



*An overview of
Niche Uses of
Highly Specific
Biocontrol
Products: How to
bring solutions to
farmers*

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Greening policies

- **FAO**
 - Sustainable Development Goals
 - 5 Principles of Sustainable Food and Agriculture
- **OECD**
 - Green Growth and Sustainable Development
 - Sustainable Agriculture
- **China**
 - China's No.1 Central Document
- **USA**
 - Green Chemistry Awards
 - Better for the Environment
- **EU**
 - Sustainable Uses Directive
 - EU Sustainable Agriculture Group 40 point implementation plan

What is wrong with the current agricultural system?

Surface look

- Plentiful food since 1st green revolution
- Good quality food
- More reliability of production
- Cheap food
- Plentiful choice of food

In depth look

- Resistance development
- Increase of invasive pests and diseases
- Pendulum of pest and disease occurrence
- Imposed produce quality standards
- Direct costs only accounted for
- Loss of PPPs due to multifactorial issues
- Failure to accommodate new PPP solutions

Problem solving needs to change



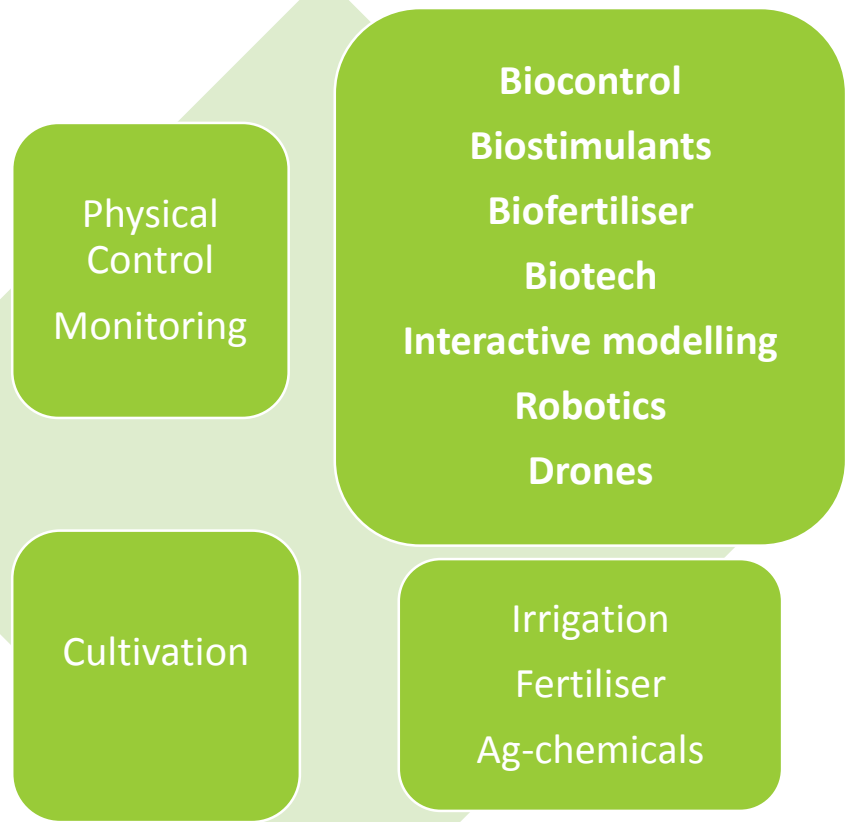
Incident based
problem solving

Holistic problem
solving



Characterisation of agricultural inputs

Environmental
Index



Productivity Index

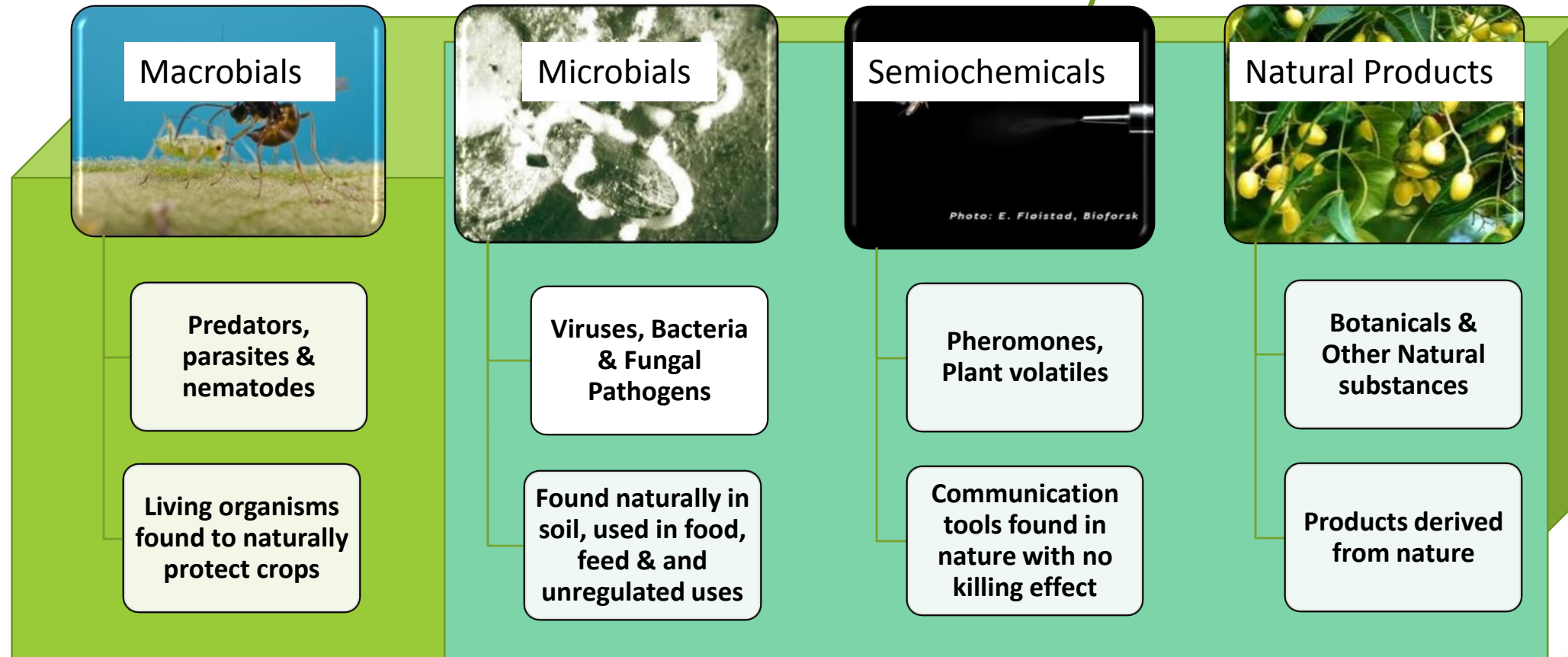


IBMA
INTERNATIONAL BIOCONTROL
MANUFACTURERS ASSOCIATION

Why do niche products need to be treated differently?

- Cost of developing and registering traditional PPPs was estimated at \$286M* in 2014
- Time to market for traditional PPPs in 2014 was 11.3 years*
- It is no wonder the number of R&D companies producing PPPs is now reduced from 15 pre 2000 to the top 6 companies having >75% market share in 2005 and by end of 2017 2 of those will have merged leaving 4
- PPPs have had to be blockbusters or silver bullets for economic prudence as they are only viable on the big crops in the big markets
- Highly specific tools and tools for niche markets often produced by SMEs cannot come to the market using this model forced on us by regulation and the resultant structure of the Agchem market

