CODEX ALIMENTARIUS COMMISSION

Food and Agriculture Organization of the United Nations

World Health Organization

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Agenda Items 4, 6, 7, 8, 9, 10 **CRD14**

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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

Comments submitted by Egypt

Agenda Item 4: Matters of interest arising from the Joint FAO/IAEA Centre

Egypt would like to thank the FAO/IAEA centre for all activities in Egypt relevant Veterinary Drugs in Foods and all supports which delivered to Egypt through technical cooperation projects (TCPs), coordinated research projects (CRPs) and additional extra budgetary projects to promote food safety, quality and consumer protection and to facilitate trade

In view of CXG 34R-2003 "Regional Guidelines for Codex Contact Points and National Codex Committees (Africa) " that it texted on the responsible of national Codex Contact Points to facilitate the country's active and effective participation in the activities of the Codex Alimentarius Commission, the functions of the national Codex Contact Point shall mainly:

1. Act as the link between the Codex Secretariat and Member countries;

2. Coordinate all relevant Codex activities within their own countries;

3. Receive all Codex final texts (standards, codes of practice, guidelines and other advisory texts) and working documents of Codex sessions and ensure that they are circulated to those concerned within their own countries;

4. Send comments on Codex documents or proposals to the Codex Alimentarius Commission or its subsidiary bodies and/or the Codex Secretariat;

5. Work in close cooperation with the National Codex Committee, where such has been established. The Codex Contact Point acts as the liaison point with the food industry, consumers, traders and all other concerned to ensure that the government is provided with the appropriate balance of policy and technical advice upon which to base decisions relating to issues raised in the context of the Codex work;

6. Act as a channel for the exchange of information and the coordination of activities within their own countries and with other Codex members;

7. Receive the invitations to Codex sessions and inform the relevant chairpersons and the Codex Secretariat of the names of participants from their own countries;

8. Maintain a library of Codex final texts; and

9. Promote Codex activities throughout their own countries.

Egypt suggests adding National Codex Contact points (NCC) as main partner with FAO/IAEA center and receive all announcements from them related to training and projects for the possibility of registering its experts and save time to confirm by the coordinator in each country.

Agenda Item 6: MRLs for veterinary drugs in foods

6.1 MRLs for Ivermectin (sheep, pigs and goats – fat, kidney, liver and muscle) at Step 7

Egypt would like to thank JECFA for re-evaluating the MRLs and new recommended MRLs are presented for consideration at CCRVDF26.

Egypt recommends the discontinuation of the procedures for the advancement or adoption of MRLs for Ivermectin (sheep, pigs and goats – fat, kidney, (REP21/RVDF25 Appendix II liver and muscle) at Step (7). The MRLs recommended for discontinuation are as follows:

Species	Muscle (µg/kg)	liver(µg/kg)	kidney (µg/kg)	fat (µg/kg)
Sheep, pigs and goats	10	15	15	20

6.2 MRLs for Ivermectin (pigs, sheep and goats) and Nicarbazin (chicken) at Step 4

Egypt would like to thank JECFA for re-evaluating the MRLs and new recommendations.

In view of Ivermectin is extensively used as an endectocide, and therefore limits for residues in these commodities need to be established by Codex to protect consumer health and to promote international trade, Egypt is advised to support the adoption of new MRLs for Ivermectin in sheep and goats at Step 5/8 as follows:

Species	Muscle (µg/kg)	liver(µg/kg)	kidney (µg/kg)	fat (µg/kg)
pigs, sheep and goats	30	60	20	100

Egypt is advised to support the advancement of MRLs for Nicarbazin in chicken at Step 5 as follows:

Species	Muscle (µg/kg)	liver(µg/kg)	kidney (µg/kg)	Skin with fat (µg/kg)
chicken	4000	15000	8000	4000

Agenda Item 7: Extrapolation of MRLs for veterinary drugs in foods to one or more species

7.1 Extrapolated MRLs for different combinations of compounds/commodities at Step 4

Egypt would like to thank the chair and the members of the EWG for the good work undertaken in developing the discussion paper on extrapolation of MRL. Egypt recommends that the extrapolated MRLs for the 12 different drugs in the various animal species be advanced to Step 5 according to the rules set out in the approach for the extrapolation of maximum residue limits for veterinary drugs to one or more species that was adopted by CAC44.

