codex alimentarius commission

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

WORLD HEALTH ORGANIZATION

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Agenda Item 4 **CX/FFP 06/28/4**

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS

Twenty-eighth Session
Beijing, China
18-22 September 2006

DRAFT STANDARD FOR STURGEON CAVIAR

GOVERNMENT COMMENTS AT STEP 6

(Canada, European Community, France, Japan, Iran, Mexico, Peru, Russian Federation, United States)

CANADA

General Comments

Canada notes that the general approach of this draft standard deviates somewhat from the existing Codex Fish and Fishery Products standards. We would like to offer our comments aimed at bringing consistency of this standard with adopted Codex Fish Standards.

Canada notes that this standard made references to an "International Code of Practice for Caviar (to be elaborated)." Canada would support the proposal to include a specific section for the processing of caviar in the Code of Practice for Fish and Fishery Products. We agree that the Hazard Analysis Critical Control Point (HACCP) approach, as described in the Recommended International Code of Practice – General Principle of Food, is essential in producing a safe caviar product.

Specific Comments

SECTION 2 - DESCRIPTION

Section 2.3 - Process Definition

Canada notes that the format of the proposed Process Definition does not follow the same format as Process Definitions in standards for other fish products and proposes the following revision.

Suggested Revision

2.3.1 *The product ~~shall be prepared by using appropriate preliminary processing~~,* ***after suitable preliminary preparation*** *of the caviar-grain,* ***shall be subject to treatment or conditions sufficient to prevent the growth of spore and non-spore forming pathogenic microorganisms and shall comply with the conditions laid down hereafter.*** *~~to be salted~~.*

The product shall be salted *with* ***the application of*** *food grade salt, with or without the addition of food additives.* *~~packed in containers, and chilled to the temperatures so as to maintain the quality during storage transportation and marketing~~ The product shall be packed in metal tins coated on the inside with stable food lacquer or enamel, glass jars, or other suitable containers****, and chilled to temperatures so as to maintain the quality and safety during storage, transportation and marketing.***

2.3.2 Industrial repackaging of the product from larger to smaller containers under conditions which maintain the quality and safety of the product shall be permitted. No mixing of caviar grain from different lots shall be permitted.

The product shall be packed so as to minimize the time that the caviar remains unpacked in order to prevent its warming and microbial contamination, as well as physical contamination

Rationale: Regarding the suggested revision to 2.3.1, Canada is of the opinion that further discussion is required on the safety measures to ensure that both pathogenic spore and non-spore forming microorganisms for this product have been addressed. Although the level of salt in the product, combined with storage temperatures, may control growth of proteolytic and non-proteolytic *Clostridium botulinum* in a hermetically sealed container, any reference to measures to address the hazard of non-spore forming microorganisms of public health significance, such as *Listeria monocytogenes* are not included in the definition. Heat treatment is one example as an effective means to address the hazard of pathogenic, non-spore forming microorganisms. The definition should indicate that science based measures to control both spore forming and non-spore forming microorganisms should be applied.

Regarding the suggested deletion from Section 2.3.2, it is Canada's opinion that these hygienic and processing provisions would be covered more appropriately in the Code of Practice for Fish and Fishery Products. The Code of Practice for Fish and Fishery Products, which incorporates general principles of food hygiene and provides technical guidance on the application of HACCP and Defect Action Point (DAP) analysis, should adequately address hygienic handling practices and quality preservation for this product.

Section 2.4 - Handling Practices

Suggested Revision: Delete section 2.4 and its text.

Rationale: Canada notes that the inclusion of detailed handling practices deviates from the format of existing Codex Fish and Fishery Products Standards as well as the principle that Codex texts should be more general in nature. We are of the opinion that these hygienic and processing provisions would be covered more appropriately in the Code of Practice for Fish and Fishery Products.

The Code of Practice for Fish and Fishery Products, which incorporates general principles of food hygiene and provides technical guidance on the application of HACCP and Defect Action Point (DAP) analysis, should adequately address hygienic handling practices and quality preservation for this product.

SECTION 3 – ESSENTIAL COMPOSITION AND QUALITY FACTORS

Section 3.3.1 and Table 1

Canada notes that some of the provisions in Table 1 are not consistent with existing Codex Fish Standards and offers the following suggestions to deal with the indices presented:

- With respect to the "Salt": Clarification is needed as to whether the % salt of 3.5 to 5.0 is in reference to percentage of salt in the water phase of the product.
- With respect to the "Appearance" and "Color": Canada notes that the approach taken to establish, and include the criteria for Appearance and Color in this standard deviates from the existing Codex Fish and Fishery Products Standards. Canada recalls that the recommendation made at the 20th session CCFFP was to remove requirements relating to defects of a commercial nature from the existing standards, however, these would be incorporated as an Appendix (under development) in the Code of Practice for Fish and Fishery Products for optional use between the seller and the buyer. Canada supports this recommendation for these two indices.

SECTION 7 – LABELLING

Section 7.1

Suggested Revision (para. 1):

"~~Labelling of the product and the name of caviar shall be in accordance with~~ ***In addition to*** *the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991)****, the following specific provisions apply:***"

Rationale: The suggested revision enhances consistency with the food labelling text contained in existing Codex Fish and Fishery Products Standards.

Suggested Revision (para. 3):

Canada suggests deleting the following sentence from paragraph 3 and inserting it into section 7.2 (and modifying "traditions" to "customs").

> ~~*The name of the product shown on the label shall be <<caviar>>, or <<sturgeon caviar>> and shall be in compliance with the laws and traditions of the country where the product is distributed.*~~

Rationale: This sentence indicates product name requirements which are already further explained in section 7.2.

Section 7.2

Suggested Revision:

> ***7.2 Name of the Food***
>
> ***7.2.1 The name of the product shown on the label shall be <<caviar>>, or <<sturgeon caviar>> and shall be in compliance with the laws and customs of the country where the product is distributed.*** ***(previously in section7.1)***
>
> ***7.2.2*** *For caviar made from sturgeon species with such common names as beluga, kaluga, sturgeon, starred sturgeon, starlet and barbell sturgeon the name of the fish may be included in the name of the product before or after the word caviar, e.g. <<Kaluga caviar>>.*
>
> ***7.2.3*** *For sturgeons having no common names, the name may be supplemented with the identification code of the biological species of the fish in accordance with Annex B, e.g. <<Sturgeon caviar>>.*
>
> ***7.2.4*** *For hybrids, the common name shall be supplemented with the word hybrid, and the parent sturgeon species may be shown according to Annex B, e.g. <<Hybrid sturgeon caviar>> or <<Sturgeon HUSXRut hubrid caviars>>."*

Rationale: The suggested editorial change maintains consistency in format between this standard and other Fish product standards.

Canada also suggests adding the following two new sections:

Suggested addition to address storage:

> ***Section 7.? – Storage Instructions***
>
> ***The label shall include terms to indicate that the product shall be stored under refrigeration temperature.***

Rationale: Canada supports a mandatory declaration of storage instructions on labels for this product. The need for storage instruction labeling is consistent with the storage, transportation and marketing requirements outlined in Section 2.3 – Process Definitions. Storage instructions are aimed at informing food handlers and consumers with the storage conditions which will assure the safety and quality of this product.

