

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Items 2, 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14

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**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON CONTAMINANTS IN FOODS**

**Tenth Session
Rotterdam, The Netherlands, 4-8 April 2016
(Comments submitted by European Union)**

Agenda Item 2

Matters referred to the Committee by the Codex Alimentarius Commission and/or its subsidiary bodies

(CX/CF 16/10/2)

The European Union and its Member States (EUMS) wish to comment on the request from the Committee on Spices and Culinary Herbs (CCSCH) to CCCF to consider whether existing maximum levels of contaminants for leafy vegetables could apply to spices and culinary herbs or whether specific levels should be drafted.

The EUMS wish to refer to the explanatory notes on the maximum and guideline levels for contaminants and toxins in foods provided for in the General Standard for Contaminants and Toxins in Food and Feed (GSCTFF) (CODEX STAN 193-1995).

As regards the commodities or products to which a certain maximum level refers to the following is mentioned in the explanatory notes:

"For the commodities or products not contained in Codex commodity standards the definition of the commodity or product is provided in the Classification of Food and Feed (CAC/MISC 4), unless otherwise specified.

In case a ML or GL applies to a product group (e.g. legume vegetables), the ML or GL applies to all individual products belonging to the group as defined in CAC/MISC 4".

In the Codex Classification of Food and Animal Feeds (CAC/MISC 4), the group "013 Leafy vegetables" belongs to the aggregate group "02 Vegetables" while there is a separate aggregate group "05 Herbs and Spices" with two groups "027 Herbs" and "028 Spices".

Therefore, it is clear that maximum or guideline levels established in the GSCTFF for leafy vegetables cannot (automatically) apply to spices and culinary herbs.

It could be suggested that CCSCH provides information to CCCF for which contaminants it might be appropriate to establish maximum levels for spices and culinary herbs for further consideration by CCCF.

Agenda Item 5

Proposed draft maximum levels for inorganic arsenic in husked rice

(CX/CF 16/10/5)

The European Union (EU) welcomes and appreciates the work on the maximum level for inorganic arsenic in husked rice by the electronic Working Group chaired by Japan and co-chaired by China.

As regards a maximum level of 0,35 mg/kg for husked rice, the European Union considers it does not result in an important reduction of intake of inorganic arsenic. In addition, such a maximum level would be conflicting with the maximum level for polished rice previously agreed at 0,2 mg/kg. In fact, in case a maximum level of 0,35 mg/kg for husked rice would be retained for inorganic arsenic, this would mean that 24 % of the polished rice derived from compliant husked rice would be non-compliant. The European Union considers that this would have a significant negative effect on international trade.

As there is no objection against a maximum level with two significant figures, the European Union remains convinced that a maximum level of 0,25 mg/kg for husked rice should be set, as it reduces dietary exposure by almost 10 % and is compatible with the maximum level of 0,2 mg/kg for polished rice.

Agenda Item 6

Proposed draft revision of maximum levels for lead in selected fruits and vegetables (fresh and processed) in the General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995)

(CX/CF 16/10/7)

The European Union (EU) welcomes and appreciates the work on the revision of the maximum levels for lead by the electronic Working Group led by the United States of America.

In general, the EU supports the recommendations for the revision of the maximum levels for lead in selected commodities as expressed in document CX/CF 16/10/7.

As regards the "juices and nectars from berries and other small fruits", it should be clarified that this entry relates to "FRUIT juices and nectars that are obtained EXCLUSIVELY from berries and other small fruits", in order to avoid confusion.

In addition, for this commodity as well as for the entry "passion fruit juice and nectar", the notion "READY TO DRINK" should be added to the entry.

For canned brassica vegetables, the EU acknowledges that insufficient data points are available. However, in view of the maximum level applicable for fresh brassica vegetables and taking into account that nowadays canning processes no longer lead to dramatic increase in lead content of the canned product, the EU proposes to align the maximum level for canned brassica to the maximum level applicable to fresh brassica awaiting new data.

Concerning the commodity "Jams (fruit preserves) and jellies", the EU agrees to lowering the maximum level to 0,1 mg/kg and considers that marmalades can be included in this category.

