

**Food and Agriculture  
Organization of the  
United Nations**



**19<sup>th</sup> JOINT CIPAC/FAO/WHO OPEN MEETING  
(68<sup>th</sup> CIPAC Meeting and 23<sup>rd</sup> JMPS Meeting)**

**Wageningen International Congress Centre, Wageningen, Netherlands  
17 June 2024**

**Summary Record of the Meeting**

**Agenda**

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## 1. Opening and welcome

**Mr Ralf Hänel**, representing the CIPAC and Chairperson of the Joint Open Meeting, welcomed all participants to the 19<sup>th</sup> Joint CIPAC/FAO/WHO Open Meeting.

Mr Hänel introduced Dr Birgit Loos, Director of the Wageningen Research Centre (WFRS), Mr. Guibiao Ye, representing the Food and Agricultural Organization (FAO) and Mr. Dominic Schuler representing the Prequalification Team for Vector Control (PQT-VC) from the World Health Organization (WHO) to the meeting.

**Dr Birgit Loos**, Director of the Wageningen Research Centre (WFRS), warmly welcomed representatives from the FAO and WHO, as well as delegates from official laboratories and industry to the Open CIPAC-FAO-WHO meeting.

She emphasized the vital role that CIPAC plays in ensuring the safety of food and feed, highlighting the importance of collaboration between industry and official laboratories. Ms. Loos noted that the work carried out in CIPAC is remarkably significant for official labs, as it fosters global connections among them.

She expressed her pleasure in hosting this important meeting and extended a special welcome to the FAO and WHO. She also acknowledged the contributions of Theo de Rijk, who is actively involved in many initiatives within the Wageningen Research Centre. Ms. Loos concluded by wishing all participants a productive meeting and expressed her hope for continued and expanded collaboration within laboratories around the world.

**Mr. Guibiao Ye**, on behalf of the Food and Agriculture Organization (FAO), warmly welcomed participants to the 19th Open Meeting of FAO/WHO/CIPAC. He expressed special thanks to CIPAC and all contributing experts for their invaluable work in developing pesticide analysis methods and for their continued support of the Joint Meeting on Pesticide Specifications (JMPS). Mr. Ye highlighted that, according to FAO estimates, global food production must increase by 50% by 2050 to meet the demands of a growing population. In this context, plant protection products (PPPs), play a vital role in safeguarding crops and reducing production losses. He noted that since the 1990s, the use of PPPs has been steadily increasing, with many countries considering them essential for protecting crops from pests and diseases.

He emphasized that pesticides contribute directly to reducing hunger—a core mission of FAO. However, he acknowledged that the use and quality of pesticides, as well as their associated risks, are often sensitive and controversial topics. He highlighted that ensuring the quality of PPPs is essential to minimize risks associated with their use while supporting food security.

Mr. Ye extended his sincere appreciation to all stakeholders involved in this field, including industry representatives, academic experts, and farmers. He underscored that high-quality pesticide products are crucial for sustainable food production and that reliable analytical methods are the foundation of effective pesticide quality control.

He commended CIPAC, a non-profit and non-governmental international organization, for its ongoing efforts to promote standardized analytical methods for pesticide testing, including both physical and chemical tests. As technology advances and new pesticides emerge, analytical measurements become increasingly complex. In response, FAO support CIPAC to develop rapid, user-friendly, and highly efficient methods to ensure pesticide quality.

Mr. Ye reiterated that the sound management of pesticides remains a high priority for FAO and called for active participation from all stakeholders. He affirmed FAO's commitment to continued collaboration with CIPAC and experts in the field.

He concluded his remarks by wishing all participants a productive and successful meeting.

Mr. **Dominic Schuler on behalf of PQT-VC/WHO** expressed his sincere appreciation to WFSR for their warm welcome and the support provided during the JMPS meeting. He also extended his gratitude to CIPAC, particularly Mr. Ralf Hänel, for their collaboration and thorough preparation for the meeting. Mr. Schuler acknowledged Mr. Guibiao Ye, the JMPS co-secretariat from FAO, along with his colleagues from WHO, for their continued support. Reflecting on last year's meeting, Mr. Schuler recalled his presentation on Insecticide-Treated Nets (ITNs) and WHO's efforts in prequalifying vector control products, emphasizing their impact on malaria transmission. He reiterated the importance of bringing this issue to the forefront again, underlining the global situation of vector-borne diseases and the critical role of public health pesticides in their control. The significance of CIPAC's work, particularly in developing analytical methods for public health pesticides, was highlighted as essential for effective disease prevention programs. A recent update from PAHO/WHO revealed that nearly 9 million cases of dengue were reported in the Americas in the first 20 weeks of 2024 alone, underscoring the immense pressure on the region's public health systems. Mr. Schuler stressed the need for accessible vector control products and robust healthcare systems, particularly for vulnerable populations. He emphasized that combating vector-borne diseases requires effective tools and innovative approaches to ensure high-quality, well-applied products. He concluded by thanking all attendees for their vital contributions and dedication to the fight against vector-borne diseases.

Mr. **Ralf Hänel**, speaking on behalf of CIPAC, expressed his sincere gratitude to Theo, Joost, and all their colleagues for organizing the meetings. He also thanked the large number of participants in attendance, emphasizing that their presence was of great importance. Additionally, he extended his appreciation to WHO, FAO, the industry, and all colleagues for their continued use of the CIPAC platform, which offers essential methods and harmonized validation procedures for the quality control of pesticides.

## **2. Arrangements for chairman and rapporteur.**

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

## **3. Adoption of the agenda**

No changes to the agenda were proposed, which was then adopted as such.

#### 4. Summary record of the previous meeting

4.1 18<sup>th</sup> Joint CIPAC/FAO/WHO Open Meeting; 67<sup>th</sup> CIPAC Meeting; and 22<sup>nd</sup> JMPS.

The summary record of the previous Open meeting was not available on the Organisations' websites due to some technical reasons. No comments were made, so the minutes of the last CIPAC/FAO/WHO Open Meeting were accepted.

#### 5. Summary of actions taken after the CIPAC and JMPS meetings

##### 5.1 FAO

Mr. Guibiao Ye provided an update on the activities, meetings, and workshops organized by the FAO since the last Joint Open Meeting. He gave a detailed presentation on FAO's work in Pesticide Management, highlighting key initiatives and developments in that area.

Mr. Guibiao highlighted that the Food and Agriculture Organization (FAO) is a specialized agency of the United Nations dedicated to leading global efforts to eliminate hunger. Its primary goal is to achieve food security for all, ensuring that everyone has access to sufficient, high-quality food. The FAO operates in over 130 countries worldwide. He also noted that the FAO has established a strategic framework for the period 2022–2031, aimed at driving the transformation towards more efficient, inclusive, resilient, and sustainable agri-food systems. This transformation is guided by the vision of achieving better production, better nutrition, a better environment, and a better life—leaving no one behind.

He went on to present the key ideas behind each of these four pillars: better production, better nutrition, a better environment, and a better life.

In his work on Pest and Pesticide Management at the FAO, he has been focusing on activities and fostering global cooperation. The normative framework includes: Climate and Agrifood system, Bioeconomy, Biodiversity and Ecosystems, and Sustainable consumption and production. He also mentioned supporting conventions, international treaties, and advisory bodies.

