

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

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Agenda Item 5

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ORIGINAL LANGUAGE ONLY

JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD LABELLING

Forty-third Session

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9 – 13 May 2016

PROPOSED DRAFT REVISION OF THE *GENERAL STANDARD FOR THE LABELLING OF PREPACKAGED FOODS: DATE MARKING* (Comments at Step 3)

(Comments submitted by Ecuador, Egypt, Ghana, Kenya, Nigeria, FIVS, FoodDrinkEurope and ICGA)

ECUADOR

(i) Observación general:

Ecuador considera acogerse y apoyar el anteproyecto referido, tomando en consideración las siguientes observaciones:

(ii) Observaciones específicas:

Ecuador propone las siguientes definiciones:

2. DEFINICIÓN DE LOS TÉRMINOS:

Para los fines del *marcado de la fecha* de los alimentos preenvasados, se entiende por:

“Fecha de fabricación o elaboración”, la fecha en que el alimento se transforma en el producto descrito. ~~Esto no es una indicación de la durabilidad del producto.~~

“Fecha de envasado”, la fecha en que se coloca el alimento en el envase inmediato en que se venderá finalmente. ~~Esto no es una indicación de la durabilidad del producto.~~

“Fecha límite de venta”, ~~la última fecha en que se ofrece el alimento para la venta al consumidor después de la cual queda un plazo razonable de almacenamiento en el hogar.~~

“Fecha de duración mínima” o “Fecha de consumo consumir preferentemente antes de”, la fecha en que, bajo determinadas condiciones de almacenamiento, expira el período durante el cual el producto es totalmente comercializable y mantiene cuantas cualidades específicas se le atribuyen implícita o explícitamente. Sin embargo, después de esta fecha, el alimento puede ser todavía aceptable para el consumo.

Por **“Fecha límite de utilización”, “Fecha límite de utilización o consumo”, “Caduca en” o “Fecha de caducidad”, “Fecha de vencimiento” o “Fecha de expiración”** se entiende la fecha en que termina el período después del cual el producto, bajo determinadas condiciones de almacenamiento, no se debería vender ni consumir por razones de inocuidad.

En relación al punto 4.7 Marcado de la fecha e instrucciones de almacenamiento, el Ecuador propone los siguientes textos:

4.7.1 Si no está determinado de otra manera en una norma individual del Codex, regirá el siguiente marcado de la fecha a menos que proceda aplicar la cláusula 4.7.1 v):

i) Cuando un alimento debe ser consumido antes de una fecha determinada para garantizar su inocuidad se declarará¹ la “Fecha límite de utilización o consumo” o “Caduca el...” o la “Fecha de caducidad.”, **“Fecha máxima de consumo”, “Fecha de vencimiento” o “Fecha de expiración”**.

ii) Cuando no se requiera una fecha límite de utilización o consumo o una fecha de caducidad, **vencimiento o expiración**, se declarará **la fecha de duración mínima o de consumo preferentemente**. ~~“Consumir preferentemente antes de esta fecha”, “o la fecha de duración mínima”.~~

La fecha límite de utilización o consumo y la fecha de caducidad, vencimiento o expiración, la fecha podrá ir precedida de las palabras:

- **“Fecha límite de utilización”**
- **“Fecha límite de consumo”**
- **“Fecha máxima de consumo”**
- **“Fecha de vencimiento”**
- **“Caduca en”**
- **“Fecha de caducidad”**
- **“Vence el”**
- **“Fecha de expiración”**
- **“Expira”**
- **“Tiempo máximo de consumo”**

iv) La fecha **de duración mínima o de consumo preferentemente podrá** ~~deberá~~ ir precedida de las palabras:

- “Consumir antes del.....” o “Consumir preferentemente antes del” según corresponda cuando se indica el día; o
- “Consumir antes del final de...” o “Consumir preferentemente antes del final de...” según corresponda, **cuando solo se indica el mes y el año** en los demás casos.

Ecuador solicita que en el punto 4.7.1 v) se aclare que dicha disposición en referencia a vinos, bebidas alcohólicas que contengan el 10% o más de alcohol por volumen y vinagre será **únicamente para productos en envases de vidrio**, ya que al contar con otro tipo de material de envase la estabilidad del producto cambiará significativamente.

Adicionalmente se solicita incluir en el listado de productos a la **miel de abeja**.

Con respecto al párrafo “Cuando no se requiera que un producto porte una marca de fecha de conformidad con la disposición, se podrá/deberá utilizar la “Fecha de fabricación” o la “Fecha de envasado”, Ecuador apoya el uso de “debe” y se solicita incluir luego de “Fecha de fabricación” la frase **“o elaboración”**.

El país propone para el literal x) el siguiente texto:

x) Solo se ~~deberá~~ **debe** utilizar **un tipo de marcado de la fecha sea de duración mínima o de utilización o consumo** en un producto en un momento dado.

Con relación al punto 4.7.2 se sugiere eliminar la siguiente frase:

4.7.2 Además de la marca de fecha ~~de duración mínima~~, se indicarán en la etiqueta **cualquier condición o condiciones cualesquiera condiciones** especiales que se requieran para la conservación del alimento, cuando estas se requieran para contribuir a la integridad de la marca de fecha.