Suggested addition to address labelling of non-retail containers:

> ***Section 7.? - Labelling of Non-retail Containers****:*
>
> *"**Information specified above shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, and the name and address of the manufacturer or packer, as well as storage instructions, shall appear on the container.***
>
> ***However, lot identification, and the name and address of the manufacturer or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying documents."***

Rationale: This amendment is consistent with Codex Fish Standards and conforms with the Food labelling provisions as stipulated in the Codex Procedural Manual.

Section 7.4 – Source Identification

Regarding the clause: "*The data on the source of origin of raw fish shall be shown in the immediate vicinity*

of the name of the product only in the case of aquaculture produced sturgeon product, e. g. « Product of aquaculture»", Canada would like to note that this requirement is not mandatory for other products.

Firstly, Canada would like clarification as to why aquacultured sturgeon is being singled out. If the source of identification requirement is due to its endangered species status, section 7 – Labelling, indicates that the labelling recommendations in this standard should apply without prejudice of the implementation of CITES requirements. As a result, members countries have the option to adopt the CITES approach, if desired.

In addition, if this requirement is included in this standard, it could have overarching implications on extending this labeling requirement to other fish and fishery products. In this regard, Canada would recommend that the Committee should have a broad discussion on issues of principle such as, the purpose and scope of application and substantiation of this claim, before including this requirement in any Codex Fish Standard.

As a result, Canada would recommend that the Source of Identification requirement be removed from this standard.

Section 7.5

Canada would like to seek clarification on what is meant by "*number markings*".

SECTION 8 – SAMPLING, EXAMINATION AND ANALYSIS

Section 8.2.1 - Sensory and Physical/Chemical Examination

Suggested Revision (title)

> *"Section 8.2.1 - Sensory and Physical ~~/Chemical~~ Examination".*

Suggested Revision (text):

> *"Samples taken for sensory and physical /~~chemical~~ examination shall be assessed by ~~experts~~* ***persons*** *trained in such examination and in accordance with methods elaborated in ~~Sections 8.2.1- 8.2.2~~,* ***Annex A*** *and in the Guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31 - 1999)."*

Rationale: Regarding the title and the provision, Canada noted the following inconsistencies with existing Codex Fish and Fishery Product Standards:

- The inclusion of chemical examination in this section is unusual since this section has been traditionally reserved for the examination of product defects (i.e. extraneous material, sensory attributes, etc). Canada recommends deleting the term "*chemical*" used in this section;
- With respect to the clause, ". . . *shall be assessed by* ***experts*** *trained in such examination*. . .," Canada notes that the "expert" status differs from existing Codex fish standards that presently only stipulate that any ***person*** trained in sensory and physical examinations can conduct such examinations. We suggest use of the term "person" instead of "experts". Canada is of the view that only allowing experts to perform sensory and physical analysis on caviar is restrictive. Recognition of an analyst to be an "*expert*" for the purposes of regulatory enforcement would require the development of criteria, accreditation and periodic monitoring of the analyst to maintain this set standard and;

Section 9 – DEFINTION OF DEFECTS

Section 9.3 - Consistency and Condition

The terms "*easily chewable*", and "*tenuous*", are subjective in nature and are open to interpretation. If retained, Canada recommends that these terms be defined using objective measures. In addition, consideration should be given to include reference to excessive juices being released from the eggs and excessive dryness.

Section 9.4 – Extraneous Material

Suggested Revision:

> *Membranes,* ***viscera*** *and fat clusters shall be absent from finished caviar.*

Rationale: The presence of viscera is a workmanship defect which should be addressed by proper sorting and processing. Canada is of the view that this workmanship defect is unacceptable because it is aesthetically undesirable to consumers.

EUROPEAN COMMUNITY

The European Community and its 25 Member States would like to submit the following comments on CL 2006/1-FFP:

General remarks:
The draft has to be evaluated under the aspect that the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) was unable to approve the 2006 export quotas for caviar and other sturgeon products until exporting countries provide more information about the sustainability of their sturgeon catch. CITES is concerned that the quotas proposed, while lower than for previous years, may not fully reflect the reductions in stocks or make sufficient allowance for illegal fishing. Since the CITES system only allows sturgeon products to be exported during the year in which they are harvested and processed, as of now it is not possible to export caviar and other sturgeon products from shared stocks. The volume of the caviar trade cannot be estimated exactly. Quotas for 2005 appointed by CITES were in the range of 110- 115 t. The trade with caviar produced by aquaculture is comparably low. In contrast the volume of illegal caught and traded caviar is estimated to be many times over (10 to 12 times) that allowed by CITES quotas. Most important is to be seen that the Standard for Sturgeon Caviar does not become a template for the trade in illegal caviar. To avoid this universal caviar labelling requirements have been established by CITES. To support the sustainable catch and trade of sturgeon and products derived from it like caviar it appears to be necessary that Codex and CITES should not work in a contradictory manner.

1. SCOPE
This standard applies to ~~sturgeon~~ caviar ~~of the~~ **prepared from** fish **eggs** of the ~~*Acipenseri*~~*dae* ~~family~~ ***Acipenseriformes* order** only.

Comment: The question arises why the standard does not cover paddlefishes as they are relatives of the sturgeon. Caviar processed from these species is economically important and has reportedly been falsely traded as sturgeon caviar. If paddlefishes were included, all 27 species of the order Acepensiriformes would be covered by this Standard.

2. DESCRIPTION
2.1. Definitions
The following definitions are used in this standard:
Fish eggs: product obtained from o~~v~~ocytes separated from the connective tissue of ovary.

Caviar: the product made from fish eggs of the ~~*Acipenseridae* family~~ ***Acipenseriformes* order** by treating with salt or mixture of salt with a food additive.

Oocytes maturation stage lV: oocytes ~~coming from~~ **still in the** ovaries which have reached **their** maximum size **and/or weight**, and in which fat deposits are absent, or there are thin layers of fat, and where the grain eggs can be easily separated from the connective tissue.

Comment: It seems to be questionable whether the term "Oocytes maturation stage" is correct because the state of maturity describes the maturity state of the gonads and not of the oocytes. (According to Nikolsky (1963a) stage IV is defined as follows: Sexual products ripe; gonads have achieved their maximum weight, but the sexual products are still not extruded when light pressure is applied.)

2.2 Product Definition
The product is prepared from fish eggs of sturgeon fishes belonging to the *Acipenseridae* family (four genera *Acipenser, Huso, Pseudoscaphirhynchus* and *Scaphirhynchus* and hybrid species of these genera), **and from fish eggs of fishes belonging to the Polyodontidae family (two genera: Polyodon and Psephurus).**

Comment: Paddlefishes should be inserted in the product definition (see above, Point 1.)

The eggs are of about one size and evenly and characteristically coloured according to the species used. Colour can vary from light grey to black or from light yellow to yellowish grey. Brownish and greenish shades are permissible. The product is made with addition of salt and/or with, or without food additives,

and is intended for direct human consumption. **The salt content of the product is equal or above 3 g/100 g and below or equal to 5 g/100 g in water phase.**

2.3 Process Definition

2.3.1 The product shall be prepared by using appropriate preliminary processing of caviar-grain to be salted with food grade salt, with or without food additives, packed in containers, and chilled to the temperatures so as to maintain the quality during storage, transportation and marketing.