As regards the advisory bodies he mentioned the following:

➤ FAO/WHO Joint Meeting on Pesticide Management (JMPM)

➤ FAO/WHO Joint Meeting on Pesticide Specifications (JMPS)

Healthy diet for all  
Nutrition for more vulnerable  
Safe food  
Food loss and waste  
Market and trades

➤ FAO/WHO Joint Meeting on Pesticide Residues (JMPR)

Innovation for sustainable production  
Blue transformation  
One health  
Small scale producers  
Digital agriculture

➤ FAO/WHO Joint Meeting on Highly Hazardous Pesticides (JMHHP)

He noted that FAO has also Operational Work with the main tasks as presented below:

- Integrated Pest Management (IPM)
- Technical clearances process for pesticides purchased within FAO projects
- Pesticide lifecycle management approach
- Institutional capacity building on pest and pesticide management

- FAO Pesticide Registration toolkit (PRT)

The FAO also manages emergency situations, such as locust control combating Fall Armyworm (FAW).

### **JMPM (FAO/WHO Joint Meeting on Pesticide Management)**

Regarding JMPM meeting, which was a joint meeting between FAO and WHO, UNEP agreed to join JMPM Secretariat officially in March 2023; this established an FAO/WHO/UNEP Joint Meeting.

The 16<sup>th</sup> JMPM annual meeting was held at WHO headquarters in November 2023 in Geneva. The main topics included:

- Development of new guidance documents,
- Revision of existing guidelines,
- Emerging and priority issues in pesticide management, including online sale, drone application, illegal trade, nano-pesticides, and recommendations made for future directions
- Extensive dialogue on the incorporation of a human rights-based approach, mainstreaming gender considerations, and giving special attention to Indigenous Peoples' Rights, were significantly highlighted.

During the previous year the following guidance were published:

1. Guidance on use of pesticide regulation to prevent suicide
2. Guidance on the monitoring and observance of implementation of the Code of Conduct

The Guidance on aerial application of pesticides endorsed and under the procedure of publishing.

### **JMPS (FAO/WHO Joint Meeting on Pesticide Specification)**

Two main issues were highlighted as regards the work of JMPS:

1. The French, Spanish and Chinese version of the Manual on the Development and Use of FAO and WHO Specifications for Chemical Pesticides were published on FAO and WHO websites in 2023, in addition to English version.
2. The Manual on the Development and Use of FAO and WHO Specifications for Microbial Pesticides was published on FAO and FAO webpage: <http://www.fao.org/documents/card/en/c/cc9840en>. It was noted that French, Spanish and Chinese version will be published in near future.

### **JMPR (FAO/WHO Joint Meeting on Pesticide Residues)**

The 2023 Joint Meeting on Pesticide Residues (JMPR) was held in Washington, USA, from September 14 to 28. During the meeting, 35 pesticides were evaluated, and 300 maximum residue limits (MRLs) were estimated. The 55th session of the Codex Committee on Pesticide

Residues (CCPR) took place in Chengdu, China, from June 3 to July 8, 2024, and adopted the recommendations made by JMPR.

The reports from the 2023 JMPR meeting were published on both the FAO and WHO websites. A summary report of the meeting is also available on the same platforms.

In addition, the FAO organized a regional workshop on pesticide residue risk assessment and the development of Codex MRLs from November 20 to 24, 2023, in Bangkok, Thailand. The workshop brought together 26 participants from 11 countries, along with 4 representatives from regional offices. It provided valuable capacity building in pesticide risk assessment and in establishing national MRLs.

Mr. Guibiao Ye shared information about the FAO Pesticide Registration Toolkit. He explained that the Toolkit is a decision support system specifically designed for pesticide registrars in low- and middle-income countries. This web-based resource serves as a comprehensive, day-to-day reference to support the evaluation and authorization of pesticides.

He informed the meeting that some new modules developed:

- Biological Pest Control Agents module developed and included in the Special topics part
- GHS Classification & Labelling module is in the final stages of development and will be included in the toolkit.

In 2023, six Toolkit training sessions were conducted across Africa, Asia, and the Near East, reaching a total of 96 pesticide registrars from 21 countries. Additionally, three country-specific trainings were held in Jordan, Morocco, and Tanzania, along with a specialized training on pesticide lifecycle management in Bangladesh. A regional training was also organized in Malaysia, with participants from Malaysia, Indonesia, Cambodia, the Philippines, Laos, Pakistan, and Sri Lanka.

6 E-learning lessons developed and 2 available in FAO E-learning Academy:

1. Importance of Pesticide Registration
2. Pesticide Registration Toolkit: Structure and contents
3. Pesticide Registration Strategies--HHP Assessment and mitigation
4. Alternatives (to HHPs)
5. Highly Hazardous Pesticides (<https://elearning.fao.org/course/view.php?id=901>)
6. Pesticide Registration Toolkit (<https://elearning.fao.org/course/view.php?id=936>)

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To reduce the risks posed by Highly Hazardous Pesticides (HHPs), the Food and Agriculture Organization (FAO), in collaboration with the World Health Organization (WHO) and the United Nations Environment Program (UNEP), has supported member countries in developing

guidance and national and regional strategies—particularly in Africa. These efforts aim to mitigate the risks associated with HHPs.

In 2023, two major international resolutions addressed HHPs: one adopted at the 5<sup>th</sup> Meeting of the International Conference on Chemicals Management (ICCM5) in September, and another at the 6<sup>th</sup> session of the United Nations Environment Assembly (UNEA) in February. These resolutions endorsed the establishment of a global alliance on HHPs. They also invited FAO, along with the International Labor Organization (ILO), the United Nations Development Program (UNDP), and WHO, to coordinate the alliance's work, with FAO taking a leading role. FAO will collaborate with other UN agencies, governments, and stakeholders to address HHPs under the newly endorsed Global Framework on Chemicals.

## Questions

There were no questions or remarks.

## 5.2 WHO

Mr. Dominic Schuler provided a detailed overview of the actions undertaken by WHO in relation to CIPAC, JMPS, and other programs managed within the Prequalification Team (PQ), particularly focusing on the assessment of vector control products. He highlighted that his presentation would center on various WHO processes, emphasizing both the independence of these processes and their interconnectedness in supporting WHO's overall mandate, as well as the specific mandates of the relevant Department and Unit. These processes also play a critical role in upholding international standards for pesticide quality.

In addition, Mr. Dominic's presentation covered the WHO Guidelines for the Prequalification of Insecticide Treated Nets, including commitments and achievements for the years 2023–2024. He also provided a summary of product submissions to the PQ program, along with updates on related activities. Lastly, he introduced the Pilot for Collaborative Registration Procedures for Vector Control Products.

Mr. Schuler explained that within the World Health Organization (WHO), there is a division called Access to Medicines and Health Products. Within this Division is the Department of Regulation and Prequalification, which includes the Prequalification Unit responsible for the assessment of vector control.