In view of the criteria not being able to facilitate the elaboration of MRLs for goat and sheep milk, it does not allow the extrapolation of the bovine milk MRL for Ivermectin to goat and sheep milk.

Egypt requests to consider ways forward to extrapolate MRLs for ivermectin for camel tissues.

7.2 Approach for the extrapolation of MRLs for residues of veterinary drugs for offal tissues

Egypt would like to thank the chair and the members of the EWG for the good work undertaken in developing the discussion paper on extrapolation of MRL.

In view of the EWG was not able to develop a suitable approach for the extrapolation of MRLs for residues of veterinary drugs in offal tissues and offal tissues are smooth muscles which are quite different from skeletal muscles for which MRLs have already been determined and extrapolation could work if corresponding tissues are used across species.

Egypt supports the proposal by the EWG, that further discussions should be held during CCRVDF26 on how to generate MRLs in edible offal tissues other than kidney and liver.

Agenda item 8: Criteria and procedures for the establishment of action levels for unintended and unavoidable carryover of veterinary drugs from feed to food of animal origin

Egypt would like to thank the chair and the members of the EW for developing the criteria and procedures for the establishment of action levels for residues of veterinary drugs in foods linked to the unintended and unavoidable carryover of veterinary drugs from non-target feed to food of animal origin.

In view of the proposal to have CCVRDF to request JECFA to conduct an appropriate human dietary exposure assessment based on the proposed action level will mitigate the risk to human health that could arise from residues of veterinary drugs in food of non-target species caused by unavoidable and unintended veterinary drug carry-over in non-target animal feed.

Egypt supports the proposed four step procedure for setting the Action Levels based on the Guidelines on the Application of Risk Assessment for Feed (CXG 80- 2013) and risk assessment approaches.

In view of the General criteria on the proposed approach that recommends by the EWG. Egypt agrees with all recommendations and Egypt wants to amendment the recommendation (6) in “Part 1, General criteria on the proposed

approach " to will be (6) Action levels should be derived only for residues of veterinary drugs that have adopted (or JECFA recommended) Codex maximum residue limits (MRLs) **or for residues of veterinary drugs that promote at national level according to its regulations or risk assessment studies.**

Agenda Item 9: Coordination of work between CCPR and CCRVDF

9.1 Matters of interest arising from the Joint CCPR/CCRVDF Working Group

Egypt would like to thank the chair and the members of the EWG and it supports the work of the EWG and the following recommendations they made:

- CCPR and CCRVDF to continue working towards harmonizing their risk assessment methodologies, including ways to establish single, harmonized acceptable daily intake values and MRLs for dual-use compounds;
- JECFA/JMPR asks sponsors to consent to data sharing upon submission of the data packages;
- The current joint EWG to identify and prioritize issues affecting both committees and recommend ways to address the issues and to inform CAC accordingly;
- Development of a database of dual-use compounds that can be shared between committees to facilitate the development of a single, harmonized MRL;
- Creation of Joint EWG that will identify dual-use compounds that have different MRLs for the same edible commodity of to food of animal origin.

Agenda Item 10:

1. Purpose and Scope

The purpose of this new work is to insert Camel with the main animals origin food which should be establish (MRLs) of Residues of Veterinary Drugs like (cow).

The present dissection paper was conducted to gather the information regarding production and economic analysis of the camels worldwide. Camel population around 25.89 million worldwide in almost 47 countries. Majority of camel herders were reported un-educated. Researchers further indicated that camels generally are reared under sedentary (50%), transhumant (25%), nomadic (15%) and household (10%) management systems. Age of camel farmers ranges from 25 to 50 years. The female ratio markedly remains higher than males and young ones because the females are generally used for milk production. However the males are mostly used to carry the luggage, carrying load pulling cart etc. It was also stated by scientists that camels are mostly allowed for open grazing of natural vegetations. Breeding is practiced by natural method and the camel spends 20 to 30 minutes for matting. The female camels reach at the puberty age in 3-5 years, while male at 3.5 to 5.5 years. The duration of estrus cycle in camels vary from 16 to 22 days. Breeding period of camels remain between November and March. The average hair production of camels is 1.63 kg, average daily milk production 6.40 liter. Male have carrying capacity of 553 kg. In conclusion the husbandry practices of camel farming worldwide are based on old traditional methods, however the scientific farming rarely exits. There is no extension services available for the herders to motivate, educate and aware them modern management practices. Market infrastructure, as per study review, is not well established. Mostly the camel herder sale out their animals to middlemen due to long market distances.

