



**JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON SPICES AND CULINARY HERBS**

Fifth Session

Kochi, Kerala, India, 26 - 30 April 2021

DRAFT STANDARD FOR SAFFRON

Comments at Step 6 (Replies to CL 2019/94/OCS-SCH)

Comments of Colombia, Egypt, India, Iraq, Kenya, Japan, United States of America and IUFOST

Background

1. This document compiles comments received through the Codex Online Commenting System (OCS) in response to CL 2019/94/OCS-SCH issued in October 2019. Under the OCS, comments are compiled in the following order: general comments are listed first, followed by comments on specific sections.

Explanatory notes on the appendix

2. The comments submitted through the OCS are hereby attached as **Annex I** and are presented in table format.

3. As a result of the rescheduling of the CCSC5 session from 21-26 September, 2020 to 26-30 April 2021, the timelines for the EWG on dried saffron were adjusted. The EWG is continuing its work including addressing the attached comments.

DRAFT STANDARD FOR SAFFRON
Comments at Step 6 (Replies to CL 2019/94/OCS-SCH)

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION
General Comments	
We agree with proposal draft standard especially clause 4 food additives	Iraq
UFOST supports the adoption of this standard.	IUFOST
1. Scope	
This Standard applies to saffron (dried dried floral parts) parts commonly sold in commerce as defined in section 2.1 below, offered for direct human consumption food processing and for repackaging if required. The exact species bought / sold may be defined by contractual specifications. <u>It excludes saffron intended for industrial processing.</u> <u>Rationale</u> As per approved CCSCH template for Standards	India
This Standard applies to saffron (dried floral parts) commonly sold in commerce as defined in section 2.1 below, offered for direct human consumption food processing or as ingredient in food and for repackaging if required. The exact species bought / sold may be defined by contractual specifications.	Egypt
This Standard applies to saffron (dried floral parts) commonly sold marketed as defined in Section 2.1 below, offered for direct human consumption or food processing ingredient and for repackaging if required. <u>It excludes the product intended for industrial processing.</u> <u>Justification</u> Colombia deems necessary to change the term "sold" by "marketed" in order to add clarity to the text. The change seeks to give clarity and delimitation to the scope, because for "human consumption" could be understood as the food may or may not be packaged. Thus, we consider that the expression "and for repackaging if required" does not establish a specific criteria to determine the specific condition of the product. We also consider that it is appropriate to adjust the wording of the last paragraph in order to provide greater clarity to determine the specific situations where standard is not applicable.	Colombia
2.2 Styles and forms	
2.2 Styles/forms¹ Propose the following to be added as footnote <u>1 Other styles distinctly different for those three are allowed, provided they are labelled accordingly.</u>	Egypt
2.2 Styles/forms forms of presentation	Kenya
Other Styles	
Other styles distinctly different for those three are allowed, provided they are labeled accordingly.	Egypt
Other styles-forms distinctly different for those three are allowed, provided they are labeled accordingly.	Kenya
3.1 Composition	
Dried floral parts as described in Section 2. Product Description. <u>Description and shall conform to requirements set in Annex I.</u> As per approved CCSCH template for standards	India
3.2 Quality Criteria	
3.2 QUALITY CRITERIA FACTORS In line with approved CCSCH template for standard	India

