# Table of Contents

**Preface**  
Ganzelmeier, H.  
8

**Summary**  
Ganzelmeier, H.  
10

**Acknowledgement**  
12

**Opening**  
Ganzelmeier, H.  
13

**Welcoming addresses**  
Scartezzini, H.  
Santer, M.  
16

**Introduction to the Workshop**  
Ganzelmeier, H.  
18

**Round Table**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive 2009/128/EC on the sustainable use of pesticides</td>
<td>21</td>
</tr>
<tr>
<td>Rotteveel, A.</td>
<td></td>
</tr>
<tr>
<td>National Action Plan on sustainable use of plant protection products in Germany</td>
<td>28</td>
</tr>
<tr>
<td>Freier, B.; Hommel, B.</td>
<td></td>
</tr>
<tr>
<td>15 years of sprayer inspections in the Netherlands: Benefits for farmers and society</td>
<td>39</td>
</tr>
<tr>
<td>Van Wenum, J.</td>
<td></td>
</tr>
<tr>
<td>Experiences with and benefits of the inspection of air-assisted sprayers from the fruit- and winegrowers’ point of view</td>
<td>44</td>
</tr>
<tr>
<td>Waldner, W.; Knoll, M.</td>
<td></td>
</tr>
<tr>
<td>Actual survey on the actions of the countries in Europe to implement the inspection system of sprayers concerning the Directive 2009/128/EC</td>
<td>50</td>
</tr>
<tr>
<td>Wehmann, H.-J.</td>
<td></td>
</tr>
</tbody>
</table>
## Session 1: Inspection at regular intervals – Inspection of new equipment

**Introduction paper**  
Ganzelmeier, H.; Gil, E.  

The official procedure for mandatory inspection of sprayers in use in Spain. How to deal with regional autonomous authorities.  
Gil, E.; Montemayor, V.; Gràcia, F.  

How to implement a mandatory inspection in accordance with European directives: The example of certified workshops  
Polvèche, V.  

**Inspection of new sprayers**  
Von Bargen, F.  

## Session 2: Member States may apply different timetables and inspection intervals with exceptions following a risk assessment and exempt handheld pesticide application equipment or knapsack sprayers

**Introduction paper**  
Huyghebaert, B.; Bjugstad, N.  

The trials on the influence of knapsack sprayer technical condition on operator exposure as an input to the risk assessment for human health  
Godyń, A.; Doruchowski, G.; Holownicki, R.; Świechowski, W.; Ludwicki, J. K.; Wiatrowska, B.; Bankowski, R.  

New regulation concerning inspection intervals and exceptions of pesticide application equipment  
Harasta P.  

Risk assessment for human health and the environment - - SPISE Working Group - Proposal -  
Ganzelmeier, H.
### Session 3: The inspections shall verify that pesticide application equipment satisfies the relevant requirements

**Introduction paper**
Douzals, J.P.; Polvèche, V.

**Development of harmonised standards on environment for new sprayers**
J.-C. Rousseau

**Sprayer tank agitation check: A proposal for a simple instrumental evaluation**
Balsari, P.; Tamagnone, M.; Allochis, D.; Marucco, P.; Bozzer, C.

**Inspection method for spray rate controllers in Flanders (Belgium)**
Declercq, J.; Nuyttens, D.

### Evening program

**Low-loss spraying**
Knoll, M.; Lind, K.; Triloff, P.

**Low-Loss-Spray-Application - The Scientific Basis**

**Towards integration of inspection procedures, calibration and drift reducing devices for an efficient use of pesticides and reduction of application impact**
Bondesan, D.; Rizzi, C.; Ianes, P.; Angeli, G.; Bassi, R.; Dalpiaz, A.; Ioriatti, C.

**Calibration of orchard sprayers – the parameters and methods**
Doruchowski, G.; Hołownicki, R.; Godyń, A.; Świechowski, W.
**Session 4:** Member States shall establish certificate systems for mutual recognition of the certificates

**Introduction paper**  
Kole, J.; Ganzelmeier, H.  
145

**Authorisation of inspection facilities and workshops in North Rhine Westphalia**  
Kramer, H.  
151

**A proposal for an EU (SPISE) database of the licensed sprayers inspectors and inspection centres**  
Oggero, G.; Balsari, P.; Allochis, D.; Marucco, P.; Liberatori, S.; Limongelli, R.  
154

**Session 5:** Training

**Training of sprayer inspectors**  
Andersen, P. G.; Nilsson, E.  
158

**Sprayer calibration training – concept and performance**  
Doruchowski, G.; Holownicki, R.; Godyń, A.; Świechowski, W.  
166

**The necessity of a harmonized procedure for sprayers inspectors training: the Italian activity**  
Balsari, P.; Allochis, D.; Oggero, G.; Marucco, P.; Liberatori, S.; Limongelli, R.  
172

**Training of inspectors for the periodic inspection of spraying equipment in a system of authorised mechanic workshops**  
Koch, H.  
177

**Session 6:** Miscellaneous

**An overview of the defects on tested orchard sprayers in Belgium**  
Declercq, J.; Huygebaert, B.; Nuyttens, D.  
180

**Assessment of nozzle flow rate measurement methods for the inspection of sprayers in use**  
Solanelles, F.; Tarrado, A.; Camp, F.; Gràcia, F.  
186

**Uniform cross distribution of double flat spray nozzles may be affected by the design of the sprayer**  
Heinkel, R.; Herbst, E.  
191
## Closing Session

### Posters

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A new test-bench for the inspection and the adjustment of the sprayers employed in the mediterranean tree cultures</td>
<td>201</td>
</tr>
<tr>
<td>Pascuzzi S.; Guarella A.</td>
<td></td>
</tr>
<tr>
<td>Implementation of SUD in the Czech Republic – right or wrong way for inspection of pesticide application equipment?</td>
<td>208</td>
</tr>
<tr>
<td>Harasta P.</td>
<td></td>
</tr>
<tr>
<td>Outlook of the inspection of sprayers in Province of Trento</td>
<td>209</td>
</tr>
<tr>
<td>Bondesan, D.; Ianes, P.; Rizzi, C.; Angeli, G.; Canestrini, S.; Dalpiaz, A.</td>
<td></td>
</tr>
<tr>
<td>Portuguese sprayers inspections: issues to overcome</td>
<td>213</td>
</tr>
<tr>
<td>Nunes, P.; Moreira, J.F.; Martins, M.C.</td>
<td></td>
</tr>
<tr>
<td>Proposal of an inspection methodology for pneumatic drills</td>
<td>221</td>
</tr>
<tr>
<td>Pochi, D.; Biocca, M.; Fanigliulo, R.</td>
<td></td>
</tr>
<tr>
<td>Technical solutions to reduce drift of pesticides in apple orchards of Trentino</td>
<td>224</td>
</tr>
<tr>
<td>Bondesan, D.; Rizzi, C.; Giuliani, G.; Angeli, G.; Ioriatti, C.</td>
<td></td>
</tr>
<tr>
<td>Testing device for a complex measurement of the performances nozzles</td>
<td>228</td>
</tr>
<tr>
<td>Józef Sawa; Bruno Huyghebaert; Stanislaw Parafiniuk</td>
<td></td>
</tr>
<tr>
<td>Test procedure for drift reducing equipment</td>
<td>234</td>
</tr>
<tr>
<td>Herbst, A.; Osteroth, H.-J.; Rautmann, D.</td>
<td></td>
</tr>
</tbody>
</table>

### E-mail addresses

243

### Autorenverzeichnis

244