In view of reducing the number of very specific entries and taking into account the limited chance for additional data for such commodities, the EU proposes to combine the entries "mango chutney" with "jams and jellies", "canned chestnuts and chestnut puree" with "canned fruits" and "pickled cucumbers (cucumber pickles)" with "canned fruits".

As regards mushroom and fungi, the EU can agree to the proposed maximum level of 0,3 mg/kg. In the EU legislation, a maximum level of 0,3 mg/kg is applicable only for three named species, being the common mushroom, the oyster mushroom and the shiitake mushroom.

As regards the acceptable minimum number of samples for revising an ML, the EU considers that statistical reliable figures can be obtained when minimum 60 samples are available. However, in case a lower number of samples shows a consistent pattern of lower contamination, the EU can agree to setting maximum levels based on a lower number of samples.

Agenda Item 7

Proposed draft Code of practice for the prevention and reduction of arsenic contamination in rice

(CX/CF 16/10/8)

The European Union and its Member States (EUMS) welcome and appreciate the work on the code of practice for the prevention and reduction of arsenic contamination in rice by the electronic Working Group chaired by Japan and co-chaired by China.

The EUMS acknowledge that multi-year studies investigating the effect of irrigation regimes, contamination from anthropogenic sources, climate change, cultivated rice varieties and soil type are currently on-going in many countries. Without a clear view on the exact end date of all studies, the EUMS consider that it would be difficult to postpone discussions on the elaboration of a Code of Practice for the prevention and reduction of arsenic contamination in rice.

The EUMS propose to finalise the draft Code of Practice with the currently available information. Depending on the outcome of the on-going studies, the Code of Practice can be updated at a later stage.

Agenda Item 8

Proposed draft maximum levels for cadmium in cocoa and cocoa-derived products

(CX/CF 16/10/9)

The European Union (EU) takes note of the work by the electronic Working Group led by Ecuador and co-chaired by Brazil and Ghana on the proposed draft maximum levels for cadmium in chocolate and cocoa-derived products.

The EU agrees that occurrence data for cadmium should be used as a basis for the development of possible future maximum levels rather than complex calculations leading to theoretical maximum levels. Such occurrence data should be collected not only for different categories of chocolate, but also for primary and intermediate commodities that are important in global trade such as cocoa beans, cocoa liquor and cocoa powder. Occurrence data should represent all producing countries, rather than focusing on a specific geographic region.

Taking into consideration the existing Codex commodity standards CODEX STAN 87-1981, Rev. 1 – 2003 – STANDARD FOR CHOCOLATE AND CHOCOLATE PRODUCTS, the EU however sees no advantage to work on the categorisation for different types of chocolates.

As for the suggested maximum levels for cadmium in cocoa liquor and cocoa powder, the EU considers that the rationale for selecting these commodities is insufficiently clear. In addition, the suggested maximum levels would only have a very limited impact on the reduction of dietary exposure. The proposed maximum levels are so high that derived consumer products would not be sufficiently protective for vulnerable consumer groups such as children.

In combination with the very low non-compliance rate, the proposed maximum levels would lead to increased testing costs without any added value for consumer protection and international trade. For these reasons, the EU cannot support the proposed maximum levels.

The EU would like to point out that it would be impossible to produce chocolate complying with maximum levels entering into force in the EU on 1 January 2019 or currently in force in other countries around the world using cocoa liquor and cocoa powder that comply with the proposed maximum levels. The EU wishes to point out that the relevant maximum levels entering into force in the European Union on 1 January 2019 will remain unchanged. The EU further stresses that it considers the cocoa powder in Codex document CX/CF 16/10/9 and in the EU Regulation to be distinct commodities as the first refers to international trade, whilst the cocoa powder in the EU Regulation is defined as "*Cocoa powder sold to the final consumer or as an ingredient in sweetened cocoa powder sold to the final consumer (drinking chocolate)*".

The EU reiterates its position that maximum levels should be established for primary and intermediate commodities that are traded in large quantities at global level, such as cocoa beans, cocoa liquor and cocoa powder rather than for final products, an approach that is also followed for other contaminants in the Codex Committee on Contaminants in Food.