The department's mandate is to support Member States in strengthening their regulatory systems through diverse strategies, and to ensure that medicines, vaccines, and other health products supplied to low-income countries are quality-assured, safe, effective, and accessible to all populations.

PQ has established itself as a trusted and reputable symbol among member states and stakeholders. The current products include vaccines, immunization-related devices and equipment, inspection services, medicines, prequalified diagnostics, and vector control products (VCPs). Prequalification for VCPs began in 2017, following the transition from the WHOPES program to the WHO Prequalification framework.

For vector control products, it is essential to address multiple mandates while relying on existing mechanisms. The first mandate focuses on supporting the development of international quality standards for pesticides used in both agriculture and public health. This includes promoting good management practices and enhancing pest and vector control

measures, ultimately contributing to improved human health, environmental safety, and more sustainable agricultural production.

This mandate is shared with the Joint Meeting on Pesticide Specifications (JMPS), a collaborative effort between WHO and FAO to support member states. JMPS serves as the scientific expert body responsible for reviewing data and providing recommendations to both organizations in support of this mandate.

There is also a mandate to increase access to safe, high-quality, and effective vector control products (VCPs). This is the objective of the Prequalification Programme for VCPs, which is supported by a group of experts responsible for assessing product quality, chemistry and manufacturing, safety and toxicology, hazard and risk assessments, as well as efficacy—such as entomological efficacy or other relevant measures—for products used in the control of vector-borne diseases.

The JMPS functions as an advisory body, primarily responsible for formulating recommendations to the FAO and/or WHO regarding the adoption, extension, modification, or withdrawal of pesticide specifications. These specifications define the standards for identifying and ensuring the quality of pesticide active ingredients. JMPS evaluations are initiated in response to data submissions from industry.

For technical and source materials, specifications are established for new active ingredients or conversions from old JMPS procedures to new ones. These specifications are established through the submission of a reference profile, which serves as the baseline dataset. This reference profile is then used to assess future applications involving that active ingredient.

The extension of specifications confirms compliance with established FAO/WHO standards, based on an assessment by the JMPS, including a review of impurity profiles. For such an extension to be valid, it must adhere strictly to JMPS procedures, data requirements, policies, and the processes outlined in the official manual. Manufacturers who have not submitted their products for JMPS evaluation cannot claim compliance with these specifications. Therefore, products must meet both the minimum purity requirements and the impurity limits set by the FAO/WHO specifications; otherwise, they will not be considered compliant.

As regards specifications for formulations, it must be kept in mind that specifications provide norms and standards for indicators of quality. For regulatory purposes within Member States, these specifications may either be adopted as mandatory requirements for decision-making or used as reference points to guide regulatory judgments. Therefore, a comprehensive data package is essential for the establishment of such specifications.

He clarified that the Prequalification (PQT) process for Vector Control Products (VCPs) is a highly specialized procedure focused on improving access to safe, high-quality, and effective VCPs, and it is fully aligned with the World Health Organization (WHO). The primary mandate of the PQT for vector control products is to enhance access to these products by ensuring their safety, quality, and efficacy. He emphasized that PQT was established to provide a quality assurance mechanism, making decisions that enable procurement of products based on thorough assessments of their Quality, Safety, and Efficacy.

He also noted that WHO Prequalification is not a regulatory authority; rather, its role is to create lists of quality assured health products that can be trusted and procured by UN agencies, other international organizations, and Member States. Eligibility for products is determined not through legislation or regulation but through WHO's technical recommendations regarding the use of health products in the prevention, diagnosis, and



treatment of relevant diseases. Regarding the prequalification requirements for VCPs, there are data obligations that include physicochemical characteristics, details of the manufacturing process, and other related information. These requirements cover quality, safety, and toxicity data to support risk assessment. Additionally, efficacy data must be provided, which encompasses both laboratory and field studies.

He clarified which sources of active ingredients and synergists are acceptable for use in the formulation of VCPs. It is required that the source materials for active ingredients used in the product formulation comply with the specifications established through JMPS assessment.

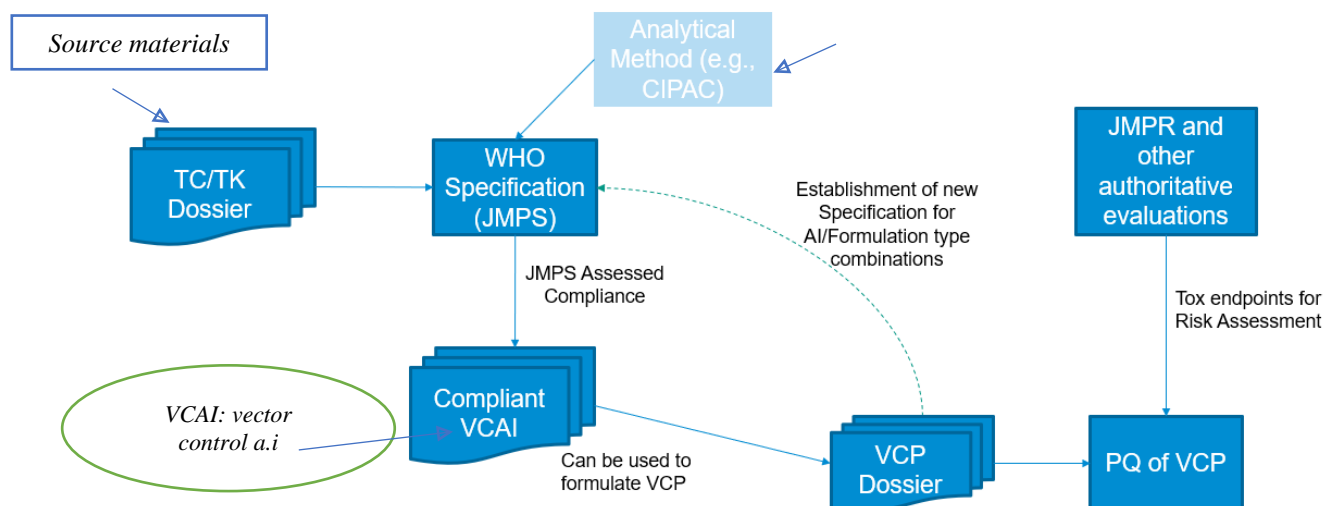
The quality data requirements for formulations are considered the following:

- Declaration of the complete formulation
- Manufacturing process
- Phys/chem data (includes at a minimum, the parts that are incorporated in the templates of microbial and chemical manual of the FAO/WHO specification for the formulation type)
- Proposed manufacturing release specification (the specification characteristics specific to that product)
- Identification of all manufacturing sites which is critical for inspection.
- Site Master Files with Quality Management System for those manufacturing sites (For the purposes of inspection). Within PQ there are the assessment and the inspection aspects which come together for the prequalification decision of the product.

For quality assessment, the Prequalification (PQ) process refers to WHO specifications for formulations as the primary point of reference. Products submitted for PQ are generally expected to meet these established specifications. If deviations from these specifications are identified, they may still be considered acceptable provided that a thorough evaluation demonstrates the product is fit for purpose and meets WHO requirements for quality, safety, and efficacy. This is particularly relevant when the batches used to generate safety and efficacy data are the same as those used for quality data. All deviations are carefully reviewed during the assessment process. Comprehensive evaluations and outcomes of these assessments are published in the WHO Public Assessment Reports (WHOPARs) for each product.

