

# codex alimentarius commission



FOOD AND AGRICULTURE  
ORGANIZATION  
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Agenda Item 5a)

CX/FFP 05/27/5

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

Twenty-seventh Session, Cape Town, South Africa

28 February – 4 March 2005

### DRAFT CODE OF PRACTICE FOR FISH AND FISHERY PRODUCTS (SECTION ON AQUACULTURE)

#### GOVERNMENT COMMENTS AT STEP 6

(Canada, Chile, European Community, New Zealand, South Africa, United States)

#### CANADA

##### GENERAL COMMENTS

Canada continues to support the Draft Section on Aquaculture of the Code of Practice for Fish and Fishery Products and offers the following comments for consideration.

Canada has also included a section on "Editorial Suggestions" which offers recommendations to improve clarity in the text.

##### SPECIFIC COMMENTS

###### Section 2.2 - Definition

Canada notes that there are some inconsistencies regarding the definitions for "*extensive farming*" "*semi-intensive farming*" and "*intensive farming*". For example, "*extensive farming*" and "*intensive farming*" definitions includes a list of factors to consider in fish farming which differs from the "*Semi intensive farming*" definition approach. Canada recommends dispensing with the list and reference the clause, "**growing process and production conditions**" which is general in nature. The terms "*growing*" and "*production*" are already used in the Aquaculture Code.

Standardizing the presentation of these three definitions will ensure consistency and improve user-friendliness of the Code. Canada would like to offer the following revised definitions:

###### "Extensive farming"

Revise to read: "means raising fish under conditions of little or incomplete control over such factors as water flow, number and weight of species raised **the growing process and production conditions where their growth is dependent upon endogenously supplied and low quality and quantity of nutrient inputs**"

###### "Semi-intensive farming"

Revise to read: "means raising fish under conditions of partial control over **the growing process and production conditions** dietary nutrient inputs by including external fertilizer and/or supplementary diet nutrient inputs, whereby fish **their** growth is dependent upon the consumption of endogenously supplied live food organism **nutrient inputs** and externally supplied **fish** feed as supplementary source of dietary nutrients."

###### "Intensive Farming"

Revise to read: "means raising fish under **controlled growing process and production** conditions of complete control over such factors as external complete diet nutrient inputs and operation practices,

where **their** growth is completely dependent on externally **supplied fish feed** ~~provision of nutritionally complete high quality diet.~~"

“Colouring”

Revise to read: "means obtaining a specific coloured ~~fish flesh~~ **feature (e.g. flesh/ shell/gonad) of a targeted organism** by incorporating into their food a natural or artificial substance or additive approved for this purpose by the agency having jurisdiction."

Reason: Canada notes that colorants are being used in the shrimp industry to colour shells and as an immunostimulant. They are also being used in sea urchin aquaculture to enhance the colour of gonads.

“Fish Feed”

Replace with: "means any substance or mixture of substances consumed by fish in an aquaculture establishment that provides nutritional requirements for the fish or for the purpose of preventing or correcting nutritional disorders of the fish."

Reason: Canada notes that “fodder” is generally known as coarse food (especially for cattle and horses) composed of entire plants or the leaves and stalks of a cereal crop. We are of the view that the current definition of "fish feed" is not representative of a typical fish diet and may not take into account minerals, vitamins and other additives not derived from plant or fish material.

**Section 6.3.1 - Feed Supply**

6<sup>th</sup> bullet (beginning with “Only approved colours. . .”):

Revise to read: “Only ~~approved~~ colours **that are approved by the agency having jurisdiction, and that are applied at** ~~of~~ the correct concentration, should be included in the feed.”

Reason: Canada’s proposal clarifies that the approval of colour should be given by the agency having jurisdiction.