The product shall be packed in:

- metal tins coated inside with stable food lacquer or enamel;
- glass jars.
- other suitable containers.

2.3.2 Industrial re-packaging of the product from larger to smaller containers under controlled conditions shall be permitted. No mixing of caviar grain from different lots shall be permitted.

The product shall be packaged so as to minimize the time that the caviar remains unpacked in order to prevent its warming and microbial contamination, as well as physical contamination.

2.4 HANDLING PRACTICE

Caviar is produced from fish **ovaries containing** oocytes which have reached maturation stage IV extracted from the ~~sturgeon~~ fishes under appropriate sanitary conditions. The fish eggs are separated from the connective tissue of ovary. If appropriate, it is kept until processing in closed containers in refrigerating chamber at a temperature from – 1 0C to + 2 0C for no more that 8 hours.

Caviar-grain is sorted by quality, colour and size. Before salting it is washed out in potable cooled water to remove clots of blood and fat, squashed egg and film pieces. Washed roe is immediately directed to be drained.

Then it is treated with food grade salt with/without additives. All the above mentioned technological operations shall be performed without delay to avoid microbial spoiling.

Caviar should preferably be stored at -2 to -4 °C as to maintain the quality during storage, transportation and marketing. Freezing as well as frozen storage of caviar is not permitted due to deterioration of quality.

Preparation of caviar shall comply with the International Code of Practice for Caviar (to be elaborated).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

Caviar shall be prepared from ovaries extracted from **sound and wholesome *Acipenseriformes* fishes** sturgeons of biological species of the genera described in Section 2.2, which are of a quality **fit to be sold fresh for human consumption** ~~acceptable for human consumtion~~. **The fish shall not bear noticeable signs of lesions assuming the existence of a disease.**

3.2 Salt and other Ingredients

~~Potable water should comply with the WHO Guidelines for Drinking Water Quality.~~ Salt and **all** other ingredients shall be of food grade quality and conform to all applicable Codex Standards.

3.3 Final Product

~~3.3.1 By its sensory and chemical characteristics the product shall comply with the requirements prescribed in Table 1~~

~~**Table 1**~~

~~Index Characteristics and norms~~

~~Appearance Eggs of about one size~~

~~Color Even and characteristic of roe from the given~~

~~biological species: from light gray to black, or from light yellow to yellowish gray. Yellowish and brownish shades are permissible~~
~~Consistence and state Eggs can be easily separated from each other~~
~~Taste and odour Characteristic of fish eggs from the given biological species; without foreign taste and odour~~
~~Salt, % 3.5 – 5.0~~
~~Foreign matter Unacceptable~~

~~3.3.2~~ The product shall meet the requirements of the present Standard, when a lot examined in accordance with the requirements described in Section 10 complies with the provisions set out in Section 9.
The product shall be examined by the methods given in Section 8.

4. FOOD ADDITIVES

Only those food additives listed below may be used and only within the limits specified:

Preservatives	**Maximum level in the final product (expressed as boric acid)**
Boric acid (INS 284)	4 g/kg
Sodium tetraborate (INS 285)	4 g/kg

~~4.1 The use of colorants is not allowed.~~
~~4.2 The following food additives shall be used:~~
~~Boric acid (INS 284): maximum level 4g/kg (expressed in boric acid).~~
~~Sodium tetraborate (INS 285): maximum level 4g/kg (expressed in boric acid).~~

5. CONTAMINANTS
5.1 Pesticide residues
The product covered by this standard should comply with those maximum residue limits established by the Codex Alimentarius Commission for these products.
5.2 Other contaminants
The product shall comply with the provisions of the Codex General Standard for Contaminants and Toxins in Food (Codex Stan 193-1995).

6. HYGIENE
6.1. It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev.4-2003) and other relevant Codex Codes of Practice.

6.2. The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

6.3. The product shall not contain any other substance in amounts which may present a hazard to health in accordance with standards established by the Codex Alimentarius Commission.

6.4. The final product shall be free from any foreign material that poses a threat to human health.

7. LABELLING

Comment: This chapter should be amended to be in compliance with CITES. Therefore the old text should be deleted and a new one be inserted

~~7.1 Labelling of the product and the name of caviar shall be in accordance with the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).~~
~~The labeling requirements of this standard should apply without prejudice of the implementation of CITES recommendations.~~

~~The name of the product shown on the label shall be «caviar», or «sturgeon caviar» and shall be in compliance with the laws and traditions of the country where the product is distributed.~~
~~7.2 For caviar made from sturgeon species with such common names as beluga, kaluga, sturgeon, starred sturgeon, starlet and barbel sturgeon the name of the fish may be included in the name of the product before or after the word caviar, e.g. « Kaluga caviar».~~
~~For sturgeons having no common names the name may be supplemented with the identification code of the biological species of the fish in accordance with Annex B, e.g. «Sturgeon caviar».~~
~~For hybrids the common name shall be supplemented with the word hybrid, and the parent sturgeon species may be shown according to Annex B, e.g. «Hybrid sturgeon caviar» or «Sturgeon HUSXRut hybrid caviar».~~

~~**7.3 Country of origin**~~

~~The country of origin of the product shall be declared.~~

~~In case of repackaging of the product the facility registration code shall be identified.~~
~~**7.4 Source identification**~~

~~[The data on the source of origin of raw fish shall be shown in the immediate vicinity of the name of the product only in the case of aquaculture produced sturgeon product, e. g. « Product of aquaculture».]~~

~~**7.5** Each primary container shall be labelled with the number markings of the lot.~~

In addition to the provisions of the Codex General Standard for the Labelling of Pre-packaged Foods (CODEX STAN 1-1985, Rev. 1-1991) the following specific provisions apply:

7.1 Name of the food
For the *Acipenseridae* family, the name of the food shall be "caviar" or "caviar" completed with the usual name (Beluga for *Huso huso*, Ossetra for *Acipenser guldenstaedtii* and *Acipenser persicus*, Sevruga for *Acipenser stellatus*), in accordance with the law and custom of the country in which the product is sold, in a manner not to mislead the consumer.
For the *Polyodontidae* family, the name of the food shall be "paddlefish caviar".
In addition, the label may include other descriptive terms that will avoid misleading or confusing the consumer.

7.2 The label shall be in compliance with the CITES labelling requirements

8. SAMPLING, EXAMINATION AND ANALYSES
8.1 Sampling
8.1.1 Sampling of lots for examination of the product shall be in accordance with the General Guidelines on Sampling (CAC/GL 50-2004) and **with the FAO/WHO Codex Alimentarius Sampling Plan for Pre-packaged Foods (AQL-6.5) (CODEX STAN 233-1969). A sample unit is the primary container.**

8.1.2. Sampling of lots for examination of net weight shall be carried out in accordance with an appropriate sampling plan meeting the criteria established by the Codex Alimentarius Commission.

8.1.3. Sampling of lots for pathogenic microorganisms and parasites shall be in accordance with the Principles for the Establishment and Application of Microbiological Criteria to Foods (CAC/GL 21-1997)

8.2.1 Sensory and Physical/Chemical Examination
Samples taken for sensory and physical/chemical examination shall be assessed by experts trained in such examination and in accordance with methods elaborated in Sections 8.2.- 8.3 and the Guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31-1999).