The following diagram summarizes the whole procedure described above.

*Critical to support the specifications*



Mr. Schuler also presented the WHO Guidelines for the Prequalification Assessment of Insecticide-Treated Nets (ITNs), published in 2023. These guidelines outline the data requirements that must be included in submitted dossiers and cover all aspects related to quality and efficacy. They are supported by 46 implementation guidance documents, along with data requirement tables, templates, and checklists designed to assist manufacturers in preparing and submitting their dossiers.

The updated WHO Guideline for the prequalification assessment of insecticide-treated nets (ITNs) is designed to support the development of next-generation products. It introduces enhanced pre-market data requirements to establish comprehensive baseline datasets covering product specifications, fabric behavior, active ingredient presentation, and performance across diverse settings. Historically, it has been identified that products have been developed to 'meet' the requirements of the 2013 LLIN guidelines, rather than being optimized for their intended use. The revised guideline addresses this issue by aligning product characteristics and performance expectations with the intended use and duration of effectiveness, rather than merely fulfilling checklist-style requirements.

The WHO Guideline for prequalification assessment of ITNs includes requirements for additional studies and more detailed information pertaining to the formulation, manufacturing, and physical chemical characteristics of ITNs. Hence, updated product dossiers are required. It is imperative that the information submitted, including previously submitted/reviewed studies, is relevant to the current manufacturing process and formulation.

The WHO is revising existing guidelines and developing new ones as follows:

WHO guideline for prequalification of indoor residual spraying products.

WHO guideline for prequalification of larvicide products

WHO guideline for prequalification of aircraft disinfection products

WHO guideline for prequalification of spatial repellent products.

Regarding the Commitments and Accomplishments for the years 2023–2024, he mentioned that the PQ team hired new chemists. Furthermore, two vector control products assessors (ASVCP) meetings were held in 2023, one in 2024 while next planned for November 2024. An open call for applications and expansion of ASVCP expert roster has been announced. They

continued to engage the best experts in the field. WHO managed submission workload and timely advancement of assessments. 16 specification documents published including new specifications, new sources (extensions), multiple change applications (new sites and transfer of ownership), and other updates. They enhanced public assessment reports – WHOPARs. Continuation of communication tools and approaches. The chemical manual and translated versions and microbial manual have been published along with operational manual that is intended for internal use within WHO and JMPS. Internal launch of ePQS, preparation for external rollout.

WHO is continuing collaborations with countries and partners as follows:

- ✓ CIPAC – Joint open meeting
- ✓ Collaborative Registration Procedures (CRP) pilot interest and kick-off meetings
- ✓ PAHO - Meeting with 150+ participants supporting Colombia Ministry of Health and municipalities
- ✓ AUC, ALMA, NEPAD, i2i – Joint Vector Control Registration Consultation meeting
- ✓ RBM - Vector control working group
- ✓ Pan-African Mosquito Control Association (PAMCA)
- ✓ IVCC ESAC meetings and stakeholder convening

Concerning the summary of PQ submissions and other related updates he noted that: 195 applications were received 2022-23 and over 200 pre-submission meetings were held.

He also noted that WHO enters the final phase of integrating the ePQS system with their Document Management System, a system-wide activity freeze will be in effect from June 17 to July 19, 2024. During this period, all activities involving the ePQS database will be temporarily restricted. Full operations will resume once the freeze is lifted. WHO will notify all stakeholders as soon as the integration is complete and systems are fully restored. This may cause some disruption, but this essential step will pave the way for a more streamlined, efficient, and improved way of working together.

He also presented collaborative registration procedures (CRP) which is a process whereby the registration of products in individual countries is facilitated by partial or full reliance by the countries in question on the assessments conducted by WHO PQT/VCP. He noted that, there has been no CRP in place for vector control products until now, but in January 2024 a pilot scheme involving six countries (Rwanda, Tanzania, Nigeria, Ghana, Kenya, DRC) was launched. At present, the pilot involves two products (Vector Guard, Yorkool G3), but the intent is to add more products and more countries as the pilot progresses, and the program expands.

Finally, he mentioned that a Joint UNICEF-UNFPA-WHO Meeting with Manufacturers and Suppliers will take place from 2-6 December 2024 in Copenhagen, Denmark.

For details he advice to regularly check the event web page for updates and registration information: <https://extranet.who.int/prequal/events/save-date-2024-joint-unicef-unfpa-who-meeting-manufacturers-and-suppliers>.

## Questions

1. Is PQ for active ingredients?

The PQ process applies only to VCPs, which are end-use products. It does not apply to active ingredients, as these are already covered under the JMPS process.

2. Is there enough JMPS capacity for this evaluation work e.g. for every new new formulation (end-use product)?

All end-use VCP products must be submitted through the PQ process, with no involvement from JMPS. The evaluation and assessment of each product typically takes around 12 months.

3. How are manufacturers of source materials and end-use products identified How do you know if a source of technical material is approved?

Manufacturers of source materials are identified in the evaluation report in the published WHO specification, this is based on the evaluation and demonstrated compliance with the reference profile. For end-use products, only source materials that meet the existing specifications must be used.

### 5.3 CIPAC

Five Pesticide Analytical Committees—CHIPAC, DAPA, DAPF, ESPAC, and JAPAC presented their activities from the past year. The presentations began with CHIPAC, whose activities were presented by **Ms. Yue Wang**.

#### 5.3.1 CHIPAC

Pesticide Analytical Committees (PAC) in China (CHIPAC) is an independent, non-governmental technical organization established in 2016. Its primary goal is to develop and discuss new analytical methods for CIPAC collaborative trials and to conduct domestic collaborative trials based on the capabilities of China's pesticide industry. Additionally, CHIPAC is dedicated to promoting the adoption of officially published CIPAC methods within the Chinese pesticide sector.

Currently, the Secretariat of CHIPAC operates under the China Crop Protection Industry Association (CCPIA). To fulfill its mission, CHIPAC has assembled a team of 66 experts, including:

- 7 members from the regulatory authorities,
- 7 from universities,
- 15 from research academies and institutes, and
- 37 from pesticide manufacturing enterprises.

These members possess expertise in areas such as pesticide analysis, quality control, regulatory affairs, and production. CHIPAC maintains close collaboration with 14 laboratories, all of which hold GLP (Good Laboratory Practice) certification and possess substantial experience in CIPAC method validation. These labs provide essential technical support for the committee's work.

Over recent years, CHIPAC has made significant progress in developing and proposing new CIPAC methods. This year, five new analytical methods have been developed and validated according to CIPAC collaborative trial guidelines. These methods are for:

- Tembotrione

- Gibberellic acid
- Coronatine
- Abamectin
- Emamectin Benzoate

Furthermore, CIPAC has adopted five additional methods—either as full or provisional methods, for the following substances:

- 28-Homobrassinolide
- 14-Hydroxylated brassinosteroid
- Ethephon
- Matrine
- Metolachlor

Ms. Wang provided an overview of China's standardization framework, noting that there are five main types of standards in the country:

1. **National Standards** – Unified at the national level and categorized as either mandatory or recommended.
2. **Industry Standards** – Developed by the administrative departments of specific industries, reflecting the general level of the sector.
3. **Local Standards** – Issued by regional standardization bodies, applicable within specific provinces or cities.
4. **Group Standards** – Created by industry associations and driven by market needs.
5. **Enterprise Standards** – Developed by individual companies based on their specific products, and oriented toward market applications.

