

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 4

CX/RVDF 23/26/4

November 2022

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON RESIDUES OF VETERINARY DRUGS IN FOODS

26th Session

13-17 February 2023

Portland, Oregon, United States of America

MATTERS OF INTEREST ARISING FROM THE JOINT FAO/IAEA CENTRE

(Prepared by the Joint FAO/IAEA Centre)

1. The Food and Agriculture Organization of the United Nations (FAO) and International Atomic Energy Agency (IAEA), through the Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture (the "Joint FAO/IAEA Centre"), support and implement specific activities relevant to the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF). This is achieved through the Food Safety and Control Section of the Joint FAO/IAEA Centre and its associated Laboratory. In collaboration with sister FAO Divisions in Rome, the support is delivered to member countries through technical cooperation projects (TCPs), coordinated research projects (CRPs) and additional extra-budgetary projects, as well as laboratory-led applied research and technology adaptation to promote food safety, quality and consumer protection and to facilitate trade.
2. Member Countries continue to seek assistance from the Joint FAO/IAEA Centre on the use of nuclear and isotopic analytical techniques to analyze, test and monitor veterinary drug residues and related food contaminants. Activities relevant to this Committee since CCRVDF25, as well as those of future relevance, are highlighted below.

CO-ORDINATED RESEARCH ACTIVITIES

3. The Joint FAO/IAEA Centre implements strategic research through CRPs¹. Each CRP involves up to twenty institutions from developed and developing countries that collaborate on a broad research topic, for five years. Two CRPs relevant to CCRVDF, "Integrated Radiometric and Complementary Techniques for Mixed Contaminants and Residues in Foods" and "Depletion of Veterinary Pharmaceuticals and Radiometric Analysis of their Residues in Animal Matrices" are ongoing since the last CCRVDF meeting.
4. The CRP "Depletion of Veterinary Pharmaceuticals and Radiometric Analysis of their Residues in Animal Matrices", which runs from 2021 to 2026, is a result of deliberations of the 23rd and 24th CCRVDF sessions on the database on needs for maximum residue limits (MRLs). It aims to support the establishment of MRLs for certain veterinary drugs in food and enable active involvement of developing countries in Codex. Work in this project can also benefit recent CCRVDF initiatives on extrapolation of MRLs. Seventeen research/regulatory institutions from Bangladesh, Burkina Faso, Brazil, Canada, China, Chile, Costa Rica, Korea (Republic of), Morocco, North Macedonia, Pakistan, Sudan, Uganda, Uruguay and USA are involved. The CRP's 2nd research coordination meeting (RCM) was held virtually from 28 February to 4 March 2022 to review and fine-tune workplans while the next meeting will take place in person August 2023 in North Macedonia. The project still welcomes collaboration and partnering on the synthesis or provision of radiolabelled veterinary pharmaceuticals; access by the researchers to animal experimental facilities or assisting the researchers in building/strengthening their own facilities; exposure to institutions applying relevant good laboratory practices; provision of certain specialized training and benchmarking depletion studies, among other activities.
5. The CRP "Integrated Radiometric and Complementary Techniques for Mixed Contaminants and Residues in Foods" involves research and regulatory institutions in Benin, Botswana, China, Colombia, Ecuador, Italy, Netherlands, Nicaragua, North Macedonia, Pakistan, Papua New Guinea, Peru, Spain, South Africa, Uganda and USA. The research work focuses on the development of multi-class analytical methods to support systematic programmes for detecting and controlling residues and contaminants. More than 13 methods have been developed, validated and applied in member countries to analyze multiple veterinary and pesticide residues as well as mycotoxins in a range of animal and plant food commodities. The project's 3rd RCM was held virtually, 26-30 April 2021 while the final meeting will be in-person, 08-12 May 2023 in Vienna, Austria.

