

# XVII Symposium on Pesticide Chemistry



## PIACENZA

## Advances and New Challenges

## 4-6 SEPTEMBER 2024

### Final Program

| Tuesday   | September 3   |
|---|---|
| 13.00 - 14.00<br>17.00 - 19.00  | Symposium registration  |
| 14.00 - 18.00   | Symposium Workshop "Quantitative mitigation of runoff of pesticides in regulatory assessments with VFSSMOD"   |
| Wednesday   | September 4   |
| 8.30 - 9.50   | Symposium Registration  |
| 9.50 - 10.00  | Opening ceremony  |
| 10.00 - 10.40   | Plenary lecture - <i>Is the use of pesticides a real problem for human health and the environment?</i><br>Prof. Marco Trevisan - Dean of the Faculty of Agricultural, Food and Environmental Sciences, Università Cattolica del Sacro Cuore   |
| 10.40 - 12.40   | 10.40 - 11.00 <i>Development of indicators to identify signals of adverse effects on groundwater quality related to specific plant protection products uses in France</i> , BARAN Nicole, French Geological Survey<br>11.00 - 11.20 <i>Heterogeneous atmospheric reactivity of pesticides currently used in viticulture</i> , BOULOS Samia, Aix-Marseille University<br>11.20 - 11.40 <i>Measuring Pesticides in the Atmosphere: Current Status, Emerging Trends and Future Perspectives</i> , BRÜGGEMANN Martin, Bayer<br>11.40 - 12.00 <i>Agricultural management practices influences mineralisation of the herbicides bentazone and clopyralid</i> , LARSBO Mats, Swedish University of Agricultural Sciences<br>12.00 - 12.20 <i>NYROP ALBERS Christian, Geological Survey of Denmark and Greenland</i><br>12.20 - 12.40 <i>Pesticide residues in soil - a comprehensive survey throughout a complete growing season</i> , VELOSO Abel, Wageningen Environmental Research  |
| Session I<br>Pesticides behavior at microscopic level<br>Chairs<br>Michael Raimondi<br>Fabrice Martin<br>Lucrezia Lamastra                                    |   |
| 12.40 - 14.10   | Lunch   |
| 14.10 - 15.50   | 14.10 - 14.30 <i>Insights into European pesticide monitoring data in aquatic systems and evaluation of corresponding exposure assessment models</i> , SCHARLACH Paula, Osnabrück University<br>14.30 - 14.50 <i>Let the monitoring data speak: Groundwater vulnerability assessment for pesticides in Germany using machine learning</i> , COOKE Anne-Karin, Federal Institute For Geoscience And Natural Resources<br>14.50 - 15.10 <i>A new generation of Spatially Distributed pesticide Leaching Models</i> , TIKTAK Aldrik, PBL Netherlands Environmental Assessment Agency<br>15.10 - 15.30 <i>Topsoil organic matter content - the driving force for the PERSAM tool</i> , SPICKERMANN Gregor, ADAMA Agricultural Solutions Ltd.<br>15.30 - 15.50 <i>The Risk of Pesticide Leaching to Groundwater Under Norwegian Conditions - A Modelling Exercise</i> , HOLTEN Roger, Norwegian Institute of Bioeconomy Research  |
| Session II<br>Modelling pesticides fate, exposure, and effects<br>Chairs<br>Bernhard Gottesbüren<br>Rafael Munoz-Carpena<br>Nicoleta Alina Suci               |   |
| 15.50 - 16.20   | Coffee break and Poster Session   |
| 16.20 - 17.20   | 16.20 - 16.40 <i>Novel sunlight-powered pesticide conjugates for a more sustainable crop protection</i> , BENDINELLI NÚÑEZ Alberto, Regensburg University<br>16.40 - 17.00 <i>The use of total residue declines as a surrogate for dislodgeable foliar residue (DFR) decline</i> , BADAWY Mohamed, Corteva Agriscience<br>17.00 - 17.20 <i>Using nonlinear hierarchical models for kinetic evaluation of chemical degradation data</i> , RANKE Johannes, Agroscope  |