EGYPT

Definition of Terms:

Egypt agrees on the committee decisions

4.7 Date marking and storage instructions

Committee final decision:

4.7.1 (iv): The day and year **may** be declared by uncoded numbers with the year to be noted by **2 or 4** digits, and the month shall be declared by letters, characters, **or numbers**. **Where only numbers are used to declare the date or where the year is expressed as only two digits, the sequence of the day month year must be given by appropriate abbreviations accompanying the date mark (e.g. DD/MM/YY).**

Egypt Position: Egypt **supports the current proposed text.**

Committee Decision :**4.7.1 (x): [(x) Only one [type of] date mark should be used on a product at any one time.]**

Egypt Position: Egypt supports the inclusion of one type of date mark on a package. Moreover the square brackets should be removed from the proposed text in 4.7.1 (x)..

Egypt Position: Egypt supports moving the proposed text to Step 5 with the change noted above.

GHANA**Clause 4.7.1 (iv) Last paragraph****Comments:**

Ghana supports the text proposed in the second paragraph of clause 4.7.1 (v) except that the first part should revert to the original that is

“The day and year **shall** be declared by uncoded numbers numerical sequence except that with the year to be denoted by **2 or** 4 digits,”

Rationale:

The word ‘may’ could be interpreted to mean that manufacturers can choose to use coded date marking. Ghana believes that use of coded date marking can confuse or mislead consumers because the codes could be interpreted wrongly.

Clause 4.7.1 (v) Last sentence**Comment**

There seems to be an omission of the provision being referred to in the text proposed in 4.7.1 (v) below. There is the need to clarify this in order to prevent ambiguity.

[.....Where a product is not required to bear a date mark in accordance with **provision** the “Date of Manufacture” or the “Date of Packaging” **may/shall** be used.]

Clause 4.7.1 (x)**COMMENT**

The statement below should be amended to clearly indicate what types of date mark or system of date marking is being referred to. This is necessary to avoid any ambiguity in the interpretation.

“Only one [type of] date mark should be used on a product at any one time.”

KENYA**GENERAL COMMENTS**

Kenya supports the revision of date marking provisions of the General Standard for the Labelling of Pre-packaged Foods because the improvement of the definitions and the criteria for use of each type of date mark could assist in the limitation of food trade problems globally. Therefore, limiting the numbers of terms defined in the GSLPF should remain the main objective for the revision of the current standard.

SPECIFIC COMMENTS

For use in **Date Marking** of prepackaged food:

SPECIFIC COMMENT

“Date of Manufacture” means the date on which the food becomes the product as described. ~~This is not an indication of the durability of the product.~~

Justification:

We do not support the inclusion of the last sentence because the actual definition is clear. We understand that the ‘date of manufacture’ and other related terms (date of production, even harvesting date) could provide useful information to consumers about the freshness of the food.

SPECIFIC COMMENT

We would propose to delete "Sell-by-Date" for the following reasons

~~“Sell-by-Date” means the last date of offer for sale to the consumer after which there remains a reasonable storage period in the home.~~

Justification:

Kenya supports the exclusion of this definition. We understand that date marks applied exclusively for commercial purpose, such as the control of food stock by retailers (e.g. sell-by date/display until), should have their use in food labelling reviewed. This type of information should not be applied to food labels because it could mislead consumers on the date of expiry and it just protect the shopkeeper but not the consumer.

NIGERIA**General Comments:**

Nigeria supports the proposed work amendment on date marking (Draft revision of General standard for labeling of Prepackaged food) done at the 42nd session of CCFL. We believe that date marking on food product label should provide clear/understandable information for consumers without ambiguity while also being flexible. Nigeria however, has some specific comments as under-listed:

Specific Comments**2. Definition of Terms**

Nigeria supports the amendments agreed to at the 42nd session of CCFL with respect to Section 2 on *Definition of terms* with respect to date of manufacturing and date of packaging.

We agree with:

- the removal of the “sell by date” definition as it is not used within the body of the text

Section 4.7.1**Section 4.7.1 (ii)**

For consistency with other sections, the date marking terms “Consumer by date” should read “consume by date”

Where a use by date or Use or ~~Consumer~~**Consumed** by date or Expires by or Expiration Date not required the best before Date or Best Before Quality Date or Date of Minimum Durability shall be declared.

Section 4.7.1 (iv)

Nigeria proposes an amendment of the section as follows:

The day and year ~~shall~~**may** be declared by uncoded numbers ~~numerical sequence except that~~ with the year to be denoted by **2 or 4** digits, and the month shall be declared by letters or characters **or numbers**. ~~in those countries where such use will not confuse the consumer.~~

Where only numbers are used to declare the date or where the year is expressed as only two digits, the sequence of the day month year must be given by appropriate abbreviations accompanying the date mark, (e.g., DD/MM/YYYY) .The declaration of the month in date marking shall be consistent with 8.2.

