Fresh produce adapting field practices to uptake research innovation

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Plan of the presentation

✓ Introduction and key considerations
✓ The apple sector: state of play
✓ National initiatives
✓ Greenpeace report and call for cooperation
Introduction and key considerations
Key considerations: EU food safety is one of world stricter

- The EU legislation is one of the strictest in the world in regard to
  - registration of active substances,
  - MRLs,
  - sustainable use,
  - soil and water protection,
  - general food law principles,
  - microbiological contamination,

- Private standards often further reinforce those strict regulatory requirements

- The fresh produce sector is one of the more controlled ones through:
  - EFSA annual report verifying the compliance with the legislation
  - Additional national report on MRL compliance,
  - weekly rapid alert,
  - national private scheme such as QS, Food Compass, FEL Partnership, ...taking additional sample based on regulatory and/or private requirements
Key considerations: EU food safety is one of world stricter

• The sector has multiple certification schemes in place to validate its commitments and due diligence: GlobalGAP, QS, HACCP, IFS, BRC, GFSI, individual private standards limiting active substances and MRL, ...

• Reduced use of PPP is not always the panacea => could lead to negative effects like:
  • multiple use of PPP,
  • resistance,
  • less efficiency
  • restrictions on market access
Key considerations: EU food safety is one of world stricter

• Fresh produce are pioneers in the agricultural sector to adopt and stimulate GAP & IPM
• Fresh produce have a extremely high level of compliance with EU food safety legislation and in particular on MRL
• MRL compliance continue to increase year on year to reach almost 99%
• As MRL are trading limit and not safety limit => consumers should have unquestionable confidence in fresh produce placed on the market
• Consumers confidence is a key to stimulate consumption, which remains unsatisfactory across Europe leading to severe health challenges (obesity, risk of related pathologies)
Legislation needs to be coherent and loopholes need to be addressed to generate confidence and prevent the proliferation of private standards.

Scarcity of tools including environmental friendly options given the costly and timely registration process of new tools.

The sector is involved in multiple research program to reduce pesticides dependency => the sector elaborated a Strategic Innovation and Research Agenda in response to H2020 and annual work program identifying key priorities to reduce dependency.

Key considerations: EU food safety is one of world stricter.
Sector welcomes the inclusion in the EU call 2016/2017 of industry priorities set by its SIRA position paper

- **SFS-01-2016**: Solutions to multiple and combined stresses in crop production
- **SFS-03-2016**: Testing and breeding for sustainability and resilience in crops
- **SFS-05-2017**: Robotics Advances for Precision Farming
- **SFS-06-2016**: Weeding - strategies, tools and technologies for sustainable weed management
- **SFS-08-2017**: Organic inputs – contentious inputs in organic farming.
- **SFS-16-2017**: Bee health and sustainable pollination
- **SFS-17-2017**: Innovations in plant protection

**SFS – 33 [2016]** Understanding agro-food value chain and network dynamics

**SFS – 35 [2016]** Innovative solutions for sustainable food packaging

**SFS – 38 [2016]** Encouraging healthy and sustainable dietary choices and healthy lifestyles

**SFS – 41 [2017]** How to tackle the obesity epidemic?
The European apples sector and its commitments to sustainability
The EU apples industry: a leading category within the fresh produce sector

• Annual production > 12 million T, covering most of the EU Member States, while PL, IT, FR, DE represent > 70 % of the production

• Production is primarily sold or processed in the Member State of production, though > than 2,2 million T are traded intra EU and ca 1,5 million T are exported outside the EU

• EU production value of apples production > 7,2 billion €, and a intra and export trade value > 2,2 billion €

• Labor intensive activities: growers, Po’s, packers, shippers, traders,...
The apples sector under scrutiny by authorities and by the sector itself

• EFSA report 2013:
  • 1610 samples out of which
    • 533 samples led to no residues (33%)
    • 1077 samples with residues (67% out of which 21% with 1 detectable residues)
    • But only 0.6% non compliant

• Additional official national monitoring are conducted

• Private tests are also taking place
  • at production level
  • at trade level
  • at retail level

• High level of certification
Case study Italy

- 14,260 growers over 27,570 Ha, 4,500 workers employed and an economic activity worth around 1,1 billion €
- A sector under permanent scrutiny with high record of compliance: 0,28% of 17,000 samples rejected!

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Samples</th>
<th>Non-compliances</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>1,624</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>1,547</td>
<td>5</td>
</tr>
<tr>
<td>2007</td>
<td>1,507</td>
<td>7</td>
</tr>
<tr>
<td>2008</td>
<td>1,506</td>
<td>11</td>
</tr>
<tr>
<td>2009</td>
<td>1,797</td>
<td>1</td>
</tr>
<tr>
<td>2010</td>
<td>1,843</td>
<td>6</td>
</tr>
<tr>
<td>2011</td>
<td>1,795</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>1,837</td>
<td>5</td>
</tr>
<tr>
<td>2013</td>
<td>1,889</td>
<td>6</td>
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<tr>
<td>2014</td>
<td>1,849</td>
<td>2</td>
</tr>
<tr>
<td>Total 10 years</td>
<td>17,194</td>
<td>48</td>
</tr>
</tbody>
</table>

Around 1,700 samples / year
Case study Italy

- 98,85% of 4,000,000 searched residue are “not detectable”
- When present 99,28% of the residues are lower than 50% of the MRI