### **CHIPAC's Progress and Future Plans**

The CCPIA Group Standards have increasingly focused on new products and technologies, such as RNAi pesticides, nano-pesticides, and controlled-release formulations. To date, 124 CCPIA group standards have been developed and published, covering technical materials, technical concentrates, formulations, and analytical methods. She noted that, to further enhance the development of CIPAC methods and FAO/WHO specifications, several workshops have been organized in China.

Additionally, CCPIA regularly disseminate updates on the latest CIPAC methods and related information through popular media platforms such as WeChat and official websites.

Looking ahead to next year, CCPIA will continue to organize collaborative trials for new analytical methods. All their efforts are carried out under the guidance of CIPAC and are aligned with the development of new FAO/WHO specifications.

In the future, they plan to broaden their scope to support the transfer and development of innovative technologies—not only for active ingredients in traditional formulations, but also for novel pesticide types, including biopesticides, nano-pesticides, and controlled-release products. This direction is in line with China's "14th Five-Year Plan for the Development of the National Pesticide Industry".

Compared with other PACs, CHIPAC is still relatively young and acknowledges the need for continued improvement in many areas. They are eager to strengthen communication, learn

from, and collaborate with other PACs. CCPIA also sincerely look forward to receiving continued guidance from CIPAC and are committed to supporting its work. Their goal is to serve as a vital “bridge” between domestic innovations and international standards.

### Questions

There were no questions or remarks.

#### 5.3.2 DAPA

**Mr Ralf Hänel** informed the meeting that DAPA (the German-speaking Working Group for PPP Analytics), formerly known as a PAC, brings together members from both regulatory authorities and industry. The group includes representatives from AGES (Austria), Agroscope (Switzerland), and BVL (Germany), as well as from companies such as BASF, Bayer, Currenta, Eurofins, Syngenta, and Trifolio-M. Over the past year, DAPA has held several meetings focused on advancing analytical methods in plant protection product (PPP) analysis. Among recent activities, DAPA conducted two small-scale collaborative trials:

One involving 4-(trifluoromethyl)nicotinamide in technical concentrate (TC), Another involving metalaxyl across several formulation types: TC, SL, WG and ES. Due to the success of these trials, both have been promoted to full-scale collaborative trials.

DAPA is also actively contributing to the amendment of the draft new CIPAC Guideline.

Planned future activities include Development of a method for the relevant impurity 2,6-dimethylphenylamine in metalaxyl-M and a method for determining formaldehyde in PPPs.

In addition, DAPA has begun exploring analytical methods for botanical substances, an area in which Trifolio-M is particularly involved.

### Questions

There were no questions or comments.

#### 5.3.3 DAPF

**Mr Ralf Hänel** presented the DAPF: German-Speaking Working Group on PPP Formulations.

The DAPF is a collaborative working group that brings together representatives from both regulatory authorities and industry, focusing on plant protection product (PPP) formulations. Members include representatives from: Regulatory authorities: AGES (Austria), Agroscope (Switzerland), and BVL (Germany) and from industry: BASF, Bayer, Ceradis, Currenta, Envu, Eurofins, Evonik, Helm, FMC, Neudorff, Syngenta, and Trifolio-M.

A key focus of DAPF’s recent work has been on revising CIPAC MT methods to ensure they reflect current practices and new formulation types. Recent method revisions include:

MT 148.2 – Pourability

MT 36.4 – Emulsion Stability

MT 20x – Density of Liquids and Solids

MT 41.1 – Dilution Stability

MT 185.1 – Wet Sieve Test

## MT 170.1 – Dry Sieve Analysis of Water-Dispersible Granules (WG)

In addition, DAPF has been actively involved for many years in revising the FAO/WHO specification templates, which are considered as outdated or do not accommodate newer formulation types. Key contributions include work on: Attrition resistance: New methods for WT, ST, DT regarding attrition resistance and AE, TD regarding new methods for sprayability.

Other ongoing and recent activities include:

- Commenting on the revision of the FAO/WHO Manual,
- Providing feedback on the revision of EU SANCO/10473/2003
- Discussing the draft CIPAC Guideline and developing a corresponding template for MT methods
- Addressing tasks related to market control of PPPs, such as homogenization

Finally, DAPF is currently preparing for a joint workshop with DAPA (focused on botanicals) and planning further revisions of additional MT methods, including MT 174, MT 180.1, MT 182 and others.

### Questions

There were no questions or comments.

#### 5.3.4 ESPAC

**Mr Jim Garvey** presented the English-Speaking Pesticide Analytical Committee (ESPAC) which is one of the youngest of the Pesticide Analytical Committees (PACs), with a diverse membership that includes countries such as Australia and the United States. The last in-person meeting took place in 2019 in Denmark. Since then, meetings have been held virtually, with the most recent one occurring on December 4, 2023.

ESPAC has recently appointed new leadership: Mary Ellen McNally of FMC is now serving as Chair, while Tony Tyler, the Australian representative, has taken on the role of Secretary. Virtual meetings will continue to be the standard format for the foreseeable future. ESPAC was established a few years ago, with its primary objective being to support the activities of CIPAC.

In 2023, an article titled “Multi-Active Method (MAM) for the Analysis of Agricultural Product Technical Ingredients and Formulated Products” was published in LC-GC Journal. The article compared the MAM method with several existing FMC methods, focusing specifically on the liquid chromatography (LC) component. Results showed that the MAM method performed very well. Moving forward, there are plans to conduct a similar comparative study for the gas chromatography (GC) part of the MAM method.

Additionally, small-scale trials were carried out for selected compounds:

Chlorantraniliprole impurities: Acetonitrile and 3-picoline

Metalaxyl: Metalaxyl-M and the sum of isomers

Mr. Garvey expressed his gratitude to Dr. Theo de Rijk for his dedicated service and excellent leadership during his three-year term as Chair.

### Questions

There were no questions or comments.

### 5.3.5 JAPAC

**Mr. Yu Ohshima** presented an overview of the Japan Pesticides Analytical Council (JAPAC), which was established in February 1983.

JAPAC pursues two main objectives:

1. To contribute to the Collaborative International Pesticides Analytical Council (CIPAC) in the international standardization of analytical methods for pesticide formulations.
2. To promote the use and international adoption of CIPAC standardized methods.

To fulfill 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.
- Maintaining communication with CIPAC and related organizations.

JAPAC recently reported collaborative study results on the following:

- Amisulbrom
- Pyriproxyfen
- Release/retention rate of Pyriproxyfen in matrix release formulations
- Broflanilide

These findings were also presented at the CIPAC symposium.

