OECD standards relevant to chemicals used in agriculture: Focus on Pesticide Residues activities

Magda Sachana, Environment Health and Safety Division, OECD Webtraining on Agricultural Machinery and Safer Application of Chemicals Wednesday, 17 November 2021 (14:00-16:00 hours GMT+8/Beijing time)



OECD's global reach





Selected chemical safety programmes dealing with developing standards for risk assessment at OECD

- Working Party of National Coordinators of Test Guidelines Programme (WNT)
 - Test Guidelines
 - Guidance document for toxicity studies, data interpretation
 - Detailed review Paper in new areas of testing (new techniques, new endpoints)
- Working Party on Good Laboratory Practices (GLP)
 - GLP Principles and Advisory Documents
 - GLP Compliance Monitoring
 - Training Programme

- Working Party on Hazard Assessment (WPHA)
 - eChemPortal, IUCLID
 - QSAR Toolbox
 - Reporting formats and frameworks (OHTs, omics)
- Working Party on Pesticides (WPP)
 - Identification of pesticides' specific needs for safety testing and assessment
 - Streamline pesticide approval processes
 - Minor uses
 - Biopesticides
 - RNAi-based pesticides



- Series 100: Physical-chemical properties
- Series 200: Effects on Biotic systems
- Series 300: Degradation and bioaccumulation
- Series 400: Effects on human health
- Series 500: Pesticide residue chemistry





• Regular additions, updates and corrections to keep up with progress in science, animal welfare and cost-effectiveness



REGULATIONS



Objectives of work at OECD

- Promote standards and good practices for chemical safety and serve as a forum for technical and policy dialogue
- Harmonise tools and methodologies for chemical safety across countries
- Maintain the system of Mutual Acceptance of Data to:
 - Keep the costs of safety testing and assessment manageable for countries and industries
 - Avoid/reduce duplicative testing and unnecessary animal testing
 - Maintain a level playing field across countries who can then claim same standards and exchange data

Test Guideline GLP MAD Internationally Principles and Studies conducted conditions under using OECD TG harmonised methods for which laboratory and according to evaluating chemical studies are GLP fall under the conducted, reported safety Mutual and recorded Acceptance of Data MAD is a legal agreement among all member and partner countries that share a common data requirement to accept the data generated by other member countries

Residue Chemistry Expert Group (RCEG)

The RCEG was established in **2003**. Its objectives are to:

- Harmonise the way residue testing is conducted and results are interpreted,
- Develop methods to support international harmonisation of maximum residue limits (MRLs)





9 OECD TGs on pesticides residues

The TGs are reviewed and get approval by both Working Group of the National Coordinators for the Test Guidelines Programme (WNT) and the Working Party on Pesticides (WPP)



TG 501 Metabolism in Crops



TG 502 & 504 Metabolism & Residues in Rotational Crops



TG 503 & 505 Metabolism & Residues in Livestock



TG 506 Stability of Pesticide Residues in Stored Commodities





TG 507 & 508 TG 509 Nature & Magnitude of Crop Field Trials Pesticide Residues in Processed Commodities



8 OECD GDs on pesticides residues

The GDs are reviewed and get approval by both WNT and the

WPP



Guidance document on Residue Definition



 Remit: to review and revise the existing <u>OECD</u>
<u>GD on Definition of Residue</u> (ENV/JM/MONO(2009)30)

Drivers for update

- comments and experiences reported from users in OECD countries and FAO/WHO
- better harmonisation of residue definitions
- further guidance on the toxicological assessment of metabolites
- take into consideration current scientific approaches and tools (grouping of metabolites, read across, Threshold of Toxicological Concern)

General Hazard

Assessment

Toxicology

Conclusion

Genotoxic

Assessment

Grouping

Assessment

NEW GD & TG on Pesticide Residues in Honey

- EU guideline used as starting point
- List of attractant plants were updated outside Europe
- Representative Crops, critical GAPs
- What consideration should be given to non target plants?
- Decision tree for determining what MRLs and information is required
- MRL calculation: residue trials, monitoring data or default MRL



OECD Drone subgroup of the Working Party on Pesticides (WPP)

- <u>Report on the State of the Knowledge Literature Review on</u> <u>Unmanned Aerial Spray Systems (UASS) in Agriculture</u>
- Published in November 2021
- Overview of current state of knowledge and practice
- Outlines how risk associated with UASS applications could be viewed and addressed
- Identifies areas of additional work needed to support the development of guidance for the regulatory risk assessment and decision processes for UASS application of pesticides



Managing the risks from the use of drones for pesticide applications

Drones and Unmanned Aerial Spray Systems (UASSs) could reduce workers' pesticide exposure and apply pesticides with more precision. This new report looks at the current information gaps with UASSs and how the risks could be viewed and addressed.

Further information



OECD Home > Chemical safety and biosafety > Agricultural pesticides and biocides > Agricultural Pesticides

Agricultural Pesticides

Pesticides are chemical or biological products used in agriculture to protect plants. The OECD helps governments co-operate in assessing and reducing the risks of agricultural pesticides. The OECD encourages governments to share the work of pesticide registration and develops tools to monitor and minimise pesticide risk to health and the environment. Non-agricultural pesticides are dealt with under the OECD Biocides Programme.

Inter-Organization Programme for the Sound Management of Chemicals (IOMC) Webinar: Addressing Illegal Trade and traffic of Industrial Chemicals, Pesticides and Waste for Sound Management of Chemicals and Waste beyond 2020

Organised by UNITAR on behalf of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), this series of webinars was conducted by the <u>IOMC</u> on key cross-sectoral issues and is a contribution to the on-going Beyond 2020 discussions.

This webinar looked at the activities undertaken by the OECD, the Basel, Rotterdam, and Stockholm Conventions Secretariat, the Food and Agriculture Organization (FAO) and other key organisations to prevent illegal traffic/trade in hazardous chemicals and waste, and how concerted global action can support this. Other speakers included experts from IOMC Participating Organisations, government, NGOs, and industry, as well as an interactive discussion with participants.

Watch the video replay, access the presentations and key messages.

Key areas of work:

Biological Pesticides

Electronic Tools:

Globally Harmonised Submission and Transport Standard
Maximum Residue Limit (MRL) Calculator
Pesticide Risk Indicators
See also Tools Supporting Chemicals Management

Illegal Trade of Pesticides: Recommendation and Best Practice Guidance

> Managing the risks from the use of drones for pesticide applications

Minor Uses

- > Novel Technologies to Control Pests (RNA interference-based pesticides)
- > Pesticide Risk Reduction
- > Pesticide Risk to Insect Pollinators
- > Registration Dossiers and Monographs

https://www.oecd.org/chemicalsafety/pesticides-biocides/agriculturalpesticides.htm



Thank You For Listening



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