| Session II<br>Modelling pesticides fate, exposure, and effects<br>Chairs<br>Bernhard Gottesbüren<br>Rafael Munoz-Carpena<br>Nicoleta Alina Suci               |   |
| 17.20 - 20.30   | Poster Session and Welcome Party  |
| Thursday  | September 5   |
| 9.00 - 10.20  | 9.00 - 9.20 <i>Drift from Patch Spraying: an Approach to Regulatory Aquatic Exposure and Risk Assessment</i> , BOLEKHAN Anastasiia, Bayer AG<br>9.20 - 9.40 <i>Plot-scale modeling of pesticide fate in soil, water and air, taking into account intra-field heterogeneity in vineyard plots</i> , DAGÈS Cécile, INRAE<br>9.40 - 10.00 <i>Off-target spray drift deposition of a knapsack spray application - Modelling and field measurements of a band spray scenario in grassland</i> , HE Wenkui, Corteva Agriscience<br>10.00 - 10.20 <i>Spray drift of glyphosate from herbicide spraying train has significant but minor impact on vegetation close to railway tracks</i> , CEDERLUND Harald, Swedish University of Agricultural Sciences  |
| Session II<br>Modelling pesticides fate, exposure, and effects<br>Chairs<br>Bernhard Gottesbüren<br>Rafael Munoz-Carpena<br>Nicoleta Alina Suci               |   |
| 10.20 - 10.50   | Coffee break and Poster Session   |
| 10.50 - 12.30   | 10.50 - 11.10 <i>MACRO 5 Multithreading for the CRD UK higher-tier drainflow tool</i> , WEBER Denis, Exponent International Ltd<br>11.10 - 11.30 <i>Catchment vulnerability ranking for losses of pesticides to surface waters: development and application of a spatial GIS-model to Flanders (Belgium)</i> , BROSENS Liesa, VITO<br>11.30 - 11.50 <i>New insights into aquatic risk assessment at catchment scale: experiences from scenario development and model application</i> , MULTSCH Sebastian, BASF SE<br>11.50 - 12.10 <i>TOXSWA simulates pesticide exposure in amphibian ponds with strongly variable water depths</i> , BELTMAN Wim, Wageningen Environmental Research<br>12.10 - 12.30 <i>Improving the procedure for fitting degradation rates in water sediment study</i> , PAYVANDI Sevil, Syngenta  |
| Session II<br>Modelling pesticides fate, exposure, and effects<br>Chairs<br>Bernhard Gottesbüren<br>Rafael Munoz-Carpena<br>Nicoleta Alina Suci               |   |
| 12.30 - 14.00   | Lunch   |
| 14.00 - 15.20   | 14.00 - 14.20 <i>Bentazone in Belgian groundwater: trends, effectiveness of mitigation measures and development of interactive Bentazone vulnerability map</i> , BROSENS Liesa, VITO<br>14.20 - 14.40 <i>Case study - Example of a spot application on thistles in a sugar beet field. Linking the practice to the GAP table and implications for the risk assessment</i> , DE CIRUGEDA HELLE Olivier, Corteva Agriscience<br>14.40 - 15.00 <i>Introduction to the work of the European Precision Application task Force (EUPAF)</i> , GOTTESBÜREN Bernhard, Make-sense Consulting<br>15.00 - 15.20 <i>Pesticide Runoff Going down the Drains</i> , HOLTEN Roger, Norwegian Institute of Bioeconomy Research  |
| Session III<br>Pesticide Risk mitigations measures (RMMs): efficacy evaluation and implementation<br>Chairs<br>Aaldrik Tiktak<br>Marc Voltz<br>Maura Calliera |   |
| 15.20 - 15.50   | Coffee break and Poster Session   |
