

European Union comments
CODEX COMMITTEE ON FISH AND FISHERY PRODUCTS
Thirty-third Session
Bergen, Norway, 17 – 21 February 2014

AGENDA ITEM 8

**Proposed Draft Code of Practice for Processing of Fish Sauce
(CX/14/33/10)**

*Mixed Competence.
Member States Vote.*

The European Union and its Member States (EUMS) would like to submit the following comments:

1. Reception of raw material

1.1 Fish

Technical Guidance

The EUMS propose to insert the following bullet point:

- ***Fish intended for fish sauce fermentation should be kept until processing at 4°C or below. Refer to Section 8.1.2***

Usually small vessels harvest pelagic fish such anchovies without ice aboard. To avoid decomposition fish has to be chilled without undue delay. This is necessary especially when small catches must be collected for further processing of high quality fish sauce on a large scale.

Rapid chilling of fish immediately after death is the most important element for preventing the formation of histamine. Generally, fish should be placed in ice or in refrigerated seawater or brine at 4.4 °C or less within 6 h from death. (FDA 2001 see literature: Visciano et al. J Food Biochem 31 (2007) 577-588) To keep the level of histamine preferably low before fermentation, it is a must to cool the fish.

Red-flesh pelagic fish such anchovies usually contain considerable amounts of the free amino acid histidine. After harvesting bacteria convert increasingly histidine by decarboxylation to histamine depending on storage time and temperatures before the fermentation process starts.

Rodtong et al. (Food Microbiology 22, 475-482 (2005) conclude in their work that ice storage can considerably minimize the formation of histamine in anchovy because histamine –forming bacteria do not grow well at low temperatures. Yongsawatdigul (Journal of Food Science, Vol. 69, 4, 312-319, 2004) reports that an increase of biogenic amines during fermentation of fish sauce made from fresh or moderately fresh anchovy is rather inconsiderable. Cadaverine and histamine have in these sauces the most important percentages of the total sum of biogenic amines. The most important conclusion of these examinations is that biogenic amines do not increase during long-term storage of fish sauce. If there are any biogenic amines in fish sauce, they arise from bad manufacturing practice before the fermentation process. See also literature about histamine content in fish sauce: Ostermeyer et al. Inf. Fischereiforschung, 56, 1-18, 2009, Schröder et al. Fleischwirtschaft International; 26. 2011, 81-87.

1.2 Salt requirements

Technical Guidance

The EUMS propose to insert the following bullet point to be in compliance with the Standard for Fish Sauce (Codex Stan 302-2011):

- ***Salt used should be of food grade quality and conform to the Codex Standard for Food Grade Salt (Codex Stan 150-1985)***

The reception and storage of raw materials should also cover the ingredients and additives, fermentation aids, packaging materials and labels as following:

X. Ingredients and additives, fermentation aids, packaging materials and labels (processing steps ...)

17. Ingredients and additives

The EUMS propose to insert the microbiological contamination.

Potential hazards: chemical, physical **and microbiological** contamination