In referring to Use-by and Best-before Dates, Nigeria believes that the numbers used to declare the day and year should be uncoded. Thus, the word “shall” should be retained, rather than replaced by the word “may;” and, we propose that the paragraph read as follows:

“The day and year shall be declared by uncoded numbers with the year to be denoted by 2 or 4 digits, and the month shall be declared by letters or characters or numbers. Where only numbers are used to declare the date or where the year is expressed as only two digits, the sequence of the day month year must be given by appropriate abbreviations accompanying the date mark, (e.g., DD/MM/YYYY)”

SECTION 4.7.1 (V)**7TH BULLET**

With respect to Comments on the development of food that could be exempted from date markings, Nigeria would like to support the introduction of the text **“Non-fortified sugars”** as the level of Vitamin A in fortified sugar degrades relatively quickly.

FIVS**INTRODUCTION**

FIVS would like to offer the following comments on date marking and wine on behalf of our members, virtually all of whom are engaged in international trade. FIVS is a worldwide organisation designed to serve the wine, spirits and beer industries, and has had the privilege of being an official observer to Codex

Alimentarius for many years. FIVS Members include producers, distributors, importers, exporters and trade associations from around the world.

BACKGROUND

During the October 2014 Codex Committee on Food Labelling delegates opened the General Standard for the Labeling of Prepackaged Foods (CODEX STAN 1-1985) for review and revision, with a specific focus on the “date marking” section. In the current standard, date marking is defined in Section 2, “Definition of Terms” as follows:

*For use in **Date Marking** of prepackaged food:*

“Date of Manufacture” means the date on which the food becomes the product as described. **“Date of Packaging”** means the date on which the food is placed in the immediate container in which it will be ultimately sold.

“Sell-by-Date” means the last date of offer for sale to the consumer after which there remains a reasonable storage period in the home.

“Date of Minimum Durability” (“best before”) means the date which signifies the end of the period under any stated storage conditions during which the product will remain fully marketable and will retain any specific qualities for which tacit or express claims have been made. However, beyond the date the food may still be perfectly satisfactory.

“Use-by Date” (Recommended Last Consumption Date, Expiration Date) means the date which signifies the end of the estimated period under any stated storage conditions, after which the product probably will not have the quality attributes normally expected by the consumers. After this date, the food should not be regarded as marketable.

When the Standard was published in 1985 it included exemptions for wine and most alcoholic beverages in Section 4.7.1, which states:

If not otherwise determined in an individual Codex standard, the following date marking shall apply:

(i) The “date of minimum durability” shall be declared...

(vi) Notwithstanding 4.7.1 (i) an indication of the date of minimum durability shall not be required for:

- *...wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and sparkling fruit wines;*
- *beverages containing 10% or more by volume of alcohol; ...*

All prepackaged foods are within scope of the review and the debate centers around the question of whether date marking should be based on product quality or safety. Delegates are also discussing the exemptions to date marking, mentioned above in Section 4.7.1 (vii).

As governments meet to revise the General Standard, Wine Institute advocates that for reasons of health, safety and other factors the exemption for wine to the date marking requirement must remain in Section 4.7.1 of the Standard. In addition, FIVS supports the following revision:

(vi) Notwithstanding 4.7.1 (i) ~~a~~ date marking indication of the ~~date of minimum durability~~ shall not be required for:

- *...wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and sparkling fruit wines;*
- *beverages containing 10% or more by volume of alcohol; ...*

In addition, FIVS supports an exemption in Section 4.7.1 (vii) for all defined dates within the General Standard (e.g. date of manufacture, etc.) and not solely the date of minimum durability.

DISCUSSION

Certain foods remain stable over time, with little or no change to their safety or quality, therefore foods such as salt, chewing gum, and wine are exempted from date marking requirements in the General Standard. Wine Institute believes the Standard should maintain the full exemption for all wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and sparkling fruit wines, regardless of alcohol content or packaging, for the following reasons based on consumer safety, product quality, and environmental and social factors.

CONSUMER SAFETY

Codex delegates should define risk in food safety as the analysis and ranking of the combined probability of food contamination, consumer exposure and public health impact of certain foodborne hazards. Wine is a safe food and does not support foodborne pathogens. The studies listed below support these findings as wine’s high acid content and alcohol content, and the use of winemaking additions, create an inhospitable environment for foodborne hazards.

Polyphenols & High Acid

A study performed by the Department of Human and Environmental Sciences at the Ochanomizu University

in Japan found that “food-borne bacteria were killed in both red and white wine within thirty minutes.”¹ Papadopoulou et al. studied the antimicrobial properties of phenolic compounds in wine and concluded: “The antimicrobial activity and the phenolic composition of the tested white and red wine extracts indicate that some phenolic acids have the potential to inhibit growth of certain pathogens such as *S. aureus*, *E. coli* and *C. albicans* strains.”² These studies concluded the influencing components of wine’s antimicrobial properties were its polyphenolic compounds, and high acidity (low pH).

In 2011, the U.S. Food and Drug Administration (U.S. FDA) published a table on Limiting Conditions for Pathogen Growth³ (Table 1) detailing the pH ranges required for the growth of several pathogens. Of the fifteen pathogens listed, most require a pH of 4-9.5. Wine pH ranges from 3.1 to 3.9,^{4,5,6} meaning that due to the high acid (low pH) alone; most human pathogenic microorganisms cannot survive in it.