Agenda Item 9

Draft Revision of the Code of practice for the prevention and reduction of mycotoxin contamination in cereals (CAC/RCP 51-2003)

(General Provisions) (at Step 7)

(REP15/CF Appendix VII and CX/CF 16/10/10)

The European Union and its Member States (EUMS) refer to the findings from the FAO/WHO project on mycotoxins in sorghum and the suggestions for inclusion in the Code of Practice as mentioned in §12 of document CX/CF 16/10/3 – Add 1. The EUMS suggest to include the information as regards the seeds in §14 of the draft Code of Practice and the information as regards immediate post-harvest practices in §28 of the draft Code of Practice.

§2 and rest of the document: the EUMS is of the opinion that it is most appropriate to use the term "mycotoxigenic fungi" throughout the document.

§9: besides the importance of education of producers it is also important to educate the collectors and the processors.

§9b: the EUMS are of the opinion that there are currently for most mycotoxins reliable test kits available and therefore the EUMS are of the opinion that the focus should be on the effective use of the test kits rather than then development and availability of these test kits.

Table 1: "alternariol methyl ether" instead of "methyl ether alternariol", "millet" instead of "milet"

§21: reference is made to mechanical drying equipment. It is important to highlight the need to use proper drying techniques in order to avoid contamination by contaminants generated by improper drying techniques such as polycyclic aromatic hydrocarbons (PAH), dioxins, ...

Furthermore, the EUMS would like to receive some clarification/explanation on the washing methods referred to in §28 and the reasons for application of washing methods or situations in which such washing methods are used. The EUMS note that drying of cereals after washing to sufficient low moisture content is a challenge being aware of the challenge to dry cereals to sufficient low moisture content in case of harvest in wet weather conditions.

In §30: it is also appropriate to refer to good drying practices (cf. comment on §21).

As regards §35, given the confusion and the different views on the appropriate moisture content for bagged cereals compared to bulk cereals, it is proposed to delete the last sentence (starting with "When stored by the conventional ...") of §35.

§38 last sentence: when spoiled grain has been removed, it may be necessary to aerate the remaining grains to lower the temperature **and the moisture** to acceptable levels.

§39: The last sentence is confusing. The EUMS propose to replace it by "Extremely cold temperatures will also inhibit insect growth and reproduction, reducing risk of insect damage **and** in turn **limit** mould growth".

§42: the validated predictive models as such do not control fungal growth and mycotoxin production but the management measures taken based on these validated predictive models do. Therefore it is proposed to modify the last sentence as follows: "**Management measures taken by making use of validated predictive models, when available, can control fungal growth and mycotoxin production during these procedures.**"

§46: it might be appropriate to mention that it is important that the short-term storage at the processors' level is performed under the same conditions / requirements as for long-term storage.

§47: the EUMS are of the opinion that it is important to refer to the proper implementation of sampling plans and analytical testing in order to provide accurate and representative results.

Furthermore, as regards the last sentence in §48, the EUMS would like to indicate that it is also important to monitor mycotoxin levels in the separated hulls and seed coat (bran layers) fractions when intended for feed. Therefore, it is suggested to change the last sentence of § 48 as follows: "*Where these fractions are to be used for **feed and** food use rather than being discarded, it is also important to monitor mycotoxin levels to ensure **feed and** food safety in the products as consumed **or fed (or as used)** .*"

Agenda Item 10

Proposed draft Annexes to the Code of practice for the prevention and reduction of mycotoxin contamination in cereals (CAC/RCP 51-2003)

(CX/CF 16/10/11)

The European Union and its Member States (EUMS) welcome and appreciate the work done by the Electronic Working Group chaired by Brazil and co-chaired by Canada and the United States of America on the annexes to the Code of practice for the prevention and reduction of mycotoxin contamination in cereals.