8.2.2.Determination of Net Weight
~~The net weight of each sample unit shall be determined in accordance with the following procedure:~~
~~• container filled with the product shall be swept dry and weighed;~~
~~• container shall be opened, and freed from caviar;~~

~~• empty container with a lid, (and packing material, if available), cleaned of the product, washed and dried, shall be weighed;~~
~~• subtract the weight of the empty container with a lid (and packing material, if available) from the weight of the container with the product, and determine the net weight of product.~~
The net weight (excluding packaging material) of each sample unit in the sample lot shall be determined by deducting the weight of the empty container from the total weight.

8.3.Determination of salt content
~~The weight share of salt shall be determined using the method developed for salted fish.~~
The determination of salt content is performed according to the method described in the Codex Standard for Salted Fish and Dried Salted Fish of the *Gadidae* Family of Fishes – CODEX STAN 167 – 1989, Rev.2-2005.

9. DEFINITION OF DEFECTS
The sample unit shall be considered as defective when it exhibits any of the properties defined in Sections 9.1- 9.3.

9.1 Foreign matter
The presence in the sample unit of any matter which has not been derived from ~~sturgeon~~ **Acipenseriformes** eggs, does not pose a threat to human health, **and** is readily recognized without magnification; or ~~when it~~ is present at a level determined by any method including magnification, that indicates non-compliance with good manufacturing ~~practices~~ and sanitation **practices** ~~rules~~.

9.2 Odour and Flavour
The product **is** affected by persistent and distinct objectionable odour and/or flavour indicative of decomposition **(such as sour, putrid, fishy, prickling sensation, etc.),** oxidation, or taste of feed (in ~~sturgeon~~ **fish** reared in aquaculture), or contamination by foreign **substances** (such as fuel oil).

9.3 Consistency and Condition
Hard cover of caviar grains is not easily chewable, or tenuous, destroyed when the grains are separated from one another. **Membranes and fat cluster are present in finished caviar.**

~~**9.4 Extraneous material**~~
~~Membranes and fat cluster shall be absent from finished caviar.~~

10. LOT ACCEPTANCE
A lot shall be considered as meeting the requirements of this standard when:
1. The total number of defectives as classified according to Section 9 does not exceed the acceptance number of the appropriate sampling plan ~~given in the General Guidelines on Sampling (CAC/GL 50-2004)~~ **in Section 8**; and
2. The average net weight of all sample units is not less than the declared weight, provided no individual container is less than 95% of the declared weight; and
3. The Food Additives, Hygiene and Handling and Labelling requirements of Sections 4,~~2.3, 5~~ , 6 **and** 7 ~~and 8~~ are met.

Annex A can be deleted

Annex B becomes Annex A

FRANCE (English version)

Paragraph 2.4: -2/-4 °C is the fusion temperature of caviar. Maintaining caviar at 2/-4 °C (storage, transportation and marketing) may have adverse effects on caviar (fusion).

The temperature used in industrial storage is in the range of -4 to +4 °C, according to the stage of maturation required. Storage conditions during marketing are different and temperature during transport is always between 2 and 4 °C.

Freezing during harvesting is common practice.

FRANCE (version française)

Paragraphe 2.4 : -2/-4 °C est la température de fusion du caviar. Le maintien permanent (storage, transportation and marketing) du caviar à -2/-4 °C risque d'être néfaste au produit (fusion).

Le stockage industriel est réalisé entre -4 et +4 °C, en fonction du degré de maturation désiré. Ceci est différent des conditions de stockage lors de la commercialisation et le transport est toujours réalisé entre 2 et 4 °C.

La congélation au moment de la récolte est une pratique courante.

IRAN

Below are the viewpoints of Iran. Amendments are also made as an attachment of this explanatory notes.

1- In Title or Scope, the word “Granular” must be added.

Reason: Because caviar is produced and traded in two types “granular” and “compressed “and some specifications of them are different, therefore it is necessary to mention “Granular” .

2- The subjects mentioned in this draft are only for wild caviar but if it is necessary to have some subjects about caviar of aquaculture produced, the topic of “residual drugs” must be included in this draft or mentioned in separate draft.

3- Section 2.1, definition of fish eggs amended to read “Separated fish ovocytes from the connective tissue of ovary”

4- Section 2.3.2, the sentence “No mixing of caviar grain from different lots shall be permitted” had better be transferred from this section to appearance section in table No.1.

Reason: This sentence is more likely defining the final product.

5- Section 2.3.2, “physical contamination” phrase had better be deleted and instead of it “foreign matter” be used.

6- Section 2.4, the word “oocytes” be replaced by “eggs”.

7- Section 2.4, the sentence “Caviar-grain is sorted by quality, colour and size” had better be deleted.

Reason: It mentions in detail that are not necessary to be explained.

8- Section 2.4, in this section before “microbial spoiling” the phrase “chemical change” had better be added.

Reason: Possibility of chemical change besides microbial spoiling is notable.

9- Section 3.1, phrase “sturgeon fish eggs” be used instead of “ovaries extracted from”

10- Section 4.2, phrase “in addition to other permitted food additive” had better be added to the main sentence.

Reason: Perhaps a customer requests for applying another permitted additive.

11- Section 9.4, the sentence had better be amended to “Remnants of membranes ، fat clusters and any objectionable matter shall be absent from finished caviar”.

DRAFT STANDARD FOR STURGEON CAVIAR

1. SCOPE

This standard applies to **granular** sturgeon caviar of the fish of the *Acipenseridae* family only.

2. DESCRIPTION

2.1. DEFINITIONS

The following definitions are used in this standard:

Fish eggs: ~~**product obtained from ovocytes**~~ **Separated fish ovocytes** from the connective tissue of ovary.

Caviar: the product made from fish eggs of the *Acipenseridae* family by treating with salt or mixture of salt with a food additive .

Oocytes maturation stage lV: oocytes coming from ovaries which have reached maximum size, and in which fat deposits are absent, or there are thin layers of fat, and where the grain eggs can be easily separated from the connective tissue.

2.2 Product Definition

The product is prepared from fish eggs of sturgeon fishes belonging to the *Acipenseridae* family (four genera *Acipenser, Huso, Pseudoscaphirhynchus* and *Scaphirhynchus* and hybrid species of these genera).

The product is made with addition of salt and/or with, or without food additives, and is intended for direct human consumption.

2.3 Process Definition

2.3.1 The product shall be prepared by using appropriate preliminary processing of caviar-grain to be salted with food grade salt, with or without food additives, packed in containers, and chilled to the temperatures so as to maintain the quality during storage, transportation and marketing.

The product shall be packed in:

- metal tins coated inside with stable food lacquer or enamel;
- glass jars.
- other suitable containers.

2.3.2 Industrial re-packaging of the product from larger to smaller containers under controlled conditions shall be permitted. ~~**No mixing of caviar grain from different lots shall be permitted**~~.

The product shall be packaged so as to minimize the time that the caviar remains unpacked in order to prevent its warming and microbial contamination, as well as ~~**physical contamination**~~ **foreign matter**.