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION
3.2 QUALITY CRITERIA/FACTORS	Kenya
3.2.1 Infestation	
3.2.1 Infestation	India
Saffron shall be free from live insects and practically free from dead insects, insects fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) odour, flavour and colour. Table - 2 covers all aspects. There is no need to include any other infestation	India
Saffron shall be free from live insects and practically free from dead insects, insects fragments and rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) odour, flavour and colour. <u>contamination.</u> Rationale: For avoiding subjectivity	Kenya
Saffron shall be free from live insects and practically free from dead insects, insects fragments and free from rodent contamination visible to the naked eye (corrected, if necessary, for abnormal vision) odour, flavour and colour. Justification Colombia agrees that dead insects and insect fragments do not represent a concern for the safety of the product; however, believes that rodent contamination can have a health impact. Consequently, an adjustment is made in the paragraph indicated, so that rodent contamination is not allowed.	Colombia
3.2.2 Adulteration	
3.2.2 Adulteration	India
Dried floral parts shall be free from any adulteration.	India
Dried floral parts shall be free from any <u>economic</u> adulteration.	Egypt
3.2.3 Odour, flavour and colour	
3.2.3 <u>1</u> Odour, flavour and colour	India
Saffron shall be free from any foreign odour or flavour and especially from mustiness. They should have a characteristic odour and flavour depending on geo-climatic factors/conditions/varieties and the chemical strain of the main components of the volatile oil indicated in Annex 1. <u>3.2.2 Chemical and physical characteristics</u> <u>Saffron shall comply with the minimum chemical and physical properties in Table 1 and Table 2 in Annex 1. The defects allowed must not affect the general appearance of the product as regards to its quality, keeping quality and presentation in the package.</u>	India
Saffron shall be free from any foreign odour or flavour and especially from mustiness. They should have a characteristic odour and flavour depending on geo-climatic factors/conditions/varieties and the chemical strain of the main components of the volatile oil indicated in Annex 4 <u>1</u> and shall be free from any foreign odour or flavour. <u>Rationale</u> As per approved CCSC template for Standards	India
3.2.4 Classification	
3.2.4 <u>3</u> Classification	India
3.2.4 Classification <u>The classification of saffron as described in Section 2.2 Styles/form is optional.</u> <u>Rationale</u> This section of the Standards indicates that classification is optional, and references classification in accordance with a private standard (ISO) for class/grade II requirements. The working group should note the following:	USA

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION
<p>1. Codex commodity committee standards avoid referencing private standards by name or origin as all members may not belong to such bodies with membership fees.</p> <p>2. The third Draft Standard for Dried Saffron circulated to the eWG does not have specific Chemical and Physical requirements for classes, but rather the "minimum requirement for each style".</p> <p>The United States does not believe that classes/grades are appropriate in this standard- the minimum requirement for international trade. Quality grades that exceed this minimum requirement should be negotiated between buyer and seller or trading parties.</p>	
<p>When unclassified/ungraded minimum requirements have to apply in accordance with this standard.</p>	USA
<p>3.2.5 Chemical and physical characteristics</p>	
<p>3.2.5 Chemical and physical characteristics</p> <p><u>Rationale</u> This section may be put after section "3.2.1 Odour, flavour and colour", as per approved template for standards</p>	India
<p>Saffron shall comply with the minimum chemical and physical properties in Table 1 and Table 2 in Annex 1.</p>	India
<p>4 FOOD ADDITIVES</p> <p><u>Only the food additives listed in Table 3 of the General Standard for Food Additives (CXS 192-1995) may be used in powdered dried saffron.</u></p> <p><u>Rationale</u> There is no uniform requirement or practice on the use of food additives in this product. The use of food additives is largely dependent on its functional use, and market preferences. The United States recommends making this section optional by utilizing some of the text from the the Codex General Standard for Fruit Juices and Nectars (CXS 247-2005).</p> <p>The United States notes the proposal for optional use of anticaking agents was not accepted by the EWG. The reasons cited for not approving anticaking agents were purity and the high price of saffron. We do not agree with this justification. We believe that if there is a technical justification to use anticaking agents in this product, they should be considered regardless of the price of the product. The use of anticaking agents should be standard for all spices depending on the technical requirement, rather than price or quality of any particular spice.</p>	USA
<p>No food additives particularly flavorings or colorants are permitted in the products covered by this standard.</p>	USA
<p>No food additives particularly flavorings or colorants are permitted in the products covered by this standard.<u>Only the food additives listed in Table 3 of the General Standard for Food Additives (CXS 192-95) may be used in the products covered by this Standard.</u></p> <p>Colombia understands that according to the procedures established by the Codex Alimentarius Commission, the use of additives should adhere to CXS 192-1995, in order to avoid inconsistencies between the Standards.</p> <p>In the General Standard for Food Additives (CXS 192-1995), additives such as acesulfame potassium, butylhydroxytoluene, polysorbates, etc. are allowed for the category 12.2.. Aromatic herbs, spices, seasoninga and condiments (e.g. seasonings for instant noodles).</p>	Colombia
<p>Contaminants</p>	
<p>5.2 The products covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.</p> <p><u>Justification</u> Colombia also recommends taking into account the control of contamination by pesticides, particularly dimethoate. Currently there are international (European)</p>	Colombia