Notably, JAPAC has contributed to past CIPAC symposia with presentations as follows:

- **2014:** *"Nitrogen as an Alternate GC Carrier Gas for Agrochemicals"*
- **2016:** *"The Quality Control of Pesticide Formulation in Japan"*, outlining Japan's pesticide registration system, evaluation procedures, and manufacturer inspections.

Mr. Ohshima concluded his presentation by introducing JAPAC's members:

- **Chairperson:** A former professor from Meiji Pharmaceutical University, representing academic expertise.
- **Vice-Chairperson:** A representative from Eco-Science Corporation, a contract laboratory.
- **Committee Members:** Include representatives from government agencies, manufacturers, and contract laboratories.
- **Secretariat:** Operated by CropLife Japan.

### Questions



There were no comments or questions.

## 6. Technical liaison with other organizations

### 6.1 AgroCare Latin America

**Mr. Román Macaya** officially thanked the organizers for their efforts in preparing the meeting and provided a brief overview of AgroCare Latin America and its activities. Established in Florida (USA) in 2003 by Latin American companies and national chambers representing the off-patent crop protection industry, the association relocated its headquarters to San José, Costa Rica in August 2013. Since then, AgroCare Latin America has been actively engaged in regional and international events organized by global institutions. The mission of AgroCare Latin America is centered on the following key principles:

- Advocacy for regulations that are objective and grounded in scientific and technical criteria.
- Promotion of balanced intellectual property rights and their fair enforcement.
- Support for the implementation of Good Agricultural Practices (GAP).
- Commitment to protect occupational and consumer health, as well as the environment.
- Encouragement of ethical business conduct and fair competition.
- Promotion of the safe and responsible disposal of packaging materials.

Over the years, several working groups have been established within the organization, each of which has grown stronger and more active. These include:

- **Information & Communication Working Group:** Focused on both internal and external communication. Its main activity is the publication of a virtual monthly newsletter that keeps members informed about regulatory developments and other key issues in agriculture.
- **Expert Group on Residue Limits:** Primarily engaged with Maximum Residue Limits (MRLs) through the Codex Alimentarius.
- **Rotterdam Convention Working Group:** Dedicated to matters related to the implementation and monitoring of the Rotterdam Convention.
- **Highly Hazardous Pesticides (HHPs) Working Group:** Addresses challenges and strategies related to the management of HHPs.
- **Collaboratory's Technical Working Groups:** A set of technical groups with varying focuses depending on specific collaborative needs.

The Codex Alimentarius working group actively participates in several international initiatives, including attending CCPR meetings as an independent observer.

The Rotterdam Convention working group engages in meetings concerning the inclusion of active ingredients (a.i.) in the convention's list, as well as discussions about procedural changes.

Between April and July 2023, the Collaborative Technical Working Groups organized a series of virtual meetings featuring lecturers from Argentina, Brazil, Canada, Colombia, Mexico, and

Spain. These sessions introduced regulatory chemistry and toxicology of phytosanitary products.

In addition:

- The Ibero-Latin American Inter-Laboratory Program conducted its annual proficiency performance evaluation to strengthen analytical capabilities across the region.
- An expert workshop titled *“Tools for the Successful Implementation of Phytosanitary Regulations”* was held in Guatemala City on April 22, 2024.
- A Forum on Agrochemical Formulations—a permanent internal technical group—continued its work to develop and improve agrochemical formulations.
- AgroCare Latin America also participated in relevant international forums related to agrochemical formulation.

As regards the MRLs, their periodic review by Codex should:

- Not eliminating MRLs without sound scientific justification.
- Not tie the validity of MRLs to the registration status of a pesticide in specific countries.

These issues have significant implications for Latin American exports, especially fruits and vegetables destined for Europe. If MRLs are arbitrarily withdrawn or reduced to the Limit of Detection (LOD), farmers fear using such active ingredients, since detection in exported shipments could lead to rejection. Often, there are no viable alternatives, turning this from an agricultural issue into one of rural development and livelihood security in Latin America.

He noted that concerns were raised about the misuse of HHP guidelines, particularly by actors with prohibitionist agendas. The following principles were emphasized:

- Only official government entities should classify substances as HHPs, using established guideline criteria.
- The guidelines offer a framework for identification, risk assessment, and mitigation—banning should be seen as a last resort, not the first option.
- European regulatory decisions (such as bans, restrictions, or non-renewals) can have a de facto impact in Latin America by lowering MRLs to LoD, creating non-tariff trade barriers—the very type that Codex was originally established to prevent.

It was noted that the proposed Annex VIII of Rotterdam Convention is incompatible with the Convention’s tradition of consensus-based decision-making.

He also mentioned that many Latin American countries are implementing registration processes for generic crop protection products. However, two key issues persist when equivalence is used as the basis:

- Lack of a reference profile prevents product registration due to unavailability of the technical material standard.
- Restricted access to reference profiles—often due to data protection claims—leads to legal disputes, which are increasingly common in registration systems.

He concluded that it is essential to promote responsible communication about pesticides, their risks, and alternatives. Misleading or incomplete information creates unwarranted public alarm. This principle is upheld in both:

- The 2002 version of the *International Code of Conduct on the Distribution and Use of Pesticides*, and
- The 2014 version of the *International Code of Conduct on Pesticide Management*, which explicitly calls for stakeholders to consider all available facts and promote accurate and balanced dissemination of information.

## Questions

There were no comments or questions

### 6.2 CropLife International

**Ms. Cecilia Breed**t provided a brief overview of CropLife International (CLI), the global voice and leading advocate for the plant science industry. CLI promotes innovative technologies that empower farmers to produce more food on less land, with a strong emphasis on sustainability. Representing six of the world's leading multinational R&D companies in the plant science sector—BASF, Bayer, Corteva, FMC, Syngenta, and Sumitomo—CLI supports the protection of intellectual property to encourage innovation, advocates for science-based regulatory and trade policies, and promotes the responsible use of plant science solutions.

With a network comprising approximately 1,000 members through regional and national associations, CLI plays a vital role in shaping the future of sustainable agriculture. In June 2024, CropLife International reaffirmed its commitment to the International Code of Conduct on Pesticide Management, underscoring its dedication to high standards and responsible practices.

Ms. Breed

t also elaborated on the work of the Specifications Expert Group (SEG), a technical body within CLI. This group includes product chemists, regulatory, and technical experts from seven global companies—Syngenta, BASF, Bayer, FMC, Corteva, Sumitomo, and Adama—all of whom are signatories to the International Code of Conduct on Pesticide Management.

SEG actively collaborates with international organizations such as WHO, FAO, JMPS, and JMPR. At the regional and national levels, CLI engages with expert groups including DAPA/DAPF, ESPAC, CHIPAC, and JAPAC, as well as with national regulatory authorities.

CLI's global presence is further supported by its network of regional associations, including CropLife America, CropLife Latin America, CropLife Europe, CropLife Africa Middle East, CropLife Asia, and the Japan Crop Protection Association (JCPA).