As regards Annex 4 (trichothecenes), §12, the EUMS would like to indicate that it is also important to monitor DON levels in the separated hulls and seed coat (bran layers) fractions when intended for feed. Therefore, it is suggested to change §12 as follows: "*Separated hulls and seed coat (bran layers) fractions from processed grains to be used **in feed** and food may contain unacceptably high levels of DON and must be examined for DON levels before they are processed into **feed and consumable products.***"

As regards Annex 5 (aflatoxins) §3, it would be appropriate not only to refer to the possible use of non aflatoxigenic fungi but also to the other biological solutions such as biofumigation, biopesticides, etc.

In the second sentence of §8 in Annex 5 (aflatoxins), the following is mentioned "*Aflatoxins rarely occur in small grains, except as the result of poor storage conditions*".

While this statement is true for small grain cereals such as wheat and barley, the findings from the FAO/WHO project on mycotoxins in sorghum (CX/CF 16/10/3 – Add 1) indicate that aflatoxins can be found at high levels in sorghum, which is a small grain cereal. Therefore, the EUMS suggest to delete the sentence or to change it as follows: "*Aflatoxins rarely occur in small grains, except in sorghum and as the result of poor storage conditions*".

In §10 of Annex 5 it might be appropriate to refer to "**appropriate** drying" or "drying **following good practices**" (to avoid contamination with other contaminants).

Agenda Item 11

Proposed draft Code of practice for the Prevention and Reduction of Mycotoxin contamination in spices

(CX/CF 16/10/12)

The European Union and its Member States (EUMS) welcome and appreciate the work done by the Electronic Working Group chaired by Spain and co-chaired by India and The Netherlands on the draft Code of practice for the prevention and reduction of mycotoxin contamination in spices.

The EUMS agree in general with the recommendations made by the EWG as outlined in §6 of CX/CF 16/10/12. Nevertheless, the EUMS would like to propose as regards the recommendation in point a) of §6, in order to avoid confusion with such a wide term as "spices", that the definitions should be deleted in this Code of Practice (paragraphs 7 to 9 of Appendix I). A reference to the definitions of the Code of Hygienic Practice for Spices and Dried Aromatic Herbs (CAC/RCP 42-1995) should be made instead (cross-reference).

In line with the comments made for the Code of Practice for the prevention and reduction of mycotoxin contamination in cereals, the EUMS are of the opinion that it is most appropriate to use the term "mycotoxigenic fungi" or "mycotoxigenic moulds" throughout the document;

In paragraph 29 it is important to mention that when the trucks and containers are opened in order to increase aeration and minimise the condensation effects **that this is done under conditions protected from rain**.

In paragraph 32, for the sake of clarification and in order to avoid confusion with the subsequent drying process, the EUMS propose the following wording: "... *through adequate **desiccation** (drying) to less than 10% moisture*".

The EUMS are of the opinion that in paragraph 34 too much focus is made on the effectiveness of the use of chemical compounds to prevent fungal growth and mycotoxin production. The EUMS are of the opinion that it would be appropriate to soften the wording and to refer to the possible use of such chemical treatments to prevent fungal growth and mycotoxin production on the condition that their effectiveness has been demonstrated.

Furthermore, reference is made to "stored grains". The EUMS question if this should not be "stored spices" or does it only refer to grains which could also be used as spices such as e.g; sesame seed.

In paragraph 39, reference is made to a water activity below 0.60. Elsewhere in the code reference is made to the moisture content. The EUMS are of the opinion that it would be appropriate to provide a table with values of moisture content of spices in relation to water activities at a certain temperature for some spices.

In paragraph 40, it is appropriate to add (in bold): "(...) and should be constructed of a material **that can easily be cleaned** and that will not contaminate the stored spices."

In paragraph 44, point 3 a) it is important to mention that this type of controlled drying **must be** (stronger than "is") carried out in drying houses.

In Appendix II, Part I of the document, the EUMS propose to delete "poppy seeds" from the list of spices as in the Codex Classification of Food and Animal Feeds (CAC/MISC 4), the poppy seeds belong to the group of "023 Oilseed" and although it is also mentioned in the group "028 Spices" (with reference to the group 023 Oilseed), it is mainly considered as an oilseed in many countries.