1.1 Camel Dairy Products Production and Quality

The key features of camel milk in comparison with other milk are low fat with high content of unsaturated and long-chain fatty acid. The proteins are rich in lactoferrin and lysozymes, but deficient in β-lactoglobulin. It has higher percentage of total salts, free calcium, protective proteins and vitamin C, and some of the microminerals, viz iron, copper and zinc. Physicochemical properties of camel milk are also unique and useful for food processing. The shelf life of raw camel milk is 8–9 h, which can be extended up to 18–20 h through activation of camel lactoperoxidase system. Heat stability of camel milk is shown to be highest at pH 6.8, and it ferments relatively slowly compared to the cattle milk. The camel milk is successfully processed for producing a variety of products, such as fermented milk ('lassi'), soft cheese, flavored milk and 'kulfee' (a kind of ice cream). Camel milk has been traditionally used in different regions of the world as natural adjuvant for managing a variety of human diseases.

2.2 Camel Meat Production and Quality

Approximately 250,000 thousand camels are slaughtered annually in different countries. About 50% of the camels slaughtered are young males aged around 4 years. The camel meat is described as tough, coarse, watery and sweetish in taste compared to meats from other animals. However, evidence suggests that quality characteristics of camel meat are not much different from beef if animals are slaughtered at comparable ages. In some of the African and Asian

countries, camel meat has been used for its medicinal properties. Based on recent FAOSTAT (2015) database, in 2013 global camel meat production reached 539,100 Tons. Region wise Africa was leading with 416,292 Tons produced, followed by Asia (122,608 Tons) and Europe (200 Tons).

Camel meat is much better than beef in that it has lesser fat than all the other red meats such as beef and mutton. Camel lean meat contains about 78% water, 19% protein, 3% fat and 1.2% ash with a small amount of intramuscular fat. Camel meat has a comparable essential amino acid content to beef, lamb and goat meat. The camel hump is important and commonly used for cooking in camel producing countries. On fresh weight basis, the camel hump contributes about 64.2-84.8% fat with very high content of saturated fatty acids of about 63.0%. The semitendinosus muscle in the dromedary and Bactrian camels had more magnesium than infraspinatus, triceps brachii, longissimus thoraces and biceps femoris muscles. The semitendinosus and semimembranosus muscles had more iron than other muscles in dromedary. The male camels should be slaughtered between 1 to 3 years of age. This might be due to that less than 3 years of age, camels were not yet fully-grown (60-7C % of full live weight), therefore, their meat is tender. A high ultimate pH in camel muscles is a consequence of low muscle glycogen as a result of pre-slaughter stress, including, poor nutrition, rough handling and long transportation. Muscle structure, glycogen concentration, collagen content, solubility and the activities of proteases and their inhibitors are the most important physiological parameters affecting meat tenderness. Water retention in meat is primarily caused by immobilization of water within the myofibrillar system. The volume of the camel meat was reduced by 44.3% and weight by 48.2% after boiling in water for 40 min. The age of the camel has a significant effect on their meat colour (Kadim et al, 2006). Meat colour from 6-8 and 10-12 year old camels was darker (lower L∗), redder (higher a∗) and yellower (high b∗) than 1-3 year old camels because of higher concentrations of myoglobin.

Camel meat is rich in many essential amino acids, minerals, vitamins, bioactives compounds such as carnosine, anserine, glutathione and essential fatty acids such as omega 3 fatty acids. Meat in general is considered a functional food for cures of many ailments and for improved performance in many cultures around the world. Camel meat has been processed into burgers, patties, sausages and shawarma to add value. The nutritional value of camel meat is similar to other red meats.

