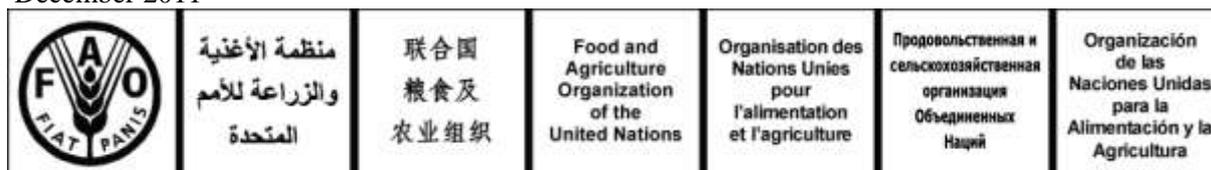


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COMMITTEE ON COMMODITY PROBLEMS

INTERGOVERNMENTAL GROUP ON TEA

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REPORTS OF THE WORKING GROUPS ON MAXIMUM RESIDUE LEVELS (MRLs) ON TEA¹ AND ON MRLs ON TEA BREW²

I. INTRODUCTION

1. The Intergovernmental Group (IGG) on Tea, while recognizing the urgent need for the harmonization of tea MRLs to reduce the cost of compliance by exporting countries in meeting the requirements of importing countries, also recognizes the concerns of consumers regarding food safety. An initiative was set up by the IGG to foster closer cooperation among tea producers, importers, traders, boards, associations and other organizations to deliver the work programme outlined in the action plans of the 15th, 16th, 17th, 18th and 19th Sessions of the IGG on Tea.

2. The Group at its earlier sessions identified and agreed on the following key issues:

- Strengthen cooperation between producers and importers to generate residue data required to address the difficulties arising from pesticide MRL regulatory changes in the importing countries;
- Support the efforts by producing countries for the generation of MRL data and collation for submission to Codex and expert consultations;
- Sustain global initiatives for pesticide management in tea in both producing and consuming countries and “harmonize” the approach to legislators on tea MRLs;
- Establish global focus on the issues; and
- Widen discussion with key regulatory authorities and tea trade, including setting up a joint work programme with producers and importers.

¹ Report prepared by the Coordinators of the Working Group on MRLs, T.C. Chaudhuri and Ms K Donnelly, with inputs from Dr K. Mohotti, Dr Abeysighe (Srilanka), Ms Roshni Sen, Dr M. Kumar, Dr A. Barooah, Dr B. Bera (India), Prof Z. Chen (China), Dr Wachira, Dr E Cheramgoi (Kenya), Dr T. Henn (EU), Ms L. Roberge (Canada), Mr J. Simrany (USA), Dr K. Yoshida (Japan), Ms P. Parra (Argentina), Dr M. Ahmed (Bangladesh).

² The Report of the Working Group on MRLs on Tea Brew was prepared by T.C. Chaudhuri and Prof Z. Chen and can be found on page 5 of this document.

3. The prioritization of chemicals for data generation was the primary task. A total of 24 chemicals were identified in 2005, while another 16 were selected in 2007. Producing countries acted on these identified chemicals for data generation. Additional producing countries joined in the exercise and established their own pesticide laboratories.

4. Codex has considered some data and established new MRLs for tea. In certain cases, individual countries, both producers and importers, took actions with their respective regulators towards fixation of new MRLs for tea. These efforts have helped to exchange information on the subject and ensured transparent actions towards harmonization of MRLs and regulations at the international level. Stakeholders have been responsive in submitting information about regulations, databases and exchanging views with the Working Group on MRLs (WG/MRLs).

5. At its 18th Session, the Group noted, , the progress in the adoption and retention of MRLs in the European Union (EU) and Australia, in sharing information on pest management systems, in data generation and in sensitizing regulatory authorities and pesticide manufacturers to the needs of the tea industry.

