CODEX ALIMENTARIUS COMMISSION

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Agenda Item 8 **CX/CF 13/7/8 Add.1**
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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON CONTAMINANTS IN FOODS

Seventh Session
Moscow, Russian Federation, 8 – 12 April 2013

PROPOSED DRAFT ANNEX FOR THE PREVENTION AND REDUCTION OF AFLATOXINS AND OCHRATOXIN A CONTAMINATION IN SORGHUM (CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF MYCOTOXIN CONTAMINATION IN CEREALS (CAC/RCP 51-2003))

Comments at Step 3 submitted by Argentina, Brazil, Costa Rica, European Union, Ghana, India, Kenya, Russian Federation and African Union

ARGENTINA

Argentina welcomes the opportunity to present comments on this document and proposes a revision of the Spanish translation because several translation mistakes have been found that could lead to discrepancies in interpretation of the contents.

Along the document, storage conditions between 0ºC-10ºC are recommended, which in our country are not feasible since storage facilities are not prepared for those temperatures.

Concerning the moisture content, commercially sorghum is stored at 14.5% moisture, to obtain lower values if necessary.

1) Leaving it for longer periods on the field so it dries naturally presents risks of insects or birds damage, or rain, that can increase the content of mycotoxins through mushrooms growth in damaged grains.

2) Drying after the harvest often harms the grains and makes them more prone to mushrooms growth and thus, more susceptible to contamination by mycotoxins.

In this case we consider convenient referring to **CAC/RCP 51-2003**, where it is stated that for the bulk of the harvest the moisture content should be less than 16%, and the temperature under 20ºC.

BRAZIL

Brazil suggests that the COP should be developed like the others COP already adopted, with more general provisions, pointing out adequate conditions and practices instead of mentioning specific materials, such as jute bags (paragraph 20).

The second sentence of the paragraph 19 should be deleted.

Some concepts should be revised, such as to wash the grinding equipment for flour production (para 27).

We suggest including only practical measures. For example, it is not feasible to store grains at 5ºC and to use controlled anaerobic atmosphere (paragraphs 22 and 34).

COSTA RICA

Costa Rica welcomes the opportunity to provide comments on document CX/CF 13/7/8 Proposed Draft Revision for the Prevention and Reduction of Aflatoxins and Ochratoxin A Contamination in Sorghum.

Comment

In Costa Rica this cereal is not grown for self consumption. However, we support the development of this document because sorghum is used in feed. We do not have comments on the document.

EUROPEAN UNION

The European Union and its Member States (EUMS) welcome and appreciate the good work performed by the electronic Working Group under the lead of Nigeria, co-chaired by Sudan, on the development of an annex for the management of aflatoxins and ochratoxin A in sorghum to the Code of Practice for the Prevention and Reduction of Mycotoxin Contamination in Cereals (CAC/RCP 51-2003).

The EUMS have no specific comments but would like to highlight the following:

§ 37 refers to gamma irradiation of packaged grains and products as an effective control method against recontamination after processing and packaging, providing a good option for mycotoxin reduction in foods and feeds derived from sorghum in the future.

The EUMS would like to indicate that gamma irradiation of cereals and cereal products is not allowed in all countries and therefore it might be appropriate to add the following to the paragraph: "In case the grains and derived products are destined for export, it is necessary to ensure that gamma irradiation of grains and derived products is in accordance with the legislation of the country of destination."

The EUMS note that in the draft annex 5 to the Code of Practice reference is made to practices which might have proven their effectiveness in a pilot project / on a limited scale but questions if these practices have proven their effectiveness on a large scale (cf. e.g. practices mentioned in § 36 and § 38). The EUMS are of the opinion that only practices, which have proven their effectiveness on a large practical scale, should be mentioned in the annex 5 to the Code of Practice and that it is premature to include practices which have shown their effectiveness only on a limited / pilot scale.

GHANA

Comment: Ghana supports the adoption of the proposed draft annex for the prevention and reduction of aflatoxins and ochratoxin A contamination in sorghum (Code of practice for the prevention and reduction of mycotoxin contamination in cereals (CAC/RCP 51-2003) (at Step 3)

Rationale: The Annex is timely as it will provide member countries and the sorghum industry, guidance to prevent and reduce aflatoxins (AFs) and ochratoxin A (OTA) contamination in sorghum during production, storage and distribution to the point of usage of the cereal.