2.4 HANDLING PRACTICE

Caviar is produced from fish ~~**oocytes**~~ **eggs** which have reached maturation stage IV extracted from the sturgeon fishes under appropriate sanitary conditions. The fish eggs are separated from the connective-tissue of ovary~~.~~ If appropriate, it is kept until processing in closed containers in refrigerating chamber at a temperature from – 1 ^{0}C to + 2 ^{0}C for no more that 8 hours.

~~**Caviar-grain is sorted by quality, colour and size**~~. Before salting it is-washed out in potable cooled water to remove clots of blood and fat, squashed egg and film pieces. Washed roe is immediately directed to be drained.

Then it is treated with food grade salt with/without additives. All the above mentioned technological operations shall be performed without delay to avoid **chemical change and** microbial spoiling.

Preparation of caviar shall comply with the International Code of Practice for Caviar (to be elaborated).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

Caviar shall be prepared from ~~**ovaries extracted from**~~ **sturgeon fish eggs** of biological species of the genera described in Section 2.2, which are of a quality acceptable for human consumption.

3.2 Other Ingredients

Potable water should comply with the WHO Guidelines for Drinking Water quality. Salt and other ingredients shall be of food grade quality and conform to all applicable Codex Standards.

3.3 Final Product

3.3.1 By its sensory and chemical characteristics the product shall comply with the requirements prescribed in Table 1

Table 1

Index	Characteristics and norms
Appearance	Eggs of about one size **No mixing of caviar grain from different lots shall be permitted**
Color	Even and characteristic of roe from the given biological species: from light gray to black, or from light yellow to yellowish gray. Yellowish and brownish shades are permissible
Consistence and state	Eggs can be easily separated from each other
Taste and odour	Characteristic of fish eggs from the given biological species; without foreign taste and odour
Salt, %	3.5 – 5.0
Foreign matter	Unacceptable

~~**3.3.2**~~ The product shall meet the requirements of the present Standard, when a lot examined in accordance with the requirements described in Section 10 complies with the provisions set out in Section 9.

The product shall be examined by the methods given in Section 8.

4. FOOD ADDITIVES

4.1 The use of colorants is not allowed.

4.2 The following food additives shall be used **in addition to other permitted food additives**:

Boric acid (INS 284): maximum level 4g/kg (expressed in boric acid).

Sodium tetra borate (INS 285): maximum level 4g/kg (expressed in boric acid).

5. CONTAMINANTS

5.1 Pesticide residues

The product covered by this standard should comply with those maximum residue limits established by the Codex Alimentarius Commission for these products.

5.2 Other contaminants

The product shall comply with the provisions of the Codex General Standard for Contaminants and Toxins in Food (Codex Stan 193-1995).

6. HYGIENE

6.1. It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev.4-2003) and other relevant Codex Codes of Practice.

6.2. The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

7. LABELLING

7.1 Labelling of the product and the name of caviar shall be in accordance with the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

The labeling requirements of this standard should apply without prejudice of the implementation of CITES recommendations.

The name of the product shown on the label shall be «caviar», or «sturgeon caviar» and shall be in compliance with the laws and traditions of the country where the product is distributed.

7.2 For caviar made from sturgeon species with such common names as beluga, kaluga, sturgeon, starred sturgeon, starlet and barbel sturgeon the name of the fish may be included in the name of the product before or after the word caviar, e.g. « Kaluga caviar».

For sturgeons having no common names the name may be supplemented with the identification code of the biological species of the fish in accordance with Annex B, e.g. «Sturgeon caviar».

For hybrids the common name shall be supplemented with the word hybrid, and the parent sturgeon species may be shown according to Annex B, e.g. «Hybrid sturgeon caviar» or «Sturgeon HUSXRut hybrid caviar».

7.3 Country of origin

The country of origin of the product shall be declared.

In case of repackaging of the product the facility registration code shall be identified.

7.4 Source identification

[The data on the source of origin of raw fish shall be shown ~~**in the immediate vicinity of the name of the product**~~ only in the case of aquaculture produced sturgeon product, e. g. « Product of aquaculture».]

7.5 Each primary container shall be labelled with the number markings of the lot.

8. SAMPLING, EXAMINATION AND ANALYSES

8.1 Sampling

8.1.1 Sampling of lots for examination of the product shall be in accordance with the General Guidelines on Sampling (CAC/GL 50-2004).

8.2.1.Sensory and Physical/Chemical Examination.

Samples taken for sensory and physical/chemical examination shall be assessed by experts trained in such examination and in accordance with methods elaborated in Sections 8.2.1- 8.2.2 and the Guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31-1999).

8.2.2.Determination of Net Weight

The net weight of each sample unit shall be determined in accordance with the following procedure:

• container filled with the product shall be swept dry and weighed;

• container shall be opened, and freed from caviar;

• empty container with a lid, (and packing material, if available), cleaned of the product, washed and dried, shall be weighed;

• subtract the weight of the empty container with a lid (and packing material, if available) from the weight of the container with the product, and determine the net weight of product.

8.2.3. The weight share of salt shall be determined using the method developed for salted fish.

9. DEFINITION OF DEFECTS

The sample unit shall be considered as defective when it exhibits any of the properties defined in Sections 9.1- 9.3.

9.1 Foreign matter

The presence in the sample unit of any matter which has not been derived from sturgeon eggs, does not pose a threat to human health, is readily recognized without magnification; or when it is present at a level determined by any method including magnification, that indicates non-compliance with good manufacturing practices and sanitation rules.

9.2 Odour and Flavour

The product affected by persistent and distinct objectionable odour and/or flavour indicative of decomposition, oxidation, or taste of feed (in sturgeon reared in aquaculture), or contamination by foreign (such as fuel oil).

9.3 Consistency and Condition

Hard cover of caviar grains is not easily chewable, or tenuous, destroyed when the grains are separated from one another.

9.4. Extraneous material

Remnants of membranes ، fat clusters **and any objectionable matter** shall be absent from finished caviar.

No change in the remaining sections

JAPAN

4. FOOD ADDITIVES

Japan considers that boric acid (INS 284) and sodium tetraborate (INS 285) should be removed from the provisions for food additives (Section 4.2), as we believe that the CCFFP should respect the evaluation made by JECFA in setting standards. Previously, JECFA evaluated boric acid and borax (sodium tetraborate, sodium biborate and sodium pyroborate) but was unable to allocate ADI due to lack of long-term studies (Reference NMRS 31/TRS 228-JECFA 6/37. In order for these substances to be included in a standard, they need to be re-evaluated by JECFA upon request of CCFAC.

