

# JMPR - Procedures behind the establishment of MRLs

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# JMPR Composition / Topics

## Joint FAO / WHO Meeting on Pesticide Residues

FAO		WHO	
20 Experts, 13 countries (recent e.g.)		21 Experts, 11 countries	
Field trials (GAP), residue levels, metabolites		Toxicology data, parent + metabolites	
MRLs,	Residue definition	ADI, ARfD	
Exposure / intake estimates. Risk assessment – does the MRL present a safety concern.			
<b><u>No</u> Hazard based risk management aspects</b>			

# Information provision

- **Compounds** – CCPR Priority list
  - New compounds / Periodic reviews / additional uses
- **Data** on residues and toxicology
  - Confidential study reports – from sponsors
  - Published literature
  - Better database = more reliable assessment
- No formal (tick-box) **data requirements**
  - Minimum standards for quality and quantity.
  - Sufficient detail to permit an independent assessment to agreed scientific standards.
- **Intake data** from WHO GEMS food database (and trial using CIFOSS)

# Outputs



Summary report - key outcomes – available soon after Meeting finishes

MRLs feed into CCPR system

# Recent / potential changes in methodology / approaches (1)

- Normally covered in ‘General considerations’ in JMPR reports
- Increased emphasis on **metabolites** versus just the parent compound
  - More metabolites being found and test data generated
  - WHO flow chart for metabolite assessment is in the monographers guide
  - Major rat metabolite / threshold of toxicological concern (TTC)
- New **scientific** approaches
  - BMD – uses all dose response data not just a single dose level in the study as a PoD
  - Maximum dose setting – potential to move from MTD to kinetic basis
  - *in silico* prediction, *in vitro* testing.
    - JMPR has an open mind on evaluating new approaches and encouraged their submission.
  - Combined assessments – for groups of compounds with similar toxicological profiles.
    - In 2019 JMPR proposed a pilot project on combined assessment.

# Recent / potential changes in methodology / approaches (2)

- New **exposure** assessment by WHO (trial exercise)
  - Global Estimate of Chronic Dietary Exposure (GECDE) and less than lifetime exposures for critical groups for certain compounds.
  - Consistent with that used by JECFA vet. drugs.
  - In parallel to traditional approach IEDI / IESTI.
  - Uses the CIFOCOSS database not GEMS food.
- Possibility of using **monitoring data** for certain MRLs (e.g. spices)
- Consideration of **microbiological effects**
- Elements of the **IESTI equation** are regularly being revisited.
  - JMPR keeps abreast of these and will consider adoption based on scientific merit

# Recurring Problematic Aspects

- **Increased workload for each compound**
  - Assessments more complex - especially metabolites
- **Incomplete dossier submissions** – extra data sent to other agencies
  - Identified late or in concern forms
- **Superfluous data** – not relevant to MRL assessment
  - Takes time to review for no purpose (groundwater / non-oral exposure)
- **Multiple codes / names** for the same metabolite
  - Toxicity data on XAB-1245; residue description is desmethyl-XAB-116
  - Simple read across table
- **Field trials** not in line with critical GAP as specified.

# Links to information sources

- JMPR reports / monographs
  - [https://www.who.int/groups/joint-fao-who-meeting-on-pesticide-residues-\(jmpr\)/publications/reports](https://www.who.int/groups/joint-fao-who-meeting-on-pesticide-residues-(jmpr)/publications/reports)
  - <https://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/jmpr/jmpr-rep/en/>
- WHO monographer guide
  - [https://www.who.int/groups/joint-fao-who-meeting-on-pesticide-residues-\(jmpr\)/publications](https://www.who.int/groups/joint-fao-who-meeting-on-pesticide-residues-(jmpr)/publications)
- FAO manual
  - <https://www.fao.org/publications/card/en/c/3829b88a-c721-434f-92c1-08e1675e8141/>
- Environmental Health Criteria 240
  - [https://incem.org/documents/ehc/ehc/ehc240\\_index.htm](https://incem.org/documents/ehc/ehc/ehc240_index.htm)



- Thank you for your attention.