The products: “innovative green tools” of the Biocontrol industry



Not usually regulated as PPPs

Regulated as PPPs

All groups can have niche solutions

Specificity

- What do we mean by specificity
 - Species specific products
 - Pheromones
 - Baculoviruses
 - Weak strains of host specific viruses
 - Invertebrate Biocontrols, Specific uses, Bacteriophages, etc..

Unique attributes

- Activity on non-target species
- Corrective technologies without impacting other control mechanisms
- A part of agroecology
- Often without major uses

Who can/need to help with the issue

- Policymakers
- Regulators
- Researchers
- Industry
- Farmers
- Food value chain

What are possible solutions

- Global or regional positive list
 - EPPO list for IBCAs
 - FAO list of MBCAs
 - EU 2003/2003 proposed list of microbial biostimulants
- No renewal requirement
- Notification only procedure for a.s. ie EU and SCLPs
- No requirement for product authorisations or a single regional product authorisation
- Ability to allow a minor use without needing a major use
- Concurrent a.s approval and a regional product authorisation in a single step
- Think outside the box!!!

Engagement during the seminar

- Understand the type of products that have already been lost
- Understand what solutions are available
- Understand the specificity / niche markets
- Understand that if we are to bring such products to the farmer and make agriculture more sustainable - the system and how we apply it has to change
- Understand if we don't apply a system designed for these specific solutions that in the main they will not be available and they are arguably because of the specificity the most sustainable tools we could use
- Think of ways we can work together to solve this common issue

Holistic Agriculture



- Prevention of pest & disease explosion
- Use of all available tools
- Minimise risk to human health and the environment

Only through use of true IPM

A new true green revolution



***Thank you for attending now
is time for us all to actively
participate in this seminar
and only then can we solve
our dilemma together***