MEXICO (English version)

Section	Definition	Comments
2. Description **2.1 Definitions**	The following definitions are used in this standard: **Oocytes maturation stage IV:** oocytes coming from ovaries which have reached maximum size, and in which fat deposits are absent, or there are thin layers of fat, and where the grain eggs can be easily separated from the connective tissue.	It is important to mention the origin of the raw material, whether it is from aquaculture or harvested from natural populations. In the section on oocytes, it should be mentioned that they are oocytes in the **initial** maturation stage IV, because there are two grades of maturation in stage IV, the initial stage and the hydration process (the latter being the stage where eggs can be separated, and therefore the egg is fragile for the purposes of processing, which is not the case in the initial stage)
2.3 Process Definition	The product shall be prepared by using appropriate preliminary processing of caviar-grain to be salted with food grade salt, with or without food additives, packed in containers, and chilled to the temperatures so as to maintain the quality during storage, transportation and marketing. The product shall be packed in: - metal tins coated inside with stable food lacquer or enamel; - glass jars. - other suitable containers.	Que se les adicionará sal comestible, con o sin aditivos (change to Spanish version only). Describe the extraction technique for eggs or oocytes and the proportion of salt during the process. Containers should have been previously sanitized to avoid contamination. In addition the sterilization or pasteurization process of the products should be described because if one of these processes is used, no additive is required as a preservative, unless the product is only chilled.
2.4 Handling Practice	Caviar is produced from fish oocytes which have reached maturation stage IV extracted from the sturgeon fishes under appropriate sanitary conditions. The fish eggs are separated from the connective tissue of ovary. If appropriate, it is kept until processing in closed	initial maturation stage IV en condiciones sanitarias adecuadas (change to Spanish version only)

	containers in refrigerating chamber at a temperature from – 1 ^{0}C to + 2 ^{0}C for no more that 8 hours. Caviar-grain is sorted by quality, colour and size. Before salting it is washed out in potable cooled water to remove clots of blood and fat, squashed egg and film pieces. Washed roe is immediately directed to be drained. Then it is treated with food grade salt with/without additives. All the above mentioned technological operations shall be performed without delay to avoid microbial spoiling. Preparation of caviar shall comply with the International Code of Practice for Caviar (to be elaborated).	
3. Essential Composition and Quality Factors 3.1 Raw Material	Caviar shall be prepared from ovaries extracted from sturgeons of biological species of the genera described in Section 2.2, which are of a quality acceptable for human consumption.	Apply the International Code of Hygienic Practice for the use of raw material.
3.2 Other ingredients	Potable water should comply with the WHO Guidelines for Drinking Water quality. Salt and other ingredients shall be of food grade quality and conform to all applicable Codex Standards.	Mention in this section that food additives (boric acid, sodium tetraborate), salt (in grains or iodized) will be used Apply the International Code of Hygienic Practice for the use of ingredients.
3.3 Final Product	3.3.1 By its sensory and chemical characteristics the product shall comply with the requirements prescribed in Table 1	Aspect: oocytes, eggs or grains should be homogeneous, and originate from fish free from diseases Consistence and state: consistence should be firm and characteristic of the species and the eggs should be easy to separate.
4. Food Additives	Boris Acid (INS 284); maximum level 4g/kg (expressed as boric acid) Sodium Tetraborate (INS 285); maximum level 4g/kg (expressed as boric acid)	In this point there is an error : it should be expressed as Sodium Tetraborate and not as Boric Acid

Important Note: ***

Use of food additives

Boric acid has been used since the 19th century in Italy for the preservation of butter and margarine and also to preserve meat, fish and shellfish. It is relatively toxic, as several cases of intoxication are known, especially in children. In addition, it is absorbed easily and difficult to eliminate since it tends to accumulate in the organism. Its use is therefore prohibited throughout the world, with the exception of its use to preserve caviar. In Spain cases of illegal uses of boric acid have been detected frequently enough for the preservation of shellfish, in order to avoid the blackening of heads in gambas and langostinos.

Sodium Tetraborate is an antiseptic preservative that is not acceptable as food additive according to WHO, due to the fact that boric ions inhibit the synthesis of glutamine in the brain. It is used in fish and caviar and its toxicity is suspect.

Source: www.revistanatural.com/otono/498/aditivo.htm

MEXICO (versión en español)

Apartado	Definición	Comentario
2. DESCRIPCIÓN	En la presente norma son de aplicación las	Es importante mencionar la

2.1 DEFINICIONES	definiciones siguientes: Ovocitos en la fase (IV) de maduración.- Ovocitos de ovarios que alcanzan las dimensiones máximas y en los cuales los granos de grasa son ausentes, o existen capas delgadas de grasa, y los granos se pueden separar fácilmente del tejido.	procedencia del producto inicial, mencionando si el producto es de cultivo o de captura de las poblaciones naturales En el apartado de ovocitos, se debe mencionar que son Ovocitos (huevecillos) de la fase IV **inicial de maduración,** porque los ovocitos en la fase IV tienen dos grados de maduración, que son la inicial y el proceso de hidratación (siendo ésta última donde es inminente el máximo desove, por lo tanto el huevo es frágil para su procesamiento, no así en la inicial).
2.3 DEFINICIÓN DEL PROCESO	El producto se fabricará mediante una elaboración preliminar adecuada de los granos de caviar, que se salarán con sal comestible, con o sin aditivos alimentarios, se envasarán en recipientes, y se refrigerarán a una temperatura que permita mantener su calidad durante el almacenamiento, el transporte y la comercialización. El producto se envasará en: - latas de metal forradas por dentro con laca o esmalte estable adaptado a los alimentos; - frascos de cristal. - Otros embalajes adecuados.	Que se les adicionará sal comestible, con o sin aditivos. Describir la técnica de extracción de los huevecillos u ovocitos y la proporción de sal durante el proceso. Los recipientes para el envasado deben estar previamente sanitizados para evitar contaminación. Por otro lado se deberá describir el proceso de esterilizado o pasteurizado del producto ya que si es uno de estos procesos no requiere ningún aditivo como conservador, al menos que sea producto refrigerado solamente.
2.4 MANIPULACIÓN	El caviar en granos se producirá a partir del ovario del pez que haya alcanzado la fase IV de maduración y se extraerá de esturiones en condiciones sanitarias estrictas. La hueva se separará del tejido conectivo del ovario. Cuando proceda, se conservarán hasta su elaboración en recipientes cerrados en cámaras refrigeradas a una temperatura entre – 1º y 2º C durante un período de tiempo no superior a 8 horas. Los granos de caviar se separarán por calidad, color y tamaño. Antes de la salazón se aclararán en agua fría limpia para retirar los coágulos de sangre y grasa, las huevas aplastadas, y los fragmentos de tejido. Las huevas lavadas se enviarán directamente a un tamiz vibrante para eliminar el agua restante. A continuación se tratarán con sal comestible, con o sin aditivos. Todas las operaciones técnicas mencionadas se deberán efectuar sin demora para evitar daños causados por microbios. La preparación del caviar en granos deberá respetar el Código Internacional de Prácticas para el Caviar de Esturión (por elaborar).	fase IV inicial de maduración en condiciones sanitarias adecuadas
3. FACTORES ESENCIALES DE	El caviar en granos se fabricará a partir de ovarios extraídos de esturiones vivos	Aplicar el Código Internacional de prácticas de Higiene para la

COMPOSICIÓN Y CALIDAD **3.1 Materia prima**	pertenecientes a las especies biológicas descritas en la Sección 2.2, que por su calidad deberán ser aptos para el consumo humano.	utilización de la materia prima.
3.2 OTROS INGREDIENTES	El agua potable debe cumplir con las Directrices de la OMS para el agua potable. La sal y otros ingredientes deberán ser aptos para el consumo humano y respetar todas las normas aplicables del Codex.	Mencionar en este apartado que se utilizarán aditivos alimentarios (Acido Bórico, Tetraborato de Sodio), sal en grano o yodatada. Aplicar el Código Internacional de prácticas de Higiene para la utilización de insumos.
3.3 PRODUCTO FINAL	**3.3.1** Las características sensoriales y químicas del producto deberán cumplir los requisitos que figuran en el Cuadro 1.	Aspecto: Que los ovocitos, huevecillos o granitos sean homogéneos., que provenga de animales libres de enfermedades. Consistencia y Estado: Que su consistencia sea blanda y firme característica de estas especies y se puedan separar fácilmente.
4. ADITIVOS ALIMENTARIOS.	Acido bórico (SIN 284); dosis máxima 4g/Kg (expresado como acido bórico) Tetraborato de Sodio (SIN 285); dosis máxima 4g/Kg (expresado como acido bórico)	En este punto existe un error: deberá ser expresado como "Tetraborato de Sodio" y no como "Acido Bórico".