**Section 6.3.2 - Veterinary Drugs**

The Codex Committee on Residues of Veterinary Drugs in Foods<sup>1</sup> (15<sup>th</sup> Session, October 26 - 29, 2004) recommended that the Codex Committee on Fish and Fishery Products should refer to the relevant Codes of Practice, instead of listing specific recommendations under the heading “Technical Guidance.” Accordingly, Canada suggests that the technical guidance listed in the table below should be deleted since they have been elaborated in the “Recommended International Code of Practice for Control of the Use of Veterinary Drugs (CAC/RCP 38-1993)”.

<b>Section 6.3.2 - Delete Technical Guidance Bullet</b>	<b>Corresponding CAC/RCP 38-1993 Reference</b>
# 3 - beginning with “ <i>Veterinary drugs and medicated feeds . . .</i> ”	Paragraphs 3 and 5
# 4 - beginning with “ <i>Products should be registered . . .</i> ”	Paragraph 4
# 5 - beginning with “ <i>Products should only be prescribed or distributed . . .</i> ”	Paragraph 4
# 6 - beginning with “ <i>Storage and transport conditions . . .</i> ”	Paragraphs 4, 18 and 19
# 7 - beginning with “ <i>Control of diseases with drugs . . .</i> ”	Paragraph 6
# 8, 1 <sup>st</sup> sentence - beginning with “ <i>Records should be maintained . . .</i> ”	Paragraphs 4 and 16

<sup>1</sup> Alinorm 05/28/31, para 11

8th bullet (beginning with “Records should be maintained . . . “):

2<sup>nd</sup> sentence:

Delete text: "Pre-slaughter control is a method of controlling drug residues in fish"

Reason: This statement seems to state the obvious.

3<sup>rd</sup> Sentence:

Revise to read: "**For those fish, which tested with drug residue concentrations above the MRL (or in some countries, by an industry imposed lower level), harvest of the batch should be postponed until the batch complies with the MRL. After an assessment of the HACCP plan regarding pre-harvest measures, appropriate steps should be taken to modify the drug residue control system.**"

Reason: In view of intensive aquaculture operations and the lack of validated fast screening methods for the testing of veterinary drug residues, it is considered impractical to test each batch of fish for compliance with MRLs, or in case of non-compliance, to continue testing until compliance is achieved.

Canada considers that a system put in place to monitor the withdrawal time appropriate for the water temperature is the primary means of ensuring that veterinary drug residue levels in aquaculture fish meet national and international regulatory requirements. Canada considers this covered in the second bullet.

4th sentence:

Delete text: "A post slaughter control should reject all fish that do not comply with the requirements set for veterinary drug residues by the Codex Alimentarius."

Reason: Canada notes that the guidance on application of HACCP principles for instances of non-compliance has already been adequately described in "Section 5.3.7 Establish Correction" of the Code of Practice for Fish and Fishery Products.

### **Section 6.3.6 - Storage and transport of live fish**

Renumber section 6.3.7 and 6.3.8 as subsections of 6.3.6 as follows:

~~6.3.7~~ **6.3.6.1** - Live fish stored and transported at ambient temperature

~~6.3.8~~ **6.3.6.2** - Live fish stored and transported at low temperatures

Reason: Canada notes that both sections address live fish storage and temperature and therefore it would seem appropriate to identify them as subsections of the section on "Storage and transport of live fish".

**If the Committee agrees with the repositioning of these sections, a consequential change would be to move technical guidance bullet # 1, 2 and 3 from Section 6.3.7 (Live fish stored and transported at ambient temperature) to Section 6.3.6 (Storage and transport of live fish) since they provide general guidance on storage and temperature that will apply to both situations.**

6<sup>th</sup> bullet (beginning with “Where seawater is used in holding . . . “):

Revise to read: "~~Where s~~ **Seawater is used in holding or conditioning tanks for species prone to toxic algae contamination should be sourced away from areas that contain unacceptable levels of toxic algae ,seawater containing high level of cell concentrations should be avoided- or should be filtered properly prior to being used.**

Reason: The Canadian proposal helps clarify the control measures for addressing the potential hazard of biotoxin in some species.