6. At its 19th session, the Group noted the large number of MRL submissions in producing and consuming countries including one new MRL granted in the United States of America and MRL submissions for five compounds to Codex. Stakeholder discussions were broadened to include pesticide manufacturers. A Data Generation Module for MRL computation was developed with the assistance of Codex Alimentarius. Producer countries reviewed current challenges and established work programmes with regulators and chemical companies to develop MRLs for existing and new pest management systems. At this session, the Group decided that the WG would prioritize and accelerate submissions on MRLs for tea. This would be achieved with all stakeholders including the Joint FAO/WHO Meeting on Pesticide Residues (JMPR), EU and other standards-setting bodies. Furthermore, a small subgroup should make a strategic review of the current status and identify issues for future deliberations. India and the United Kingdom have coordinated a range of activities to meet the objectives agreed. The recommendations of the 19th Session of the IGG on Tea were as follow:

- Coordination, prioritization and acceleration of submission on behalf of the industry for pesticide MRLs for tea;
- Producer countries to provide field trial data relevant for submissions, identify and carry out trials on alternative pest management systems to those unsustainable in the medium term;
- Involve all stakeholders, including Codex Alimentarius, the European Commission and other standards-setting bodies;
- Pursue other activities to broaden the stakeholder group^{up} and to ensure alignment; and
- conduct a strategy review with a small subgroup of the WG/MRLs members to review the action plan.

II. ACTIVITIES OF THE GROUP

A. GLOBAL PLANT PROTECTION INITIATIVE IN TEA

7. The WG/MRLs recognized the challenges in the development of regulations in national legislation and at the FAO/WHO Joint Meeting on Pesticides Residues (JMPR), as well as recommending pesticide MRLs for Codex Alimentarius Commission. A step wise approach has been adopted through a series of meetings with large number of stakeholders.

8. Significant progress has been made in 2011 both in tea importing and producing countries. Communication with regulators has been maintained to ensure continuing support and progress; meetings were held with the PMC and PMRA in Canada (September 2010) and with the IR-4, EPA and FDA in the USA (June 2011). Side meetings on tea were held at the PMC Minor Crop meeting in Canada (March 2011) and the Codex Committee on Pesticide Residues (CCPR) in China (April 2011) to facilitate dialogue with agrochemical companies and to raise the profile of tea as an internationally traded crop which requires MRLs to be set up globally. As a result, MRL submissions to the JMPR

will be made by several companies in the next year or two. Discussions are still underway with the chemical companies to include tea in MRL submissions in consuming countries.

9. A number of new MRLs have been granted in consuming countries: two in Canada for lambda cyhalothrin (June 2010) and fenprothrin (June 2011), three in the USA for etoxazole, ethiprole and chlorantraniliprole (April-July 2011) and eight in Australia (May and September 2010). In addition, five new MRLs and one modification of an existing MRL were approved by Codex in July 2011. Further, four submissions are being prepared/have been submitted to EPA through the IR-4 programme/chemical companies in the USA; four submissions are being progressed by chemical companies to the PMRA in Canada. Chemical registrant companies, Tea Research Associations in India, China and Sri Lanka and surveillance data from tea companies have enabled these applications to be made.

B. PESTICIDES USE AND MRL IN PRODUCING AND IMPORTING COUNTRIES

10. At its 19th session, to ensure tea was compliant with regulations, the Group decided to coordinate, prioritize and accelerate submissions on behalf of the industry for pesticide MRLs for tea (Report of 19th session of IGG on tea, 12-14 May, 2010, New Delhi) and to conduct a strategic review with a small subgroup to review the current plan. The strategy group met on 21 September 2010 in Niagara Falls, Canada, at a side meeting of the 1st Annual North American Tea Conference, represented by Canada, China, EU, India, Kenya, UK and USA. All the issues related to MRLs on tea were considered, and the key issues and goals were identified as follows:

Table 1 Identification of issues and goals		
SL	Key issues	Goal
1	Evolving pest pressures	Develop and implement IPM strategies
2	Lack of MRLs, non harmonized MRLs	Reclassification of tea from minor to major crop at JMPR; Obtain MRLs for chemicals in use in both producing and consuming countries
3	Replacement of old chemicals / banning of old chemicals	Replacement programmes
4.	Health, safety, sustainability	Prioritization of chemicals based on health, safety and sustainability
5	Communication among stakeholders	Effective plan for communication

11. The WG/MRLs met in Mombasa, Kenya, from 18-19 July 2011 and deliberated on the identification of action points and progress including goals and objectives identified at the strategy subgroup meeting in Niagara Falls. After the deliberations, the meeting in Mombasa, a questionnaire was finalized and circulated to obtain information from all stakeholders. Feedback has been received from Argentina, Bangladesh, Canada, China, EU, India, Japan, Kenya and the UK. The EU submitted a draft decision tree on how to prioritize chemicals by sustainability, affordability and safety. Canada submitted a draft stakeholder communication plan. China submitted list of MRLs in tea.

12. The information from the questionnaires addressed the following goals and objectives:

- Pests affecting crop losses in tea. Objective – To identify different pests and list of economically important pests affecting yield and quality of tea.

- IPM strategies adopted in tea pest management. Objective – To identify different IPM strategies and record methods used to minimize use of pesticides applied in pest management in different tea growing countries.
- Pesticide use in tea. Objectives - To identify old/banned/replaceable/withdrawn pesticides and record current list of substances / pesticides and alternatives / potential chemicals for pest control in the different tea growing countries.
- Priority chemicals for MRL generation. Objective – To update the priority list of chemicals requiring MRLs in consuming countries and Codex.

C. RESULTS

13. After intensive follow-ups, replies from a number of countries have been received and compiled. Abstract of the feedback received so far on the objectives are encouraging. There is a general recognition that achieving harmonization of MRLs in tea requires global and sustained efforts by all. A mutual understanding among all stakeholders could help ease the constraints faced so far. A compilation of feedback from the stakeholders gave a comprehensive view of the status of pesticides use and the role of integrated pest management (IPM) strategies for sustaining crop production.

14. The abstract information is as follow:

- Pest incidences:
 - Pest occurrences of economic importance are more prominent in China, India, Japan and Sri Lanka. This could be attributed to the long-established tea plantations in these countries and types of tea varieties.
 - Leaf-eating insects, stem pests and mites pose a major threat to tea in general.
 - Foliar, stem and root diseases are common; root diseases seem to emerge in many countries.
 - Weed control is difficult owing to various environmental and practical reasons.
 - A few store /warehouse pests, including mammals, are recognized as potential pests.
 - Pest dynamic status and economic thresh-hold levels in general is varying across the globe, probably due to frequent change of climatic scenarios.
- IPM strategies adopted:
 - Agronomic and cultural methods are more prominent.
 - Benefits from clonal selections, biological control, forecasting of pests and modelling, etc. are reported by few countries; therefore, all the producers may incorporate such experiences in their IPM strategies.
 - IPM strategies for management of weed growth are strengthening.
 - Mammalian and stored /warehouse pest control warrants control measures.
- Pesticide use:
 - New generation compounds are increasingly tried and replacing older ones. More MRLs are fixed on a realistic basis, although stringent MRLs are existing and continue to be a constraint to harmonization.
 - Withdrawal of approval for pesticides is a concern to producers.

III. CONCLUSION

15. The response to the questionnaires from a number of tea producing and importing countries strengthened the efforts of harmonization of MRL in tea on the basis of the information gained on pesticide use and disease control measures in tea. This exercise should support the effort towards strengthening confidence between consumers and producers on the safety of the tea product. At the same time, producers, importers and regulators can get some useful insights on a number of issues, including approving and disapproving chemical compounds, substitution of compounds, importance of IPM in reducing pesticide load, residue data generation for newer compounds, and fixation of realistic MRLs at national and international levels.

