

# codex alimentarius commission

FOOD AND AGRICULTURE  
ORGANIZATION  
OF THE UNITED NATIONS

WORLD HEALTH  
ORGANIZATION

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**Agenda Item 18 A**

**CX/FAC 02/31**

## JOINT FAO/WHO FOOD STANDARDS PROGRAMME

### CODEX COMMITTEE ON FOOD ADDITIVES AND CONTAMINANTS

#### Thirty-fourth Session

Rotterdam, The Netherlands, 11-15 March 2002

### METHODS OF ANALYSIS FOR THE DETERMINATION OF FOOD ADDITIVES AND CONTAMINANTS IN FOOD

The following comments have been received from Brazil and European Community

#### **BRAZIL**

**Methods of Sampling** (para. 194).

The JECFA Secretariat drew the attention of the Committee to adequate sampling plans in addition to methods of analysis, and invited member countries to provide relevant information on sampling.

Brazilian Position: **No Comments**

#### **EUROPEAN COMMUNITY**

##### **Methods of Sampling (point 10)**

The European Community has established sampling provisions to control the level of aflatoxin M1 in milk and is in the process of adopting sampling provisions for the control of Ochratoxin A in cereals (see Annex for details).

#### **ANNEX**

**Sampling provisions for the control of aflatoxin M1 in milk and milk products and Ochratoxin A in cereals and cereal products**

##### **1. Definitions**

**Lot :** an identifiable quantity of a food commodity delivered at one time and determined by the official to have common characteristics, such as origin, variety, type of packing, packer, consignor or markings

**Sublot:** designated part of a large lot in order to apply the sampling method on that designated part. Each subplot must be physically separate and identifiable.

**Incremental sample:** a quantity of material taken from a single place in the lot or subplot

**Aggregate sample:** the combined total of all the incremental samples taken from the lot or subplot

**Laboratory sample:** sample intended for the laboratory (= subsample)

## **2. General provisions**

### 2.1. Personnel

Sampling shall be performed by an authorised person as specified by the Member States.

### 2.2. Material to be sampled

Each lot, which is to be examined, must be sampled separately. In accordance with the specific provisions in point 5 of this Annex, large lots should be subdivided into sublots to be sampled separately.

### 2.3. Precautions to be taken

In the course of sampling and preparation of the laboratory samples precautions must be taken to avoid any changes, which would affect the aflatoxin content, adversely affect the analytical determination or make the aggregate samples unrepresentative.

### 2.4. Incremental samples

As far as possible incremental samples should be taken at various places distributed throughout the lot or subplot. Departure from this procedure must be recorded in the record provided for in 3.8.

### 2.5. Preparation of the aggregate sample and the laboratory samples (subsamples)

The aggregate sample is made up by uniting and sufficiently mixing the incremental samples. After mixing, the aggregate sample must be divided into equal subsamples in accordance with the specific provisions of point 5 of this annex. The mixing is necessary to ensure that each subsample contains portions of the whole lot or subplot.

### 2.6. Replicate samples

The replicate samples for enforcement, trade (defence) and referee purposes are to be taken from the homogenised laboratory sample, unless this conflicts with Member States' rules on sampling.

### 2.7. Packaging and transmission of laboratory samples

Each laboratory sample shall be placed in a clean, inert container offering adequate protection from contamination and against damage in transit. All necessary precautions shall be taken to avoid any change in composition of the laboratory sample, which might arise during transportation or storage.

### 2.8. Sealing and labelling of laboratory samples

Each sample taken for official use shall be sealed at the place of sampling and identified following the Member State's regulations. A record must be kept of each sampling, permitting each lot to be identified unambiguously and giving the date and place of sampling together with any additional information likely to be of assistance to the analyst.

## **3. Aflatoxin M1 milk and milk products**

- Number of incremental samples: minimum 5
- Weight of aggregate sample: minimum 0.5 kg or litres

#### **4. Ochratoxin in cereals**

##### 4.1. Subdivision of lots into sublots depending on product and lot weight

| <b>Commodity</b>                   | <b>Lot weight (ton)</b> | <b>Weight or number of sublots</b> | <b>N° incremental samples</b> | <b>Aggregate sample Weight (kg)</b> |
|------------------------------------|-------------------------|------------------------------------|-------------------------------|-------------------------------------|
| <b>Cereals and cereal products</b> | ≥1500                   | 500 tonnes                         | 100                           | 10                                  |
|                                    | >300 and < 1500         | 3 sublots                          | 100                           | 10                                  |
|                                    | ≥ 50 and ≤ 300          | 100 tonnes                         | 100                           | 10                                  |
|                                    | < 50                    | --                                 | 10-100*                       | 1-10                                |

\* Depending on the lot weight - see table 2 of this Annex

\*\* Depending on the lot weight - see table 3 of this Annex

##### 4.2. Sampling procedure for cereals and cereal products (lots ≥ 50 tonnes)

- On condition that the subplot can be separated physically, each lot must be subdivided into sublots following point 4.1. Taking into account that the weight of the lot is not always an exact multiple of the weight of the sublots, the weight of the subplot may exceed the mentioned weight by a maximum of 20 %.
- Each subplot must to be sampled separately.
- Number of incremental samples: 100. In the case of lots of cereals under 50 tonnes see point 4.3.
- Weight of the aggregate sample = 10 kg
- If it is not possible to carry out the method of sampling described above because of the commercial consequences resulting from damage to the lot (because of packaging forms, means of transport, etc.) an alternative method of sampling may be applied provided that it is as representative as possible and is fully described and documented.

##### 4.3. Sampling provisions for cereals and cereal products (lots < 50 tonnes)

For cereal lots under 50 tonnes the sampling plan has to be used with 10 to 100 incremental samples, depending on the lot weight, resulting in an aggregate sample of 1 to 10 kg

The figures in the following table can be used to determine the number of incremental samples to be taken.

Table: Number of incremental samples to be taken depending on the weight of the lot of cereals

| <b>Lot weight (tonnes)</b> | <b>N° of incremental samples</b> |
|----------------------------|----------------------------------|
| ≤ 1                        | 10                               |
| > 1 - ≤ 3                  | 20                               |
| > 3 - ≤ 10                 | 40                               |
| > 10 - ≤ 20                | 60                               |
| > 20 - ≤ 50                | 100                              |

##### 4.4. Sampling at retail stage

Sampling of foodstuffs at the retail stage should be done where possible in accordance with the above sampling provisions. Where this is not possible, other effective sampling procedures at retail stage can be used provided that they ensure sufficient representativeness for the sampled lot.