

Opportunities and challenges for biocontrol in post-harvest

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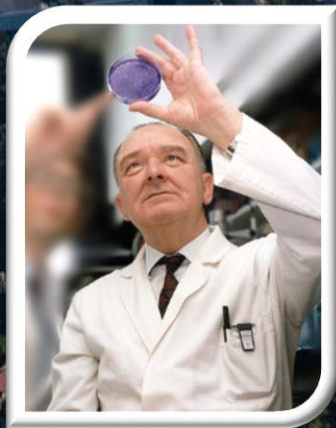
- MSc in Food Technology (University of Torino)
- PhD in Agricultural Entomology (University of Bologna)
- Main experience: Business and Product Development, biological pesticides
- Based in Antwerp, Belgium

Today's topics:

- Who we are
- Characteristics of the PH industry
- Megatrend for innovation
- Sneak peek in our pipeline



Janssen PMP, a flexible and independent division embedded into a first-class pharmaceutical company



Janssen PMP Crop Management - Global scope



Crop Management - types of product

Post-harvest

- Fungicides
- Products with physiological effect

Field application with post-harvest benefits

- Biostimulants
- Others in the future



Post-harvest, a different business

Drencher (kind of "shower")



Post-harvest treatments

Necessary to reduce food waste

Pros:

- Recycled water
- Excellent efficacy
- Relatively cheap

Cons:

- Spreading of spores
- Possible bottle neck
- Need for sanitation
- Wastewater management

Dipping ("bath")



Post-harvest, a different business

Fogging



Post-harvest treatments

Necessary to reduce food waste

Pros:

- No water
- Excellent efficacy

Cons:

- Higher price
- Not suitable for all active ingredients
- Thermofogging: unsuitable for microbial strains

Post-harvest, what the market needs

Shelf-life extension

- High efficacy against pathogens
- Reduction of food waste
- Quality enhancement

Green technologies

- Withdrawal of chemical a.i.s
- MRLs exemption
- Resistance management
- Compatibility (e.g. sanitizers)

Dryer solutions

- Reduce waste of water
- Applicable in all environments / no need of complex setups
- Less contact with foodstuff
- No "big room treatment"

New in the pipeline: KitoGreen technology for PH



Chitin from fungal origin
(*Aspergillus niger*)



The only industrial-scale **non-animal** chitosan on the market



No Pre Harvest Interval



Approved for Organic farming in some EU countries, MRL exempt



Environmentally friendly



Biodegradable, safe for the environment, wildlife and human consumption



Optimal absorption



High degree of deacetylation (>80%) and low molecular weight (20kDa)



Dry application



Under development

Conclusions

- Post-harvest is a unique and highly sophisticated sector
- Specific technical and regulatory expertise is essential
- Despite challenges, there are many opportunities
- Development of technologies coming from other sectors (e.g. field application) is possible

Thank you for your attention!

Do not hesitate to reach out



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