The one exception seems to be *salmonella* with the ability to withstand a pH as low as 3.7. However, wine also has other anti-microbial properties that make the proliferation of *salmonella* impossible—such as its relatively high content of ethanol (alcohol).

Alcohol

Alcohol has been recognized as an anti-microbial since the 1800’s⁷ historically used for this purpose at high concentrations. However, in a study published in *Applied and Environmental Microbiology* cited ethanol as an effective antimicrobial at levels as low as 2.5%.⁸ Findings such as these have led others to recognize that foods are, “formulated to be safe by fermentation [alcohol].”⁹

A second study focused on several different strains of food borne pathogens and found that *Salmonella typhimurium* was most sensitive to wine.¹⁰ Scientists expressly stated that, “When different combinations of ethanol, organic acids, and acidity were tested against the pathogens, it was found that a composition of 0.15% malic acid, 0.6% tartaric acid, 15% ethanol, and pH 3.0 has a strong bactericidal effect.” These conditions closely model those found in wine. They further stated that, “The compounds in the mixture seemed to act synergistically against the pathogens.”

A third study focused on *Staphylococcus aureus* bacteria, often linked to food poisoning, and alcohol in concentrations of 6-15%.¹¹ It concluded that in the presence of alcohol, *Staphylococcus aureus*’ DNA replication activity was downgraded as energy was channeled to the protection and restructuring of essential proteins. As a result, bacterial replication was inhibited.

Referencing studies like the ones discussed above, the FAO¹² has acknowledged that most organisms cannot survive in either alcoholic or acidic environments. However, the use of additional anti-microbial substances in winemaking is permitted and commonly practiced in most winemaking countries around the world, adding to wine another layer of protection from the growth of pathogens and providing a further assurance of safety to wine consumers.

Winemaking Additions

The use of additional anti-microbial substances in winemaking is permitted and commonly practiced in most winemaking countries around the world, adding to wine another layer of protection from the growth or survival of vegetative pathogens, and providing a further assurance of safety to wine consumers.

¹ Yoshiko Sugita-Konishi, Yukiko Hara-Kudo, Tamami Iwamoto & Kazuo Kondo (2001), *Wine Has Activity against Entero-pathogenic Bacteria in Vitro but not in Vivo*. *Bioscience, Biotechnology, and Biochemistry*, 65: 954-957

² C. Papadopoulou, K. Soulti and I. G. Roussis (2005), *Antimicrobial Activity of Wine Phenolic Extracts*. *Food Technol. Biotechnol.* 43 (1) 41–46

³ *Fish and Fishery Products Hazards and Control Guidance*, (2011). U.S. Food and Drug Administration, 4: 420

⁴ Waterhouse, A. L. (2002), *Wine Phenolics*. *Annals of the New York Academy of Sciences*, 957: 21–36.

⁵ Harbertson, Jim (2010), *Managing High Acidity in Grape Must and Wine*. Washington Viticulture and Enology Research and Extension (<http://wine.wsu.edu/research-extension/2010/10/managing-high-acidity/>). 11 January 2016.

⁶ Claudio Delfini, Joseph V. Formica (2001). *Wine Microbiology Science and Technology*, 103.

⁷ Yosef Ali, Michael J. Dolan, Eleanor J. Fendler, and Elaine L. Larson (2001), *Alcohols. Disinfection, Sterilization, and Preservation*, 229-249.

⁸ Indranil Chatterjee, Greg A. Somerville, Christine Heilmann, Hans-Georg Sahl, Hans H. Maurer, and Mathias Herrmann (2006). *Very Low Ethanol Concentrations Affect the Viability and Growth Recovery in Post-Stationary-Phase Staphylococcus aureus Populations*, *Applied And Environmental Microbiology*, 72: 2627–2636

⁹ John S. Novak, Gerald M. Sapers, Vijay K. Juneja (2003). *Microbial Safety of Minimally Processed Foods*, 129

¹⁰ T. Moretto and M.A. Daeschel (2006), *Wine is Bactericidal to Foodborne Pathogens*. *Journal of Food Science*, 69: M251-M257. <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2621.2004.tb09938.x/pdf> (2 September 2015)

¹¹ Jasmine M. Pando, Joanne M. Dupre, Jesus A. Cuaron, John Rivera, Shelly L. Lusetti, Vijayaraj Nagarajan, Song Yang, Atul K. Singh, Mohamed O. Elasri, Ivy W. Yu, Brian J. Wilkinson, and John E. Gustafson (2001). *The Ethanol Induced Bacteriostatic Response of Staphylococcus aureus*, *Science against microbial pathogens: communicating current research and technological advances*. <http://www.formatex.info/microbiology3/abstracts/pdf/28.pdf> (30 August 2015)

¹² Mike Battcock, Dr. Sue Azam-Ali (1998). *Fermented Fruits and Vegetables. A Global Perspective*, (1998). Food and Agriculture Organization of the United Nations, Rome. <http://www.fao.org/docrep/x0560e/x0560e00.htm#con> (27 August 2015)