7th bullet (beginning with “No fish feeding . . . “):

Revise to read: "No fish feeding should occur **for an appropriate period before and** during storage and transportation of live fish."

Reason: Canada recommends expanding the situations when feeding should not occur at the storage and transportation stages in order to help minimize water quality deterioration in holding tanks.

## EDITORIAL SUGGESTIONS

### General:

Canada recommends performing a spell check to identify and correct several errors in this document.

### Figure 6.1 - Flow Diagram

Delete one of the heading clauses: “*This flow chart is for illustrative purpose only. For implementation of HACCP principles, a complete and comprehensive flow chart has to be drawn up for each product. References correspond to relevant Sections of the Code.*”

Reason: Editorial clarity (duplication).

### “Transportation” box

Canada suggests a check to ensure that the section references are correct and complete in the final version of the text.

### Section 6.1.1 - Site Selection

2<sup>nd</sup> bullet (beginning with “*The physical environment . . .*”):

Revise to read: “The physical environment with regard to temperature, current and depth should also be ~~checked~~ **considered** since different species have different environmental requirements.”

Reason: Editorial clarity.

### Section 6.2 - Identification of Hazards and Defects

6<sup>th</sup> Sentence (beginning with “*In systems where the fish receive artificial feed . . .*”):

Revise to read: “In systems where the fish receive ~~artificial~~ **formulated** feeds, the risks associated with transmission of hazards through the food consumed by the fish could be reduced.”

Reason: Editorial clarity. The term “*formulated feed*” is widely used in the aquaculture industry.

### Section 6.3.1 - Feed Supply

13<sup>th</sup> bullet (Beginning with “*Veterinary drug and other . . .*”):

Revise to read: “Veterinary drug and other chemical treatments should be ~~done~~ **administered** in accordance with recommended practices and comply with national regulations.”

Reason: Editorial clarity.

### Section 6.3.2 - Veterinary Drugs

2<sup>nd</sup> bullet (Beginning with “*Prior to administering . . .*”):

Revise to read: “Prior to ~~administering~~ **administering** veterinary drugs, a system should be in place to monitor the application of the drug to ensure that the withdrawal time for the batch of treated fish can be verified.”

Reason: Editorial clarity.

### Section 6.3.3 - Growing

3<sup>rd</sup> bullet (beginning with “*Dead or diseased fish . . .*”):

Revise to read: “Dead or diseased fish should be disposed in a sanitary manner that will ~~discourage~~ **limit** the spread of disease and ~~investigate cause of death~~ **the cause of death should be investigated.**”

Reason: Editorial clarity.

6<sup>th</sup> bullet (beginning with “*The fish farm should . . .*”):

Revise to read: “The fish farm should have a management plan that includes a sanitation programme, monitoring and corrective actions, defined fallowing periods, appropriate use of agrochemicals, verification procedures for fish farming operations and ~~systematic~~ **system** records should be kept.”

Reason: Editorial clarity.

7<sup>th</sup> bullet (beginning with “Equipment such as cages . . .”):

Revise to read: “Equipment such as cages and nets should be designed and constructed to ensure minimum **physical damage to the fish** during the growing stage.”

Reason: The Canadian proposal clarifies that this technical guidance point is intended to protect the fish or crustacean during culture and not to be confused with the protection of the environment.

#### **Section 6.3.4 - Harvesting**

2<sup>nd</sup> bullet (beginning with “Live fish should not. . .”) and 5<sup>th</sup> bullet (beginning with “Harvesting should be rapid . . .”):

Combined as a single bullet to read: “**Harvesting should be rapid so that fish are not subjected to extremes of heat or cold or sudden variations in temperature.**”

Reason: Canada is of the view that bullet # 2 and # 5 address the same issue and that they should be combined to simplify the guidance in this section.

