Food and Agriculture Organization of the United Nations

World Health Organization

15th JOINT CIPAC/FAO/WHO OPEN MEETING (62nd CIPAC Meeting and 17th JMPS Meeting)

Sheraton Grand Panama Hotel, Panama City, Panama

11 June 2018

Summary record of the meeting

Agenda

Contents

1. Opening and welcome

Mr Rajpal Yadav, representing the World Health Organization (WHO), and Chairperson of the Joint Open Meeting welcomed all participants to the 15th Joint CIPAC/FAO/WHO Open Meeting. Special thanks were extended to Brenda Checa Orrego and her colleagues from Ministerio de Desarrollo Agropecuario (Ministry of Agriculture) for all their efforts in organizing the meeting. A special welcome was extended to the Minister for Agriculture, Eduardo Enrique Carles.

Mr Rajpal Yadav introduced Madam Yong Zhen Yang, representing the Food and Agricultural Organization (FAO), Ms Marion Law representing the Prequalification Team of Vector Control (PQT-VC) from the World Health Organization (WHO), and Mr Ralf Hänel, representing the Collaborative International Pesticides Analytical Council (CIPAC), to the meeting.

These representatives extended their own personal welcome to the open meeting and talked about the joint effort (from FAO, WHO and CIPAC) that makes the pesticide process work so effectively through excellent collaboration.

Eduardo Enrique Carles, Minister for Agriculture, opened the meeting and welcomed delegates to the open meeting on behalf of the Republic of Panama and The Ministry of Agricultural Development. He also emphasised his support for the 17th Joint Meeting on Pesticide Specifications (JMPS), that was held the previous week (5th –9th June) in Panama City.

The Minister stated that Panama as a member of FAO/WHO and WTO welcomes and implements the international provisions that have been agreed to create a harmonized common language of standards that facilitate commercial exchange, with the purpose of safeguarding the national agricultural heritage as well as human health and the environment. He stated that Panama was making significant efforts to ensure a decrease of risks during with respect to the use and handling of pesticides, and JMPS/FAO/WHO together with CIPAC play a significant role in decreasing these risks. Panama has been implementing a national program of quality control of pesticides since 2004. In achieving this control, the criteria proposed by JMPS and CIPAC constitute useful tools which have been adopted through legal regulations and applied in the post register and control process of pesticides. In this sense, the published FAO/WHO specifications developed by JMPS constitute a point of reference to qualify the products and prevent the marketing of products that are not of the desired quality that have the potential to have negative effects both in the control of pests and on the environment.

Panamas' participation as a country in CIPAC has been of great benefit in terms of exchange of information regarding methods and reviews, thus ensuring reliable results and facilitating farmers from Panama in the use of a quality pesticide formulation.

The Minister wished all of the participants a successful meeting and a pleasant stay in Panama.

Madam Yong Zhen Yang (FAO), remarked on the importance of the use of FAO/WHO specifications and the relevance of pesticide quality for developed and developing countries. She mentioned that the Joint Meeting on Specifications shows a good example of fruitful cooperation between two United Nations bodies (FAO and WHO). The excellent collaboration among FAO, WHO and CIPAC is a model of international organizations in technical support. The specifications developed by the FAO/WHO Joint Meeting on Pesticide Specifications (JMPS) provide an international point of reference for evaluating the quality of pesticide products, facilitating international trade while helping to promote the efficient use of pesticides, and protecting human health and the environment.

Ms Marion Law (WHO), welcomed participants, and informed them of her participation at the constructive JMPS meeting the previous week. She thanked the JMPS members for their warm welcome to that meeting and looked forward to a successful open meeting.

Mr Ralf Hänel (CIPAC) thanked everyone from the Ministry of Agriculture for organising the event.

Mr Yadav (WHO), declared the 15th joint FAO/WHO/CIPAC meeting officially open.

2. Arrangements for chairmanship and appointment of rapporteurs

Mr Rajpal Yadav (WHO) explained that the Chair of the meeting was rotated each year among the three partner organizations. The meeting this year would be chaired by himself as a WHO focal person for JMPS. He proposed three rapporteurs for the meeting: Ms Elen Karassali (for FAO) Mr Jim Garvey (for CIPAC), and Mr Finbar Brown (for WHO).

3. Adoption of the agenda

One change was noted with regards to the agenda. American Federation of Agrichemical Societies (FASA) did not make a presentation at the Open Meeting under Agenda item 6. No further changes to the agenda were proposed, which was then adopted as such.

4. Summary record of the previous meeting

4.1 14th Joint CIPAC/FAO/WHO Open Meeting; 61st CIPAC Meeting; and 16th JMPS Meeting, Rome, Italy

The summary record of the previous open meeting, held at FAO HQ, Rome, Italy on 12 June 2017 is available on the FAO/WHO website. There being no comments, the minutes of the last CIPAC/FAO/WHO Open Meeting (2017) were accepted.

5. Summary of actions taken after the 61th CIPAC and 16th JMPS meetings

5.1 CIPAC

Mr Ralf Hänel, Chairman of CIPAC, informed the meeting of the importance of the close and ongoing co-operation between the three organisations (CIPAC, FAO and WHO) and that he looked forward to continuing this collaboration into the future. Mr Hänel did not have any specific CIPAC updates for the meeting.

Questions/Comments

No questions were asked.

5.2 WHO

WHO gave presentations from Vector Ecology and Management (VEM) and PQT-VC.

(i) Mr Rajpal Yadav (WHOPES)

Mr Rajpal Yadav presented he activities of VEM since the last JMPS meeting in June 2017. He informed the meeting that the pesticide product testing and evaluation function of WHOPES has now fully moved over to the WHO prequalification team (PQT). Effective 1 July 2018, the WHO Secretariat for JMPS will now reside with PQT. The Department of Control of Neglected Tropical Diseases (NTD) and Global Malaria Programme will undertake normative and policy setting activities. The Vector Ecology and Management (VEM) Unit in the NTD Department will continue to be responsible for pesticide management, integrated vector management as part of the WHO Global Vector Control Response, country support, epidemic response for vector-borne NTDs, and prevention and control of dengue and other arboviral diseases.

WHO has made good progress in developing capacity for Good Laboratory Practice (GLP) compliant evaluation system. Three workshops (2 GLP capacity building workshops; and 1 computerized systems validation workshop) were organized in the

Asian and Latin American regions during the past year. The following laboratories are included in the WHO GLP programme:

- East Africa: Tanzania (2 sites)
- West Africa: Cote d'Ivoire (2 sites); Benin; Burkina Faso
- Asia: India (2 sites), Malaysia (2 sites), China
- EU region: L'Institut de recherche pour le développement (IRD), France
- The Pan American Health Organization (PAHO) region: Argentina, Brazil, Colombia and Mexico

As a Joint activity of the VEM/NTD and the Chemical Safety team, two WHO Generic Risk Assessment Models for end-use products (insecticide treated nets and products for indoor residual spraying) have been revised in 2018. Revised models for larviciding, molluscicide and space spraying will be published soon, while three new models are currently under development (skin-applied repellents; treated clothing; household pesticides).

The WHO Vector Control Advisory Group (VCAG) on innovative vector control tools has made steady progress in public health value assessment of new tools including the following:

- Resistance targeting products
- Attract and kill bait – Attractive Toxic Sugar Baits `
- Lethal house lures – Eave tubes
- Spatial repellents
- Insecticide treated materials
- Microbial control – *Wolbachia*
- Genetic manipulation – OX513A
- Sterile Insect Technique (SIT) – with IAEA
- Vector traps for surveillance & disease management

After the transition of the pesticide testing function to PQ, the VEM unit is now strengthening pesticide management activities in collaboration with FAO under the umbrella of the *International Code of Conduct on Pesticide Management*. The normative work involves development of new guidelines. Two new guidelines were published last year (highly hazardous pesticides and microbial pesticides). WHO is now collaborating with FAO to build the web site for the FAO Pesticide Registration Tool Kit that now also includes public health pesticides. WHO is a key stakeholder in the UN Environment's Strategic Approach to International Chemicals Management programme, which *inter alia* includes sound management of highly hazardous pesticides, and strengthening national regulatory capacity.