INDIA

Annex 5

PLANTING:

Paragraph 4: The text should be modified as follows:

Before planting, growers should consult with appropriate plant breeding authorities to ascertain sorghum cultivars that are **tolerant tobiotic and abiotic stresses that predispose the crop to mycotoxin contamination such as diseases, insect-pests and drought etc.**~~that are resistant to various factors (e.g., fungal diseases).~~

Rationale: *The cultivars should be able to withstand the biotic and abiotic stresses which otherwise lead to mycotoxin contamination.*

Paragraph 7: The text should be modified as under:

Avoid cultivating on light sandy soil, particularly under dry conditions, ~~as these factors may introduce drought stress causing proliferation of fungi and toxin production~~**as this drought prone situation may predispose the crop to infection by mycotoxigenic fungi and toxin production.**

Rationale: *For better clarity in meaning*

Paragraph 11: The text should be modified as follows:

Harvest crop~~s~~ at full maturity unless allowing the crop to continue to full maturity would subject it to extreme heat, rainfall or drought conditions.

Rationale: *Grammatical error.*

Paragraph 13: The text should be modified as follows:

Plants damaged and/or infected by pests and pathogens should be harvested separately.

Avoid stacking the harvested produce including the panicle for unduly long periods to prevent fungal growth as spore**s** from panicle will serve as inoculum~~s.~~

Rationale: *Grammatical error*

Paragraph 14: The text should be modified as follows:

Threshing should be carried out on clean surfaces or in a cleaned thresher, and the process should be done with care to ensure that minimal mechanical damage is inflicted ~~on~~ to the grains.

Rationale: *Grammatical error*

Paragraph 16: The text should be modified as follows:

Sun drying should be done on clean surfaces or in mechanical dryers. Grains should be protected from rain and dew during this process. Flat bed and re-circulating batch driers are adequate for small scale operations while ~~and~~ large drying system using continuous flow-dryer will suffice for large scale drying for long storage period.

***Rationale**: Grammatical error.*

Paragraph 17: The text should be modified as follows:

Post-harvest storage is the stage that contributes most to AFs load in sorghum. The basic principle of maintaining the quality of crop during storage is to keep the grains safe from favourable conditions for fungal growth and mycotoxin development as well as avoiding loss ofproduce **due**to pests and predators such as birds and rodents**.**

***Rationale:** For better clarity in meaning.*

PROCESSING:

Paragraph 22: The text should be modified as follows:

Sorghum grains for human ~~and~~animal consumption are usually processed to sorghum flour (Figure 1), from which sorghum dough, meals and other foods are prepared. In general, the process consists of husking, polishing, grinding and scouring.**Sorghum grains are also used as poultry feed and care must be taken to maintain proper isolation between good lots & bad lots so that mycotoxin contamination could be avoided.**

PLANTING:

Paragraph 33: Do not grow sorghum in or close to cocoa trees, coffee bean plants or grape vines as these crops are highly susceptible to ochratoxigenic fungi and OTA contamination and thus will inoculate the soil with *Asperigillusochra**c**~~ee~~us* or *Penicilliumverrucosum* in tropical and temperate climates respectively with consequent carryover to the grain.

KENYA

GENERAL COMMENTS

Although Kenya was one of the members who participated in this e-WG, we would still like to give thanks to everyone who participated effectively including the lead country for very good work done.

We believe this code is very important to all CAC members for future improvements of producing cereals worldwide when well implemented.

OTA is one of the major causes of cancer which needs to be reduced drastically if not eliminated for better health for both animals and human.

We therefore appreciate the initiation of an electronic Working Group led by Nigeria and co-chaired by Sudan, to prepare the proposed draft annex for comments to be later annexed to CAC/RCP51-2003.

Comment:

We support the code of practice on to be an annex for the management of AFs and OTA in sorghum to the Code of Practice for the Prevention and Reduction of Mycotoxin Contamination in Cereals (CAC/RCP 51-2003). This will give guidance to both small and big farmers to minimize the OTA in cereals.

RUSSIAN FEDERATION

Position:

So far the MLs of aflatoxins and ochratoxin A in sorghum are not established in Russia.

We agree with the approach for the prevention and reduction of aflatoxins and ochratoxin A contamination in sorghum proposed in the document CX / CF 13/7/8.

AFRICAN UNION

African Union strongly supports the adoption of the proposed draft annex for the prevention and reduction of aflatoxins and ochratoxin A contamination in sorghum (Code of practice for the prevention and reduction of mycotoxin contamination in cereals (CAC/RCP 51-2003) (at Step 4)	Sorghum is a major staple for several African countries. This document is intended to provide member countries and the sorghum industry with guidance to prevent and reduce aflatoxin (AF) and ochratoxin A (OTA) contamination in sorghum during production, storage and distribution to the point of usage of the cereal.