In Appendix II, Part II, in point 2.4, when reference is made to the fumigation with magnesium and aluminium phosphide, it is important to refer that this has to be done with the appropriate safety measures for personnel and food safety measures and according to the instructions and legislation.

Finally, the EUMS propose to change the title of Table 2 in Appendix II, Part I, by the following: "Main species of mycotoxigenic fungi".

Agenda Item 12

Discussion paper on an annex for ergot and ergot alkaloids to the Code of Practice for the prevention and reduction of mycotoxin contamination in cereals (CAC/RCP 51-2003)

(CX/CF 16/10/13)

The European Union and its Member States (EUMS) welcome and appreciate the work done by Germany on the discussion paper on an annex for ergot and ergot alkaloids to the Code of Practice for the prevention and reduction of mycotoxin contamination in cereals.

The EUMS wish to make following comments:

Comments on the introduction

§3: it is suggested to add at the end of the paragraph: "*Ergot sclerotia contain significant levels of toxic ergot alkaloids (EAs) which cause a number of harmful effects in humans and animals.*"

§5: it is suggested to change the structure of the 2nd and 3rd sentences starting with "*Moreover, in sorghum ergot (...)*" and ending with "*(...) and the geographical location (Lorenz 1979).*" into "*In addition, dihydro-ergosine and related alkaloids are also significant components of sorghum ergot (Blaney et al. 2010). Depending on the fungi species, the host, the weather conditions and the geographical location, sclerotia contain different amounts of EAs (Lorenz 1979).*"

§6: first sentence: it is proposed to change the word "*ubiquitous*" into "*regularly occurring*". Second sentence the word "*respectively*" is superfluous.

§10 and §11: it is proposed to combine both paragraphs as they are both related to the BfR assessment as regards the potential health risks of the presence of ergot alkaloids in cereal products in Germany.

§11: It is proposed to replace the second sentence "*Moreover, ergot alkaloids contents are believed to remain constant during processing (Fajardo 2012)*" into "*The behaviour of ergot alkaloids during processing and a possible decrease is still part of research activities and not yet clarified (Fajardo et al. 1995, EFSA 2012).*"

Reasoning while *Fajardo et al. 1995* (publication was in 1995 and not in 2012) no decrease of ergot alkaloids could be observed during processing, in the EFSA opinion it is indicated that during processing, in particular baking, the total amount of ergot alkaloids decreases. Furthermore new studies (not yet published) could not confirm a decrease of ergot alkaloids during processing.

It is furthermore proposed to delete the last sentence of §11 (starting with "*Thus the level of 64 µg/kg (...)*"), as it is not relevant to the context of the Code of Practice.

§12: It is proposed to also make reference to the maximum level established for ergot in wheat and durum wheat in the Codex Standard for Wheat and Durum Wheat (CODEX STAN 199-1995) of 0.05 % m/m in wheat and of 0.5 % m/m in Durum Wheat (the latter possibly being an error and needs also to be 0.05 % m/m)

Furthermore, it is proposed to replace the last sentence by the following: "Maximum levels for ergot alkaloids in processed cereal products might be set in the future after more occurrence data on EA content in these food products have been collected".

§14: the requirement of ploughing of the soil should be considered in the light of other requirements for soil conservation such as minimum tillage or the use of cover crops. So in case the advice is not to plough or to cultivate, growers should be made aware of the risk and e.g. to use cover crops encouraging early germination of the ergot sclerotia so that they do not coincide with crop or grassweed anthesis.

In the list of literature references, the publication year of the article of *Fajardo et al.* has to be changed from 2012 to 1995.

Furthermore, it might be appropriate to also refer to the information sheet 33 on "ergot in cereals" from the UK Agriculture and Horticulture Development Board (AHDB) which is available at <http://cereals.ahdb.org.uk/media/487937/is33-ergot-in-cereals.pdf> and to the information sheet published by ARVALIS (France) at http://www.arvalis-infos.fr/file/galleryelement/pj/6e/10/36/e1/vf_3019_cereales_a_paille_et_ergot7131400996353361252.pdf.