Vector control is a major approach to vector-borne disease prevention, elimination and control. WHO has now started implementing the Global Vector Control Response 2017–2030 and has set up a Joint Action Group. Resources and

national capacity for integrated vector management are being updated. National vector control training and regional meetings on insecticide resistance management were organized in the Asia-Pacific regions. The VEM Unit is coordinating for supply of resistance test kits.

The new updated edition of *Equipment for vector control* was published in 2018. To create an evidence base, following activities are underway:

- A multi-centre study on determination of insecticide discriminating concentrations for insecticide resistance monitoring against mosquitoes;
- A FAO/WHO Global survey on pesticide registration and management practices by member states; and
- A WHO Global survey on use of insecticides for control of vector-borne diseases.

Mr Yadav informed the meeting that the VEM unit is responsible for 9 Neglected Tropical Diseases that involve vector transmission: Dengue, chikungunya, Zika, leishmaniasis, lymphatic filariasis, human African trypanosomiasis, chagas disease, onchocerciasis, and schistosomiasis. The Unit is building its capacity to meet the needs for global policies, capacity for research and vector surveillance, policy for vector control including innovations and support emergency response.

He informed that VEM will organize the following important meetings this year:

- WHO Consultation on new risk assessment models, 28–30 August 2018, Helsinki to finalize models on treated clothing, skin-repellents, and household pesticides.
- WHO Consultation on aircraft disinfection, Geneva, 3–4 July 2018.

(ii) Ms Marion Law (PQT-VC)

Ms Marion Law thanked Mr Rajpal Yadav for the introduction. Ms Law informed the meeting that the pesticide product testing and evaluation responsibilities of WHOPES will formally move to PQT on the 1st July 2018. The main changes that will be observed with the transfer from WHOPES to PQT will be in relation to quality assurance activities. PQT-VC intends to build on the best practices from WHOPES. Ms Law noted that pesticides have a very robust data set in general and that the pesticide approach to risk management is much more complicated when compared to that of medicines, but necessarily more complicated.

Ms Law gave the meeting an overview of WHO Prequalification – Vector Control (PQT –VC).

PQT-VC products are a stream within the Prequalification Team of Regulation of Medicines and other Health Technologies (RHT).

The PQT aims to:

- Harmonize approaches to health technology product evaluation throughout WHO.
- Support evolution of the WHO regulatory function to incorporate best regulatory practices based on experience in regulation of pesticides and health technology products.
- Provide clear, transparent, and consistent requirements necessary for the evaluation of products.
- Conduct quality assurance activities to ensure access to quality products for end users and contribute to decision making by procurers.
- Maintain the validity of prequalification decisions throughout the product's life cycle – review changes and incorporate post market surveillance feedback.

The PQT-VC gave an overview of their team currently in place and informed the meeting that they are currently in the process of recruiting a product chemist, an entomologist, and a toxicologist.

PQT are mandated to increase access to safe, high quality, efficacious vector control products (VCPs).

The mandate will be implemented by the following actions:

- Prequalify VCPs that are safe, effective and manufactured to a high-quality, and publish a list of these prequalified products
- Ensure prequalification validity of products throughout their life-cycle
- Contribute to building assessment capacity of member states (NRAs)

    - Training of assessors from Member States through the actual WHO
    - assessments
    - Harmonizing quality and regulatory systems
    - Supporting collaborative registrations

- Guiding principles established and integrated into our work

PQT-VC will collaborate closely with stakeholders in order to ensure that the mandate is implemented in full. These stakeholders will include WHO Partners, UN Member States, country and regional GMP, national regulatory authorities, procurers, manufacturers, research organizations and testing facilities, and donors.

The PQT-VC regulatory framework is one that is fundamentally built on science and policy, and this framework will be supported by guidance on regulatory approaches to pesticides (public health and agriculture), utilization of best practices, experiences

gained by WHO to date, and regulatory models in place for other health technology products.

The framework includes:

- Clear operational policy, guidance and processes
- Relevant data requirements, testing standards and dossier formats
- Robust pre-market evaluation procedures (safety, quality, efficacy and label claims)
- Site/facility inspections
- Post-market activities

The PQT-VC priorities are now to:

- Implement the transition plan
- Establish roles, responsibilities and relationships with WHO partners
- Convert products from WHOPES recommendation to prequalification listing
- Develop requirements (data, format, etc.) guidance and operational policy
- Initiate the PQ process for new product applications
- Communicate and engage with stakeholders
- Address staffing
- Organise Assessors Group Sessions

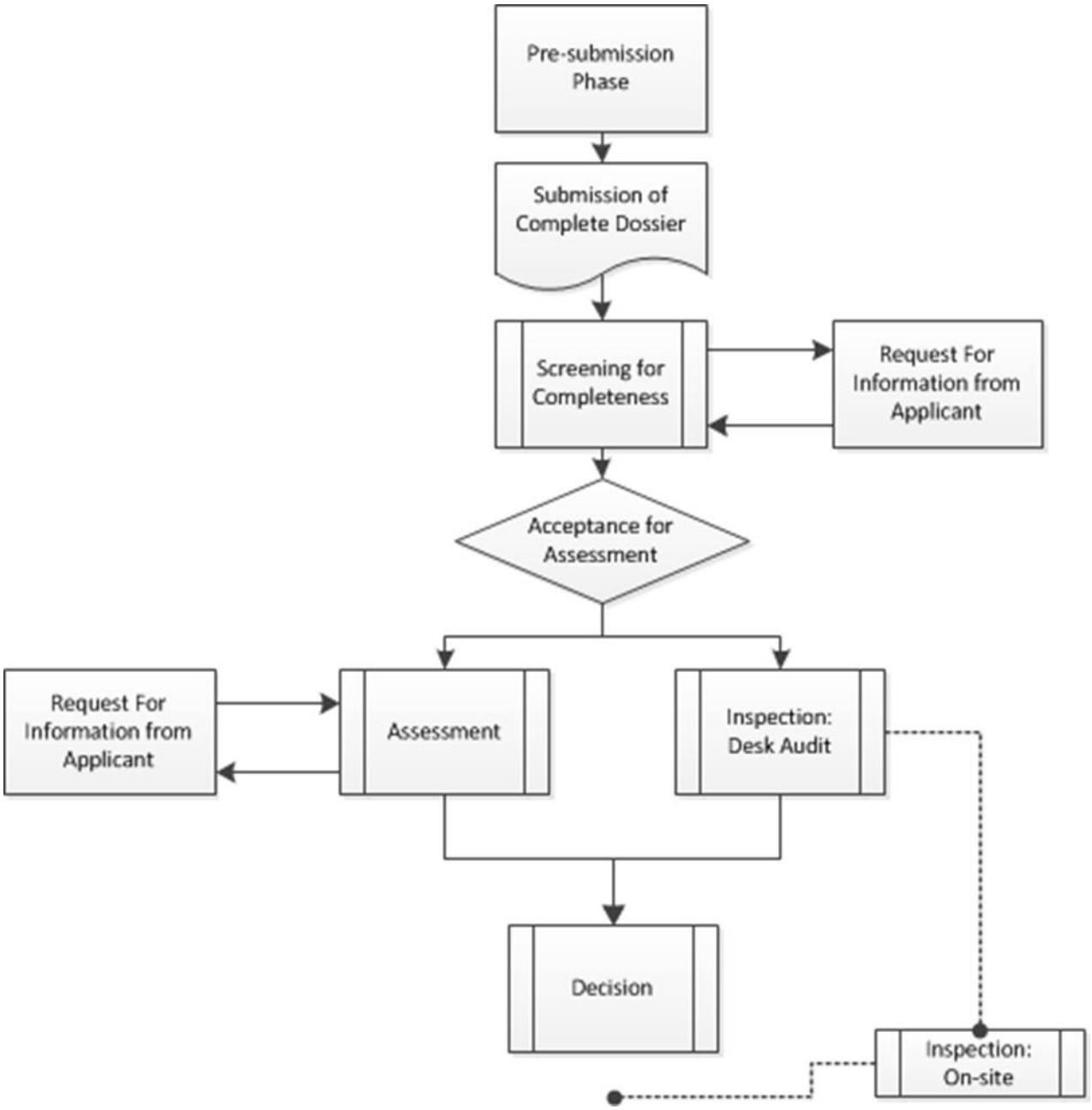
Ms Law gave an update on progress so far:

- A single point of WHO entry is now established under PQT for applicants
- Data requirements have been determined and are under review
- 125+ manufacturers meetings have taken place
- 89 product applications for conversion have been received in PQ so far
- 71 products have been prequalified
- 7 new product applications have been received in house.
- The website has been developed and information has been posted, e.g.: guidance, process, meetings
- Communication strategy is under development
- Meeting with stakeholders have been organised involving procurement agencies, manufacturers, in addition to conferences and WHO organised meetings
- A product chemist, toxicologist, risk assessment and entomology expert will be recruited
- A 2nd Assessor Group meeting will take place during this summer.

Ms Law gave an overview of the process for determining product pathway of vector control products under PQT-VC. Applicants submit a Request for Determination of Pathway Form to PQT-VC (http://www.who.int/pq-vector-

control/resources/pathway/en/ & pqvectorcontrol@who.int). The products will fall under either the Pre-Qualification Pathway or the New Intervention Pathway.

Depending on the outcome of the determining pathway, the following approach will be taken:



The next steps in the transition from WHOPES to PQ will involve an Assessors meeting which will include the evaluation of new products, in addition to 4 site/facility inspections (India and Tanzania), involvement in post market activities including label improvement initiative, re-evaluation and complaints process put in place.

The transition aims at building on a WHO vector control evaluation process that is robust, ensures access to safe, effective and high quality products throughout their life-cycle and at the same time being flexible enough to encourage new product development, which incorporates new science that meets the diverse geographic and population needs.

Questions/Comments

Question 1: The question was directed to Ms Marion Law.
Now that PQT will have a chemist, how will the PQT process be aligned with the current JMPS evaluation process that we are familiar with?

Answer 1: Ms Law informed the meeting that further internal discussions will have to take place before a decision is made. It may mean that the PQT Chemist will be part of JMPS, but nothing has been decided yet.

Question 2 to Mr Rajpal Yadav: WHO have indicated that they will be updating efficacy testing. Will this just be applicable for old and new molecules?

Answer 2: Mr Yadav indicated that WHO is conducting a multi-centre study to update insecticide discriminating concentrations for some old as well as new molecules against Anopheles and Aedes species for monitoring insecticide resistance.

Question 3 to Ms Marion Law:.
Does PQT plan to take over responsibility for JMPS specifications?

Answer 3: Ms Law informed the meeting that PQT intend to do this, but that they are currently still building

Question 4 to Mr Rajpal Yadav:
Will malathion exposure be a problem and will populations be at risk from being sprayed with it outdoors?

Answer 4: Mr Yadav indicated that WHO recommendations come with specific doses and specifications, and that the proper personal protective equipment should be used when applied. The pesticide is necessary to control disease but needs to be used in line with the recommended doses. If the doses are not applied in accordance with the recommendations, then there is the potential to have a problem. However, it is really a question of not applying excessive use of a pesticide and more specifically it is a question of having proper training and enforcement in the individual country.

5.3 FAO

Madam Yong Zhen Yang informed the meeting of the activities**,** meetings and events held by FAO since the previous Joint Open Meeting (Rome, 12 June 2017).

Meetings and workshops

- FAO/WHO JMPR meeting, September 2017, Geneva, Switzerland : more than 400 MRLs estimated for 39 pesticides

- 50th CCPR, April 2018, Haikou, China, 385 MRLs adopted as CXLs, new proposals - develop a list of biological and mineral compounds with low public health concern to be exempted of Codex MRLs; - uniform management approach to address the issue of endocrine disrupting chemicals in food moved in the international trade

- International Symposium on Agroecology, April 2018, FAO HQ about 400 policy-makers, academics and government representatives attended, main contributions: advances in climate change resilience for small farmers, improved nutrition through diversified diets, greater biodiversity through pollination and soil health and transformations of agricultural practices to achieve sustainable development, e.g. reduce use of agrochemicals

- The Global Symposium on Soil Pollution, May 2018, FAO HQ, launched global activities to reduce soil pollution and restore polluted sites, including contamination of pesticides

- The 13th Chemical Review Committee of the Rotterdam Convention held from in October 2017, FAO HQ, recommended listing acetochlor, hexabromocyclododecane and phorate in Annex III to the Convention

- Regional workshops held in SADC, EAC and Pacific in March 2018 to facilitate the development of Regional Strategies to address HHPs

- Training workshops on Pesticide Registration Toolkit conducted in April 2018 in 3 regions, participated by 23 countries

- FAO work on antimicrobial resistance

- A survey recently conducted on the use of antibiotics in crops. Overall, the survey indicated that antibiotics, antimicrobials are approved for use to treat plant diseases in at least 20 countries. The regulations and oversight of antibiotic use are strong and residues present on foods of plant origin are minimal. In contrast, the amounts and types of antimicrobials used, the crops treated and the potential for AMR are unknown. http://www.fao.org/antimicrobial-resistance/en

- FAO, WHO and the World Organization for Animal Health (OIE) signed agreement on 30 May 2018 - to step up joint action to combat health threats associated with interactions between humans, animals and the environment.

  Joint activities under the new agreement will include:
  - Supporting the Interagency Coordination Group on AMR established by the United Nations General Assembly in 2016, as well as the continuing implementation of the Global Action Plan on AMR
  - Engaging with countries to reinforce national and regional human health, animal health and food safety services
  - Improving inter-agency collaboration in foresight analysis, risk assessment, preparedness building and joint responses to emerging, remerging and neglected infectious diseases at the animal-human-ecosystems interface
  - Addressing food safety challenges requiring a multi-sector approach in the context of reinforcing food security.
  - Promoting coordinated research and development to achieve a common understanding of the highest priority zoonotic diseases and the research and development needed to prevent, detect, and control them
  - Developing a Voluntary Code of Conduct to reinforce implementation of international standards on responsible and prudent use of antimicrobials

  Documents and publications

- 2017 JMPR report and evaluations (Residue monographs)
  http://www.fao.org/agriculture/crops/thematic-sitemap/theme/pests/jmpr/jmpr-rep/en/

- FAO/WHO Guidelines for the registration of microbial, botanical and semiochemical pest control agents for plant protection and public health uses [2017]
  http://www.fao.org/3/a-i8091e.pdf

Technical projects

New project proposals:

- Global Environment Facility (GEF) -7 on agrichemical and waste - focus on HHPs, POPs, agriculture use plastics

- Green Climate Funds – sustainable agriculture production
  climate change impact on crops, pest and pesticide management and IPM

- Application of early warning and green control technology of agricultural pests (fall army worm, desert locust) in Africa region

- MEAs phase 3: Strengthening environmental governance in the fields of biodiversity, chemicals and waste, and oceans

Questions/Comments

No questions were asked.

6. Technical liaison with other organizations

6.1 AgroCare

Mr Hans Mattaar gave a presentation about AgroCare and its structure. AgroCare, a global organization that was founded in 2008, currently represents 865 generic pesticide manufacturers worldwide. The association provides an important voice for its generic industry members.

AgroCare has a much more complicated structure than CropLife, which consist of six companies. The 865 generic manufacturers come from many parts of the world, but primarily the worldwide Agrocare association consists of four regional associations, namely:

- AgroCare Latin America (previously ALINA, Latin American Association of the National Agrochemical Industry);
- European Crop Care Association (ECCA);
- Pesticide Manufacturers and Formulators Association of India (PMFAI); and
- China Crop Protection Industry Association (CCPIA).

