**20th JOINT CIPAC/FAO/WHO OPEN MEETING**
**(68th CIPAC Meeting and 23rd JMPS Meeting)**

**Galway Bay Hotel, Ireland**
**16 June 2025**

**Summary Record of the Meeting**

**Agenda**

**Contents**

## 1. Opening and welcome

**Mr. Guibiao Ye,** representing the Food and Agricultural Organization (FAO) and Chairperson of the Joint Open Meeting, welcomed all participants to the 20th Joint CIPAC/FAO/WHO Open Meeting.

Mr. Ye introduced Mr. Rob Doyle, Director of Laboratories at the Department of Agriculture, Food and the Marine, Ms Elen Karasali, representing the Collaborative International Pesticides Analytical Council (CIPAC) and Mr. Dominic Schuler representing the Prequalification Team for Vector Control (PQT-VC) from the World Health Organization (WHO) to the meeting.

**Mr. Rob Doyle**, Director of Laboratories at the Department of Agriculture, Food and the Marine welcomed delegates to the Open Meeting. He noted that he has over 40 years of experience as a veterinarian, during which he has worked across animal health and welfare, including within the internal audit unit, in a constantly changing world shaped by One Health principles.

He emphasised that throughout his career he has consistently relied on science to support decision-making, noting that science continues to provide both opportunities and challenges. Without scientific support, he stated, many of today's advances would not have been possible. He highlighted several important current challenges, including managing bias and conflicts of interest, addressing the spread of misinformation and disinformation, and maintaining trust in scientific and regulatory systems.

He stressed that the role of CIPAC as a non-profit organisation is essential in this context. Delegates had travelled from Europe, Asia, and the Americas to attend the meeting. He noted that this was the second time the meeting had been held in Ireland, the previous occasion being in 2012 at Dublin Castle.

He welcomed delegates to experience more of Ireland, mentioning the planned excursion to Connemara. He provided brief background on CIPAC, noting that it was founded in 1957 with 6 members initially, and has since grown to 27 full members and 8 honorary members.

He outlined CIPAC's important role in ensuring that products are of appropriate quality, stressing the organisation's independence in decision-making, its support for regulatory bodies and its long history of collaboration with Food and Agriculture Organization and World Health Organization.

He highlighted the critical role these organisations play in providing specifications for plant protection products, which are required by regulatory authorities worldwide. He noted that such standards are essential to support high food yields produced safely, control of vector-borne diseases such as Malaria and protection of sectors including pesticides and dairy production.

He acknowledged the contribution of the Department of Agriculture, specifically mentioning Mr. Dan O'Sullivan and Ms Patricia Hickey for their work in ensuring that controls and scientific standards are effectively implemented.

**Mr. Jim Garvey**, on behalf of the Department of Agriculture, Food and the Marine outlined the significant scientific capacity of the laboratory services, noting that approximately 400 staff are employed across a wide range of disciplines, including: food microbiology, virology and analytical chemistry. The laboratories operate under ISO/IEC 17025 accreditation, with a flexible scope of accreditation, and serve as National Reference Laboratories (NRLs) in nine areas across Europe.

He explained that the laboratories provide extensive analytical support, including formulation monitoring of plant protection products (PPPs), monitoring of biocidal products across the market, detection of illegal products as well as scientific and technical support for regulatory controls.

Mr. Garvey invited representatives to contribute further remarks.

**Ms Elen Karasali**, speaking on behalf of CIPAC, noted that she had been elected as the next Chair of CIPAC. She conveyed Mr. Ralf Hänel, the previous CIPAC Chair's wishes for a fruitful meeting and thanked Mr. Jim Garvey for the excellent organisation and warm hospitality.

**Mr. Dominic Schuler**, on behalf of PQT-VC/WHO, welcomed all delegates to Galway and thanked Jim, Elen, Guibiao and Rob, as well as industry partners and representatives from quality control laboratories for their continued collaboration and support.

He framed his remarks within the broader objective of sustainable health and wellbeing, noting that at the previous year's meeting discussion had focused on Dengue fever. He highlighted the continuing global burden of Malaria, stating that in 2023 approximately 600,000 deaths occurred globally. There were approximately 263 million cases worldwide, with 95% of cases occurring in Africa and children under five years of age remain the most affected group. He noted that mortality remains particularly severe among young children, with approximately 14 deaths per 1,000 cases in the most vulnerable populations.