IV. REPORT OF THE WORKING GROUP ON MRLS ON TEA BREW

A. INTRODUCTION

16. The issue of fixation of MRLs based on tea brew was discussed at the 18th Session of the Intergovernmental Group (IGG) on Tea. A Working Group (WG) on MRLs in Tea Brew (Prof Zangmao Chen, China, Coordinator, with the assistance of Dr T.C. Chaudhuri (India) and Mr J. Simrany (United States) was set up to address the issue. Since then, the WG has made considerable efforts in data generation and compilation, supported by results from producing countries on “transfer values” of pesticide residues in tea brew compared with dry/solid made tea.

17. The WG identified three chemicals for standardizing the methodologies of extract preparation for ring test in ten laboratories. These were: bifenthrin (transfer value 0.05 or 5 percent), imidacloprid (transfer value 0.70 or 70 percent) and dimethoate (transfer value 1 or 100 percent).

18. Based on the decision of the IGG on Tea at its 19th Session in India in 2010, a policy document was prepared and submitted to the Codex Committee on Pesticide Residues (CCPR) at its 43rd Session in April 2011 in Beijing, China. Mr J. Simrany presented the policy document to the CCPR and argued why MRLs should be fixed based on “transfer value” of residue in brew. The meeting emphasized the need for processing studies to refine the dietary risk assessment of tea and supported the comments of the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) Secretariat. Below is the extract of the Report of the 43rd Session of the CCPR:

"The Committee was informed that the FAO Intergovernmental Group (IGG) on Tea has proposed to change the risk assessment associated with in the establishment of MRLs of pesticides in tea and the analytical methods used to identify the presence of pesticides in tea from the leaf to Brew, or to pay equal attention to both, the leaf and brew, to provide correct and direct information to consumers as tea was used to make an infusion in water in most cases. The Committee noted that the rationale for this proposal was presented in CX/PR 11/43/16.

"The JMPR Secretariat noted that transfer of residues into tea infusion is already part of risk assessment and information on standard procedure of testing methodology and relevant scientific studies (in particular processing factors) would be welcome. The Secretariat also advised that MRLs are set on tea leaves, not on tea brew as the leaves are the product commonly and internationally traded.

"Some delegations informed the Committee that tea was an important crop in their countries and they might submit data and information if requested.

"Conclusion

"The Committee emphasized the need for processing studies to refine the dietary risk assessment of tea and supported the comments of the FAO JMPR Secretariat."

B. ACTIVITIES OF THE GROUP

19. Based on the CCPR decision and WG consultations held in Mombasa, Kenya, 18-19 July 2011, several actions were undertaken. The Tea Research Association in India, while submitting residue data to the JMPR for cypermethrin for review included “transfer value” of this compound in tea brew. Similarly, the Tea Research Institute of China also submitted a report of risk analysis on cypermethrin in tea to the JMPR in 2011. Furthermore, India and Sri Lanka continued to standardize methodologies for new compounds to estimate transfer value of residues in tea brew. In the case of India, some data were submitted to the national regulators for consideration while fixing MRLs.

20. In China, an analysis was conducted on different tea categories (black, green, oolong and compressed), from different producing areas (14 provinces), and different tea products (instant and ready-to-drink tea). Nearly 2 000 samples were analyzed by UPLC/MS/MS and the amounts of water-soluble pesticides (imidacloprid, acetamirid, dimethoate and triazophos) contained in these samples were obtained to assess the risks involved .

21. The Tea Board of India has approached the Government of India to request JMPR/Codex to include the subject in the next session of CCPR, scheduled for April 2012. This will give IGG member countries an opportunity to generate the required data for presentation to CCPR.

C. CONCLUSION

22. Although much more could have been achieved by the WG on MRLs in Tea Brew over the past 12 months, individual members had worked extensively on the subject. In the final analysis, the active involvement of member countries, particularly through their national regulators is critical in influencing international bodies, such as Codex Alimentarius. In the meantime, more data and methodologies can be produced by the WG.