Sulphur dioxide (SO₂) and sulphites (INS 220-228) are naturally produced in small amounts by wine yeast during alcoholic fermentation, most of the sulphites found in wine are added by the winemaker, for two main purposes. Firstly, they are anti-microbial agents, and as such are used to help curtail the growth of undesirable yeasts and bacteria. Secondly, they act as antioxidants, safeguarding the wine's fruit integrity and protecting it against browning.^{13,14}

In a 2007 study published in the *Journal of Food Science*, sulphites in wine were recognized as one of the contributors to the inactivation of food borne pathogens in the product.¹⁵

Potassium sorbate (INS 202) is another substance used in winemaking to prevent spoilage by non-pathogenic yeasts and moulds. It is commonly used in sweeter wines. While it will not stop a fermentation which is already in progress, it will stop fermentation from restarting in wine containing residual sugar.

Given these conditions, wine meets microbial product safety by the following factors:

- it has a low pH (3.1-3.9); is hermetically sealed in a variety of containers;
- is widely distributed, stable across a large temperature range and over long time periods;
- is commonly preserved with sulphur dioxide and sometimes with potassium sorbate, and
- scientific studies show it does not support pathogen growth, does not become unsafe over time, and there is no evidence of microbiological food safety issues arising from wine.

Therefore, from a scientific basis, it is critical that wine continues to be exempted from the date marking requirements in the General Standard as it poses no threat to human health or safety in the ageing process.

PRODUCT QUALITY

As with wine safety, requiring date marking on wine labels to signify the end of the period when wine retains its "quality" is completely without basis and, in fact, would be misleading to consumers. "Quality" in a wine is a subjective judgment, being determined by the winemaker, expert or even by consumer preference. There are various factors including climate conditions and style decisions by the winemaker that will affect the final product. As such, an arbitrary durability date chosen would have no relation to the wine's perceived "quality."

Some wines are produced with the intention that they will be aged for long periods. Often, these will be made with Cabernet Sauvignon or Riesling grapes, which can age in bottle for 20 or even 30 years. Fortified wines, such as Port or Sherry style, can age for longer periods. Wine is one of the few products whose sensory characteristics and color can change with age and for which these characters are desired by consumers. Generally speaking, wine should be kept in an environment with low-light, some humidity and cool temperature. Changes could result in alterations to a wine's flavor profile. Where appropriate, wine producers will take steps to mitigate some of these factors, such as storing the wine in a dark glass bottle to protect the product from light exposure. For the same reasons, wine merchants should also generally prevent wine from reaching warm temperatures over long periods. Storage conditions should be appropriate throughout the supply chain, and this is not readily related to a labeling standard given the variety of types and styles of wine in the marketplace. Therefore, determining an arbitrary length of time as representing the duration of a wine's "quality," and requiring that period to be indicated on the label, should not be under consideration within the revision of the General Standard.

ENVIRONMENTAL AND SOCIAL FACTORS

The United Nations Sustainable Development Goal number 12.3, requires countries to halve per capital global food waste at retail and consumer levels and reduce food losses along the production and supply chains by 2030. Should wine be required to carry a date, customers and retailers not familiar with the product would be misled and would dispose of it after such date has passed for no reason. In addition, retailers would feel compelled to dispose of unsold products and would lose potential earnings. Governments would then be unable to collect sales, excise and/or VAT taxes, losing much-needed revenues.

CONCLUSION

For these reasons, there is no scientific or qualitative basis for requiring date marking of wine within the Codex Alimentarius General Standard for the Labelling of Prepackaged Foods. Consequently, the exemption of all wines from the date marking categories above should remain intact. In addition, FIVS supports an exemption in Section 4.7.1 (vii) for all defined dates within the General Standard (e.g. date of manufacture, etc.) and not solely the date of minimum durability.

¹³ Gawel, Richard. *The Use of Sulfur Dioxide (SO₂) in Wine*.

http://www.aromadictionary.com/articles/sulfurdioxide_article.html (2 September 2015)

¹⁴ Pat Henderson (2009), *Sulfur Dioxide. The science behind this anti-microbial, anti-oxidant wine additive*. Practical Winery & Vineyard Journal, 2.

¹⁵ Waite JG, Daeschel MA (2007), Contribution of wine components to inactivation of food-borne pathogens. *Journal of Food Science*, 72(7):M286-291