He explained that his work in WHO prequalification focuses on development of products, development of testing methods and ensuring that the best possible vector control products reach those most in need. He emphasised that approximately 60% of the reduction in malaria burden has been achieved through vector control interventions, particularly through the use of treated bed nets, making vector control critical in prevention.

He concluded by thanking industry partners, quality control laboratories and all collaborating partners for their contribution to this work.

**Mr. Guibiao Ye**, on behalf of the Food and Agriculture Organization, warmly welcomed participants to the 20$^{th}$ Open Meeting of FAO/WHO/CIPAC. He noted that before joining Food and Agriculture Organization, he had worked for approximately 20 years in the Ministry of Agriculture in China.

Speaking in his role as part of the FAO Secretariat for JMPS, he thanked CIPAC and the WHO for their long-term cooperation with JMPS and FAO. He stressed the importance of this international cooperation for quality control systems and noted recent related discussions held up to 30 May.

To illustrate the importance of crop protection, he referred to the history of the potato, noting that it originated in South America it has been cultivated for over 8,000 years, with approximately 5,000 varieties worldwide.

He linked this to the historical impact of the Great Famine, noting that the crop failure caused by potato blight between 1845 and 1850 demonstrated the critical importance of crop protection for food security.

He emphasised that pesticides play an important role in preventing similar agricultural disasters and have had a major impact on human civilisation by protecting crops. He also referred to 12 May, observed by FAO as an occasion to highlight the significance of food security and the goal of ending hunger.

He stressed that ending hunger remains central to FAO's mission and stated that pesticides remain a necessary tool, describing them as a type of medicine for protecting crops.

He emphasised the need to feed a global population of over 6 billion people, with increasing demands in future decades. He also acknowledged the importance of mitigating risks and noted that FAO works to provide national frameworks to support member countries.

Mr. Ye concluded by emphasising the opportunity for close cooperation between the FAO, CIPAC and industry partners; and wished delegates a fruitful meeting.

## 2. Arrangements for chairmanship and appointment of rapporteurs

Mr. Ye explained that the Chair of the meeting was rotated each year among the three partner organizations. The meeting this year would be chaired by FAO. He proposed three rapporteurs for the meeting: Mr. Andrew Plumb (for CIPAC), Mr. Sam Margerison (for FAO) and Ms Sonia Tessier (for WHO). The rapporteurs were thanked for their support.

## 3. Adoption of the agenda

Mr. Ye suggested a minor change to agenda item 5, updates from FAO and WHO, to include updates from CIPAC, FAO, WHO and JMPS as per previous meetings. The agenda was accepted with the minor modification.

## 4. Summary record of the previous meeting

### 4.1 19th Joint CIPAC/FAO/WHO Open Meeting; 68th CIPAC Meeting; and 23rd JMPS Meeting.

The summary record of the previous Open Meeting held on 17th June 2024 is available by email. No comments were made, so the minutes of the last CIPAC/FAO/WHO Open Meeting (2024) were accepted.

## 5. Updates from CIPAC, FAO, WHO and JMPS

### 5.1 CIPAC

**Ms Elen Karasali** gave a brief overview of CIPAC and an update on activities undertaken since the previous meeting, including the continued development, validation and revision of analytical methods for pesticide formulations and technical materials. The report emphasized the role of CIPAC methods as internationally recognized and validated procedures that support FAO and WHO specifications and regulatory enforcement.

Updates were provided on collaborative and small-scale trials completed or ongoing since the previous meeting, as well as on the publication and consolidation of CIPAC guidelines and handbooks. Ms Karasali highlighted current analytical challenges, including the increasing complexity of formulation analysis, the need for comprehensive screening methods, and difficulties associated with the analysis of biological and microbial pesticides. The importance of continued collaboration between scientists, laboratories, regulators and industry was emphasized.

**Questions/Comments**

1. Are there any plans to organise collaborative trials for microbials.

Ms Karasali explained this is quite a difficult task that will need to be discussed with the laboratories and industry experts to pool ideas. We will need to identify laboratories who have the capabilities to undertake collaborative trials for microbials.