<table>
<thead>
<tr>
<th>year</th>
<th>n. of determinations</th>
<th>&lt; 50% of the MRL</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>total</td>
<td>not detectable</td>
</tr>
<tr>
<td>2005</td>
<td>180,732</td>
<td>98,289%</td>
</tr>
<tr>
<td>2006</td>
<td>293,080</td>
<td>98,943%</td>
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<tr>
<td>2007</td>
<td>285,866</td>
<td>98,543%</td>
</tr>
<tr>
<td>2008</td>
<td>289,525</td>
<td>98,220%</td>
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<tr>
<td>2009</td>
<td>346,501</td>
<td>98,536%</td>
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<td>2010</td>
<td>483,056</td>
<td>98,790%</td>
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<tr>
<td>2011</td>
<td>493,744</td>
<td>99,066%</td>
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<tr>
<td>2012</td>
<td>524,201</td>
<td>99,097%</td>
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<td>2013</td>
<td>544,783</td>
<td>98,841%</td>
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<tr>
<td>2014</td>
<td>554,357</td>
<td>98,829%</td>
</tr>
<tr>
<td>total 10 years</td>
<td>3,995,845</td>
<td>98,85%</td>
</tr>
</tbody>
</table>
Case study Italy

• Overall, in Italy and across Europe the use of PPP is
  • declining
  • being more and more targeted
  • limited to the use needed to address a particular problem
  • move towards biological or mechanical system rather than other option

Use of herbicides 2010 - 2015

- Kg.  5,000.00  10,000.00  15,000.00  20,000.00  25,000.00
Case study Italy

What the Italian apple industry uptakes from the research

• new architecture of the orchards with less volume/plant > - 20% of PPP used due to the orchards,
• Quality of the PPP: 70% of the Phytosanitary used today are allowed under the organic apple production scheme
• Introduction of low volume technology > - 40% of the water used for the distribution of the PPP
• Introduction of low drift sprayers
• Coverage of around 90% of the apple orchard with the sexual confusion technology
• First experiences with new resistant varieties
Case study Italy

### Sprayers control program 2008-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>MELINDA</th>
<th>LA TRENТИNA</th>
<th>S. ORSOLA</th>
<th>VALLI TRENITINE</th>
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<td>2008</td>
<td>260</td>
<td>482</td>
<td>36</td>
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<td>2009</td>
<td>119</td>
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<td>2010</td>
<td>247</td>
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<td>2011</td>
<td>157</td>
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</tr>
<tr>
<td>2012</td>
<td>469</td>
<td>577</td>
<td>126</td>
<td>28</td>
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<tr>
<td>2013</td>
<td>47</td>
<td>541</td>
<td>70</td>
<td>91</td>
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<tr>
<td>2014</td>
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<td>541</td>
<td>70</td>
<td>91</td>
</tr>
<tr>
<td>2015</td>
<td>774</td>
<td>774</td>
<td>774</td>
<td>774</td>
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</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>771</td>
<td>667</td>
<td>1093</td>
<td>1027</td>
<td>594</td>
<td>813</td>
<td>652</td>
<td>940</td>
</tr>
</tbody>
</table>

**Eurofresh SCM & La Mela**
Case study Italy

- Industry commitment not limited to food and plant safety
- Environmental scope covering other certification of high importance such as
  - carbon footprint,
  - water footprint
  - soil footprint.
Case study France

• For 15 years, elaboration of an integrated production scheme for French apples growers

• Covering today
  • 1,300 growers
  • representing more than 60 % of the French 1.6 million T apple production

• Discover the scheme on : http://www.lapomme.org/production/vergers-ecoresponsables or through the open days in orchards

• The integrated production gives priority to biological/ecological options
Case study France

• It is based on 4 principles:
  
  • **Expertise** of growers based on evolving best practices in sustainable production
  
  • **Motivation** of growers in day to day work in the orchards to respond to societal & environmental consumers concerns
  
  • **Monitoring** by growers on permanent basis of the orchards, limiting used of synthetic PPP and favouring biological solutions (i.e. sexual confusion of flies through pheromone to prevent insects damages, natural predatros to control red spiders, foster an environment favourable for other useful auxiliary solutions such as birds,...)
  
  • **Control** of orchards through an external audit leading to a type 2 environmental certification
Case study: Belgium => Responsibly Fresh

- Addressing collectively aspects of sustainability relevant from growers to consumers
- Based on 4 commitments: low impact, biodiversity, food thrift and proximity
- Look at:
  - Economic impact
  - Ecological impact (energy, water, soil, IPM, biodiversity,...)
  - Social impact

\[\text{Sustainability}\]
Greenpeace Report: an unfair attack upon a sector

The Bitter Taste of Europe’s Apple Production
and how Ecological Solutions can Bloom
A report leading to many questions

• What are the Greenpeace motivation to release a distorting report sowing unfounded fears among consumers?
• Why ignoring growers strong commitments towards sustainability?
• Why confusing readers about MRL? MRL are trading limits, not toxicological safety limit!
• Why hiding the high level of compliance with MRL and permanent monitoring?
• Why not recognizing that the sector use alternative to chemicals when available?
• Why not to opening a serious discussion about new smart biotechnological methods supporting innovation towards new resistant varieties?
A report leading to an opportunity?

- Fruit Growers don’t deserve it!
- Fruit Growers are ready to cooperate for a better mutual understanding and innovation
- We should all cooperate to stimulate the consumption of fresh fruit and vegetables which have multiple assets for:
  - Health of consumers
  - Environmental positive impact
  - Social benefit