¹ <http://cra.iaea.org/cra/how-to-participate.html>

TECHNICAL COOPERATION PROJECTS – CAPACITY BUILDING INCLUDING LABORATORY NETWORKING

6. The Joint FAO/IAEA Centre continues to support national and regional technical cooperation projects providing equipment, expert advice, training, analytical methods and opportunities to share knowledge and experiences (see Table 1 highlighting selected projects).
7. Through some of these technical cooperation projects the Joint FAO/IAEA Centre plans to support in-person participation in Codex committee meetings, including CCRVDF26.
8. **Networking:** The Joint FAO/IAEA Centre promotes the formation of sustainable networks to foster sharing of laboratory technical knowledge, experiences and resources, including analytical methods and protocols for testing foods for residues and contaminants as well as collecting relevant data. These regional networks include the African Food Safety Network (AFoSaN)², the Latin American and Caribbean Analytical Network (RALACA)³ and the Food Safety Asia Network⁴. More than 200 institutes from approximately 90 countries are currently involved in the networks.
9. As part of strengthening AFoSaN, an African food safety workshop was organized by the Joint FAO/IAEA Centre in partnership with the National Metrology Institute of South Africa (NMISA) in Johannesburg, South Africa, 27 June – 01 July 2022. The event was attended by more than 280 participants from 43 countries and addressed a wide range of topics on food safety, including chemical and microbiological hazards as well as food authenticity. The event included 46 oral presentations and 77 posters, all relevant to recent developments on the continent, including the launch of an African Food Safety Strategy (2022-2036) the goal of which is to contribute to improved public health, food and nutrition security, sustainable livelihoods and economic growth, and the African Union’s Sanitary and Phytosanitary Policy Framework.
10. **Training on residues analysis:** The Joint FAO/IAEA Centre held virtual training courses on analytical methods to detect and control organic residues and contaminants in food, from 7-11 June 2021 and 16 to 18 May 2022. The training courses had a total of 156 participants from more than 25 countries.
11. **Training on the analysis of residues and contaminants in food and risk assessment programmes:** The Joint FAO/IAEA Centre, in collaboration with the Latin America and the Caribbean Food safety Analytical Network (RALACA) hosted a virtual workshop on testing for residues and contaminants in food testing and risk assessment programmes, from 12–14 October 2021. Thirty participants from Argentina, Bolivia, Chile, Costa Rica, Guyana, Italy, Jamaica, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Spain, Uruguay attended the 3 days of the workshop.
12. **Virtual training on veterinary drug residue monitoring programmes:** Between 22 February and 6 April, 2022, about 100 food safety scientists and managers from 24 countries in Africa participated in a virtual training course on establishment and implementation of national residue monitoring programmes for veterinary drug residues in animal products. The countries included Angola, Benin, Botswana, Burundi, Cameroon, Egypt, Eritrea, Ethiopia, Ghana, Ivory Coast, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, South Africa, Sudan, Uganda, Zambia and Zimbabwe. The training scope included requirements for screening and confirmatory analytical techniques; recent changes in EU guidelines for use of such methods in residue monitoring; relevant legislation encompassing all measures needed to run a surveillance programme; sampling and inspection as well as corrective measures during noncompliance. Similar training was conducted between 22 March and 12 May, 2021 for the Latin America and Caribbean region with more than 50 counterparts including laboratory staff and regulators from Argentina, Belize, Colombia, Costa Rica, Chile, Cuba, Ecuador, El Salvador, Honduras, Panama, Paraguay, Peru and Nicaragua.
13. **Publication of Analytical Methods Manual for Control of Chemical Food Hazards:** A manual of “Standard Operating Procedures for Selected Chemical Residue and Contaminant Analysis” was published by the Joint FAO/IAEA Centre through FAO⁵. The manual contains selected methods for the analysis of a range of chemical hazards including veterinary drug residues food and animal feed.
14. The Joint FAO/IAEA Centre also maintains the Food Contaminant and Residue Information System (FCRIS)⁶, a free-to-access resource including analytical detection methods for a range of contaminants and residues in foods.

² <http://www.africanfoodsafetynetwork.org/>

³ <http://red-ralaca.net>

⁴ <http://www.foodsafetyasia.org>

⁵ FAO and IAEA. 2021. Manual of Standard Operating Procedures for Selected Chemical Residue and Contaminant Analysis. Vienna. <https://doi.org/10.4060/cb6191en>

⁶ <http://nucleus.iaea.org/fcris/>

Table 1: Overview of selected projects supported by the Joint FAO/IAEA Centre

| Number | Country/ Region | Project No. | Title |
|--------|----------------------------------|-------------|--|
| 1 | Bahamas | BHA5001 | Developing laboratory capacity for testing contaminants in animal and related products including fish in Bahamas |
| 2 | Bangladesh | BGD5034 | Enhancing Competence in Nuclear and Complementary Capabilities for Testing/Monitoring Veterinary Drug Residues and Other Contaminants in Foods |
| 3 | Benin | BEN5013 | Expanding Analytical Capabilities for Systematic Control of Veterinary Drug Residues and Related Contaminants in Foodstuff |
| 4 | Botswana | BOT5023 | Enhancing Control of Food Hazards in Poultry Production and Products |
| 5 | Burundi | BDI5004 | Enhancing Control of Chemical Residues and Related Contaminants in Food |
| 6 | Cambodia | KAM5004 | Strengthening National Capacity for Food and Feed Safety |
| 7 | Cameroon | CMR5025 | Improving Laboratory Testing Capabilities to Enhance the Safety and Competitiveness of Agricultural Products - Phase I |
| 8 | Costa Rica | COS5037 | Strengthening Capabilities to Analyse and Monitor Toxic Metals in Animal Products |
| 9 | Cote d'Ivoire | IVC5042 | Improving Testing and Monitoring of Food Hazards Using Nuclear and Isotopic Techniques |
| 10 | Democratic Republic of the Congo | ZAI5028 | Controlling Food and Feed Contaminants in Fish Production |
| 11 | Djibouti | DJI5001 | Developing Nuclear/Isotopic and Complementary Food Safety Testing Capabilities |
| 12 | Dominica | DMI5002 | Enhancing Capacity to Monitor Agrochemical Residues in Foods and Related Matrices |
| 13 | Dominica | DMI5003 | Strengthening a Nuclear Isotopic Laboratory and Complimentary Field Food Safety Surveillance Capabilities |
| 14 | Eritrea | ERI5012 | Developing Analytical Capabilities for Food Safety |
| 15 | Eritrea | ERI5014 | Enhancing Food Safety Analytical and Monitoring Capabilities |
| 16 | Georgia | GEO5001 | Enhancing National Programmes for Testing and Monitoring Food Contaminants and Residues |
| 17 | Haiti | HAI5009 | Strengthening Laboratory Capacity to Test and Monitor Food Contaminants |
| 18 | Kyrgyzstan | KIG5001 | Establishing Effective Testing and Systematic Monitoring of Residues and Food Contaminants and of Transboundary Animal Diseases |