A comment was made regarding the need to be clear with respect to the wording and definition of microbials, biologicals and biopesticides. Mr. Ye drew attention to The International Code of Conduct on Pesticide Management which gives definitions of biological and botanical pesticides.

### 5.2 FAO

**Mr. Guibiao Ye** informed the meeting about the activities, meetings and workshops held by FAO since the previous Joint Open Meeting. The report highlighted FAO's ongoing work under the International Code of Conduct on Pesticide Management and the activities of the Joint Meetings, including JMPS and JMPR. Attention was drawn to the increasing importance of effective risk communication, noting that public perception of pesticides remains a major challenge and that clear, practical guidance is needed to support regulators and authorities in communicating benefits and risks to the public.

Mr. Ye further reported on work addressing the management of empty pesticide containers, resistance management, and the sustainable use of pesticides, including the promotion of integrated pest management and alternatives. Updates were provided on guidance related to minor uses, including approaches for extrapolation where data availability is limited, and on emerging regulatory challenges associated with online pesticide sales. Capacity-building activities, including regional training workshops and the translation of guidance documents into additional languages, were also reported.

**Questions/Comments**

A comment was made regarding the publication of FAO specifications on the FAO website, in that some new specifications were unavailable. Mr. Guibiao informed that they were in the process of moving to a new system and this should be rectified shortly.

A comment was made on the Risk Communication Guidelines and the importance of dealing with public perception that 'chemicals are bad' and make aware that some are necessary.

### 5.3 WHO

**Mr. Dominic Schuler**, on behalf of the World Health Organization (WHO), reported on actions undertaken since the previous meeting, noting organizational changes within WHO and the integration of the vector control prequalification programme into the Health Systems Division. The report outlined WHO's dual role in relation to pesticide specifications, namely the development of global norms and standards through JMPS and the product-specific evaluation of vector control products under the WHO prequalification programme.

He described recent progress in WHO prequalification activities, including assessment sessions held both in person and virtually, and emphasized the importance of reliance mechanisms, whereby WHO and national authorities make use of authoritative evaluations conducted by expert bodies such as JMPR. A major development reported was the launch of the Collaborative Registration Procedure for vector control products, which enables WHO to share confidential assessment information with national regulatory authorities to support timely national decision-making. The successful pilot implementation of this procedure was noted, and participants were encouraged to promote awareness of this mechanism among regulators, laboratories and industry stakeholders. Capacity-building initiatives were also reported, including collaboration with FAO training programmes and the establishment of a rotational fellowship programme for regulators from national authorities.

**Questions/Comments**

No questions or comments were asked.

### 5.4 Review and publication of FAO and WHO specifications for pesticides

**Mr. Dominic Schuler** presented a summary of actions taken since the 23rd Joint Meeting on Pesticide Specifications (JMPS) and the publications released in that time. A total of ten WHO and joint FAO/WHO specifications have been updated. These updates include the following active ingredients and formulation types:

- Broflanilide UL
- Chlorfenapyr TC (2 extensions)
- Cypermethrin TC
- IR3535 TC
- Isocycloseram TC
- Lambda-cyhalothrin SC
- S-Methoprene TC

- Spinosad
- Transfluthrin TC

All updated specifications are published on the WHO website. Under the section "Specifications established under the new procedures", each document includes its publication date, allowing users to identify the most recent updates.

Applications for new specifications under assessment during the 24th JMPS meeting were as follows:

- Abamectin TC
- Broflanilide WP
- BTI KN-185 TK
- BTI TK
- C-8910 TC
- Chlorfenapyr TC
- Chlorfenapyr TC
- Citriodiol (Oil of Lemon Eucalyptus) TC
- Clothianidin TC
- Fenpropathrin
- Flupyradifurone + transfluthrin EW
- Isocycloseram WP-SB
- Permethrin 40:60 TC
- 1R-Trans Phenothrin TC
- Piperonyl Butoxide TC
- Pyriproxyfen MR
- S-Methoprene
- Transfluthrin TC

**Questions/Comments**

No questions or comments were asked.

