XVIII Symposium on Pesticide Chemistry

Next generation solutions and sustainable frontiers | **CREMONA, 2–4 SEPTEMBER 2026**

The Symposium will be subdivided into scientific sessions dealing with:

1 Pesticides monitoring and behavior in air, soil and water and non target organisms

- **Monitoring technologies:** Advances in conduct detection and quantification methods for pesticides in different environmental media including biota.
- **Distribution and transport:** How pesticides move between air, soil, water and biota.
- **Persistence and degradation:** Long-term behavior, breakdown products, and residues in ecosystems.
- **Case studies:** Regional and global monitoring programs, challenges, and best practices.
- **Evaluation of monitoring studies:** Environmental forensics, read across.
- **Data integration:** Using monitoring data for risk assessment and management.

2 Modelling pesticides fate, exposure, effects: multi-scale environmental scenarios and recent developments

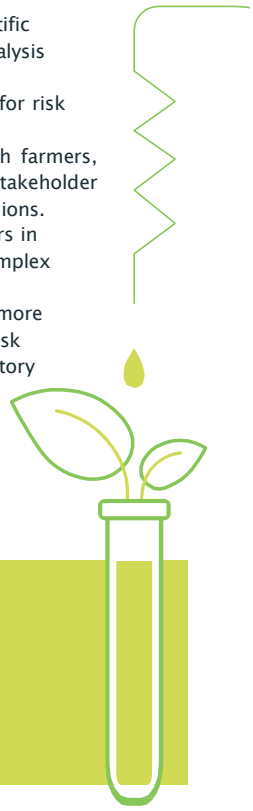
- **Modeling approaches:** Overview of current models simulating pesticide fate.
- **Scaling:** Challenges in transferring models from local to regional to global scenarios. Integrating GIS and fate models for spatial risk assessment.
- **Exposure assessment:** Methods for evaluating human and environmental exposure.
- **Effect assessment:** Linking exposure data to ecotoxicological effects. New developments in effect modelling (toxicokinetic and toxicodynamic TKTD models, behaviour models, population models), Multi-level modelling: from in-field effects to population-level impacts.
- **Validation and calibration:** of concepts and models with dedicated case studies, monitoring data.
- **Innovations:** New developments such as AI-driven models and uncertainty analysis.

3 New frontiers in pesticide science: linking application technology, exposure and effect risk assessment

- **Integrated risk assessment:** Combining exposure and effect data for holistic evaluation. Advances in human exposure assessment (e.g., biomonitoring).
- **New methodologies:** Utilizing Omics technologies, biomarkers, high-throughput screening in ecotoxicology and exposure. Precision application. techniques/technologies to improve risk mitigation and risk assessment.
- **Interdisciplinarity:** Collaboration across chemistry, biology, toxicology, and environmental sciences.
- **Biocontrol:** Integrating pesticide risk assessment with biocontrol strategies ensuring effective pest management.

4 Enhancing policy uptake through new options for pesticides risk assessment and management

- **Science-policy interface:** Pathways for scientific findings to inform policy. Socio-economic analysis of pesticide use and regulation.
- **Innovative assessment tools:** New methods for risk assessment and management.
- **Stakeholder engagement:** Collaboration with farmers, industry, NGOs, and authorities. The role of stakeholder engagement in pesticide management decisions.
- **Implementation:** Success factors and barriers in applying new measures. Communicating complex risk data to policymakers and the public.
- **Future perspectives:** Recommendations for more sustainable pesticide policies. Harmonizing risk assessment protocols across different regulatory bodies.



May 1st preliminary abstract submission deadline	**May 15th** preliminary program
June 15th final abstract submission deadline	**July 1st** final program

The symposium will consist of invited lectures, oral presentations and poster sessions.
The topics covered and the scientific structure will be of interest to academia, research organisations, industry, government, and NGOs.

Please be prepared to upload the following: Title; 300-word short abstract; Preference for poster/oral presentation; Session; Authors