| Number | Country/ Region | Project No. | Title |
|--------|--------------------|-------------|---|
| 19 | Lebanon | LEB5016 | Strengthening Capacity for Exposure Assessment of Residues and Contaminants in the National Diet |
| 20 | Lesotho | LES5011 | Strengthening Nuclear and Related Food Safety Laboratory Capabilities to Control Veterinary Drug Residues and Related Contaminants |
| 21 | Madagascar | MAG5028 | Developing Food Safety Laboratory Capabilities |
| 22 | Malaysia | MAL5033 | Strengthening Analytical Capabilities for Food Safety and Food Security |
| 23 | Marshall Islands | MHL5002 | Building Core Capacities to Control Contaminants and Other Residues in Food - Phase I |
| 24 | Mauritania | MAU5008 | Strengthening Laboratory Capacity to Analyse and Monitor Residues and Contaminants in Foods |
| 25 | Mauritius | MAR5027 | Strengthening Multi-Institutional Laboratory Capabilities to Control Veterinary Drug Residues and Associated Food Contaminants |
| 26 | Mozambique | MOZ5012 | Enhancing Food Safety testing and Monitoring of Hazards Using Nuclear and Related Techniques |
| 27 | Namibia | NAM5018 | Strengthening Animal Health and Food Safety Control Systems |
| 28 | Nicaragua | NIC5012 | Strengthening the Monitoring and Control System for Food Contaminants |
| 29 | Niger | NER5023 | Strengthening Capacity of the Public Health Laboratory to Monitor Food Contaminants |
| 30 | Palestine | PAL5010 | Strengthening Capability to Monitor Contaminants in Food and Related Matrices through Nuclear and Complementary Analytical Techniques |
| 31 | Panama | PAN5027 | Strengthening Analytical Capabilities for Risk-based Monitoring of Agricultural Products for Internal Consumption |
| 32 | Philippines | PHI5035 | Advancing Laboratory Capabilities to Monitor Veterinary Drug Residues and Related Contaminants in Foods |
| 33 | Qatar | QAT5009 | Enhancing National Food Safety Capacity to Test and Monitor Residues/Contaminants Using Nuclear and Related Isotopic Techniques |
| 34 | Rwanda | RWA5003 | Strengthening Laboratory Capacity of the Standards Board to Analyse and Monitor Chemicals in Foods – Phase II |
| 35 | St Lucia | STL0001 | Strengthening Institutional Capacities in the Application of Nuclear Technology |

| Number | Country/ Region | Project No. | Title |
|--------|---|-------------|--|
| 36 | Sudan | SUD5040 | Strengthening the Evaluation of Quality, Monitoring and Control Programmes for Food Contaminants |
| 37 | Uganda | UGA5042 | Strengthening Capabilities of Two Central Food Safety Laboratories and Selected Regional Veterinary Centres of Public Health |
| 38 | Vanuatu | NHE5004 | Strengthening Agro-Food Laboratory Quality Infrastructure – Phase II |
| 39 | Zambia | ZAM5034 | Expanding the Scope of Food Safety Testing and Surveillance of Hazards in Foods and Related Matrices |
| 40 | Regional - Asia and the Pacific | RAS5096 | Strengthening Multi-stakeholder Food safety Monitoring Programmes for Chemical Contaminants and Residues in Plant and Animal Products Using Nuclear/Isotopic Techniques |
| 41 | Regional - Asia and the Pacific | RAS5099 | Developing Climate Smart Crop Production including Improvement and Enhancement of Crop Productivity, Soil and Irrigation Management, and Food Safety Using Nuclear Techniques (ARASIA) |
| 42 | Regional - Latin America and the Caribbean | RLA5079 | Applying Radio-Analytical and Complementary Techniques to Monitor Contaminants in Aquaculture (ARCAL CLXXI) |
| 43 | Regional - Latin America and the Caribbean | RLA5080 | Strengthening the Regional Collaboration of Official Laboratories to Address Emerging Challenges for Food Safety (ARCAL CLXV) |
| 44 | Regional - Latin America and the Caribbean | RLA5081 | Improving Regional Testing Capabilities and Monitoring Programmes for Residues/Contaminants in Foods Using Nuclear/Isotopic and Complementary Techniques (ARCAL CLXX) |
| 45 | Regional - Africa | RAF5084 | Strengthening Food Contaminant Monitoring and Control Systems and Enhancing Competitiveness of Agricultural Exports using Nuclear and Isotopic Techniques (AFRA) |