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION															
regulations for the control of pesticides that establish a MRL of 0.05 mg/Kg for dimethoate.																
Food Hygiene																
<p>6.1 It is recommended that the products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the <i>General Principles of Food Hygiene</i> (CXP (CXC 1-1969), <i>Code of Hygienic Practice for low moisture foods</i> (CXP (CXC 75-2015), Annex IIII, <i>Spices and dried culinary Herbs</i>, and other relevant Codex texts such as codes of hygienic practice and codes of practice.</p>	India															
Packaging																
<p>6.3- Packaging Rationale As per approved template for Standards CCSC</p>	India															
<p>6.3 Packaging Colombia recommends including PACKAGING as Section 10 because it is considered that the implementation of quality controls in packaging is very important in order to ensure safety throughout the production and marketing chain. Justification There are international regulations which require the safety and quality of packaging for this type of products, which must be harmonized for free trade.</p>	Colombia															
<p>The packaging must not be a source of contamination or migration, shall be food grade and must protect the product quality during transportation and storage. It must be free from off odours.</p>	India															
9.1 Methods of Analysis¹																
<p>9.1 Methods of Analysis¹ The eWG put together the method analysis only based on ISO methods. Other alternative methods need to be provided if available. The United States suggests modifying the method analysis table as follows:</p> <table border="1" data-bbox="165 1240 1121 1518"> <thead> <tr> <th>Parameter</th> <th>Method</th> </tr> </thead> <tbody> <tr> <td>Taste Strength Flavor Strength (expressed as picrocin)</td> <td></td> </tr> <tr> <td>Extraneous Matter</td> <td>AOAC 916.01, ISO 927 & ISO 3632-2</td> </tr> <tr> <td>Foreign Matter</td> <td>AOAC 960.51, ISO 927 & ISO 3632-2</td> </tr> <tr> <td>Insect Damage</td> <td>AOAC 965.40, ISO 927 Method V-8 Spices</td> </tr> <tr> <td>Insects/Excreta/Insect Fragments:</td> <td>AOAC 965.40 & ISO 927</td> </tr> </tbody> </table>	Parameter	Method	Taste Strength Flavor Strength (expressed as picrocin)		Extraneous Matter	AOAC 916.01, ISO 927 & ISO 3632-2	Foreign Matter	AOAC 960.51, ISO 927 & ISO 3632-2	Insect Damage	AOAC 965.40, ISO 927 Method V-8 Spices	Insects/Excreta/Insect Fragments:	AOAC 965.40 & ISO 927	USA			
Parameter	Method															
Taste Strength Flavor Strength (expressed as picrocin)																
Extraneous Matter	AOAC 916.01, ISO 927 & ISO 3632-2															
Foreign Matter	AOAC 960.51, ISO 927 & ISO 3632-2															
Insect Damage	AOAC 965.40, ISO 927 Method V-8 Spices															
Insects/Excreta/Insect Fragments:	AOAC 965.40 & ISO 927															
<p>9.1 Methods of Analysis¹</p> <table border="1" data-bbox="165 1568 1121 1839"> <thead> <tr> <th>Parameter</th> <th>Method</th> <th>Principle</th> </tr> </thead> <tbody> <tr> <td>Artificial colors</td> <td>AOAC 971.26</td> <td>Spectrophotometric</td> </tr> <tr> <td>Moisture</td> <td>AOAC 986.21</td> <td>Distillation</td> </tr> <tr> <td>Adulteration</td> <td>AOAC 916.01</td> <td>Microscopy</td> </tr> <tr> <td>Sample preparation</td> <td>AOAC 920.164</td> <td>Sifting and mixing</td> </tr> </tbody> </table> <p>We suggest the inclusion of these Standards because in Colombia, analytical methodologies for food quality control mainly based on official AOAC Standards are also implemented.</p>	Parameter	Method	Principle	Artificial colors	AOAC 971.26	Spectrophotometric	Moisture	AOAC 986.21	Distillation	Adulteration	AOAC 916.01	Microscopy	Sample preparation	AOAC 920.164	Sifting and mixing	Colombia
Parameter	Method	Principle														
Artificial colors	AOAC 971.26	Spectrophotometric														
Moisture	AOAC 986.21	Distillation														
Adulteration	AOAC 916.01	Microscopy														
Sample preparation	AOAC 920.164	Sifting and mixing														
9.2 Sampling plan																
SAMPLING PLAN 1	Colombia															