### 5.5 Subjects from the 24th JMPS Closed Meeting of 2025

**Mr. László Bura** gave a summary of the JMPS closed meeting. The meeting focused on FAO and WHO specification development, with particular attention to JMPS consistency in analytical requirements. Discussion centred on three technical areas: bridging studies for active ingredient determination, analysis of relevant impurities, and data requirements for physical and chemical properties of technical materials, alongside updates to the FAO/WHO manuals.

For active ingredient determination, it was reaffirmed that published CIPAC methods should be followed as closely as possible when generating data for FAO/WHO specifications, equivalence submissions, and dossier support. Where an in-house method is used, even if validated under recognised systems, a bridging study is required to demonstrate comparability with the published method. According to Appendix J of the manual, this involves

analysing three batches on two different days using independent sample preparations and calibrations, with statistical comparison showing no significant difference between methods.

For relevant impurities, the JMPS clarified that equivalence assessment requires direct compliance with the existing specification, meaning the published specification method must be used. Bridging studies are not accepted in this case, as comparability must be demonstrated using the prescribed method only.

On physical and chemical property requirements, JMPS confirmed that solubility in organic solvents for the technical material and melting point data, where relevant, are required for equivalence determinations and should be generated under GLP conditions.

The meeting also reviewed minor revisions to the FAO and WHO manuals to improve clarity, reflect updated CIPAC methods, and incorporate industry comments. Publication of amendments is still under internal discussion, although both WHO and FAO indicated that updated versions are intended to be made available as soon as possible, with industry emphasising the importance of transparency.

**Questions/Comments**

1. Will the amendments be published on FAO or WHO websites?

The exact process for updating is not fully clear at this time. Publication is under discussion within the Organizations, and while a proposal exists, the process is complex. The aim is to publish the amendments as soon as possible. Industry stakeholders emphasized that transparency is important, as authorities worldwide often refer to these updates. WHO currently hosts templates for all formulation types online, and FAO links to those, reflecting the updates.

2. Are there clauses in publications that indicate which method updates should be followed?

Yes, clauses in the publications indicate that the most recent versions of CIPAC or MT methods are intended to be used. Updates should not create obstacles, and amendments were reviewed to distinguish between updates that clarify language and those that change intent. This distinction helps determine how changes are published and communicated.

3. Regarding CIPAC methods for active substances, what level of deviation from the prescribed method is acceptable?

There is no general rule. Acceptability depends on technical judgement. For example, if an analyst uses a method with a slightly different analytical column but with similar retention and performance, it may be acceptable. Collaborative trials are assessed based on the overall range of results, and method ruggedness is considered. Deviations should be documented and justified in dossiers to avoid delays.

4. How should CIPAC methods be applied in dossier submissions to WHO and FAO?

When internationally recognised methods exist, they should be followed as closely as possible to generate data. This reduces the need for clarifications and accelerates the review process. Any necessary deviations must be clearly explained, including the reason and analysis of impact. Providing complete information is highly appreciated by JMPS reviewers.

5. Can applicants use their own in-house methods for equivalence studies?

Yes, but only if the method is validated and a bridging or verification study is required to demonstrate equivalence with the CIPAC method. For relevant impurities, the published method must be used, and bridging studies are not accepted.

6. Are there minimum standards or tolerances for method deviations?

No fixed minimum exists. Judgement is required based on the method and substance. Deviations are evaluated in the context of method performance, ruggedness, and relevance to the specific substance or formulation. Documentation of deviations and rationale in the dossier is essential.

7. Could the CIPAC multi-analyte methods be used in specifications?

Multi-analyte methods were originally designed for quality control or screening, not specification purposes. They may be used as a starting point, but collaborative trials or verification may be required to confirm that the method works across the relevant active substances and formulations. Specifications should remain as simple as possible, with one recognised method preferred.

8. As relevant impurity methods are peer validated can applicants use and peer validate their own method for equivalence studies?

Relevant impurity methods are included as an appendix to the existing published specification. In theory you could have your own method but then there would need to be additional appendices and cross references linking each method to each manufacture's TC . The principle is to keep specifications simple and clear while ensuring that results are comparable and reliable, therefore you need to demonstrate that your TC can comply with the exiting specification including using the published method for relevant impurities.

