# 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

**Directive 2009/128/EC on the sustainable use of pesticides**  
Rotteveel, A.  
21

**National Action Plan on sustainable use of plant protection products in Germany**  
Freier, B.; Hommel, B.  
28

**15 years of sprayer inspections in the Netherlands: Benefits for farmers and society**  
Van Wenum, J.  
39

**Experiences with and benefits of the inspection of air-assisted sprayers from the fruit- and winegrowers’ point of view**  
Waldner, W.; Knoll, M.  
44

**Actual survey on the actions of the countries in Europe to implement the inspection system of sprayers concerning the Directive 2009/128/EC**  
Wehmann, H.-J.  
50
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.; Hołownicki, 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

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction paper</td>
<td>100</td>
</tr>
<tr>
<td>Douzals, J.P.; Polvèche, V.</td>
<td></td>
</tr>
<tr>
<td>Development of harmonised standards on environment for new sprayers</td>
<td>103</td>
</tr>
<tr>
<td>J.-C. Rousseau</td>
<td></td>
</tr>
<tr>
<td>Sprayer tank agitation check: A proposal for a simple instrumental evaluation</td>
<td>106</td>
</tr>
<tr>
<td>Balsari, P.; Tamagnone, M.; Allochis, D.; Marucco, P.; Bozzer, C.</td>
<td></td>
</tr>
<tr>
<td>Inspection method for spray rate controllers in Flanders (Belgium)</td>
<td>117</td>
</tr>
<tr>
<td>Declercq, J.; Nuyttens, D.</td>
<td></td>
</tr>
</tbody>
</table>

**Evening program**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-loss spraying</td>
<td>122</td>
</tr>
<tr>
<td>Knoll, M.; Lind, K.; Triloff, P.</td>
<td></td>
</tr>
<tr>
<td>Low-Loss-Spray-Application - The Scientific Basis</td>
<td>127</td>
</tr>
<tr>
<td>Towards integration of inspection procedures, calibration and drift reducing devices for an efficient use of pesticides and reduction of application impact</td>
<td>135</td>
</tr>
<tr>
<td>Bondesan, D.; Rizzi, C.; Ianes, P.; Angeli, G.; Bassi, R.; Dalpiaz, A.; Loriatti, C.</td>
<td></td>
</tr>
<tr>
<td>Calibration of orchard sprayers – the parameters and methods</td>
<td>140</td>
</tr>
<tr>
<td>Doruchowski, G.; Hołownicki, R.; Godyń, A.; Świechowski, W.</td>
<td></td>
</tr>
</tbody>
</table>
Session 4:  Member States shall establish certificate systems for mutual recognition of the certificates

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

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

**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.

---

Session 5:  Training

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

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

**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.

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

---

Session 6:  Miscellaneous

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

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

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

Posters

A new test-bench for the inspection and the adjustment of the sprayers employed in the mediterranea tree cultures
Pascuzzi S.; Guarella A. 201

Implementation of SUD in the Czech Republic – right or wrong way for inspection of pesticide application equipment?
Harasta P. 208

Outlook of the inspection of sprayers in Province of Trento
Bondesan, D.; Ianes, P.; Rizzi, C.; Angeli, G.; Canestrini, S.; Dalpiaz, A. 209

Portuguese sprayers inspections: issues to overcome
Nunes, P.; Moreira, J.F.; Martins, M.C. 213

Proposal of an inspection methodology for pneumatic drills
Pochi, D.; Biocca, M.; Fanigliulo, R. 221

Technical solutions to reduce drift of pesticides in apple orchards of Trentino
Bondesan, D.; Rizzi, C.; Giuliani, G.; Angeli, G.; Ioriatti, C. 224

Testing device for a complex measurement of the performances nozzles
Józef Sawa; Bruno Huyghebaert; Stanislaw Parafiniuk 228

Test procedure for drift reducing equipment
Herbst, A.; Osteroth, H.-J.; Rautmann, D. 234

E-mail addresses

Autorenverzeichnis