She explained the aim of SEG which is:

- To promote consistency & harmonization in registration requirements for product identity & specification
- Enhance specification quality

- Foster innovation e.g. new formulation types & new method of analysis
- Promote a Scientific and Risk-based approach
- Support the transparency concept, considering CBI & Data Protection

The topics that SEG addressed are:

- Active Ingredient Specification & Equivalence Procedure
- Formulation types, properties & specifications
- Storage stability & Shelf life (Technical Monograph 17)
- Co-formulants & Change in composition
- Biologicals
- Confidential Business Information & Data Protection
- Heavy metals

Technical monographs are now available:

TM 1: “Use of Tolerances in the Determination of Active Ingredient Content in Specifications for Plant Protection Products” which is under review.

TM 2: “Catalogue of Pesticide Formulation Types and International Coding System” published in Nov 2022

TM 17: “Guidelines for Specifying the Shelf Life of Plant Protection Products” published in March 2021

TM 19: “Minor Changes of Formulants contained in Formulations” which is under review.

A Technical Monograph on Guidelines for Microbial Pest Control Agents & Products is under development. The title of the TM is: “Microbial Pest Control Products (MPCP) Guidance for the development, registration, manufacturing & market control”. The scope is MPCP based on microbial active ingredients, i.e. microorganisms or viruses and the aim is to

- To have a reference document & summarize existing guideline, provide additional explanation
- Propose best practices
- Explain how MPCPs differ from conventional CPPs

Its content is as follows:

- Specifics of Microbial Pest Control Products
- Active ingredient definition
- Analytical methods for identification
- Analytical methods for quantification
- Impurities: Secondary compounds and matrix
- Microbial contaminants
- Storage stability and Shelf Life

Ms. Breedts highlighted several CLI activities within the framework of the FAO and WHO and the Joint Meeting on Pesticide Specifications (JMPS). These include:

- Reviewing the FAO/WHO Manual on Development and Use of FAO and WHO Specifications for Pesticides.
- Developing specifications for new pesticide formulation types.

- Promoting FAO/WHO specifications as a recognized international reference point.

In terms of the Collaborative International Pesticides Analytical Council (CIPAC), CLI engages in the following activities:

- Coordinating with other expert groups such as DAPF, DAPA, ESPAC, and the CHIPAC and JAPAC Working Group.
- Developing or updating methods for physical-chemical testing (MT methods).
- Creating new analytical methods.
- Providing comments on draft CIPAC guidelines.

Beyond the above, CLI contributes to several regulatory and technical processes:

- Reviewing the FAO-JMPM Pesticide Data Requirements Guideline and the Pesticide Registration Toolkit.
- Evaluating SANCO/12638/2011, the EU guidance document on formulation changes.
- In India, reviewing IS: 6940 – 1982, titled “Methods of Test for Pesticides and Their Formulations.”
- In Brazil, advocating for the revocation of certain tolerance legislations and proposing alignment with FAO tolerance standards.

Ms. Breedt concluded by calling on all stakeholders to uphold and actively promote the International Code of Conduct on Pesticide Management.

CLI acknowledges the importance of collaborative efforts across governments, regulatory authorities, the pesticide industry, international bodies, traders, the food industry, end users, and public-interest organizations. Only by working together can we ensure the production of safe and sustainable food, protect communities from vector-borne diseases, and safeguard our environment.

## Questions

There were no comments or questions

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

Mr Hänel informed the meeting that each year, there is an ongoing process to publish and revise CIPAC Handbooks, which involves contributions from various individuals. While CIPAC is aware that modern computers often no longer include CD-ROM drives, it continues to distribute the Handbooks on CD-ROM. However, discussions are currently underway to find an alternative solution.

## 8. Subjects from the 22<sup>nd</sup> JMPS Closed Meetings of 2023

**Mr. Olivier Pigeon** thanked all JMPS colleagues for their contributions and presented topics from the 23<sup>rd</sup> JMPS Closed Meeting. The following issues will be addressed:

- FAO/WHO Manuals on specifications for chemical and microbial pesticides
- CIPAC methods and analytical bridging studies
- Bacterial Reverse Mutation Test

FAO/WHO JMPS is composed of scientists from different countries with collective knowledge and experience in different field area such as specifications, physico-chemical properties, microbial and toxicological properties of pesticides. JMPS experts evaluate data submitted from industry and provide recommendations to FAO and WHO. The data required and evaluated by JMPS as regards the Specifications for technical materials (TC, TK) are:

- Identity of the active ingredient
- Physical-chemical properties of the pure active substance eg vapor pressure, solubility in organic solvents, solubility in water, octanol/water partition coefficient, hydrolysis and photolysis properties etc. Physicochemical properties should be supported by GLP studies.
- Manufacturing process (confidential). A detailed description is required, including details on starting materials, reagents and catalysts used in different steps of manufacturing process along with their purity and potential impurities of the materials used.
- Analytical profile of minimum 5 batches (confidential). In case there are several production sites it required to submit 5 batch data from each site. The respective studies should be GLP.
- Active substance minimum content
- Maximum limits for impurities (confidential)
- Information on relevant impurities
- Toxicological and ecotoxicological summary profiles. These data are evaluated by tox experts.

In case of formulated products JMPS provides a complete assessment on the specifications for formulated products. Studies on physical-chemical properties of formulations (depending on the formulation type) is required and should be GLP. Identity of impurities, active ingredient content is also required.

An important consideration is the validity of the analytical methods employed. These methods must be accurate and reliable. Specifically, methods used to determine the identity and content of the active substance should be collaboratively validated by CIPAC. Methods for identifying relevant impurities must be peer-validated, while those for determining significant impurities should be validated. Additionally, methods used to assess physical and chemical properties should comply with OECD or CIPAC guidelines.

JMPS also includes an equivalence procedure, as outlined in the manuals, to assess whether a product from a different manufacturer or source is of comparable quality and not significantly inferior to the reference product. For equivalence there are two Tiers procedures:

- Tier 1: purity / impurity profile and mutagenicity profile of the product under evaluation in comparison with the reference product. In case equivalence could not be concluded on Tier 1, additional studies are required.
- Tier 2: tox and ecotox profile.

When the data package is not complete at the end of the evaluation, JMPS drafts the data requirements for industry and open points for evaluators. When the data requirements fulfilled FAO and WHO publishes specifications and evaluation reports.

Since 2002 JMPS evaluates under the new procedures.

There are more than 100 FAO specifications for active ingredients and formulated products that are used in agriculture and more than 40 active ingredients and related formulated products published by WHO that are used for public health.

Mr Olivier Pigeon provided the links for FAO and WHO specification.

<https://www.fao.org/pest-and-pesticide-management/guidelines-standards/faowho-joint-meeting-on-pesticide-specifications-jmps/list-of-pesticides-evaluated-by-jmpr-and-jmps/en/>  
<https://extranet.who.int/prequal/vector-control-products/who-specifications-pesticides>

There are also more than 140 specifications for active ingredients under the old procedures.

He noted that JMPS is periodically revised (approximately every four-five year) the FAO/WHO Manual on specifications for pesticides. Comments also received from industry and discussed within JMPS. He also mentioned that the New Manual on specifications for microbial pesticides has been published.