### 5.6 FAO/WHO 2026 priority list and programme for development of specifications

Prospective applications for new specifications or extensions to existing specifications under the 2026 workplan (WHO and FAO/WHO) are as follows:

- BTI TK
- Chlorfenapyr 24SC
- Chlorfenapyr TC
- Chlorfenapyr TC

- Icaridin TC
- Nootkatone TC
- Permethrin (40:60 cis:trans isomer ratio) TC
- Piperonyl Butoxide TC
- Pirimiphos-methyl
- Spinosad TC and formulation 7.5% Spinosad DT
- TFNA-AM TC

**Questions/Comments**

No questions or comments were asked.

## 6. Summary of actions taken by CIPAC Meetings

Five Pesticide Analytical Committees—CHIPAC, DAPA, DAPF, ESPAC and JAPAC presented their activities from the past year.

### 6.1 CHIPAC

The activities of the Chinese Pesticide Analytical Committee (CHIPAC) were presented by **Ms. Yue Wang**. The Chinese group presented its role as a relatively new but rapidly growing technical platform established in 2016, now involving laboratories, universities, regulatory agencies, and manufacturers. Its work focuses on standardisation through development of domestic group standards and support for international implementation of CIPAC methods and FAO/WHO specifications. Recent achievements included eleven analytical methods approved under CIPAC guidance, with additional methods under validation and several collaborative trials planned for conversion of published group standards into international methods.

**Questions/Comments**

No questions or comments were asked.

### 6.2 DAPA

**Ms. Claudia Vinke** gave a presentation on the German speaking working group for plant protection product analytics (DAPA) on behalf of the Chairman, **Mr Dirk Wolffram**. Ms. Vinke reported collaborative trial activities covering active ingredient determination and relevant impurity methods across technical materials and formulations. Work also included discussion of new CIPAC statistical guidance, workshops on biological pesticide analytical challenges, and contributions to FAO/WHO specification template revisions. It was noted that analytical work on biological products remains difficult and requires greater involvement from specialists with biological expertise.

**Questions/Comments**

1. Which version of the updated CIPAC guideline is currently effective, as both old and new versions appear on the CIPAC website?

It was clarified that the proposed updated version remains under discussion and formal adoption is expected only after the next technical meeting.

### 6.3 DAPF

Ms. Claudia Vinke also gave a presentation on the German speaking working group for physical-chemical properties (DAPF). She reported continued work on methods for determination of physical, chemical, and technical properties, including stability testing, identity assessments, and revision of specification templates. Coordination with CIPAC technical groups was highlighted as valuable, particularly where work overlaps between analytical chemistry and physical testing requirements. In September DAPF celebrated its 75th meeting with a small symposium, with invited colleagues from DAPA.

**Questions/Comments**

No questions or comments were asked.

### 6.4 ESPAC

**Ms. Mary-Ellen McNally** presented the English-Speaking Pesticide Analytical Committee (ESPAC) role in supporting CIPAC through collaborative trials, review of obsolete methods, development of guideline documents, and publication of multi-analyte methods. Several recent collaborative trials were completed jointly with other groups, covering active ingredient determination in technical materials and formulations.

Particular attention was given to recent publications on multi-analyte methods. One publication compared a multi-analyte screening method with registered enforcement methods under GLP and demonstrated strong agreement for a range of compounds. A second publication showed successful use of smaller UPLC columns for pesticide analysis, demonstrating broader analytical interest beyond pesticide regulation alone.

ESPAC also reported that further work is underway on a GC multi-analyte publication, extending validation across several compounds with strong linearity, accuracy, and precision data. Additional laboratory capability mapping is being developed to improve coordination between laboratories, identify available instrumentation, and support future collaborative work.

Ms. McNally expressed her gratitude to Mr. Jim Garvey for his many contributions to ESPAC as Chair from 2008-2024 and congratulated him on his in retirement.

**Questions/Comments**

1. Now that we have data for the multi-analyte methods, where we show they compare just as well to industry methods, is it possible for organisations like JMPS to look into having them incorporated into their procedures.

It was agreed that these methods could potentially be incorporated, provided this does not introduce unnecessary complexity. A preferred approach would be to use multi-analyte methods as a simple initial screening tool, followed by verification using certified standard methods such as CIPAC or an enforcement. Overall, there was support for integration on the basis that the workflow remains streamlined, with a two-step process balancing efficiency and reliability, and further work will focus on confirming feasibility and developing a formal implementation protocol.