Nota Importante: ***

Utilización de Aditivos Alimentarios

El Ácido bórico ha sido utilizado desde el siglo XIX en Italia para la conservación de mantequilla y margarina, también se ha empleado en la conservación de carne, pescado y mariscos. Es relativamente tóxico, conociéndose bastantes casos de intoxicación, sobre todo en niños. Además se absorbe bien y se elimina mal, por lo que tiende a acumularse en el organismo. Esto hace que su uso esté prohibido en todo el mundo, con la excepción de su empleo para conservar el caviar. En España se han detectado con cierta frecuencia casos de uso fraudulento del ácido bórico en la conservación de mariscos, para evitar el oscurecimiento de las cabezas de gambas y langostinos.

El Tetraborato de Sodio, es un conservante antiséptico que según la OMS es inaceptable como aditivo alimentario, debido a que los iones bóricos se oponen a la síntesis de la glutamina en el cerebro. Se utiliza en pescados y caviar y su toxicidad es: Sospechosa.

Fuente: www.revistanatural.com/otono/498/aditivo.htm

PERU (versión en español)

El Perú no presenta opinión técnica al presente tema en razón que el Caviar de Esturión no es un recurso disponible en nuestro mar.

PERU (English version)

Peru does not present technical opinion on this subject due to the fact that Sturgeon Caviar is not an available resource in our seas.

RUSSIAN FEDERATION

Please review the proposed draft standard. Given below are the suggested amendments and editorial changes to be made in the next.

- The definition of fish eggs was amended to expand the potential use of eggs from ovaries of various stages of maturity.

- Eggs are defined to recognize the raw granular eggs used to make the final product

- The definition of oocytes maturation

Stage IV is taken away since it is never again used in the draft standard as presented.

- The first paragraph of 2.3.1 was amended editorially to show the salt percentage in the product, and the recommended temperature range to ensure quality and safety of caviar.

- The second sentence in 2.3.2 was amended to specify the repackaging requirements for the final product, i. e. caviar rather than caviar-grain; the third sentence envisages to use the generally recognized term «foreign matter» rather than «physical contamination ».

- In 2.4 requirements are excluded which have to do with the provisions to be included in the Code of Practice for the production of sturgeon caviar.

- In 3.1 – editorial change since the word «extracted» may refer only to ovaries rather that fish eggs;

- Paragraph 3.3.1 and Table 1 to be excluded.

- In 9.4 the title is changed for «objectionable matter» because the remnants of membranes and fat are not part of extraneous material.

The defect of caviar «Objectionable matter» is described to account for possible getting of remnants of membranes and fat into the final product.

Since Annex B is referred to in the text of standard first, it should be called A. Annex A becomes B. Replace them.

DRAFT STANDARD FOR STURGEON CAVIAR

1. SCOPE

This standard applies to sturgeon caviar of the fish of the *Acipenseridae* family. ~~only.~~

2. DESCRIPTION

2.1. DEFINITIONS

The following definitions are used in this standard:

Fish eggs: sturgeon ovocytes ~~product obtained from ovocytes~~ separated from the connective tissue of ovary.

Caviar: the product made from fish eggs of the *Acipenseridae* family by treating with salt or mixture of salt with food additives.

~~Oocytes maturation stage lV: oocytes coming from ovaries which have reached maximum size, and in which fat deposits are absent, or there are thin layers of fat, and where the grain eggs can be easily separated from the connective tissue.~~

2.2 Product Definition

The product is prepared from fish eggs of sturgeon fishes belonging to the *Acipenseridae* family (four genera *Acipenser, Huso, Pseudoscaphirhynchus* and *Scaphirhynchus* and hybrid species of these genera).

The product is made using salt, and with, or without addition of food additives, and is intended for direct human consumption.

2.3 Process Definition

2.3.1 The product shall be prepared by salting fish eggs with food grade salt, **of 3.5 % to 5.0 % by weight** with or without food additives, packed in containers, and chilled to the temperatures **of – 2 ^{0}C to -4 ^{0}C** so as to maintain the quality during storage, transportation and marketing.

The product shall be packed in:

- metal tins coated inside with stable food lacquer or enamel;
- glass jars.
- other suitable containers.

2.3.2 Industrial re-packaging of the product from larger to smaller containers under controlled conditions shall be permitted. No mixing of caviar ~~**grain**~~ from different lots shall be permitted.

The product shall be packaged so as to minimize the time that the caviar remains unpacked in order to prevent its warming and microbial contamination, as well as ~~physical contamination~~ **foreign matter**.

2.4 HANDLING PRACTICE

Caviar is produced from fish **eggs** ~~oocytes which have reached maturation stage IV~~ extracted from the sturgeon fishes under appropriate sanitary conditions. ~~The fish eggs are separated from the connective tissue of ovary.~~ If appropriate, it is kept until processing in closed containers in refrigerating chamber at a temperature from – 1 ^{0}C to + 2 ^{0}C for no more that 8 hours.

Before processing ~~**Caviar grain**~~ **fish eggs** ~~**is**~~ **are** sorted by quality, colour and size. ~~Before salting it is washed out in potable cooled water to remove clots of blood and fat, squashed egg and film pieces.~~ ~~Washed roe is immediately directed to be drained.~~

~~Then it is treated with food grade salt with/without additives. All the above mentioned technological operations shall be performed without delay to avoid microbial spoiling.~~

Preparation of caviar shall comply with the International Code of Practice for Caviar (to be elaborated).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

Caviar shall be prepared from ~~ovaries~~ **fish eggs** ~~extracted from~~ **of** sturgeons of biological species of the genera described in Section 2.2, which are of a quality acceptable for human consumption.

3.2 Other Ingredients

Potable water should comply with the WHO Guidelines for Drinking Water quality. Salt and other ingredients shall be of food grade quality and conform to all applicable Codex Standards.

3.3 Final Product

~~3.3.1 By its sensory and chemical characteristics the product shall comply with the requirements prescribed in Table 1~~

~~Table 1~~

~~Index~~	~~Characteristics and norms~~
~~Appearance~~	~~Eggs of about one size~~
~~Color~~	~~Even and characteristic of roe from the given biological species: from light gray to black, or from light yellow to yellowish gray. Yellowish and brownish shades are permissible~~
~~Consistence and state~~	~~Eggs can be easily separated from each other~~
~~Taste and odour~~	~~Characteristic of fish eggs from the given biological species; without foreign taste and odour~~
~~Salt, %~~	~~3.5 – 5.0~~
~~Foreign matter~~	~~Unacceptable~~

~~**3.3.2**~~ The product shall meet the requirements of the present Standard, when a lot examined in accordance with the requirements described in Section 10 complies with the provisions set out in Section 9.