The presentation informed the meeting about the main issues that these four regional associations faced during the past year.

European Crop Care Association (ECCA):

The EU association is a small association with only 20 members, but it has become vocal in Europe working with its EPCA colleagues. The generic and R & D companies are generally on the same page with regards to the concerns and positions, but have differing views when it comes to data protection.

In Europe, there is a 2-step authorisation system that involves active substance approval at regional level, and the product authorisation step that takes place at country level. There are 3 zones for product authorisation in Europe (North, Central, South zones). The timelines involved in the EU 2-step process are too restrictive in our opinion and this leads to deadlines not being achieved in general with particular emphasis on renewal of approvals and authorisations.

A further concern for ECCA is the issue of data protection. ECCA consider that the way in which data protection is being implemented in Europe is anti-competitive.

ECCA also share the concerns of EPCA and Croplife when it comes to the potential access to confidential information. There is currently an on going court case in the EU where Greenpeace are challenging the position of the EU Commission with regards to the non-disclosure of confidential business information such as full product composition, and 5-batch analysis etc.

If Greenpeace happens to win this European case, it will mean that absolutely everything will have to be published in Europe and this will have a very damaging impact on the pesticide industry for both R & D and generics.

There is also the revision of the EU Pesticide Regulation (1107/2009) and it remains to be foreseen what challenges this revision will bring.

AgroCare Latin America:

This regional association is probably one of the more complicated associations because of the large number individual associations and individual companies in Central and South America.

In Latin America there has been a lot of activity during the past 12 months especially with regards to regulatory reform.

The regulatory powers in Latin America are working towards a system that looks very like the European system by the introduction of HHP review and substitution planning. There is now greater co-operation between countries within a region (Intra-regional harmonisation). However, there leads to similar problems being experienced by Latin America colleagues that the European colleagues have had for many years now. Therefore, AgroCare are providing support to their Latin America regional colleagues based on the experiences that they have had over the last decades with the European system.

The Latin America association have been heavily involved with orientation & training, roll-out of international programmes, Registration Tool Kit, PSMS (obsolete stock inventory), and FAO Code of Conduct.

The association has also being active with regards to Interlaboratory Test Execution, and Realisation of Interlaboratory Comparison Test.

The other two regional associations (PMFAI & CCPIA) are single countries but are single countries that are as big as most regions.

Pesticide Manufacturers and Formulators Association of India (PMFAI):
The PMFAI have been very active.

PMFI have continued organising the annual International Crop Science Conference.

The Indian pesticide legislation is 50 years old and last year it was replaced by new legislation called the Pesticides Management Bill 2017 (replacing 1968 Act).

PMFAI are involved in the implementation of this bill and are active in amendment issues with regards to the Bill such as the registration of technical grade products, the "Insecticide Schedule", and definitions and registration procedures for formulations.

The powers are now less balanced under the Bill and PMFAI consider that there are some very serious penalties for some very minor violations.

All of these issues with the very open Bill have to be worked out in practice and this means that PMFAI has to spend a lot of time with the Indian Authorities in court.

Pesticides taxation has changed dramatically and this requires industry intervention.

On the positive side, there are a lot of positive aspects with regards to Product Stewardship and capacity building programmes.

China Crop Protection Industry Association (CCPIA):

The CCPIA are an extremely large association. The association provides a lot of business support.

The CCPIA are providing health and safety development to its members by setting up seminars, workshops, 1-on-1 consulting & training, supporting use of HAZOP software, Health, Safety and Environment (HSE) auditing of production sites. There has also been a lot of farmer training since 2014, with more than 112,000 farmers trained.

Under the industry services, the annual AgroChemEx trade fair for suppliers and buyers attracted *ca.* 25,000 visitors, with workshops for formulation and packaging quality improvement.

Since 2016 CHIPAC (China Pesticide Advisory Committee) with support from CIPAC/WHO/FAO, the CCPIA advise and support Chinese companies in preparing applications for CIPAC methods and FAO/WHO specification applications.

CHIPAC continue to work closely with the Chinese government. One of the initiatives is data gathering to support development of environmental standard setting.

Together with the government, they also organising training (together with ICAMA) for industry, on interpretation and implementation of the New Pesticide Management Act.

Finally, industrial development is another form of support from CCPIA.

There is a Procurement and Supply Chain Management Committee, which assists its members, improve its business practices.

There is an Industrial innovation alliance which allows companies to work together on innovation. Lastly, Group Standard setting which involves joint development of i.a. clean production standards, aerial application standards, etc.

Finally, the last 12 months work from AgroCare itself was presented. The main focus for 2017 for AgroCare has been working on the JMPS Specification Manual and particular the amendments of the data requirements for specifications.

Agrocare are very appreciative of the enormous amount of work from JMPS that goes into the Manual which is very complicated work, and acknowledge that the Manual is continuously under development. AgroCare have had very open and good discussions with JMPS during the past 12 months and have therefore invested much of their time improving the wording and intentions behind the Manual.

Questions/Comments

Question 1: The question/clarification was directed to Mr Hans Mattaar
The presentation should clarify that the Bill has not yet come into effect in India and amendments are still possible.

Answer 1: Mr Hans Mattaar responded that this clarification was correct and that the presentation should have clarified this point correctly.

6.4 CropLife International (CLI) and European Crop Protection Association (ECPA)

Mr Jean-Philippe Bascou, Chair of the CropLife International and European Crop Protection Association's Specifications Expert Group (SEG), gave a presentation on behalf of CropLife International and the European Crop Protection Association (ECPA).

CropLife is a global federation dealing with pesticides at 3 levels.

The first level is at the country level. There are more than 90 companies having representation in countries. The associations deal with their national issues regarding pesticides.

The second level is regional which includes a smaller number of companies, and finally at the third level you have CropLife which consists of only multinational companies that only deal with international issues.

The reason for not having all companies at all levels comes down to finance. The ability to manage international issues requires a lot of money and this is the only reason for a lower number of companies at the third level. However, the other companies in the first level are affiliated to CropLife through their national associations.

The Specifications Expert Group (SEG) are a useful resource for CropLife and are:

- Comprised of member company representatives with expertise in
    - analytical, organic chemistry, physico–chemical, regulatory and formulation sciences
    - ad hoc members from other expert areas, e.g. toxicology, ecotoxicology, Bio Control Agent, intellectual property etc.
- SEG is a technical resource for CropLife International as well as for the regional and country associations that aims
    - to enhance good specification quality (content, physico–chemical properties, and analytical methods for technical ingredients and formulations)
    - to promote consistency and harmonization in registration requirements
- The SEG has 23 full members from 10 countries from five continents.

The mission of the SEG includes:

- Provide a forum comprised of experts in matters of product quality and specifications for discussion and resolution of technical issues of Importance to the Crop Protection Industry
- Promote harmonization

- Key activities of the SEG during the past 12 months:

SEG is an industry interface with FAO/WHO and the specifications process.

