

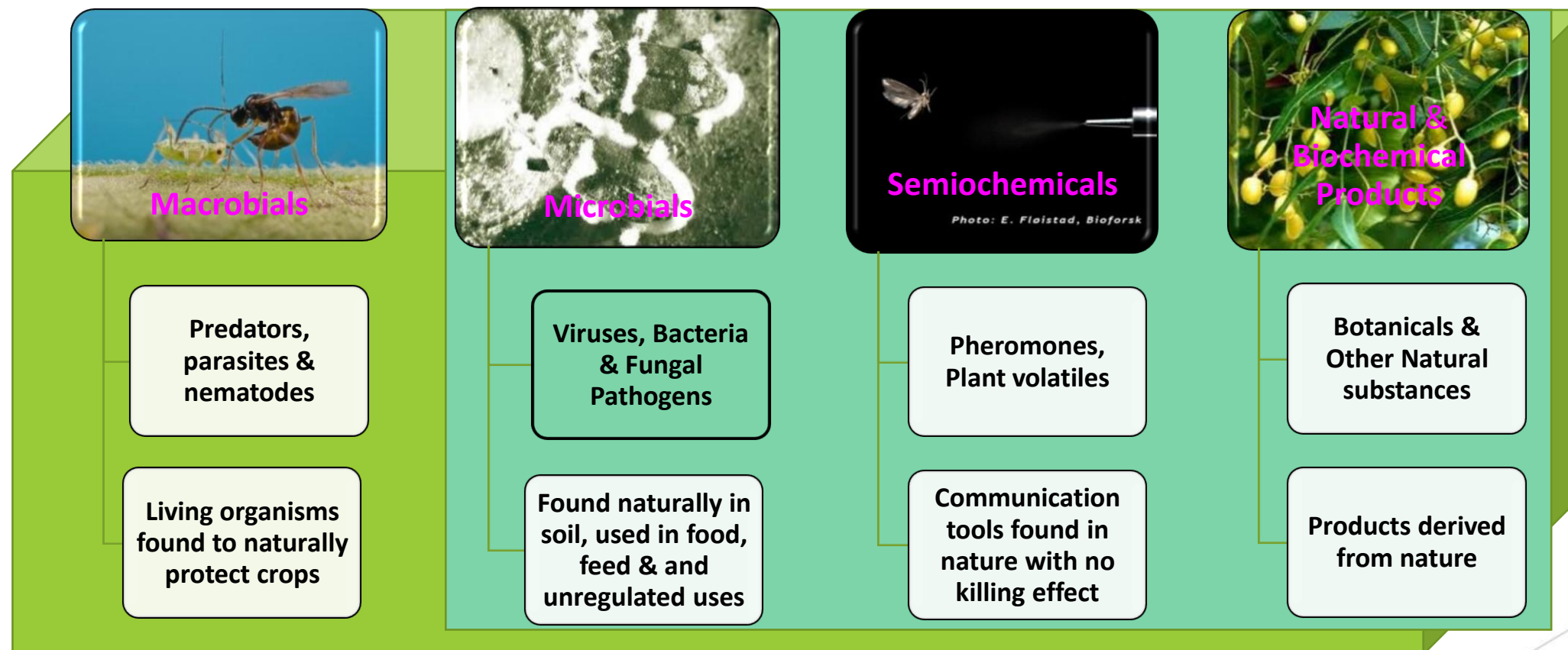


Future of Biocontrol for Organic Agriculture

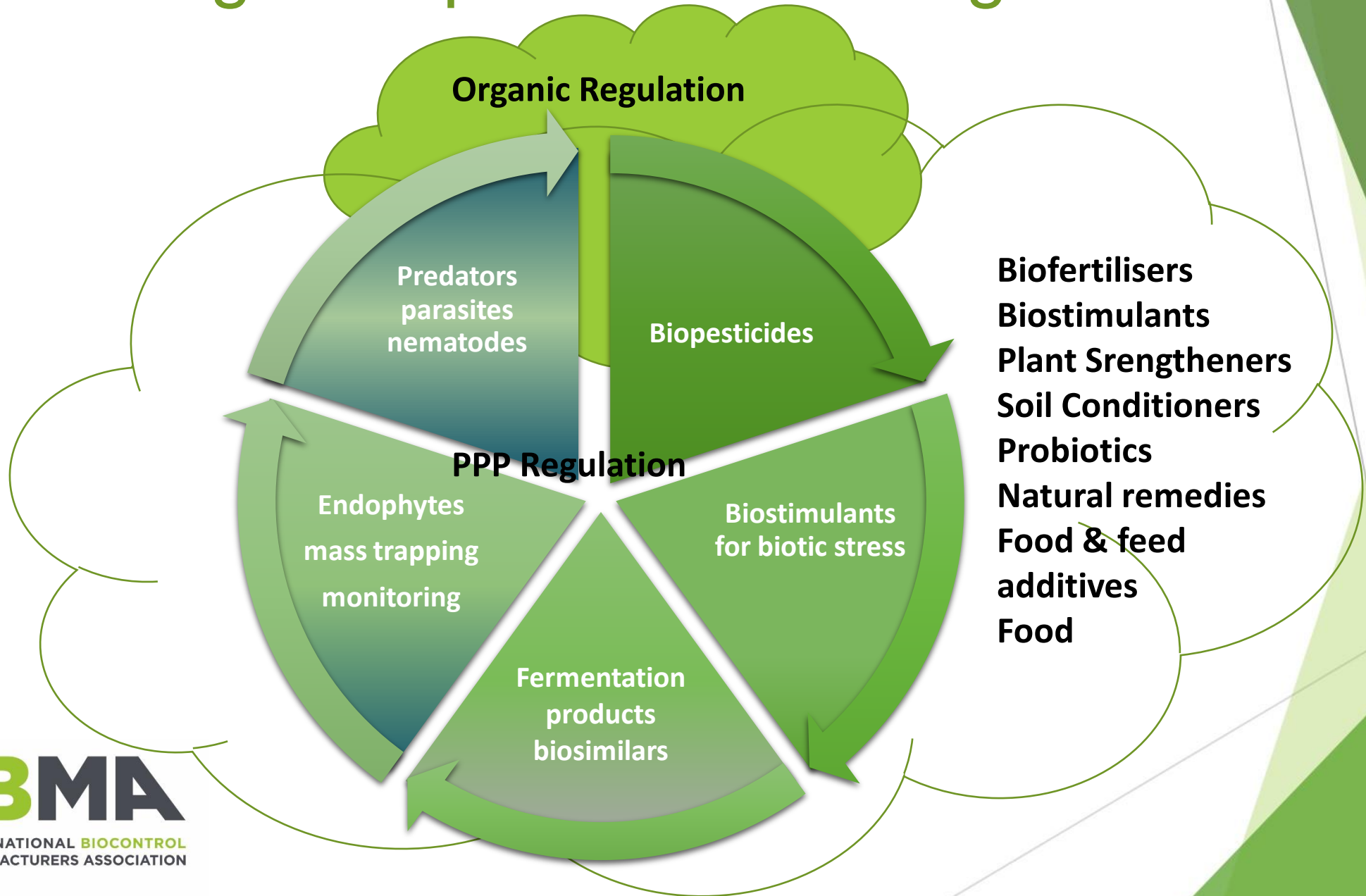
David Cary, Executive Director of IBMA



What “tools” are available from the Biocontrol industry?



Where do biological inputs fit within regulation?



Biopesticides – market, manufacturers and products

- Biopesticide market
 - Worldwide in 2014: \$1.9 billion at user level; annual growth 15-20%
- Biopesticide manufacturers
 - Worldwide : approx. 230 (ex China, India)
 - Europe: 91
 - America's 98

 - IBCAs 52
 - Microbials } 171
 - Semio-chemicals }
 - Natural products }
- Total of biopesticide products:
 - Macros: > 230 organisms
 - Micros, semiochemicals, naturals: > 450 actives, > 2300 products



Sources:

DunhamTrimmer, Biopesticide Industry Overview 2015
CPL, Biopesticides Worldwide Market 2013

Vital to Organic & Conventional Agriculture:

Integrated Pest Management

working with and not against nature



Merging of Agricultural Systems

Organic

- Holistic Systems based
- Use of IPM principles
- In harmony
- Trust
- Certification

Conventional

- Production focus
- Redefining IPM
- Constantly requiring correction
- Silver bullets
- Resistance

Movement forced

Policy changes

External
influences

Unsustainable in
current form

Factors affecting adoption: Macro factors

- Political and societal needs favour the use of bioprotection (environment, biodiversity, food safety)
- Increased legislation of chemicals will stimulate development of alternative solutions
- Increased demand for organic agriculture is an opportunity for bioprotection
- The main driving force is the requirement of retailers and consumers for residue-free food !!!!
- The biocontrol industry has reached a sufficient level of maturity enabling solid growth in the near future

Future Crop protection led by Organic Agriculture

