EU (US/Brazil)	9.8	8.2	1.6	0