- Provide discussion and feedback related to improvements and amendments in the FAO/WHO manual on specifications
    - annual comments,

    - revision of the equivalence process (EP) and other comments in the general section
    - revision of chapter 9 on microorganisms

- Is involved in providing workshop support to formulation specification training, quality, equivalence procedure and confidential business information (see activities with Regions)
- Supported the Toolkit initiative for developing countries
- Develop/Convert/Revise reference specifications safely assessed for good stewardship in spirit of transparency

    - *Bacillus subtilis* QST 713
    - d,d, trans-cyphenothrin
    - *zeta*-cypermethrin
    - flupyradifurone
    - imidacloprid
    - methiocarb
    - mancozeb
    - phenmedipham
    - propiconazole
    - propineb
    - transfluthrin
    - trifloxystrobin
    - triflumuron

- Engage in and support the work of CIPAC

- Coordinate our efforts with other expert groups (e.g. DAPF, DAPA, ESPAC, Phys-Chem Industry forum, OECD WG etc)
- Play a leading role in introducing new or updated MT methods

    - CIPAC MT 30.6 Water content (volumetric and coulometric)
    - CIPAC MT 46.X: Stability
    - CIPAC MT 148.1: Pourability (rinsability)
    - CIPAC MT 184.1: Suspensibility
    - CIPAC MT XX Discharge rate of AE dispersers including clogging
    - CIPAC MT XX Discharge rate of trigger sprayers including clogging

- Annually introduce analytical methods to be used in specifications as reference methods, e.g.:

    - *zeta*-cypermethrin TC,
    - propiconazole TC, EC
    - prothioconazole TC, EC, FS, SC

        - relevant impurity PAA in transfluthrin TC

    - Provide and maintain industry technical monographs (TM)

        - TM1, Use of tolerances in the determination of active ingredient content in specifications for plant protection products
        - TM2, Catalogue of pesticide formulation types and international coding system (new revision from March 2017 published)
        - TM17, Guidelines for specifying the shelf life of plant protection products
        - TM19, Minor changes of formulants contained in formulations

    - Engage in and support OECD WG on Product Chemistry

        - No specific activity currently
        - Ready to contribute to any guidance on data requirements for registration which would be needed.

- SEG support workshop, training and regulations in:

    - Africa and the Middle East:

        - Africa and Middle East:

          Morocco

          Revision of the Pesticide Act (2 Workshops)

        - Asia:
            - China: English translation of the national coding system. It is much better aligned with the international system but alignment is still need
            - India: Presentation given in the new Regulatory Committee on regulation on Change of Composition.
            - SEA: Full week Product Chemistry Workshop (CBI, TC Reference profile, EP, FP, Change of Composition) with the 10 ASEAN countries.
            - Indonesia: One day Workshop on registration of TC, EP and need for Change of Composition regulation

- SEG support workshop, training and regulations in:

    - EU: GD SANCO 3030 on validation of methods of analysis for AS and impurities in TCs and FPs, GD for the generation of data on the physical, chemical and technical properties of plant protection products,

  - GD SANCO12638 on Change of Composition in Formulation, and Management of mixture of isomers

- Croplife and SEG have some notable concerns –

  - No progress with the harmonization of tolerances in Asia (India), SEG sick for FAO support (problem of the National Bureau of standards)
  - Significantly often the Specification process is slowed down by the CBI comparison via the Letter of Access
  - In the Old-New specification conversion process, a bottleneck is now appearing regarding to the conversion of updated analytical methods.
  - SEG would like to get clarification on the specification process within WHO PQ.

    SEG considers that harmonization with JMPS is critical for a unique International point of reference when it comes to specifications. SEG need assurances that they will not get different specification limits when it comes to the same pesticide, e.g. one speciation limit for WHO and a different specification limit for FAO when the WHO PQT process comes into operation.

    It is also critically important that the analytical method and the physical methods remain the same supporting methods for both WHO and FAO specifications.

- SEG would like to point out that they:

  - Support a scientific and risk based approach
  - Foster innovation (New AI, FP types, MoA)
  - Seek harmonization improvement (Tolerances)
  - Fully support the transparency concept as long as it does not endanger confidential business information; and data protection.

Questions/Comments

No questions were asked.

6.5 European Food Safety Authority (EFSA)

László Bura (EFSA) gave a presentation on the background and role that EFSA have within the European Union and on a global level.

- EU Agency –

EFSA is one of more than 40 decentralised agencies in the EU, which contribute to the implementation of EU policies. EFSA also supports

cooperation between the EU and national governments by pooling technical and specialist expertise from both the EU institutions and national authorities. They work on issues and problems affecting the everyday lives of more than 500 million people living in the EU. They have a major impact, providing EU institutions and countries with specialised knowledge in areas as diverse as:

- the food we eat
- our medicines
- the chemicals we come into contact with
- our education
- the quality of our working lives and environment

- EFSA was set up in January 2002 and now has its headquarters in Parma
- EFSA is -

  - The reference body for risk assessment of food and feed in the European Union. Its work covers the entire food chain – from field to fork
  - One of the number of bodies that are responsible for food safety in Europe

- EFSA is mandated top do the following -

  - Provides independent scientific advice and support for EU risk managers and policy makers on food and feed safety
  - Provides independent, timely risk communication
  - Promotes scientific cooperation

- Keeping food safe in the EU –
  There are three elements to food safety in the EU:

  - The scientific element is a risk assessment. In the EU system it is kept separate from Risk management, which uses the output from the assessment to put in place actions to control hazards, and Risk communication which essentially involves the dialogue between interested parties regarding the outputs of the above.

- EFSA does not do -

  - Develop food safety policies and legislation
  - Adopt regulations, authorise marketing of new products
  - Enforce food safety legislation

- EFSA has core values that include:

  - Scientific excellence

EFSA aims to provide high-quality scientific advice based on the expertise of its network of scientists and staff and the quality of its science-based information and methodologies, which are grounded in internationally recognised standards.

- Independence

  EFSA is committed to safeguarding the independence of its experts, methods and data from any undue external influence and to ensuring that it has the necessary mechanisms in place to achieve this.

- Openness

  Communicating openly and promptly on its scientific work helps foster trust in EFSA. As well as being transparent, we aim to engage civil society in our risk assessment work and connect with untapped scientific potential.

- Innovation

  Being pro-active and forward-looking enables EFSA to anticipate new challenges. We believe that regulatory science must keep pace with changes in the natural sciences, industry and society. We are constantly developing and adapting our data and working methods to ensure that the EU food safety system is at the forefront of scientific as well as administrative thinking and practice.

- Cooperation

  Working together and exchanging knowledge between food safety experts in the EU and globally ensures excellence and efficiency and maximises the available risk assessment capacity and potential. We believe that the totality of food safety expertise in Europe and internationally is greater than the sum of its individual parts.

- A brief history –

  EFSA was set up following food crises such as the BSE outbreaks that badly shook confidence in the safety of food in the EU. Regulation (EC) No 178/2002 of the European Parliament and of the Council of 2002 laid down the general principles and requirements of food law, establishing the European Food Safety Authority and procedures in matters of food safety.

- EFSA have 450 members of staff and have 1,000 meetings per year with 20% of these being tele-meetings in 2016. These meetings involve >1,500 experts. The end result is approximately 5,000 outputs from EFSA per year.

- EFSA receives many questions and provides many answers –

  EFSA's primary "customers/clients" are the EU Commission, the EU Parliament, and EU Member States. They send requests to/ask questions of EFSA and EFSA "answers" in the form of a scientific output drafted and agreed by its experts.

- EFSA requires 3 basic tools to carry out their mandate –

  The information (data) on which to base our assessments; the scientific methodologies that enable us to perform the assessments and, of course the people (experts) who actually do the work.

- EFSA devotes significant resources to gathering and analysing data and developing its methodologies.
- The work of EFSA requires scientific expertise –

  EFSA uses in-house scientists and external experts. The latter work as members of one of EFSA's 10 scientific panels or its overarching Scientific Committee

- EFSA Scientific panels cover the gamut of EFSA's remit from plant health through to human nutrition, producing scientific advice on specific food-related issues and assessments of regulated products such as pesticides and food additives.
- EFSA receive urgent requests for scientific advice –

  As well as following their annual and multi-annual work-plans, EFSA scientists are also called upon to respond to one-off issues and urgent situations such as outbreaks of foodborne illness

- EFSA provides independent science –

  In addition, EFSA has a number of mechanisms and procedures in place to safeguard its independence e.g.

  - A quality assurance system that continually monitors and strengthens the quality of EFSA's scientific work. This includes self-review and customer feedback systems which ensure that scientific processes are developed consistently and continuously improved across EFSA's Panels and by staff.
  - Reviews and inspections carried out by an internal auditor reporting to the EFSA's Management Board's Audit Committee, which advises senior management on possible improvements to work practices.