TABLE 1. LIMITING CONDITIONS FOR PATHOGEN GROWTH BY THE UNITED STATES FOOD AND DRUG ADMINISTRATION

PATHOGEN	MIN. A _w (USING SALT)	MIN. pH	MAX. pH	MAX. % WATER PHASE SALT	MIN. TEMP.	MAX. TEMP.	OXYGEN REQUIREMENT
BACILLUSCEREUS	0.92	4.3	9.3	10	39.2°F 4°C	131°F ¹ 55°C	facultative anaerobe ⁴
CAMPYLOBACTER JEJUNI	0.987	4.9	9.5	1.7	86°F 30°C	113°F 45°C	micro- aerophile ²
CLOSTRIDIUM BOTULINUM, TYPE A, AND PROTEOLYTIC TYPES B AND F	0.935	4.6	9	10	50°F 10°C	118.4°F 48°C	anaerobe ³
CLOSTRIDIUM BOTULINUM, TYPE E, AND NON- PROTEOLYTIC TYPES B AND F	0.97	5	9	5	37.9°F 3.3°C	113°F 45°C	anaerobe ³
CLOSTRIDIUM PERFRINGENS	0.93	5	9	7	50°F 10°C	125.6°F 52°C	anaerobe ³
PATHOGENIC STRAINS OF ESCHERICHIA COLI	0.95	4	10	6.5	43.7°F 6.5°C	120.9°F 49.4°C	facultative anaerobe ⁴
LISTERIA MONOCYTOGENES	0.92	4.4	9.4	10	31.3°F -0.4°C	113°F 45°C	facultative anaerobe ⁴
SALMONELLA SPP.	0.94	3.7	9.5	8	41.4°F 5.2°C	115.2°F 46.2°C	facultative anaerobe ⁴
SHIGELLA SPP.	0.96	4.8	9.3	5.2	43°F 6.1°C	116.8°F 47.1°C	facultative anaerobe ⁴
STAPHYLOCOCCUS AUREUSGROWTH	0.83	4	10	20	44.6°F 7°C	122°F 50°C	facultative anaerobe ⁴
STAPHYLOCOCCUS AUREUS TOXIN FORMATION	0.85	4	9.8	10	50°F 10°C	118°F 48°C	facultative anaerobe ⁴
VIBRIO CHOLERAE	0.97	5	10	6	50°F 10°C	109.4°F 43°C	facultative anaerobe ⁴
VIBRIO PARAHAEMOLYTICUS	0.94	4.8	11	10	41°F 5°C	113.5°F 45.3°C	facultative anaerobe ⁴
VIBRIO VULNIFICUS	0.96	5	10	5	46.4°F 8°C	109.4°F 43°C	facultative anaerobe ⁴
YERSINIA ENTEROCOLITICA	0.945	4.2	10	7	29.7°F -1.3°C	107.6°F 42°C	facultative anaerobe ⁴

1. Has significantly delayed growth (>24 hours) at 131°F (55°C).

2. Requires limited levels of oxygen.

3. Requires the absence of oxygen.

4. Grows either with or without oxygen.

FoodDrinkEurope

FoodDrinkEurope welcomes the opportunity to comment on the proposed changes to the Codex date marking standard (Sections 2 and 4.7 of the *General Standard for the Labelling of Prepackaged Foods*).

Processing increases the year-round availability and affordability of a diverse range of foods for most consumers in the world by transforming perishable material that would otherwise be wasted into shelf stable products. Preventing avoidable waste at all stages of the supply chain is an important priority for the food and drink sector. Not only is it a needless source of greenhouse gas emissions but when a food is wasted, all the resources that were invested in its production are also wasted. It also represents a missed opportunity to feed the growing world population.

Driven by the need to reduce food wastage, in 2013, FoodDrinkEurope along with other food chain partners launched a joint effort to tackle the problem of food wastage via the publication of a Joint Declaration entitled “Every Crumb Counts”.¹⁶ The Declaration was accompanied by a toolkit for food and drink manufacturers on food wastage prevention.¹⁷ Building on the commitments made in the Declaration, FoodDrinkEurope published in 2014 a progress report “*Preventing food wastage in the food and drink sector*”, showcasing the concrete actions being taken by manufacturers to tackle food wastage both within their own operations and up and down their supply chains since the Declaration and toolkit were launched.¹⁸

In many markets, the requirement to communicate the durability of foods is laid down in regulations that explain when date marking is required and how it is to be presented. For example, in the EU, the “use-by” date is required for foods with shorter durability, limited by safety considerations, whereas the “best before” date is required for foods with longer durability that is limited only by quality. A relatively small number of product categories are exempted from the requirement to display any form of date marking. Similar schemes are used in Latin America, Africa and Asian countries.

The range of date markings used presents difficulties for international trade, because national requirements are different. It is also suggested that some consumers are unnecessarily discarding food that is safe and wholesome because they do not understand what the date marks mean.

The most important aspects of date-marking are simplicity and consumer understanding. A global standard should seek to balance harmonisation and local relevance. It should include an agreement on multi-stakeholder action to ensure consumers understand what the date-marks mean.

1. General comments

FoodDrinkEurope supports the review of the date marking standards that aims to provide consumers with simple, informative and understandable indications. To achieve that aim, date marking should be applied in a consistent, logical manner. Date-marking descriptors should enable consumers to make the correct, informed choices about when to use, or to discard food.

There are further innovative ways how to reduce food waste and to enhance food safety that deserve due consideration in this context, such as safe handling instructions which may be added on pack, via websites and/or by using QR codes, and the potential of “smart labels” (e.g. a time and/or temperature-sensitive tag) with corresponding statements (e.g. “Use by DDMMYYYY unless tag turns grey”) can be used.

We believe that, aside from any revision of date marking standards, governments in collaboration with stakeholders should engage in education efforts to help consumers better understand, and react appropriately, to the currently used schemes.