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION																														
<p>Colombia proposes the option of sampling plan for lots below 15 t, as indicated in Commission Regulation (EC) No 401/2006 for the contamination by mycotoxins, where the species vulnerable to contamination by aflatoxins are included.</p> <p>The sampling method for lots below 15 t has the option of including sample sizes, less than one (1) Kg, weight established in the draft standard document.</p>																															
<p>SAMPLING PLAN 1</p> <p>Sampling depends on the size of the lot: We recommend to follow the following plan:</p> <p>Sampling method for spices (lots below 15 tonnes):</p> <p>In the case of lots of spices below 15 tonnes, the sampling plan shall be applied by taking between 5 and 100 incremental samples, depending on the weight of the lot, resulting in an aggregate sample of between 0.5 and 10 kg. The figures in the table below may be used to determine the number of incremental samples required.</p> <table border="1" data-bbox="188 750 1121 1261"> <thead> <tr> <th>Lot weight (in tonnes)</th> <th>Number of incremental samples</th> <th>Overall sample weight (kg)</th> </tr> </thead> <tbody> <tr> <td>≤ 0.01</td> <td>5</td> <td>0.5</td> </tr> <tr> <td>>0.01 - ≤0.1</td> <td>10</td> <td>1</td> </tr> <tr> <td>>0.1 - ≤0.2</td> <td>15</td> <td>1.5</td> </tr> <tr> <td>>0.2 - ≤0.5</td> <td>20</td> <td>2</td> </tr> <tr> <td>>0.5 - ≤1</td> <td>30</td> <td>3</td> </tr> <tr> <td>>1 - ≤2</td> <td>40</td> <td>4</td> </tr> <tr> <td>>2 - ≤5</td> <td>60</td> <td>6</td> </tr> <tr> <td>>5 - ≤10</td> <td>80</td> <td>8</td> </tr> <tr> <td>>10 - ≤15</td> <td>100</td> <td>10</td> </tr> </tbody> </table>	Lot weight (in tonnes)	Number of incremental samples	Overall sample weight (kg)	≤ 0.01	5	0.5	>0.01 - ≤0.1	10	1	>0.1 - ≤0.2	15	1.5	>0.2 - ≤0.5	20	2	>0.5 - ≤1	30	3	>1 - ≤2	40	4	>2 - ≤5	60	6	>5 - ≤10	80	8	>10 - ≤15	100	10	Colombia
Lot weight (in tonnes)	Number of incremental samples	Overall sample weight (kg)																													
≤ 0.01	5	0.5																													
>0.01 - ≤0.1	10	1																													
>0.1 - ≤0.2	15	1.5																													
>0.2 - ≤0.5	20	2																													
>0.5 - ≤1	30	3																													
>1 - ≤2	40	4																													
>2 - ≤5	60	6																													
>5 - ≤10	80	8																													
>10 - ≤15	100	10																													
ANNEX 1 - Chemical and Physical Specifications Dried Floral Parts- Saffron																															
<p>Chemical and Physical Specifications Dried Floral Parts- Saffron</p> <p>The United States believes that values/limits must be based on science and existing trade practices and regulations. The chemical and physical characteristics values submitted are the absolute minimum requirements for each form of the product.</p>	USA																														
Table 1 Chemical characteristics																															
<p>Table 1: Chemical characteristics</p> <p><u>we accept the acid insoluble ash to be retained as is. in table 2 the foreign matter in cut filament values and extraneous matter to be retained as is.</u></p>	Kenya																														
<p>Table 1: Chemical characteristics</p> <p><u>“Chemical characteristics:</u></p> <p><u>Colombia recommends adjusting the maximum contents of "</u></p> <table border="1" data-bbox="164 1854 954 1933"> <thead> <tr> <th>Gen. name</th> <th>Moi. %/max.</th> <th>Ashes % (max.)</th> <th>Acid insoluble ash %</th> </tr> </thead> <tbody> <tr> <td>Saffron</td> <td>15</td> <td>3</td> <td>2</td> </tr> </tbody> </table> <p>Rationale</p> <p>Having in account the document CX/SCH 14/01/3, December of 2013, of the Codex Committee on Spices and Culinary Herbs, we raise the following comment:</p>	Gen. name	Moi. %/max.	Ashes % (max.)	Acid insoluble ash %	Saffron	15	3	2	Colombia																						
Gen. name	Moi. %/max.	Ashes % (max.)	Acid insoluble ash %																												
Saffron	15	3	2																												