- External evaluation: EFSA's Founding Regulation obliges the Authority to commission independent external evaluations of its work and working practices. Based on these evaluations, the Management Board makes recommendations on EFSA's future management plans and strategies.

- EFSA works closely with its partners inside and outside of Europe
- EFSA make use of the advisory forum –

  Comprises representatives of the national food safety authorities of the 28 EU Member States, Iceland and Norway. Each represented body is responsible for risk assessment of the food chain at national level.

- The EFSA stakeholders –

  EFSA's stakeholders are representative organisations that have an interest in the Authority's work or in the wider food and feed sector.

  Registered stakeholders can engage with EFSA through a combination of standing and ad-hoc platforms, led by the Stakeholder Forum and the - - Stakeholder Bureau.

  EFSA divides stakeholders into seven major groups:

  - Consumer Organisations
  - Distributors & HORECA
  - Practitioners' associations
  - Farmers & primary producers
  - NGOs & advocacy groups
  - Business & Food Industry
  - Academia

- Risk Communication requires:

  - Bridging the gap between science and the consumer
  - Promoting and disseminating consistence messages
  - Understanding consumer perception of food and food safety risks

- EFSA's mandate is to provide:

  Food and feed safety advice to its principal partners, stakeholders and the public at large in a clear and accessible way.

  EFSA communicates by use of multimedia, website, EFSA Journal, social media (Twitter, Youtube, LinkedIn) and scientific outreach.

- EFSA's Communication Experts Network promotes coherence and consistency in the communication of risks in the food chain across Europe

    - Network of communication units from EFSA, Member States and European Commission
    - Co-ordination of risk communications; exchange of information; evaluation of efforts; development of best practices
    - Shares early warnings on emerging/topical issues

- EFSA operates in a world of rapid change, and needs to ensure that it can continue to deliver on its tasks and obligations. In close consultation with our stakeholders we have identified in our Strategy 2020 document the drivers that are expected to influence the direction EFSA takes between now and 2020. Europe and the world are facing new challenges and threats such as antimicrobial resistance, development of new assessment technology (e.g. for nanotechnology etc), hazards linked to globalisation (e.g. vector borne diseases etc)

Questions/Comments

No questions were asked.

6.6 American Federation of Agrichemical Societies (FASA)

There was no presentation from FASA at this year's meeting.

6.7 Other organizations

No other organizations made presentations.

7. National reports regarding CIPAC activities and reports from official pesticide quality control laboratories

Mr Ralf Hänel reminded the meeting that the individual country results provided under this agenda item cannot be directly compared with each other because different countries take different approaches in their control laboratories.

If it is going to be possible to make a direct comparison of these national results in the future, then a harmonised quality control system will have to be developed.

The following country reports, including any collaborative studies in which they participated, were presented: Belgium (two reports for agriculture and public health), Brazil, China, Czech Republic, El Salvador, France, Germany, Greece, Hungary, Ireland, Japan, Panama, Spain, Switzerland, Thailand (two reports for agriculture and public health), Ukraine and the United Kingdom.

A summary of these results have been provided in the Annex 1 to Appendix of this report.

Questions/Comments

Question 1: Ireland were asked what they meant by "profiling".

Answer 1: Every sample is analysed for the a.i. and ATR FTIR analysis and compared with a library.

8. Status, review and publication of CIPAC methods

Mr Ralf Hänel noted that CIPAC methods are published as handbooks and CDs. It was also mentioned that CIPAC are starting to put together Handbook P (3 to 4 methods are ready for inclusion so far). He highlighted an issue with companies wanting to buy a single licence for an entire organisation. CIPAC are unsure of how to handle these requests with respect to charging for this type of licence and therefore it will require further discussion and consideration. CIPAC are regulated under UK law.

Questions/Comments

No questions were asked.

9. Subjects from the 17th JMPS Closed Meeting of 2018

Mr Olivier Pigeon (Chair of JMPS) and Mr Markus Mueller (Co-Chair of JMPS) presented the subjects from the closed meeting.

- The major issues of general importance identified in the Closed Meeting were:
  - Revision of Tier-2 equivalence procedure almost finalized
  - New Section 9 of the Manual on microbials
  - Comments from CropLife SEG / DAPF for amending the Manual
  - Update of LN specification template
  - Shortcomings in Task forces arrangements for submission of data packages in support of new specifications
  - Formulation specifications : suitable data package required
  - Updating a published TC reference specification when actual production indicates significant changes
  - Lack of CIPAC methods in data package submissions

- Revision of Tier-2 equivalence procedure:
  - 2 Tiered equivalence procedure

    Tier-1 : 5-batch data + in vitro mutaganicity

Tier-2 : toxicity studies (acute tox)

- Consultation of updated version sent after 2017 Joint Open Meeting

  Comments received by AgroCare and CropLife International, and duly considered, resulting in the conditional tox data requirement in Tier-2 clearly explained.

- Latest version adopted by JMPS in June 2018 shared with AgroCare and CropLife International for last check
- Publication as new amendment to the Manual together with SEG/DAPF comments to the Manual

- New Section 9 of the Manual on microbials:

  - CropLife SEG suggested an entirely new Section 9 on microbials for the Manual in 2015 (Athens Meeting).

    The conclusion of JMPS on CropLife comments was "Major revision of Section 9 (microbials) is welcome as the section is currently only rudimentary and to be replaced by a text under development by industry and JMPS."

  - 2 informal meetings between JMPS and industry (CropLife, AgroCare, IBMA) were held (Gembloux CRA-W in January 2016 and Geneva WHO HQ in October 2016). These meetings resulting in recommendations and identification of open points.
  - When planning for the new Section 9, many cross-cutting issues from Section 1 to Appendices in the 2016 Manual became apparent and needed to be addressed.
  - It was noted that cross cutting issues would have to be covered while at the same time maintaining the integrity of the 2016 manual.

    The way forward was the following:

    - Draft new Section 9 as a stand-alone document incorporating necessary adapted sections of the Manual as subsections
    - To facilitate commenting and updating while keeping the 2016 Manual operative

  - The draft new Section 9 as a trial edition was
  - discussed and adopted in the JMPS 2018 Closed Meeting and therefore the updated version will again be shared with industry (CropLife, AgroCare, IBMA ..) with a deadline for written comments of 15th October 2018 (submitted to JMPS Secretariat in commenting table format).

- These comments will be collected, processed, discussed and a revised version will be published again as a stand-alone document before end of 2018.
- After a reasonable period of time and "field testing", the trial edition should be revised into a full version, for publication either incorporated into the Manual or as a separate document (yet to be decided)

- Comments from CropLife SEG / DAPF for amending the Manual:

  - Comments are most welcome by JMPS and are considered as a highly valuable contribution to the continuous improvement of the Manual
  - The majority of points are editorial and accepted
  - Few points need further in-depth consideration and discussions, e.g. DS and DP specification templates
  - Update will appear as amendment to the Manual

- Update of LN specification template

  - Revision of clause for flammability according to EN 1102
  - Referee method for netting mesh size – direct or indirect counting via stereomicroscope with image analyser - direct or indirect counting is referee method

- Shortcomings in Task forces arrangments for submission of data packages in support of new specifications

  - Data packages received from Task forces but different manufacturing specifications and supporting data
  - Task forces are kindly requested to share their confidential and non-confidential data to facilitate evaluation process

- Formulation specifications : suitable data package required

  - Draft formulations specifications must be supported by a suitable physical-chemical data package
  - Quality assurance under GLP or ISO 17025 not mandatory
  - Limits proposed must represent acceptable quality of the formulation
  - Clarification in the Manual on data requirements foreseen

- Updating a published TC reference specification when actual production indicates significant changes

  - JMPS noted discrepancies of FAO and WHO
    TC specifications with some recent national / regional specifications
  - JMPS continues to encourage companies to review and if necessary update - their FAO and WHO reference TC specifications

- FAO and WHO should be notified on any changes affecting specifications – see Section 2.7 of the Manual

- Lack of CIPAC methods in data package submissions

  - Companies planning to submit a data package for new specifications are advised to concurrently consider the availability of appropriate CIPAC methods
  - In case of doubt, consult with CIPAC secretary and/or evaluator

Questions/Comments

Question 1: Please circulate the table for commenting on the microbials S.9 draft.