| 15.50 - 17.30   | 15.50 - 16.10 <i>Mitigating glyphosate levels in surface waters: long-term assessment in an agricultural catchment in Belgium</i> , JORIS Ingeborg, VITO<br>16.10 - 16.30 <i>H2OT-Spot Manager NRW, a web-based tool to assess environmental risk of pesticides and the impact of mitigation measures</i> , STRASSEMAYER Jörn, Julius Kühn-Institut<br>16.30 - 16.50 <i>Precision Application of Plant Protection Products: Risk Assessment Approaches and Potential as Risk Mitigation Measures</i> , MACKAY Neil, FMC Agro Ltd.<br>16.50 - 17.10 <i>Modelling the Reduction Effect of Spot Applications on Pesticide Runoff Losses from Fields with a PRZM-VFSSMOD Coupling and a 2D Probabilistic Framework</i> , MUNOZ-CARPENA Rafael, University of Florida<br>17.10 - 17.30 <i>Spot Spraying in Vegetable Row Crops: Quantification of Environmental Exposure Reduction with Targeted Application</i> , WITSOE Joshua, Agroscope  |
| Session III<br>Pesticide Risk mitigations measures (RMMs): efficacy evaluation and implementation<br>Chairs<br>Aaldrik Tiktak<br>Marc Voltz<br>Maura Calliera |   |
| 20.00   | Gala Dinner   |
| Friday  | September 6   |
| 9.00 - 10.20  | 9.00 - 9.20 <i>A combination of sporogenic Bacillus sp. with biocontrol activity and essential oil products improves control of tomato diseases caused by Alternaria sp. and Phytophthora sp.</i> , ANTINORI Maria Elena, Università Cattolica del Sacro Cuore<br>9.20 - 9.40 <i>Rhizobacterial Consortia as Sustainable Biocontrol Agents Against Alternaria spp. in Tomato Cultivation: From In Vitro Screening to In Planta Efficacy</i> , BELLOTTI Gabriele, Università Cattolica del Sacro Cuore<br>9.40 - 10.00 <i>Characterization of essential oil PMoA as a key tool to improve their practical use</i> , FITTIPALDI Monica, Università Cattolica del Sacro Cuore<br>10.00 - 10.20 <i>Comparative Analysis of Regulatory frameworks for Biological Crop Protection products: Case of Africa Middle East Region and Europe</i> , WAFUKHO Stella Simiyu, CropLife Middle East  |
| Session IV<br>BioSolutions<br>Chairs<br>Luigi Lucini<br>Maria Elena Antinori<br>Tito Caffi  |   |
| 10.20 - 10.50   | Coffee break and Poster Session   |
| 10.50 - 13.10   | 10.50 - 11.10 <i>In-silico Prediction of Dislodgeable Foliar Residues and Regulatory Implications</i> , BADAWY Mohamed, Corteva Agriscience<br>11.10 - 11.30 <i>Persistence and mobility assessment of plant protection products within the framework of the new hazard classes PMT/vPvM</i> , JENE Bernhard, BASF SE<br>11.30 - 11.50 <i>Next Generation Risk Assessment applied to Nanopesticides</i> , KAH Melanie, The University of Auckland<br>11.50 - 12.10 <i>Expert perspectives on pesticide regulatory processes from Aotearoa New Zealand and Europe</i> , MUELLER Karin, Plant & Food Research<br>12.10 - 12.30 <i>Proposing Data Quality Criteria for Environmental Stressor Identification on Insect Biodiversity</i> , RATHJENS Hendrik, Stone Environmental<br>12.30 - 12.50 <i>The initial exposure assessment as key step in the new EU Drinking Water Treatment Guidance: First experiences and open questions</i> , SCHAEFER Dieter, Bayer AG<br>12.50 - 13.10 <i>A participative and holistic approach to build sustainable vineyard management strategies and assess their environmental impacts</i> , VOLTZ Marc, INRAE |
| Session V<br>One health<br>Chairs<br>Jean-Lou Dorne<br>Ettore Capri   |   |
| 13.10 - 13.30   | Final remarks and Awards  |
| 13.30   | Take away lunch   |