2. Specific comments

• Definition of terms (point 2)

FoodDrinkEurope welcomes the differentiation introduced, in the definitions of “Date of Minimum Durability” and “Use-by Date”, between the descriptors used for those foods where date-marking indicates how long product quality (taste, performance) characteristics are optimal, and those whose durability is limited by safety considerations.

Statutory limitation of the range of terms used for product durability indication may be a useful instrument to prevent or reduce confusion. A descriptor for durability limited by safety (e.g. use-by) and for durability limited by quality (e.g. best before) should be sufficient. There could be a risk that a larger range of date-marking descriptors, for example date of manufacture and date of packaging, will contribute to consumer confusion

¹⁶ <http://everycrumbcounts.eu/>

¹⁷ <http://www.fooddrinkeurope.eu/our-actions/maximizing-resources/>

¹⁸ http://www.fooddrinkeurope.eu/uploads/publications_documents/Preventing_food_wastage_in_the_food_and_drink_sector.pdf

through use of multiple terms. It makes the challenge of educating consumers about the meaning of date marks more difficult.

“Date of Minimum Durability” or “Best before Date” or “Best Quality Before Date”

This term is commonly used (and defined in regulation) in many markets. It is typically used for products whose durability is limited by quality rather than safety considerations. It is one of the durability markings specified in the European Union Food Information to Consumers Regulation. This date does not indicate a cut-off, and it is usually permitted to offer food for sale past this date.

We would prefer to retain this descriptor as we believe it provides useful guidance to consumers. “Best before” labels ensure consumers are not deceived from reduced quality and incorrect nutritional information (as presence of vitamins and probiotics, for example, is time dependent). Also, “Best before” dates encourage retailers to properly rotate their stock (“First In, First Out” principle), which is a food waste reduction measure in itself. In addition to the use of clearer labels, specific information and education campaigns should be organized by authorities to improve consumer understanding of “Best before” date marks.

In terms of wording of the date mark, there is a need for some flexibility in precise wording of the terms to account for translational effects between languages. The overriding priority is to use an expression which conveys to consumers the meaning as expressed in the definition. We believe that, in this context, the “Date of Minimum Durability”, if put on a label, may be confusing to consumers and the indications “Best Before Date” or “Best Quality Before Date” would be more easily understood.

“Use-by Date” or “Use or Consume by date” or “Expires by” or “Expiration Date”

This term is commonly used (and defined in regulation) in many markets. It is typically used for products whose durability is limited by safety considerations. “Use-by” is one of the durability markings specified in the European Union’s Food Information to Consumers Regulation. This date signifies the limit of safe consumption. In many markets, it is illegal to offer food for sale that has passed this date. We would prefer to retain this descriptor as it communicates essential information to consumers.

In this case, we would also recommend flexibility in precise wording to accommodate translation effects, although we could reconsider this if there is clear evidence of a higher risk of creating confusion and lack of understanding.

“Date of Manufacture” and “Date of Packaging”

These may be acceptable for products with longer shelf-life, but are less suitable for fresh products (including those that are not manufactured, such as fresh fruits and vegetables) or short-life products (such as salads, chilled foods). However, these modes of marking may easily be misinterpreted. It is usually necessary to combine these marks with another date (Use-by, Best-before) to properly indicate the limit of durability. Otherwise these marks are used as a stock management tool. FoodDrinkEurope welcomes the clarification that these marks should not be considered as indication of durability of the product. In addition, these indications could be accepted on a voluntary basis only so long as the meaning is clear and does not distract from the prominence of “Use-by” or “Best before” durability date marks.

“Sell-By-Date”

This date mark also does not indicate the limit of durability and is used as a stock management tool. We support the deletion of the “Sell-by Date” which became a redundant date marking term.

• **Date marking format (point 4.7.1 (iii))**

In line with the European Union’s comments, we believe that requiring the day, month and year for products whose shelf life is not more than three months appears burdensome and not useful.

• **Date marking format (point 4.7.1 (iv))**

Flexibility in representation of the date (use of letters, symbols, numerals) is accommodating; however, it may be limited by the range of character-sets available in software or stamps/dies. Furthermore, use of letters should be avoided as it may be confusing when languages differ significantly for products sold in multiple countries. Use of numerals-only could be a practical solution to date-mark such products.

Requiring the order of the date mark to be explicitly labelled alongside the date mark (e.g. (DD/MM/YY) or (MM/DD/YY) etc.) should also be avoided as it would impose a disproportional burden on companies. Dates should be presented in the normal syntax used in the country or region so that additional explanation is not needed. Therefore, we propose to delete the last sentence of point 4.7.1 (iv) or to make it voluntary by replacing “shall” by “may”.

A global standard on representation of dates has already been prepared by ISO: ISO 8601 *Data elements and interchange formats – Information interchange – Representation of dates and times*.

- **Exemptions (point 4.7.1 (v))**

A date-marking standard must give clarity on exemptions and be supported by relevant guidance to ensure consistent application.