Answer 1: Yes, a commenting table template will be developed and circulated.

Question 2: For setting specifications for some formulations, industry could have more than 100 different products, therefore could JMPS be more precise with regards to what they want to request from industry.

Answer 2: JMPS does not require the proposer to submit all study reports for all products coming under the specification, but to submit a representative study report that gives an idea of the quality of the material. However, JMPS will add more text for clarity after further discussions.

Question 3: Why is GLP or ISO not being requested as mandatory?

Answer 3: It is because not all countries are in the OECD, and therefore cannot demand that proposers follow GLP or ISO. The purpose of FAO will be to cover the envelope and this GLP will not be possible in all cases.

Question 4: What is the benefit of JMPS specifications matching the required EU level?

Answer 4: JMPS specifications have global acceptance, whereas EU specifications may be different depending on compound and company. When there are significant changes between EU and JMPS specifications, JMPS encourages the companies to inform FAO/WHO JMPS in order to update the FAO/WHO specification.

Question 5: Last year at the Open Meeting there was a proposal to have the name of the manufacturer of the reference source, and the names of the equivalent sources linked to the specification.

Answer 5: The information is actually in the Evaluation Reports. However, this can be a problem when company is merged or when there is an acquisition. Therefore this information would be useful. A database could be useful on a 3 dimensional basis (active ingredient, product and proposer). The JMPS shall consider this issue further.

Mr Olivier Pigeon thanked his Co-Chair Markus Mueller and all the JMPS panel members for their hard work performed before and during the 17th JMPS Closed Meeting. He also thanked the industry partners for their support in the activities of JMPS.

10. Review and publication of FAO and WHO specifications for pesticides

10.1 Status of FAO specifications

Madam Yang presented the status of FAO specifications.

4 separate updates were provided by FAO, see Annex 2 for updates.

10.2 Status of WHO specifications

Mr Yadav presented the status of WHO and FAO/WHO specifications (Annex 3).

10.3 Status of Joint FAO/WHO specifications

See Annex 3.

Questions/Comments

No questions were asked.

11. FAO/WHO priority list and programme for development of FAO and WHO specifications for pesticides

Mr Yadav presented the list of products prioritized for evaluation by JMPS in June 2019 (Annex 4) in four different categories: (1) original proposer; (1*) revision of old procedure specification; (2) subsequent proposer(s); (3) specification for formulation; and (4) revision of specification.

Questions/Comments

No questions were asked.

12. Any other matters

No other matters were proposed for discussion.

13. Date and venue of the next JMPS and CIPAC/FAO/WHO meetings

Mr Ralf Hänel (CIPAC) announced that the CIPAC/FAO/WHO Annual Meeting in June 2019 will be held in Braunschweig, Germany.

A presentation was given on the venue for the meeting.

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

14. Closing of the 13th Joint CIPAC/FAO/WHO Open Meeting

Ms Marion Law thanked the JMPS and Open Meeting colleagues for their warm welcome and looked forward to the continuing collaboration with JMPS and CIPAC. Ms Law noted that it was a very worthwhile meeting that was constructive. She also thanked Mr Rajpal Yadav for his support with regards to the transfer of duties from WHOPES to WHO-PQT. Ms Law looked forward to the meeting next year in Braunschweig.

Mr Rajpal Yadav, Chairperson of the meeting, thanked the organizers for their hard work in organizing the meeting, Mdme Yang and Mr Ralf Hänel for their continued collaboration, the participants for their attendance and the rapporteurs for their work. He declared the meeting closed.

ANNEX 1. SUMMARY TABLE OF NATIONAL REPORTS OF OFFICIAL QUALITY CONTROL LABORATORIES

Region	Reporting laboratory	No. of samples tested	Non-compliance	
			No.	%
Americas	El Salvador	664	3	0.5
	Panama (monitoring program of agricultural use)	161	18	11.2
	Brazil	156	2	1.8
Asia	Japan (1st January 2017 to 31 may 2018)	16 (8 for agricultural use)	0	0
	P.R of China (results collected from 30 labs)	5029	557	11.1
	Thailand (DMSc)	361	33	9.1
	Thailand (DOA)	679	2	0.3
Europe	Belgium (AFSCA for PPP on the Belgian market)	80	1	1.3
	Belgium (CRA-W for PHP on the international market)	232	47	20.3
	Czech Republic (one lab at national level)	63	24	38.1
	France	105	53	50.5
	Germany	261	3	1.1
	Greece	580	41	7.1
	Hungary	1650	10	0.6
	Ireland	88	3	3.4
	Spain	287	0	0
	UK (FERA)	72	6	8.3
	Ukraine	107	35	32.7

ANNEX 2. STATUS OF PUBLICATION OF FAO SPECIFICATIONS

FAO Specifications reviewed before 2017

Azoxystrobin	Jiangsu Sevencontinent	Published
Clethodim TC, EC	Arysta	Published (evaluation report only)
Diflubenzuron TC	Helm AG	Published
Flucarbazone TC, SC, WG	Arysta	withdrawn by the Company
Chlorfenapyr TC, SC	BASF	Published
Fluazinam TC	Nutrichem	Published
Flumioxazin WP-SB	Sumitomo	Published
Hexazinone TC	Nutrichem	Published
Methiocarb TC, FS	Bayer	Published
Propiconazole TC	Jiangsu Fengdeng	Withdrawn application for update the old specification
Silthiofam TC, FS	Monsanto	Published
Pyriproxyfen TC	NTGC Fine Chemicals	Published (Rudong Zhongyi)

FAO Specifications reviewed in 2017

Tribenuron-methyl TC	Jiangsu Agrochem	to be finalized for publication
Clodinafop-propargyl TC	Zhejiang Bosst CropSience	Rescheduled in 2018
Fenoxaprop-P-ethyl TC	Hangzhou Udragon Chemical	Rescheduled in 2018
Azoxystrobin TC	Hebei Veyong Biochem	Rescheduled in 2018
Pyriproxyfen TC, EC	Rudong Zhongyi	Published
Flupyradifurone EC, FS, SL	Bayer	Published
Imidacloprid TC	UPL Limited	Published
Imidacloprid SL, WG, GR (revision)	Bayer	Published
Metsulfuron-methyl TC, WG	Rotam	Published
Mancozeb TC, WP	Limin Chemical Stock	Rescheduled in 2018
Lambda-cyhalothrin TC	Jiangsu Huifeng	Rescheduled in 2018, RP to be updated

FAO Specifications reviewed in 2018

8.1	Azoxystrobin TC	(2) Taizhou Bailly Chemical Co., Ltd	Data required
8.2	Azoxystrobin TC	(2) Rotam;	Data required
8.3	Chlorothalonil TC	(2) Jiangyin Suli Chemical Co., Ltd	Data required
8.4	Fluazinam TC	(2) Taizhou Bailly Chemical Co., Ltd.	Data required, no need to be re-considered in 2019
8.5	Fluazinam TC	(2) Jiangsu Yangnong	Adopted
8.6	Hexazinone TC	(2) Jiangsu Lanfeng Biochemical Co. Ltd.	Data required, no need to be re-considered in 2019
8.7	Iprodione TC and SC	(2) Rotam	Data required
8.8	Mancozeb TC, WP	(1)* Limin Chem Co (2017)	Data required
8.9	Mancozeb TC, WP	(1)* Mancozeb Task Force	Data required
8.10	Phenmendipham TC, EC, SE, OD	(1)* Bayer	Data required
8.11	Phosmet TC	(1) Govan (rep. by SCC GmBH)	Data required
8.12	Propiconazole TC ,EC	(1)* Syngenta	Adopted
8.13	Propineb TK, WP, WG	(1)* Bayer	Data required
8.14	Tebuconazole TC	(1)* Jiangsu Sevencontinent Green Chemical	Data required
8.15	Thiamethoxam TC, WG, FS	(2) Rotam	Data required
8.16	Tribenuron-methyl WG	(2) Jiangsu Agrochem Laboratory	Adopted
8.17	Zeta-cypermethrin TC	(1) FMC	Data required, no need to be re-considered in 2019

