

codex alimentarius commission



FOOD AND AGRICULTURE
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Agenda Item 5

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

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DRAFT STANDARD FOR STURGEON CAVIAR COMMENTS AT STEP 6 (Russia)

~~[DRAFT STANDARD FOR STURGEON CAVIAR
DRAFT STANDARD FOR STURGEON AND [PADDLEFISH] CAVIAR
DRAFT STANDARD FOR CAVIAR FROM THE FISH OF THE ACIPENSERIFORMES ORDER]~~

***Comment:** We suggest a different wording in order to take into account possible inclusion of caviar from the fish of Polyodontidae family to the codex standard, thus making uniform requirements to caviar obtained from all the fishes of Acipenseriformes order. In recent years the problems of culturing of paddlefish are being successfully dealt with which expanded its range, and made it possible to use it for the production of caviar. The techniques included humane methods of taking ovulated eggs with no harm to health, or to the life of fish.*

*We therefore consider it preferable to have the title as «Draft Standard for Caviar from **the Fish of the Acipenseriformes Order**» which describes the object of standard more accurately and fully.*

1. SCOPE

~~[1) This standard applies to granular sturgeon caviar of the fish of the Acipenseridae family.]~~

~~[2) This standard applies to caviar prepared from fish eggs of sturgeon and paddlefish.]~~

[3) This standard applies to caviar from fish eggs of the Acipenseriformes order **fish.**]

***Comment:** If the new draft title is accepted we suggest to use this wording here, and throughout the text, so that the amended title agrees with the requirements.*

2. DESCRIPTION

2.1. Definitions

The following definitions are used in this standard:

Fish eggs: oocytes separated from the connective tissue of ovaries.

Caviar: the product made from fish eggs of the [*Acipenseriformes* order fish] by treating with **food grade salt, with or without the addition of food additives** ~~or mixture of salt with a food additive.~~

Comment: *Drafting of definition is amended.*

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 the fishes belonging to the *Polyodontidae* family (two genera: *Polyodon* and *Psephurus*).]**

Comment: *The requirements are worded in conformity with the title and the scope.*

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 ~~[3g/100g]~~ **[3%]** and below or equal to ~~5g/100g~~ **5%** ~~[in water phase (to be clarified)].~~

Comment: *Code standard 167-1989, Rev.2-2005 envisages two methods to determine the salt content in the product (water phase, and dry matter – for verification). Their requirements are followed in respect of this characteristic in caviar. Codex Alimentarius Guidelines point out that verification methods should ensure compatibility of the results of this determination, and ability to reproduce them. Therefore we suggest to delete the words «water phase». According to Codex Standard 167-1989, Rev. 2-2005 (4. Calculation of results) the salt content by weight in product should be found in percentage (salt concentration %). Therefore we suggest to show 3% instead of 3g/100g, or 5% instead of 5g/100g.*

2.3 Process Definition

2.3.1 After suitable preliminary preparation the fish eggs shall be subject to **processing** or **to being in** conditions sufficient to prevent the growth of spore and non-spore forming pathogenic microorganisms and shall comply with the conditions laid down hereafter.

The product shall be prepared by salting fish eggs with food grade salt, with or without food additives. ~~packed in containers, and chilled to the temperatures of 0 °C to -4 °C so 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.~~

The product shall be packed in:

- ~~–metal tins coated inside with stable food lacquer or enamel,~~
- ~~–glass jars or~~
- ~~–other suitable food-grade containers~~

The product shall be packed in metal tins coated on the inside with stable food lacquer or enamel, glass jars, or other suitable food-grade containers.

The product should be chilled to temperatures of 0 °C to -4 °C so as to maintain the quality and safety of the caviar during storage, transportation and marketing.

Comment: Edited version. The optimum storage regime for preservation of good quality of caviar is $-3\pm 1^{\circ}\text{C}$. However 0° - -4°C may be applied, i. e. the regime used previously when the equipment to maintain the optimum regime was not available.

Freezing as well as frozen storage of caviar is not permitted due to deterioration of quality

2.3.2 Re-packaging of the product from larger to smaller containers under controlled conditions **which maintain the quality and safety of the product** shall be permitted. No mixing of **caviar grain** from different lots shall be permitted.

Comment: Since it is the final product (caviar) which may be repackaged, rather than the raw material, the word «grain» should be deleted.

~~The time for repackaging should be minimized so as to maintain low temperature and to prevent contamination by microbial hazards and foreign material.~~

Comment: We suggest to delete this phrase since these provisions on hygiene and processing are presented more appropriately in the Code of practice.

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 Raw Material

Caviar shall be prepared from ovaries eggs extracted from sound and wholesome [*Acipenseriformes*] fishes of 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.

Comment: Since caviar is made not only from ovaries but also from ovulated eggs we feel it necessary to change the word «ovaries» for «grain eggs». Word combinations «*Acipenseriformes* fishes» and «of sturgeons of biological species of the genera described in Section 2.2» have the same meaning, and they repeat the same requirements. We therefore suggest to take out the latter phrase.

3.2 Salt

Salt shall be of food grade quality and conform to all applicable Codex Standards.

3.3 Final Product

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

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

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

Comment: This remains open until JECFA view is received.

5. CONTAMINANTS

5.1 Pesticide residues

The product covered by this standard should comply with the maximum allowable 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, Rev. 2-2006).