The product shall be examined by the methods given in Section 8.

4. FOOD ADDITIVES

4.1 The use of colorants is not allowed.

4.2 The following food additives shall be used:

Boric acid (INS 284): maximum level 4g/kg (expressed in boric acid).

Sodium tetraborate (INS 285): maximum level 4g/kg (expressed in boric acid).

5. CONTAMINANTS

5.1 Pesticide residues

The product covered by this standard should comply with those maximum residue limits established by the Codex Alimentarius Commission for these products.

5.2 Other contaminants

The product shall comply with the provisions of the Codex General Standard for Contaminants and Toxins in Food (Codex Stan 193-1995).

6. HYGIENE

6.1. It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969, Rev.4-2003) and other relevant Codex Codes of Practice.

6.2. The products should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).

7. LABELLING

7.1 Labelling of the product and the name of caviar shall be in accordance with the provisions of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985, Rev. 1-1991).

The labeling requirements of this standard should apply without prejudice of the implementation of CITES recommendations.

The name of the product shown on the label shall be «caviar», or «sturgeon caviar» and shall be in compliance with the laws and traditions of the country where the product is distributed.

7.2 For caviar made from sturgeon species with such common names as beluga, kaluga, sturgeon, starred

sturgeon, starlet and barbel sturgeon the name of the fish may be included in the name of the product before or after the word caviar, e.g. « Kaluga caviar».

For sturgeons having no common names the name may be supplemented with the identification code of the biological species of the fish in accordance with Annex **A** ~~**B**~~, e.g. «Sturgeon caviar».

For hybrids the common name shall be supplemented with the word hybrid, and the parent sturgeon species may be shown according to Annex **A** ~~**B**~~, e.g. «Hybrid sturgeon caviar» or «Sturgeon HUS x Rut hybrid caviar».

7.3 Country of origin

The country of origin of the product shall be declared.

In case of repackaging of the product the facility registration code shall be identified.

7.4 Source identification

[The data on the source of origin of raw fish shall be shown ~~**in the immediate vicinity of the name of the product**~~ only in the case of aquaculture produced sturgeon product, e. g. « Product of aquaculture».]

7.5 Each primary container shall be labelled with the number markings of the lot.

8. SAMPLING, EXAMINATION AND ANALYSES

8.1 Sampling

8.1.1 Sampling of lots for examination of the product shall be in accordance with the General Guidelines on Sampling (CAC/GL 50-2004).

8.2.1.Sensory and Physical/Chemical Examination.

Samples taken for sensory and physical/chemical examination shall be assessed by experts trained in such examination and in accordance with methods elaborated in Sections 8.2.1- 8.2.2 and the Guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31-1999) in accordance with Annex B.

8.2.2.Determination of Net Weight

The net weight of each sample unit shall be determined in accordance with the following procedure:

• container filled with the product shall be swept dry and weighed;

• container shall be opened, and freed from caviar;

• empty container with a lid, (and packing material, if available), cleaned of the product, washed and dried, shall be weighed;

• subtract the weight of the empty container with a lid (and packing material, if available) from the weight of the container with the product, and determine the net weight of product.

8.2.3. The weight share of salt shall be determined using the method developed for salted fish.

9. DEFINITION OF DEFECTS

The sample unit shall be considered as defective when it exhibits any of the properties defined in Sections 9.1- **9.4.**

9.1 Foreign matter

The presence in the sample unit of any matter which has not been derived from sturgeon eggs, does not pose a threat to human health, is readily recognized without magnification; or when it is present at a level determined by any method including magnification, that indicates non-compliance with good manufacturing practices and sanitation rules.

9.2 Odour and Flavour

The product affected by persistent and distinct objectionable odour and/or flavour indicative of decomposition, oxidation, or taste of feed (in sturgeon reared in aquaculture), or contamination by foreign (such as fuel oil).

9.3 Consistency and Condition

Hard cover of caviar grains is not easily chewable, or tenuous, destroyed when the grains are separated from one another.

9.4. ~~Extraneous material~~ Objectionable matter

Remnants of membranes and fat ~~**clusters**~~ shall be absent from finished caviar.

10. LOT ACCEPTANCE

A lot shall be considered as meeting the requirements of this standard when:

1. The total number of defectives as classified according to Section 9 does not exceed the acceptable number of the appropriate sampling plan given in the General Guidelines on Sampling (CAC/GL 50-2004).

2. The average net weight of all sample units is not less than the declared weight, provided no individual container is less than 95% of the declared weight.

3. The Food Additives, Hygiene, Packing and Labelling requirements of Sections 4, 2.3, 5, 6, 7 and 8 are met.

ANNEX ~~B~~ A

IDENTIFICATION CODES OF STURGEON SPECIES
Table ~~B.1~~ A 1

Denomination of sturgeon fishes Scientific names	Code
Huso huso	HUS
Huso dauricus	DAU
Acipenser naccari	NAC
Acipenser transmontanus	TRA
Acipenser schrenkii	SCH
Acipenser sturio	STU
Acipenser baerii baikalensis	BAI
Acipenser sinensis	SIN
Acipenser dabryanus	DAB
Acipenser persicus	PER
Acipenser brevirostrum	BVI
Acipenser fulvescens	FUL

Acipenser oxyrhynchus	OXY
Acipenser oxyrhynchus desotoi	DES
Acipenser gueldenstaedtii	GUE
Acipenser medirostris	MED
Acipenser baerii	BAE
Acipenser micadoi	MIK
Acipenser stellatus	STE
Acipenser ruthenus	RUT
Acipenser nudiventris	NUD
Pseudoscaphirhynchus fedtschenkoi	FED
Pseudoscaphirhynchus hermanni	HER
Pseudoscaphirhynchus kaufmanni	KAU
Scaphirhynchus platorhynchus	PLA
Scaphirhynchus albus suttkusi	ALB
Scaphirhynchus suttkus	SUS
Hybrids: female species code x male species code code	YYY x XXX

ANNEX B ~~A~~

SENSORY AND PHYSICAL EXAMINATION

The samples used for sensory evaluation should not be same as those used for other examination.
1.Examine the sample unit for foreign ~~**matter**~~ **admixtures and objectionable matter.**

2. Assess the odour in the uncooked sample in accordance with the guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31-1999).

3. Assess the flavour in sample in accordance with the Guidelines for the Sensory Evaluation of Fish and Shellfish in Laboratories (CAC/GL 31-1999).

UNITED STATES

2.3 Process Definition: The United States has had general concerns that the materials in section 2.3.2 are better suited for a code of practice than a standard. Upon studying the Canadian comments on both sections 2.3.1 and 2.3.2, we find ourselves in general support with the Canadian approach, which is to retain most of the materials in the standard but with modifications. Only some materials would be deleted from this section and moved to a code of practice under the Canadian proposal.

2.4 Handling Practice: we recommend deleting this subsection. It contains specific processing information that belongs in a code of practice rather than in a standard.

7.4 Source Identification: the logic and need for this provision has never been clear to us. We note the questions that Canada is asking about this provision and agree with Canada that the Committee should consider deleting the provision.