TEXT/COMMENT	MEMBER/OBSERVER - JUSTIFICATION
<p>"The shall comply with the local and/or EU laws" (this is for the case of contaminants/residues), however, in this particular case can be evaluated if it is applicable.</p> <p>Since this is the situation, we propose to keep complying with the National Sanitary Legislation (Resolution 4241 of 1991) taking into account the agronomic particularities of the production and the technological and economic requirements demanded by the industry.</p>	
<p><u>Markers volatile oil</u></p> <p>We propose to delete Maximum level (50) for Safranal.</p> <p>Rationale:</p> <p>When only one level of crocin and Picrocrocin are reflected therefore safranal should also be reflected as minimum at 20</p>	India
<p><u>Acid insoluble ash %w/w Ground powdered [1.5]</u></p>	Egypt
<p><u>(Markers)</u></p>	Egypt
<ul style="list-style-type: none"> - <u>Acid insoluble ash %w/w (Max) : 1.5 (for powdered)</u> - <u>Markers Volatile Oil: Min 40 picrocrocin</u> 	USA
<p>Table 2: Physical Characteristics for Dried Floral Parts- Saffron</p>	
<p><u>Extraneous Matter %w/w Max for filament and cut filament is [3]</u></p>	Egypt
<p><u>Extraneous Matter % w/w max</u></p> <p><u>Saffron</u></p> <ul style="list-style-type: none"> - <u>Whole/Filament: 5</u> - <u>Chopped Pieces/Cut Filaments: 3</u> - <u>Ground: 1</u> <p><u>Foreign Matter % w/w (max)</u></p> <p><u>Saffron</u></p> <ul style="list-style-type: none"> - <u>Whole/Filament: 1</u> - <u>Chopped Pieces/cut filaments: 1</u> <p><u>Whole:</u></p>	USA
<p>Japan suggests that 'Extraneous Matter' and 'Foreign Matter' should be at least decreased to the same level of BWG (CXS 326-2017) and cumin (CXS 327-2017), which is 1 % (w/w) and 0.1% (w/w) respectively. Considering the method of harvesting saffron (hand-picked and manual-sorted as dried floral parts) which is not common for other herbs and spices, contamination of extraneous matters during the processing can be curbed as much as possible.</p>	Japan