Call for support and data necessary for the review of old FAO specifications

Compound	Response	Compound	Response
		Mecoprop-P	**Task Force, 2021**
2,4-D	2,4-D Task Force, 2019 Dow 2019 Albaugh ??	**MCPA**	EU MCPA Renewal Task Force, MCPA Task Force Three 2020 Albaugh ??
ametryn	Syngenta, 2019-2020	**MCPB**	MCPB Task Force 2021
atrazine	Syngenta, 2019-2020	**mecoprop**	Nufarm 2019
amitrole	Nufarm, 2019	**metolachlor**	Syngenta,??
Bromoxynil and variants	Albaugh ??	**methiocarb**	Bayer (Rhone-Poulenc) 2018
Captan	Albaugh ??	**metribuzin**	Bayer CP, 2019
dichlorprop	Nufarm, 2021	**propiconazole**	Syngenta, 2018
Diflуenican	Bayer (Rhone-Poulenc) 2020	**propineb**	Bayer CP 2018
ethephon	Bayer (Rhone-Poulenc) 2020	**tebuconazole**	Albaugh ?? Bayer CP, 2021
Propazine	Albaugh??	**terbuthylazine**	Syngenta, 2019-2020
mancozeb	Limin 2017/2018, mancozeb Task Force (Dow, UPL) 2018	**Thiodicarb**	Bayer (Rhone-Poulenc), 2021
Phenmedipham	Bayer 2018	**Triflumuron**	Bayer CP, 2018

ANNEX 3. STATUS OF PUBLICATION OF WHO OR FAO/WHO JOINT SPECIFICATIONS

12 Specifications published since June 2017

Product	Manufacturer	Status
Diflubenzuron TC	Helm AG	Published
Chlorfenapyr TC, SC	BASF	Published
Pyriproxyfen TC	NTGC Fine Chemicals	Published
Deltamethrin TC, SC, WP	Sharda	Published
Bendiocarb TC	Saerfu	Published
Pyriproxyfen TC	Rudong Zhongyi	Published
DawaPlus 2.0	Tana Netting	Published
DawaPlus 3.0 side panels	Tana Netting	Published
DawaPlus 3.0 roof	Tana Netting	Published
DawaPlus 4.0	Tana Netting	Published
d,d,trans-cyphenothrin EC (revision)	Sumitomo	Published
Deltamethrin TC	Yangnong	Published
Deltamethrin TC (revision)	Bayer, Gharda, Heranba, Isagro, Rotam, Tagros	Published

Decisions of JMPS 2018: TC/TK

	Product	Company	Evaluation status
	WHO specifications		
1	Clothianidin TC, WG	(2) Sumitomo new TC source	Data requirements
2	Diflubenzuron TC, GR, WP, DT	(2) Gharda Chemicals	In progress
3	Dinotefuran TC, RB (ATBS bait station)	(1) Mitsui, Westham	Data requirements
4	Flupyradifurone TC	(1) Bayer	Evaluation completed
5	Indoxacarb TK, OD	(2) Gharda Chemicals	Evaluation completed (NE)
6	Imidacloprid TC	(2) UPL	Evaluation completed
7	Lambda-cyhalothrin TC	(2) Jiangsu Huifeng Agrochem	Data requirements
8	Permethrin TC (40:60 *cis:trans*)	(2) Gharda Chemicals	Evaluation completed (NE)*
9	Piperonyl butoxide TC	(2) Tagros	Evaluation completed
10	Transfluthrin TC	(1*) Bayer	Data requirements

End-use products

	Product	Company	Evaluation status
11	Bactivec SC	(3) Labiofam	Data requirements
12	Interceptor G2 LN	(3) BASF	Data requirements
13	Royal Guard LN	(3) DCT	Completed
14	Bendiocarb 2% CS	(3) Landcent	Moved to 2019
15	Prallethrin + imidacloprid (Cielo UL)	(3) Clarke Int.	In progress
16	Flupyradifurone + transfluthrin EW	(3) Bayer	Data requirements (for transfluthrin)
17	DurActive LN	(3) Shobikaa Impex	Data requirements*
18	Yorkool G2 LN (Chlorpyrifos ethyl)	(3) Tianjin Yorkool	Data requirements
19	Bendiocarb 20% CS - change in spec	(4) Landcent	Moved to 2019
20	Bendiocarb WP-SB	(3) Saerfu	Evaluation completed*
21	PermaNet 2.0 LN revision of spec	(4) Vestergaard	Data requirements*
22	PermaNet 3.0 LN revision of spec	(4) Vestergaard	Data requirements*
23	Deltamethrin SC-PE	(3) Bayer	Completed

ANNEX 4. JMPS 2019 WORK PROGRAMME

	Product	Proposer
(1) Original proposer; (1)* Revision of old procedure specification; (2) Subsequent proposer; (3) Specification for formulation; (4) Revision of specification		
	FAO specifications	
8.1	Amitrole TC	(1)* Nufarm
8.2	Azoxystrobin TC	(2) CAC Nantong Chemical Co., Ltd
8.3	Bentazone TC	(2) Zhejiang Zhongshan Chemical Industry Group Co., Ltd
8.6	Chlorothalonil TC	(2) Jiangsu Xinhe Agrochemical Co., Ltd
8.7	2,4-D TC and variants	(1)* Industry task force II & EU 2,4-D task force, Dow
8.10	Glufosinate TC	(1) LIER Chemical Co., Ltd
8.12	Metribuzin TC	(1)* Bayer
8.13	Metsulfuron-methyl 98% TC, 60% WG and 20% WP	(2) Jiangsu Agrochem Laboratory Co., Ltd
8.14	PIB/G SeNPV TK, SC (microbial - virus)	(1) Wuhan UNIOASIS Biological Techoncal Co., Ltd
8.15	Quizalofop-P-ethyl 95% TC	(1) Anhui Fengle Agrochemical Co., Ltd
	WHO specifications	
9.1	Bendiocarb 20% CS	(3) Landcent
9.2	Bioxlin LN (bifenthrin + indoxacarb + PBO)	(3) VKA Polymers, India
9.3	Duranet LN (change in spec - bursting strength, GSM, flammability)	(4) Shobikaa Impex, India
9.4	Envelope (transfluthrin spatial repellent in a dispenser device)	(3) SC Johnson, USA
9.5	NetCare LN 110D (equ. with DawaPlus 4.0)	(3) Mainpol GMBH
9.6	PermaNet 3.0 LN (change in roof netting mesh size)	(4) Vestergaard Frandsen, Switzerland
9.7	Spinetoram DT (larvicide)	(1) Corteva Agrisciences (previously Dow AgroSciences)
9.8	Tsara Net LN (deltamethrin incorporated into polyethyelene)	(3) Moon Net, UAE
9.9	WorldNet LN (alpha-cypermethrin coated onto polyester)	(3) Mainpol GMBH
	FAO/WHO specifications	
10.1	Alpha-cypermethrin 5 WP (addition to existing TC spec)	(3) Heranba Industries Ltd., India
10.2	Chlorpyrifos TC	(2) Zhejiang Xinnong Chemical Co., Ltd
10.3	Deltamethrin 2.5 WG (addition to existing TC spec)	(3) Heranba Industries Ltd, India
10.4	Diflubenzuron TC	(2) Taizhou Baily
10.5	Lambda-cyhalothrin TC, CS (revision)	(4) Syngenta, Switzerland
10.6	Spinetoram TC, WG	(1) Corteva Agrisciences (previously Dow AgroSciences)