How do we efficiently move from traditional crop protection to an integrated biological platform?

David Car Executive Director IBMA
The products: “innovative green tools” of the Biocontrol industry

- **Macrobials**
  - Predators, parasites & nematodes
  - Living organisms found to naturally protect crops

- **Microbials**
  - Viruses, Bacteria & Fungal Pathogens
  - Found naturally in soil, used in food, feed & and unregulated uses

- **Semiochemicals**
  - Pheromones, Plant volatiles
  - Communication tools found in nature with no killing effect

- **Natural Products**
  - Botanicals & Other Natural substances
  - Products derived from nature

Not usually regulated as PPPs
Regulated as PPPs
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 quality standards
• Direct costs only accounted for
External costs and benefits

• Direct costs are helpful for cost of production when inputs have only positive effects

• However farmers do more than act as a food factory

• If we look at agriculture as produce from our environment we have to account for the benefits to us as a society and also account for the costs to society of our methods of production.

• As custodians of the environment we need to account for environmental costs and benefits

• In order to be complete also account for human health costs and benefits
Change of consumer quality perceptions

• What makes produce of good or higher quality?
• Is size a good measure of quality?
• Is shape a good measure of quality?
• Is blemish free a sign of quality?
• Is absence of insects a sign of quality?
• Do some or all of these quality measures happen to assist multiple retailers in having standardised produce for buyers and customers?
• Are such measures of quality of use to farmers and consumers?
Problem solving needs to change

Incident based problem solving

Holistic problem solving
Consequences of problem thinking

Natural enemies

Under control

Out of control

Intercropping

Secondary pests and diseases
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
Production of food has to be as a part of the ecosystem and the environment through using green tools first.

Learn to live with nature not against it.
Thank you for participating