Comments on the Appendix – recommended practices based on GAP and GMP

§1: it might be appropriate to indicate that these recommended practices are in principle relevant/applicable for all cereals but in particular relevant/applicable to the most sensitive crops such as rye, triticale, sorghum and pearl millet.

§3: Reference is made to the comment on §14 of the introduction.

In addition, in case the field has been ploughed to avoid that ergot sclerotia remain on the field at surface level, it should be advised that no ploughing should take place in the year thereafter as research has shown that this second ploughing could bring back about 60 % of the ergot sclerotia in the upper layers of the soil and the ergot sclerotia may have maintained their germinating power.

§7: it is suggested to replace the recommendations in §7 by the following (additions/deletions highlighted): "*Combat inferior/weed grasses within the cereal under cultivation **with appropriate crop management procedures including crop protection products where necessary** and also employ a higher level of crop hygiene at the field's edge; **These crop management procedures to combat the inferior/weed grasses in the field and on the field's edge have to be continued for at least two years after a contamination by ergot has occurred on a field; Ensure effective care of the margin through close control of weed grasses/host plants around hedges and trees; combat host plants by ~~cutting~~ controlling them before blossoming flowering of the crop.**"*

The addition of the requirement to continue to control inferior /weed grasses for at least two years after ergot contamination is very important as the presence of inferior/weed grasses maintain the inoculum present in the soil and the infection potential of the field.

There is no §12.

§21: Besides mentioning the scrubbing, brushing or peeling as "white-cleaning" process, it is appropriate to add scouring and air-aspiration as possible with cleaning process.

Referring to the comment made for §1 of the Appendix, it might be appropriate to mention that the white-cleaning process might not be applicable to all grains. For e.g. the "white cleaning" process may cause processing anomalies in malting barley by damaging the husk or may not be allowed on grain for distilling under the e.g. Scotch Whisky regulations.

Agenda Item 13

Discussion Paper on the Development of Maximum Levels for Mycotoxins in Spices and possible Prioritization of Work

(CX/CF 16/10/14)

The European Union (EU) welcomes and appreciates the work done by the electronic Working Group chaired by India and co-chaired by the European Union and Indonesia on the discussion paper on the development of maximum levels for mycotoxins in spices and possible prioritisation of work.

The EU can agree with the conclusions in §4 and the recommendation in §5 of document CX/CF 16/10/14.

As regards the project documents provided for in Appendix II and III, the EU wishes to indicate that in both project documents, it is indicated that "*Scientific risk assessment by JECFA might be required*" (respectively in point 7 and 8). Therefore the proposed timeline for completion of work in both project document (respectively in point 9 and 10) has to be adapted in function of the timing of the availability of the JECFA risk assessment. Taking this into account, 2017 as possible date for completion of the work is in any case too early.

Furthermore, the EU suggests that the CCCF considers to first start new work on the establishment of maximum levels for mycotoxins in dried or dehydrated forms of chilli, paprika, ginger, nutmeg, pepper and turmeric before initiating the new work on the establishment of maximum levels for mycotoxins in dried and dehydrated forms of caraway, celery seed, cloves, coriander seed, garlic and fenugreek.

Agenda Item 14

Discussion paper on maximum levels for methylmercury in fish

(CX/CF 16/10/15)

The European Union (EU) welcomes and appreciates the work on the discussion paper prepared on maximum levels for methylmercury in fish by the electronic Working Group under the lead of Japan

and co-chaired by New-Zealand.

The EU remains in favour of the development of maximum levels for methylmercury in fish. Such maximum levels should not only cover fish species which can accumulate high methylmercury concentrations, but all fish species that are important for international trade. Although top predator fish species often show very high levels of methylmercury, accumulation of methylmercury is not exclusively restricted to predatory fish. Maximum levels for fish should be reasonable and reflect reality

Therefore, the EU considers that the project document should not be limited to tuna but instead offer the possibility to cover all fish species. As regards the proposed time-line for completion, the EU considers that draft maximum levels for methylmercury in fish should be prepared by an electronic working group for consideration at the 11th session of the CCCF with a view to its finalization in 2018 or following years.