The second edition of the Chemical Manual, published in May 2022, has been translated into three languages: Spanish, French, and Chinese. It provides comprehensive information on materials used to kill or control pests, including inorganic and synthetic active ingredients. Additionally, it covers substances that influence pest or crop behavior or physiology during production or storage—such as insect repellents, synergists, herbicide safeners, and germination inhibitors. The manual is organized into several key sections, including the history of the Joint Meeting on Pesticide Specifications (JMPS), specifications for technical and formulated products, and data requirements for both technical materials and formulated products.

A new manual on microbial pesticides (first edition) was published in April 2024 in English. It addresses microbial active ingredients such as bacteria, fungi, viruses, and protozoa. It also distinguishes between microbial pest control agents (MPCAs) and microbial pest control products (MPCPs), which differ significantly from synthetic chemical pesticides. The manual additionally covers other biopesticide categories such as botanicals (plant extracts) and semiochemicals (e.g., pheromones), along with their respective technical materials and formulated products. Its overall structure aligns with that of the chemical pesticide manual. He also provided the links:

<https://www.fao.org/pest-and-pesticide-management/guidelines-standards/faowho-joint-meeting-on-pesticide-specifications-jmps/manuals-jmps/en/>  
<https://extranet.who.int/prequal/vector-control-products/manuals-development-and-use-faowho-specifications-pesticides>

He concluded his presentation by emphasizing the use of CIPAC methods and their importance in supporting FAO/WHO specifications. He stressed that CIPAC methods should also be applied in equivalence assessments, both for active ingredients and relevant impurities. He pointed out that validation according to guidelines such as EU SANCO/3030 is not sufficient, as CIPAC methods are recognized as international standards. If an in-house method is used in place of a CIPAC method, a bridging study must be conducted to demonstrate the comparability of

results with the CIPAC method. In cases where deviations from the CIPAC method occur, the proposer must clearly explain and justify the changes—for example, using a different dilution solvent, substituting methanol for acetonitrile in the HPLC mobile phase, or using an alternative stationary phase in GC.

The JMPS requirements as regards the analytical methods are summarized in the following table

Parameter	Validation
AI content	CIPAC full method (provisional also accepted, but not draft)
Relevant impurities content	Peer-validated method (e.g. CIPAC)
Non-relevant impurities	In-house method accepted validated e.g. EU SANCO/3030
Physico-chemical properties	CIPAC MT method

When no CIPAC method exists for a given active ingredient (AI), an in-house method is acceptable for data generation. However, the proposer should apply for a CIPAC collaborative study as soon as possible. Once a CIPAC method is adopted, a bridging study must be conducted promptly.

Bridging study protocol is as follows:

Minimum 3 batches analysed in 2 different days, with 2 independent sample weightings and 2 independent calibrations. Then statistical evaluation (RSD) and comparison with r value (repeatability) of the CIPAC method is performed to assess the compatibility of the results.

For relevant impurities in principle bridging studies are not accepted because the variation of relevant impurity content in TC is higher than the AI content, preventing a bridging study to be evaluated. Therefore, methods for relevant impurities accepted by CIPAC or referred to in published FAO and WHO specifications must be used. All details in analytical bridging studies are included in Appendix J of the Second Edition of the Manual.

Mr Christoph Geiser presented issues as regards the Bacterial Reverse Mutation test. In the past there were issues with this test that must be submitted for equivalence determination with the reference profile. The purpose of this test is mainly for the impurity profile. For that reason, it is important to maximize exposure to bacteria. This test should be performed according to guidelines: OECD Test Guideline No. 471 - Bacterial Reverse Mutation Test.

Exposure concentrations:

- Soluble non-cytotoxic substances: 5 mg/plate or 5 µl/plate
- Non-cytotoxic substances that are not soluble at 5 mg/plate or 5 µl/plate: one or more concentrations tested should be insoluble in the final treatment mixture
- Substances that are cytotoxic below 5 mg/plate or 5 µl/plate: test up to a cytotoxic concentration

However, we have seen that in the preliminary test the concentration used is lower for some reasons.

Testing above the concentration of 5 mg/plate or 5 µl/plate may be considered when evaluating substances containing substantial amounts of potentially mutagenic impurities.



## Questions

There were comments or questions.

## 9. Review and publication of FAO and WHO specifications for pesticides

### 9.2 & 9.3 & 10 Status of WHO Specifications

**Mr. Dominic Schuler**, on behalf of the World Health Organization (WHO), presented a summary of actions taken since the 22nd Joint Meeting on Pesticide Specifications (JMPS) and the publications released in that time. A total of sixteen WHO and joint FAO/WHO specifications have been updated. These updates include the following active ingredients and formulation types:

Alpha-cypermethrin SC, Bendiocarb TC, Bifenthrin TC, Broflanilide TC, Chlorfenapyr SC, Chlorfenapyr – New Site, Chlorfenapyr TC (updated twice), Deltamethrin TC, Flupyradifurone, Flupyradifurone + Transfluthrin, Lambda-cyhalothrin TC, Malathion TC, EW, Piperonyl Butoxide TC, Pirimiphos-methyl TC, Transfluthrin TC

Note: The specification for the technical (TC) chlorfenapyr updated twice.

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.

WHO and the Joint FAO/WHO JMPS are currently assessing several applications, including:

New specifications for technical materials and formulations

Extensions of existing technical material specifications

Changes to previously established specifications

Submission Timeline for 2025 JMPS Assessments is October 2025. The list of applications to be reviewed will then be finalized, and the JMPS plan will be discussed in November and December 2025.

### 9.1 & 10 Status of FAO Specifications

**Mr. Guibiao Ye**, on behalf of FAO, presented an update on the FAO specifications, outlining the status, the work plan for the coming year, and future priorities. He noted that updated FAO specifications, along with their year of publication, are available on the FAO website.

Mr. Ye expressed his appreciation to the experts, contributors, chairs, and rapporteurs for their valuable efforts, expertise, and wisdom in the evaluation process.

He shared the following relevant links:

New NSPCD website: <https://www.fao.org/pest-and-pesticide-management/en/>

JMPR and JMPS guidelines and standards: <https://www.fao.org/pest-and-pesticide-management/guidelines-standards/en/>

He also highlighted that the work plan is guided by new proposals submitted to FAO.

Mr Ye concluded that he is looking forward to new ideas, suggestions, and comments on JMPS, as well as cooperation and support.

## **Questions**

There were no comments or questions.

### **10      FAO/WHO priority list and programme for development of FAO and WHO specifications for pesticides**

This was covered under Agenda item 9 by **Mr. Dominic Schuler** and **Mr. Guibiao Ye**

### **11.      Any other matters**

No other matters were proposed for discussion.

### **12.      Date and venue of the next JMPS and CIPAC/FAO/WHO meetings**

**Mr Jim Garvey** announced that the next JMPS and CIPAC/FAO/WHO Meetings in June 2024 will be held in Galway, in the west of Ireland. 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/index.php/meetings1/meetings>).

### **13.      Closing of the 19<sup>th</sup> Joint CIPAC/FAO/WHO Open Meeting**

**Mr Ralf Hänel**, Chairperson of the meeting, thanked the Secretariat of FAO and WHO Mr Guibiao Ye and Mr Dominic Schuler, for their continued collaboration and support and the participants for their attendance. Mr Hänel announced that this is his last meeting. He declared the meeting closed.