2. Relevance and Timeliness

(a) To determine priorities for the consideration of residues of veterinary drugs in camel product .

(b) To recommend maximum levels of such substances;
(c) To develop codes of practice as may be required; and,
(d) to consider methods of sampling and analysis for the determination of veterinary drug residues in camel product.

3. Main Aspects To Be Covered

The proposed new work to amend

CXM 2	Maximum Residue Limits (MRLs) and Risk Management Recommendations (RMRs) for Residues of Veterinary Drugs in Foods

To including camel products

4. Relevance to the Codex Strategic Objectives

Goal 1. of Codex Strategic Plan 2020-2025: Address current, emerging and critical issues in a timely manner. Specifically, regarding to objective 1.1, “Identify needs and emerging issues”, this proposed amendment serves as a proper respond to the need of promoting fair trade of camellia seed oil.

Further, regarding objective 1.2, “Prioritize needs and emerging issues”, with current time manner, the proposed amendment will become the essential standard for Codex members with camellia seed oil trade, meanwhile the potential of camellia seed oil trade will be observed by all Codex members.

5. Information on the Relation between the Proposal and Other Existing Codex Documents

CXM 2	Maximum Residue Limits (MRLs) and Risk Management Recommendations (RMRs) for Residues of Veterinary Drugs in Foods

6. Identification of Any Requirement for and Availability of Expert Scientific Advice

If expert scientific advice is required, we’re committed to provide the contact of experts who are responsible for the proposed text and the research papers.

7. Identification of Any Need for Technical Input to the Guidelines from External Bodies That Can Be Planned

Relevant SDOs, such as ISO, AOCS, are expected to participate in the review of the Codex standard.

8. Proposed Timeline for Completion of the New Work, Including the Start Date, the Proposed Date for Adoption at Step 5/8, and the Proposed Date for Adoption by the Commission

It is expected that the development of this standard would be conducted in two CCRVDF sessions or more (effective CCRVDF30), depending on the agreement reached by the Committee.

Drugs for round worms

1- **Benzimidazoles**

Methylbenzimidazole

Thiobendazole

50-100 mg/kg

Death from liver and kindney damage teratogenic for round worms.

Barbendazole

Phenbendazole } **teratogenic**

Cambendazole

Mebendazole

Thiophonate

Albendazole

Oxibendazole valbazine teratogenic

Febanted

Oxpendazole

2- **Imidazothiazole**

Tetramazole – levamisole

Tetramisole

Levoamisole

7.5 mg/kg oral

2 ml (18.2 % per 50 kg)

Not for sheep with carbontetrachloride for liver damage

3- **Tetrahydropyrimidine**

From imidazothiazole

Pyrantel- merantel- epsiperantel- Pyrantel- (strongil) wide- merantel (banmensh) more wide

28ml (5.9%)/kg

4- **Organophosphorus**

Haloxane with food 15-50mg/kg

Pichlorphos

Caumaphos

Trichlorphen

Metriphonate (neguron) 55mg/kg

5- **Piperazin (co pane) 0.11gm/kg**

Diethyl carbamazine acid citrate (banocide) 10mg/kg

6- **Avermectins antiparasitic**

7- **ivermectin (ivomac- egiralar) 1%/ml/50mg**

8- **Phenorlizine**

10-30gm (3%)/150kg

Benpheniumhydroxyraphthate (ancaris)

Drugs for tape worms

1- **Arecoline**
2- **Dichlorphen**
3- **Bonamidine- hcl**
4- **Niclosamide(yomesan)**
5- **Resorantel**
6- **Bithional**
7- **Praziquantel**

Drugs for flukes

1- **Carbontetrachloride (for sheep)**
2- **hexachloroethane**

Recent fasidrcides

1- **hexachlorophen**
2- **oxyclozamide**
3- **tribromozolan**
4- **Nitroxymid**
5- **Niclopholon**
6- **Rofaxamide**
7- **Clioxanide**
8- **Diamphenacide**
9- **Brotamide**
10- **Triclobendazole (fasinex)**