A comment was made that careful use of multi-analyte methods was required. It was noted that the multi-analyte method should be used as a first recourse only and is not designed for chiral compounds or other analytical nuances. Mr. Dominic Schuler indicated they look forward to future applications that propose changes to the method, where appropriate.

**6.5 JAPAC**

**Mr. Yu Ohshima** presented an overview of the Japan Pesticides Analytical Council (JAPAC). The two main objectives of JAPAC are to contribute to CIPAC in the international standardisation of analytical methods for pesticide formulations and to promote the use and international adoption of CIPAC standardized methods.

To achieve these objectives, JAPAC engages in several activities, including collaborating with CIPAC on the development and validation of international standards; proposing and participating in the international standardization of analytical methods; sending delegates to international meetings related to CIPAC; promoting CIPAC methods within Japan and maintaining communication with CIPAC and related organizations.

JAPAC have recently reported collaborative study results for amisulbrom, broflanilide, pyriproxyfen and the release/retention rate of pyriproxyfen in matrix release formulations. Latest activities of JAPAC have included validating 27 pesticide products using the multi-analyte method proposed by ESPAC to improve the inspection efficiency in Japan.

**Questions/Comments**

No questions or comments were asked.

**7. Technical liaison with other organizations**

**7.1 AgroCare Latin America**

**Mr. Hector Di Loreto** reported that AgroCare Latin America represents more than 150 companies across the region. Recent activities include the introduction of a new focus on biopesticides and the publication of a monthly newsletter. In addition, intensive collaboration through technical working groups has taken place over a four-month period, including lectures delivered by experts from Argentina and Brazil. Within the Ibero-Latin American network, approximately 25–30 laboratories are currently involved.

**Questions/Comments**

Key concerns were raised regarding the inadequate interpretation of internationally agreed measures for highly hazardous pesticides (HHPs), which may lead to a prohibition-oriented agenda. It was noted that regulatory decisions taken in the EU could have significant impacts in Latin America.

### 7.2 CropLife International (CLI) and European Crop Protection Association (ECPA)

Ms Cecilia Breedt informed the meeting about the relevant activities carried out by CLI since the previous Joint Open Meeting. CLI currently represents 91 countries worldwide and continues to expand its ambitions in the areas of increasing food security, tackling climate change, protecting biodiversity, and promoting stewardship.

The Specifications Expert Group (SEG) meeting was held prior to the Open Meeting and the group addressed the following topics:

- Active Ingredient Specification and Equivalence Procedure
- Formulation types, properties, and specifications
- Storage stability and shelf life (Technical Monograph 17)
- Co-formulants and changes in composition
- Biologicals

Ms Breedt also reported that Technical Monograph 17 and 19 remain under review and that the Guidelines for Microbial Pest Control Agents and Products are currently being rewritten.

**Questions/Comments**

No questions or comments were asked.

### 7.3 Other organizations

No other organizations made presentations.

## 8. National reports regarding CIPAC activities and reports from official quality control laboratories

Reports were provided from the official quality control laboratories from the following countries:

- Belgium
- Brazil
- China
- Czech Republic
- Germany
- Greece
- Ireland
- Japan
- Poland

- Switzerland
- Thailand
- United Kingdom
- Ukraine

## 9. Status, review, and publication of CIPAC methods

Information was provided on the review, revision and publication of FAO and WHO pesticide specifications, including newly published specifications, revised specifications and applications under evaluation. Ms Karasali noted handbook Q has been published with adopted methods given on the CIPAC website.

## 10. Any other matters

No other matters were proposed for discussion.

## 11. Date and venue of the next CIPAC/FAO/WHO meetings

**Mr Jim Garvey** announced that the next JMPS and CIPAC/FAO/WHO Meetings in June 2026 will be held in Krabi, Thailand. A presentation was given on the venue for the meeting.

Further details will be available in due course on the CIPAC website: (https://www.cipac.org).

## 12. Closing of the 20th Joint CIPAC/FAO/WHO Open Meeting

**Mr. Guibiao Ye**, Chairperson of the meeting, thanked the organisations for their continued collaboration and the participants for their attendance. He declared the meeting closed.