#### **Section 6.3.5 - Holding and Transportation**

1<sup>st</sup> bullet (beginning with “Quality defects can occur. . .”):

Delete text: “Quality defects can occur in fish that are subjected to stress.”

Reason: Canada notes that bullet # 1 has already been adequately addressed in the elaboration of the “Potential Defects” in this section.

#### **Section 6.3.6 - Storage and transport of live fish**

1<sup>st</sup> bullet (beginning with “Only healthy and not damaged fish. . .”):

Revise to read: “Only healthy and ~~not damaged~~ **undamaged** fish should be chosen for **live** storage and transport of **live fish**.”

Reason: Editorial clarity.

2<sup>nd</sup> bullet (beginning with “Holding tanks should . . .”):

Delete number: “(2)”

Reason: Editorial clarity.

#### **Section 6.3.7 - Live Fish Stored and Transported at Ambient Temperature**

4<sup>th</sup> bullet (beginning with “It could be necessary . . .”):

Replace 4<sup>th</sup> bullet with the following: “**For species known to exhibit strong territoriality or cannibalism or hyperactivity when under stress, these fish should be separated in individual tanks or appropriately secured/banded to prevent damage (an alternative method is reduction of temperature - see 6.3.8).**”

Reason: Editorial clarity.

### **CHILE (English version)**

#### **Section 2. Definitions**

The definition does not make a clear distinction between “Aquaculture establishment ” and “Fish Farm” as it seems that the difference is that the first refers to growing fish while the second is not limited to that concept, however it is suggested for the purpose of Codex to merge both definitions into a single concept.

#### **6.3 Production Operations**

##### **6.3.2 Veterinary Drugs**

It is suggested to incorporate in point (●) 6, that medicated feeds should be clearly identified in their package and stored separately, in order to avoid errors.

### **CHILE (versión española)**

#### **Sección 2. Definiciones**

##### **2.2. Acuicultura**

La definición entre “Aquaculture establishment ” y “Fish Farm” no hace una distinción clara entre ambas actividades ya que al parecer la diferencia es que la primera cultiva peces para el consumo humano y la segunda no está limitada a este concepto, sin embargo se sugiere para efectos del Codex fundir ambas definiciones en un solo concepto.

### 6.3 Operaciones de Producción

#### 6.3.2 Suministro de piensos

Se sugiere incorporar en el punto (●) 6, que los alimentos medicados deben ser claramente identificados en su empaque y almacenados en lugares separados de las bodegas, para evitar errores.

### EUROPEAN COMMUNITY

The European Community has the following comments on the above-mentioned code of practice:

#### Section 2 Definitions:

The definition of *chemicals* should be replaced by *contaminant* as defined in the *Codex Manual* (page 49) as: “*any substance not intentionally added to food, which is present in such food as a result of the production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food or as a result of environmental contamination. The term does not include insect fragments, rodent hairs and other extraneous matter.*”

The definition of *residues* should be replaced by *residues of veterinary drugs* defined in the *Codex Manual* (page 51) as: “*the parent compounds and/or their metabolites in any edible portion of the animal product, and include residues of associated impurities of the veterinary drug concerned*”.

The definition of *withdrawal time* should be replaced by *Withdrawal Time and Withholding Time* defined in the *Glossary of Terms and Definitions (Residues of Veterinary Drugs in Foods, CAC/MISC 5-1993, amended 2003, point 28, page 4)* as: “: *This is the period of time between the last administration of a drug and the collection of edible tissue or products from a treated animal that ensures the contents of residues in food comply with the maximum residue limit for this veterinary drug (MRLVD)*”.

All definitions drawn from other Codex documents that are repeated in the *Code of Practice for Fish and Fishery Products* for transparency (e.g. also that of veterinary drugs from page 51 of the *Codex Manual*) should be accompanied by a reference to the source.

