Biocontrol - What is the overall potential? What are the latest developments and implications with biologicals approaches?

David Cary, Executive Director IBMA
Characterisation of agricultural inputs

Physical Control Monitoring

Biocontrol
Biostimulants
Biofertiliser
Biotech
Interactive modelling
Robotics
Drones

Cultivation

Mechanisation
Irrigation
Fertiliser
Ag-chemicals

Environmental Index

Productivity Index
Current tool categories of products available from the Biocontrol industry

Microbials
- Viruses, Bacteria & Fungal Pathogens

Macrobials
- Predatory mites & insects, nematodes

Semiochemicals
- Pheromones, Plant volatiles

Natural and Biochemical Products
- Plant extracts, Seaweed products & Natural substances
What is the current market size (2011)?

- What is the size of the global biocontrol market?
  - $1.63bn

- What is the share in Europe as a region?
  - $542m

- How does this equate to the pesticide market?
  - 4%

Source: Biopesticides Worldwide Market 2013, CPL, Wallingford, UK
Current Split of Biocontrol Sales (2011)

User Level Sales ($m)

- Macrobials
- Microbials
- Semio-Chemicals
- Natural Products

Source: Biopesticides Worldwide Market 2013, CPL, Wallingford, UK
Annual Growth of Biocontrol and Agriculture Chemical Markets

Source: Various combined
Biocontrol are tools in the toolbox that will be used more in modern agriculture.

Are they the only tools?

How important is IPM?

What is the focus?

Where is the next blockbuster?

IBMA - International Biocontrol Manufacturers Association
Biocontrol are some of the tools in the toolbox that will be used more in modern agriculture.

Many and varied tools will be needed and used.

Focus will be being productive whilst working with nature in harmony.

Blockbusters are a concept of our past.

IPM and truly structured and planned IPM is vital.
The value of biocontrol to policy makers, regulators, and food value chain including society and farmers

- Food Security
- Environmental Obligations
- Health & Welfare

Seen as favourable crop protection solutions
Role of Biocontrol Products

**Modern Agriculture**
- Satisfy food security issues
- Reduced impact on the environment
- Reduced risk for human health

**Biocontrol Products**
- Increasing role in modern agriculture
- Regulation should not preclude these products from being available to growers
- Regulation should be proportionate to the risks posed
- If low-risk appropriate incentives should be implemented
- Are needed to allow IPM to be implemented
- Are needed to prevent development of resistance
- Satisfy increasing societal scrutiny of inputs
Responsibilities of Biocontrol industry

- Ensure product quality and performance
- Disseminate information
- Engage with the entire food chain
- Satisfy farmer needs
What significant issues exist in moving towards biocontrol based IPM?

Holistic versus incident based control

Part of a family of biological inputs

Biology versus chemistry

Niche uses and highly specific solutions

Little or no impact on human health or environment
Interesting areas of biocontrol development

• Bacteria for disease and nematode control
• Antagonistic and entomopathogenic fungi
• Baculoviruses
• Microbial consortia
• Bacteriophages
• Interaction with smart application methods
• Multi pest pheromone dispensers
• Other sensory communication usage including blocking
How will the Biocontrol industry of the future look?

- SMEs
- Large multinational and consolidated bio companies
- University Spin-off companies
- Management buy-out companies
- Co-operatives
What will be the potential size of the market?
Thank you for your attention

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