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 may pose a threat to human health.]

***Comment:** We think it possible to include these suggestions to codex standard text.*

7. LABELLING

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 The Name of the Food

7.1.1 For the *Acipenseridae* family, the name of the **product** shall be “caviar” or “caviar” completed with the usual name (Beluga for *Huso huso*, Ossetra for *Acipenser gueldenstaedtii* 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.

***Comment:** The scientific name of the Russian sturgeon is corrected.*

7.1.2 For the *Polyodontidae* family, the name of the **product** shall be “paddlefish caviar” or «Psephurus caviar».

***Comment:** Requirement to marking of *Psephurus caviar* is specified.*

7.1.3 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 A, e.g. «Sturgeon caviar **SIN**».

***Comment:** Identification Code **SIN** is added to the example.*

7.1.4 For hybrids the common name **may** be supplemented with the word hybrid, and the parent sturgeon species may be shown according to Annex A, e.g. «Hybrid Sturgeon HUS×RUT caviar».

~~7.1.5 The label shall be in compliance with the CITES labeling requirements.]~~

***Comment:** Since the objectives of CITES and Codex standard and the requirements to the contents of labelling are different, they cannot «comply» with each other.*

7.2 Storage Instruction

The label shall include terms to indicate that the product shall be stored under an appropriate temperature as indicated on the label.

~~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.~~

***Comment:** Requirement to indicate the country of product origin has to be excluded. Feasibility of including this requirement should be at the discretion of each country. The requirement to show the facility registration code is common for all food products.*

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

7.5 Labelling of non-retail containers

The information which meets the above provision shall be given either on the container or in accompanying documents, except that the name of the product, lot identification, 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.

***Comment:** This amendment is consistent with Codex Fish Standards and conforms to the food labelling provisions as stipulated in the Codex Procedural Manual.*

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). 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 Sensory and Physical/~~Chemical~~ Examination

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

***Comment:** The title and text are in accordance with the existing codes for fish and fishery products.*

8.2.1. The Determination of Net Weight

The net weight (excluding packaging material) of each **container** in the sample lot shall be determined by deducting the weight of the empty container from the total weight.

8.2.2 The Determination of Salt Content

The determination of salt content **shall be** 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 9.1-9.4.

9.1 Foreign matter

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

Comment: *This requirement is extended to include the eggs of sturgeon – like fishes to agree with the amended title and scope.*

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 fish reared in aquaculture), or contaminated **with** foreign substances (such as fuel oil).

9.3 Consistency and Condition

The presence of hard cover of caviar grains that is not easily chewable, or tenuous which is broken when grains are separated; **presence of brine residue.**

Comment: *This specifies characteristic of the product with tenuous grain, and the presence of brine residue in the container.*

9.4 ~~Extraneous material~~-Objectionable matter

The presence of remnants of **ovary** membranes and **fragments of** fat tissue in finished caviar.

Comment: *Title: instead of «extraneous material» we suggest «objectionable matter» since ovary membranes and pieces of fat tissue are not extraneous in relation to caviar. Defect characteristics are specified.*

10. LOT ACCEPTANCE

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

10.1. 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).

10.2. 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.

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

FISHES OF ACIPENSERIFORMES ORDER

Table .1 - IDENTIFICATION CODES OF *STURGEON [PADDLEFISH] SPECIES*

Denomination of sturgeon fishes [paddlefish] — Scientific names Scientific names <u>of Acipenseriformes order species</u>	Code
<i>Huso huso</i>	HUS
<i>Huso dauricus</i>	DAU
<i>Acipenser naccari</i>	NAC
<i>Acipenser transmontanus</i>	TRA
<i>Acipenser schrenkii</i>	SCH
<i>Acipenser sturio</i>	STU
<i>Acipenser baerii baikalensis</i>	BAI
<i>Acipenser sinensis</i>	SIN
<i>Acipenser dabryanus</i>	DAB
<i>Acipenser persicus</i>	PER
<i>Acipenser brevirostrum</i>	BVI
<i>Acipenser fulvescens</i>	FUL
<i>Acipenser oxyrinchus</i>	OXY
<i>Acipenser oxyrinchus desotoi</i>	DES
<i>Acipenser gueldenstaedtii</i>	GUE
<i>Acipenser medirostris</i>	MED
<i>Acipenser baerii</i>	BAE
<i>Acipenser micadoi</i>	MIK
<i>Acipenser stellatus</i>	STE
<i>Acipenser ruthenus</i>	RUT
<i>Acipenser nudiiventris</i>	NUD
<i>Pseudoscaphirhynchus fedtschenkoi</i>	FED
<i>Pseudoscaphirhynchus hermanni</i>	HER
<i>Pseudoscaphirhynchus kaufmanni</i>	KAU
<i>Scaphirhynchus platorhynchus</i>	PLA
<i>Scaphirhynchus albus suttkusi</i>	ALB
<i>Scaphirhynchus suttkus</i>	SUS
[<i>Polyodon spathula</i>]	SPA}
[<i>Psephurus gladius</i>]	GLA}
<i>Hybrids: female species code × male species code</i>	YYY × XXX

Comment: Fish species are listed by families of sturgeons and paddlefishes.

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, consistency and condition, and for objectionable matter.
2. Assess the odour in the 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).