



Food and Agriculture  
Organization of the  
United Nations

COMMISSION ON  
GENETIC RESOURCES  
FOR FOOD AND  
AGRICULTURE



Convention on  
Biological Diversity



IOBC-WPRS

# Open-ended workshop on biological control agents and biostimulants

## Biocontrol Industry – Market Challenges and Successes

*Jennifer Lewis – Executive Director IBMA*







# Biocontrol Definition

## Examples of successful implementation of Biocontrol



**Invertebrates**



**Semiochemicals**



**Microbials**



**Natural substances**



NEWS ARTICLE | 4 May 2023 | Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO)

## Report from Global Network on Food Crises shows highest number of people facing acute food insecurity since 2017



The UN's latest global assessment report on biodiversity and ecosystem services highlights the responsibility of human activities in the massive loss of biodiversity.



**UN COP biodiversity and climate targets result in national horizontal policy targets to halt biodiversity decline and mitigate climate change**





í ♦ € ĩ ЛѢъ ĩ ◦  
♦ Нћ ◦ < € Нћ К



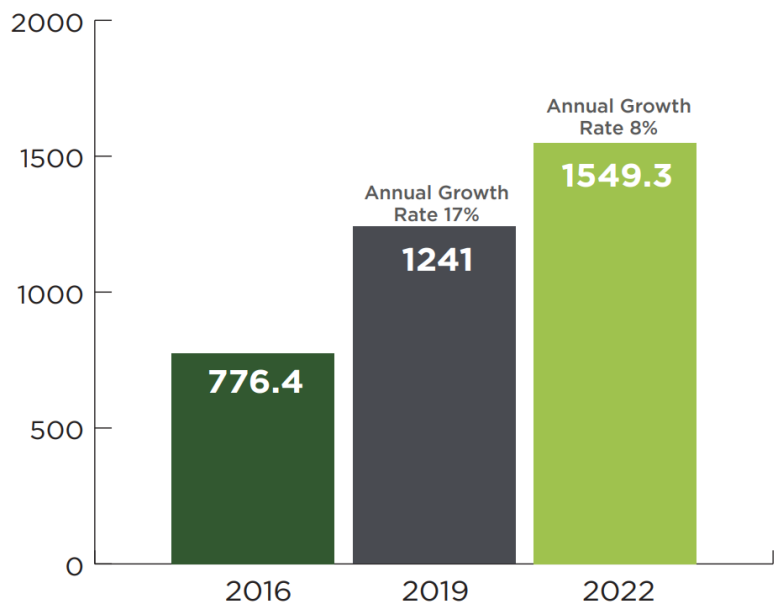


### 2022 European Biocontrol Market: Growth by Categories (€ Million)

The European Biocontrol Industry has experienced impressive growth since 2016, doubling in size. The Annual Growth rate in the first 3 years was 17% but declined to 8% in the last 3 years. Biocontrol growth in Europe in the past 3 years (2019-2022) has slowed for the biocontrol plant protection products. In contrast, the growth in invertebrate biocontrol has continued to nearly double. The difference in growth rates reflects the difficult and slow regulatory process for biocontrol plant protection products compared to invertebrate biocontrol.