#### 6.1.1. Site selection

The EC proposes the following amendments to the 2<sup>nd</sup> paragraph:

*The physical environment with regard to temperature, current, salinity and depth should also be checked since different species have different environmental requirements. Closed recirculation systems should be able to adapt the physical environment to the environmental requirements of the farmed fish species.*

#### 6.2 Identification of hazards and defects

The EC suggests the following amendments to the paragraph:

*Consumption of fish and fishery products can be associated with a variety of human health hazards. Broadly the same hazards are present in aquaculture products as in corresponding varieties caught in the wild, (Section 4.1). The risk of harm from a particular hazard might be increased, under some circumstances in aquaculture products compared with fish caught in the wild - for instance if the withdrawal time for residues of veterinary drugs has not been observed. ~~the presence of residues of veterinary drugs.~~*

*High stocking densities, compared with the natural situation, might increase the risk of cross-infection of pathogens within a population of fish and might lead to a deterioration of the water quality.*

#### 6.3.1 Feed Supply and 6.3.2 Veterinary Drugs in the Aquaculture Section

The European Community supports the position of the 15<sup>th</sup> of the Codex Committee on Residues of Veterinary Drugs in Foods (CCRVDF, point 11, page 2 of ALINORM 05/28/31). The CCRVDF “*recommended that the Committee on Fish and Fishery Products refers to the relevant Codes of Practice, instead of listing specific recommendations under the heading “Technical Guidance”. The Representative of the OIE underscored the importance of taking into account the work of the OIE Working Group on food safety that is preparing Good Farming Practices, which also includes aquaculture*”.

### Paragraph 6.3.1

The European Community would moreover like all items listed under the paragraph *Technical guidance* to be deleted. This is because they are more precisely addressed in the specific section on aquaculture of the Draft *Code on Good Animal Feeding*. If necessary for the sake of transparency reference should be made to the above-mentioned *Code on Good Animal Feeding*.

### 6.3.3 Growing

The EC would like to suggest the following amendments to paragraph 3 and suggests to add a new paragraph :

- *Diseased fish should be quarantined when necessary and appropriate and dead fish should be disposed immediately in a sanitary manner that will discourage the spread of disease and investigate cause of death.*
- *All equipment and holding facilities should be easy to clean and to disinfect and should be cleaned and disinfected regularly and as needed.*

### 6.3.4 Harvesting

The EC proposes the following amendments to the 2<sup>nd</sup> paragraph and suggests to add a new paragraph :

- *Live fish should not be subjected to extremes of heat or cold or sudden variations in temperature and salinity.*
- *All equipment and holding facilities should be easy to clean and to disinfect and should be cleaned and disinfected regularly and as needed.*

### 6.3.5 Holding and Transportation

The EC proposes to add the following paragraph as under points 6.3.3. and 6.3.4.:

- *All equipment and holding facilities should be easy to clean and to disinfect and should be cleaned and disinfected regularly and as needed.*

### 6.3.8 Live fish stored and transported at low temperatures

- The EC proposes that the second sentence of the first paragraph: “*Conditioning is a biological operation to reduce the metabolic rate of fish minimising the stress to them.*” could be rather included in Section 2.2 “*Definitions*”.

## NEW ZEALAND

The text of this code section remains somewhat confused about whether it is for regulation of food safety and quality, for management of animal welfare issues, or for environmental management. New Zealand submits that this document should be limited to matters impacting upon food safety and quality only.

Accordingly New Zealand requests that the following text be removed from the document.

- The first two paragraphs of the Preamble.
- The second, sixth and eighth dot points under 6.1.1 Site Selection
- The last dot point under 6.3.7 Live fish stored and transported at ambient temperatures.

New Zealand could accept the insertion of a footnote to the preamble referencing the OIE Code for animal welfare issues.

### 6.3.2 Veterinary Drugs

New Zealand suggests that the final dot point should conclude:

*“...all fish should be rejected that do not comply with the requirements set for veterinary drug residues by the relevant national authority.”*

This is because there may be local reasons for specific veterinary drug use that are not adequately covered by Codex.