- Founded on prevention and monitoring
- Intervention only when needed
- New tools all nature-based solutions
- Biopesticides, biostimulants, biofertilisers
- Resilient soils and resilient plants (microorganisms, seed treatments)
- Automation, ICT tools and intelligent equipment minimise use of products and exposure
- Holistic approach
- Interventions upon a licensed PCA written recommendation



Threats to Organic use of Biocontrol

- Flow of information
 - General principles
 - Local tailoring to be fit for purpose
- Lack of Harmonisation of regulations
 - Global and Regional harmonisation required
 - Cross sector harmonisation
 - Agricultural input harmonisation
 - Smart integration of regulations eg 1107/2009 & 834/2007

Examples of registered products being avoidably delayed to organic producers

- Laminarine
- Sheep fat
- Dimatiaceous Earth
- Garlic Extract

• Microbials



• Plant extracts



• Compromise needed



Application for organic use
at time of Annex 1 listing in
1107/2009

Concluding remarks

Growth of bioprotection market

Growth areas:

- **Microbials**

- Bacteria, for disease control, for nematode control

- Antagonistic fungi, for disease control

- Entomopathogenic fungi: slow growth

- Baculoviruses: increased use in orchards and vegetables

- **Macrobials**

- EPNs: orchard, vegetables, amenity areas

- **Semiochemicals & Natural Products**

- More specific niche solutions

- Fermented products including Metabolites

- Mixtures

- **Annual growth will continue with 15-20%**

- **Bioprotection will become a major part of crop protection means: > 50% in 2030**



Good for the environment
Good for the economy
Good for jobs
Good for Human Health

With special thanks to Willem Ravensberg, Bill
Dunham & CPL





Many thanks!

Also to Federbio and the organic movement

