Bioprotection: the FUTURE

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What is IBMA?

The voice of the Biocontrol industry, representing all its members to promote biocontrol tools and bring them to the market via proportionate regulation modern, green biocontrol tools, inspired by, harnessed or harvested from nature.

More than 250 members:
• Producers
• Distributors
• Knowledge Transfer organisations
• Consultancies for the industry - regulation, strategy -
• Research Institutes - private and public ones -

• Founded in 1995
• Based in Brussels
IBMA

a member of the BPG global federation of biocontrol associations
An organisation for its Members

- Board
- National Groups
- Professional Groups
- Secretariat
IBMA principal activities

• **IBMA** participates to the activities of international public organisations and institutions such as OECD, FAO, WHO, the European Commission, EFSA, etc..., In addition, we collaborate with other agri stakeholders including farmers association, NGOs and other industry associations.

• **IBMA** shares its expertise and promote collaboration among its members.

• **IBMA** partners with other organisations defending biopesticides, in order to reinforce its positions.
UN Sustainable Development Goals

Aim to:

End poverty, protect the planet and ensure prosperity for all: a healthy and productive environment is needed to support this.

Agricultural intensification puts pressure on the environment and increases threats to human health.
We do not have an unique and uniform agreed definition for biocontrol. Terms as biocontrol, biopesticides, bioprotectants, natural, identical to nature, are terms often related to biocontrol.
Bioprotectants globally

Food security
30 – 40 % crops lost before harvest
>10 % after harvest

To meet the challenges
we need ``Best Practice``
crop protection

Bioprotectants
increasingly the mainstay of sustainable crop protection
Sustainable Use Directive – IPM

IPM – Working with Nature
Bioprotectant markets

Global market increased over

300% *
2008-2018

Global market 2019 value

over

$6 billion*

Increase

* DunhamTrimmer, 2018
EU biological* PPP - active substances

> 30% = biologicals

Total all PPP = 493

TOTAL biopesticides:
134 (17) = 151

EU active substances (updated February 2019)*

* Definition of biological PPP not fixed so approximate numbers only
EU new plant protection products – pending*

* October 2016
Biocontrol Market Development

Increase of the macro-biological species number available in commercial products in the United Kingdom.
Biocontrol Market Development

There has been a significant increase of the number of biological products approved for use, f.i. in the United Kingdom.
Benefits of biological plant protection

- Efficacy – killing target pest
- Efficacy - yield and quality improvement
- Host specificity
- Use in IPM programmes
- Useful for resistance management
- Useful for residue management

- Growers - crop management
- Worker safety
- Favourable environmental footprint
- Use in organic production
Strategies to use biocontrol

Compared to nature, cropping systems are less stable.

Often populations of the naturally occurring biocontrols are too small or develop too late to prevent plant damage.

Management intervention needed

Can be harnessed in agriculture by:

- Introduction
- Conservation
- Augmentation
Adding floral resources to vineyards in New Zealand

Growing flowering plants between vines attracts & retains parasitoids of leafroller caterpillars.

Now used by 80 wine growers in New Zealand.

Wine marketed as ´´environmentally friendly´´.

www.waiparawine.co.nz

Biocontrol products are used to replace chemical pesticides but this underestimates the potential of the technology. To get the best they should be used in IPM.
Strategies to use bioprotectants in IPM

Even if a product has lower efficacy, by using it multiple times the target population can be reduced.
Application of bioprotectants

Biocontrol product efficacy can be significantly affected by the quality of the application.
Plant microbiome – effects on plants

Biocontrol products can have whole plant effects and interact with the plants microbials and natural defenses.
Can we reduce our dependence on synthetic fungicides in wheat production using biologicals?
The YAS-EIP Project – trial sites

Can we reduce our dependence on synthetic fungicides in wheat production using biologicals?
Results - yield

There was no difference in yield between any of the treatments at any of the sites for either variety.

- Nafferton
- Cockle Park
- Stockbridge Technology Centre

Variety
Left column = Leeds
Right column = Skyfall
EU registration timelines for PPP: 1107/2009

Regulatory system - same for all plant protection products

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<th>Products - zonal</th>
<th>Products - Low risk</th>
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Submit dossier
Zonal assessment
Product approval
Regulation of bioprotectants

Are bioprotectants different from conventional chemical pesticides?

Guidance documents
- Microbials
- Semiochemicals
- Botanicals

Low Risk
Products where active substance is assessed as Low Risk

YES
Knowledge transfer to advisors, farmers, consumers, food suppliers, government, regulators:

- New technology – education/ costs/ value to business
- Understanding risks (or lack of risks?)
- New approach to crop protection – change resistance
IBMA call for appropriate and proportional regulation

PROPOSAL FOR SOLUTIONS

To ensure implementation in the circular bio-economy in the agricultural sector, appropriate, streamlined and faster regulatory procedures that will deliver sustainable bioprotection solutions and provide innovative tools for farmers and other users of the natural environment need to be enacted.
What are the advantages of a new regulatory system for bioprotectants?

Eliminating disproportionate costs compared to the risks these technologies represent

Efficiently assessing the risk specifically linked to bioprotection technologies, in consequence reducing the required resources whilst appropriately addressing potential risks

Shorter evaluation periods resulting in more bioprotection products placed faster on the market, replacing products deemed to be of concern
Thank you for your attention