### 6.3.3 Growing

New Zealand suggests the 5<sup>th</sup> dot point should read:

*“Growing water quality should be monitored regularly, to identify conditions that may lead to potential hazards or defects in the fish.”*

This clarifies that we are concerned with the fish quality and safety rather than the water quality.

### **6.3.5 Holding and Transportation**

The title of this section should read “Holding and Transportation of Live Fish”.

### **6.3.8 Live fish stored and transported at low temperatures**

New Zealand suggests the third dot point should read:

*“When performing conditioning, only approved anaesthetics and procedures should be used.”*

This is because there may be controls applied in countries other than in regulations.

## **SOUTH AFRICA**

South Africa believes that paragraphs 6.3.1 and 6.3.2 as currently drafted can be misinterpreted, particularly pertaining to the application of veterinary drugs. The intention is clearly that acceptance and application of drugs directly impact on consumer health and well-being, therefore should only be applied by “trained, knowledgeable individuals that are registered to prescribe drugs on an accurate diagnosis of the disease to be treated and have the responsibility to control the withdrawal times and freedom from residues of these drugs in the fish flesh to below legislated levels. In developing countries, it is crucial that official veterinarians or competent industry staff registered with a competent authority should perform these drug applications. This should come out clearer in the wording of the paragraph 6.3.1 and we thus recommend the following wording to bullet point 14:

“Farmers have to ensure that before veterinary drugs or medicated feeds are applied, the disease(s) to be treated have been correctly diagnosed and the drugs to be used are prescribed by a person approved for such functions by the Competent Authority having jurisdiction and that the veterinary drug(s) to be used have been approved for this purpose by the Competent Authority. Farmers should follow the manufacturers’ instructions on the use of such officially approved veterinary drugs or medicated feeds and observe the recommended withdrawal times prescribed before harvesting of treated fish. Farmers should furthermore observe the recommendations in Section 6.3.2.

The 11<sup>th</sup> bullet point can consequently be deleted.

## **UNITED STATES**

### **SECTION 2. DEFINITIONS**

#### **2.2 AQUACULTURE**

**Extensive farming**, change first “or” to “of”

Reason: Editorial.

### **SECTION 6 – AQUACULTURE PRODUCTION**

**Preamble, 4<sup>th</sup> paragraph, first sentence**, delete the “[ (1)” that appears after “fish”

Reason: Editorial. Appears to be text that should have been deleted with previous edits.

**Figure 6.1, flow chart**, insert an additional arrow from the Veterinary Drugs box to the Feed box.

Reason: Veterinary drugs are administered directly to the growing fish and through the feed.

**6.3.1 Feed Supply, *Technical Guidance*, 2<sup>nd</sup> bullet**, revise to read as follows:

- “Fish feeds should be stored according to manufacturers instructions to prevent spoilage, mould growth and contamination.”



Reason: This technical guidance bullet needs to be revised to include both dry and moist feeds, which have different means of recommended storage.

**6.3.6 Storage and transport of live fish, *Technical Guidance*, 2<sup>nd</sup> bullet,** delete “(2)” at the end of the sentence

Reason: Editorial. Appears to be text that should have been deleted with previous edits.

**6.3.6 Storage and transport of live fish, *Technical Guidance*, 4<sup>th</sup> bullet, 1<sup>st</sup> sentence,** add text and revise to read as follows:

- “Water should not be contaminated with either human **or other** sewage or industrial pollution.”

Reason: Fecal contamination should be prevented from all sources, not just human sewage.

**6.3.6 Storage and transport of live fish, *Technical Guidance*, 7<sup>th</sup> bullet, 2<sup>nd</sup> sentence,** add text and revise to read as follows:

- “Feeding will pollute water of holding tanks very quickly **and in general, fish should not have been fed 24 hours before transport.**”

Reason: The water should be kept as clean as possible during storage and transport. Feeding the fish within 24 hours of transport will pollute the water more quickly.