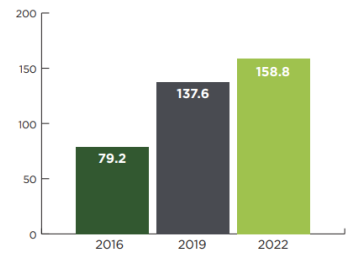
#### Total Market

% CHANGE SINCE 2016: 100% ↑  
 % CHANGE SINCE 2019: 20% ↑



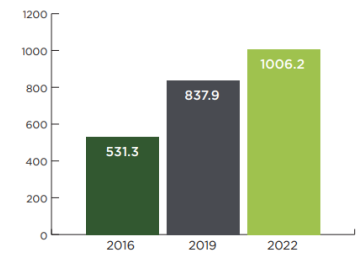
#### Microbials

% CHANGE SINCE 2016: 100% ↑  
 % CHANGE SINCE 2019: 15% ↑



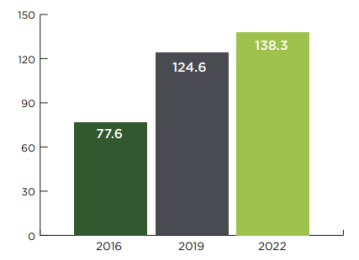
#### Natural Substances

% CHANGE SINCE 2016: 89% ↑  
 % CHANGE SINCE 2019: 20% ↑



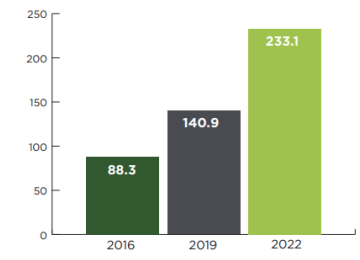
#### Semiochemicals

% CHANGE SINCE 2016: 78% ↑  
 % CHANGE SINCE 2019: 11% ↑



#### Invertebrates

% CHANGE SINCE 2016: 164% ↑  
 % CHANGE SINCE 2019: 65% ↑





1 Тм ѠЛГѠЕ І І Л  
Л І ѠНІ І Ѡ ũТЄ  
Е ТѠ Ѡ  
ĝ ōТĜТНЈЄТН



شفا ~ І ŮУКЛѢТНѠ ЛŮТЄŮЄТКІ  
شفا ÖHTM ꞥh ŮІ ѠЄ НКŮ Є

# There is a recognition globally of the need for biocontrol

Many biocontrol solutions exist worldwide but implementation varies across different nations



01

Regulatory pathways are often not harmonized within or across regions

02

Regulatory pathways are not always fit for biocontrol

03

Regulatory pathways are often too slow for industry and farmers

04

Knowledge transfer and sharing with and between farmers for implementation is needed

Ἐπιθετικὴ  
Ἐντομολογία  
καὶ ὕλη



Ἡ ἐπιθετικὴ Ἐντομολογία ἔχει  
ἄμεση ἀντιμετώπιση



Enhanced harmonization of legislation, standards and procedures, including those for the registration of PPPs across countries and regions.



Data Requirements are adapting



New rules to accelerate the approval and authorisation of biological plant protection products –  
Microbials/Microorganisms

**01** Scientifically robust safety evaluations

**02** Evaluations adapted to the biology and ecology of the organism or molecule

**03** Timely authorization so that industry ROI is attractive (2 years max for PPP) and farmers have products promptly

**04** Clarity and certainty for industry of the regulatory pathway and security of data





ÖHTM 'Hh ÜI  
 < €HKü €ЛГ  
 ü♦€€ I €K♦Hh  
 ♦h лЖI €K



I ТМ оЛГЕ I I ЛЛ I оН I h оЛГЕ ТQ  
 ĝ ðГГНЛГН



- FAO works to reduce the so called Highly Hazardous Pesticides (HHP) AND
- Increase the use of alternatives through
  - Regulatory guidance development and harmonisation of biocontrol
  - Farmer demonstration and training
- UN FARM project is one such example
  - Public Funding (World Bank) for HHP reduction and demonstration of alternatives
  - Main purpose is to attract private finance into alternatives



: ΕΠΙΧΕΙΡΗΣΙΑΚΟ ΠΡΟΓΡΑΜΜΑ ΔΙΑΧΕΙΡΙΣΗΣ ΚΑΙ ΑΝΑΠΤΥΞΗΣ ΤΗΣ ΑΓΡΟΤΙΚΗΣ ΚΑΙ ΑΛΙΕΥΤΙΚΗΣ ΟΙΚΟΝΟΜΙΑΣ  
ΠΡΟΣΧΕΔΙΟ ΕΠΕΝΔΥΣΕΩΝ ΚΑΙ ΑΝΑΠΤΥΞΗΣ ΤΗΣ ΑΓΡΟΤΙΚΗΣ ΚΑΙ ΑΛΙΕΥΤΙΚΗΣ ΟΙΚΟΝΟΜΙΑΣ





- Farmer to farmer networks in the field
- Advisers, Growers, Purchasers, Manufacturers and Universities work to create best practice in field programmes
- Incentivise and reward best practice and switching – ecoschemes and CAP 2027
- Get ready for the transformation



[Innovative Farmers](#)

Knowledge transfer with advisers and farmers is key to enabling biocontrol









; THΓΥΚΩΤΗ



- Biocontrol has a key role to play in biodiversity and climate mitigation goals and sustainable agriculture
- 2 key challenges we all have to work on
- Regulatory pathways need to be fit for purpose
  - providing robust safety evaluations in timely manner attracting industry investment and bringing products to farmers quickly
- Knowledge transfer
  - Demonstrating biocontrol works to give confidence to policy makers helps develop fit for purpose policies
  - Farmer to farmer networks and demonstration are key to knowledge transfer to farmers – seeing is believing





“Biological life is a force and once unleashed it will continue to grow and generate new life”

Gabe Brown (2018) – Author of from “Dirt to Soil”