- **Only one date mark requirement (point 4.7.1 (x))**

According to proposed point 4.7.1 (x) “*Only one [type of] date mark should be used on a product at any one time.*” We agree with this requirement provided the provision refers to durability date marks specifically, *i.e.* requires either “Best before” or “Use-by” date to be indicated on a product. For instance, in the EU, “Best before” should be used except for the case of highly perishable food or food for infants where “Use by” must be the only date indicated.

We do not consider “Date of Manufacture” and “Date of Packaging” as suitable for durability indication, as adequately reflected in the revised definitions of these terms, although we recognise that it may be customary information in some markets. We do not see the need to combine on one package the durability indication (“Best before” or “Use-by” date) with “Date of Manufacture” and/or “Date of Packaging”. Should such combination be introduced, it should be clear that indication of durability of the product by means of “Best before” or “Use-by” date is mandatory, whereas the use of other dates should be voluntary and not distract from the prominence of durability date marks. In order to clarify the situation, the wording of point 4.7.1 (x) could be amended as follows: “*Only one [type of] **durability** date mark should be used on a product at any one time.*”

In conclusion:

- Date marks are used on packaged food to inform consumers about how long a product may be safely consumed and/or that it will be of good quality, provided that it has been stored and prepared in accordance with specified conditions or instructions (e.g. “keep refrigerated”).
- Where the limit of safe consumption will be reached before quality deterioration occurs (e.g. chilled, perishable foods), date-marking gives a cut-off, and the descriptors communicate that the food should not be consumed beyond that point (e.g. “Use-by”)
- Where quality deterioration occurs before the limit of safe consumption (e.g. fresh bread) or where products are truly durable (e.g. cans), date marking communicates how long the product may be expected to be of good quality, and is not a cut-off (e.g. “Best before”)
- Wording (descriptors used) within a market should be simple and harmonised and presented in relevant language(s). This may have an additional benefit in case of product withdrawal. A smaller range of harmonised descriptors will make communication during product withdrawal simpler, faster and thus more effective

ICGA

The International Chewing Gum Association (ICGA) hereby submits its recommendations on the proposed revisions to the section on date marking of the General Standard, as reflected in Appendix IV of the report of the 42nd session of the CCFL, REP15-FL.

In addition, ICGA also provides background information that has not been provided to delegates on the science-based rationale behind the exemption of chewing gum and certain other foods from coverage under current date marking (“used by” and “best before”) provisions, which was discussed in 1983 and 1985 by the CCFL and its relevant in-session working groups at the 17th and 18th Committee sessions.

Specific Comments

2. DEFINITION OF TERMS:

ICGA generally supports the proposed changes to the definitions related to date marking.

For use in Date Marking of prepackaged food:

Ok with no change

“***Date of Manufacture***” means the date on which the food becomes the product as described. **This is not an indication of the durability of the product.**

ICGA supports the proposed addition as ICGA agrees with the underlying clarification.

“***Date of Packaging***” means the date on which the food is placed in the immediate container in which it will be ultimately sold. **This is not an indication of the durability of the product.**

ICGA supports the proposed addition as ICGA agrees with the underlying clarification.

~~“**Sell-by Date**” means the last date of offer for sale to the consumer after which there remains a reasonable storage period in the home.~~

ICGA supports the deletion of the definition of “sell-by date” from the standard.

~~“**Date of Minimum Durability**” or (“best before **date**”) or “**Best Quality Before Date**” means the date which signifies the end of the period under any stated storage conditions, during which the product will remain fully marketable and will retain any specific qualities for which ~~implicit~~ **express** claims have been made. However, beyond the date the food may still be ~~perfectly satisfactory~~ **acceptable for consumption**.~~

ICGA supports the proposed amendments as ICGA agrees with the underlying clarification they bring to the revised definition.

~~“**Use-by Date**” or « **Use or Consume by date**” or “**Expires by**” or “**Expiration date**” (Recommended Last Consumption Date, Expiration Date) means the date which signifies the end of the ~~estimated~~ period under any stated storage conditions, after which the product ~~probably will not have the quality attributes normally expected by the consumers. After this date, the food should not be regarded as marketable.~~ **should not be sold or consumed due to safety reasons.**~~

ICGA supports the proposed amendments as ICGA agrees with the underlying clarification they bring to the revised definition of Used-by which shall be a clear and unambiguous concept linked to safety.

4.7 Date marking and storage instructions

ICGA generally supports the amendments to the section 4.7.1 and 4.7.2 and calls for the CCFL to caution and to keep indent (v) in the revised standard without any change to them. Therefore, ICGA supports to remove the square brackets around the text and would agree to revert back to the original version and send the proposed addition on alcoholic beverages and proposed changes to salt and vinegar to the CCFH for its input and leave the other food exemption untouched for legal continuity reasons. More detailed ICGA comments are provided In the general comments.

4.7 Date marking and storage instructions

Ok with no change

4.7.1 If not otherwise determined in an individual Codex standard, the following date marking shall apply **unless clause 4.7.1 (v) applies:**

ICGA supports to add a cross-reference to the indent (v) in that section 4.7.1 which related to the deviation (i.e. food category exemptions) from the provisions defined under indents (i) and (ii)

~~(i) The “date of minimum durability” shall be declared.~~ **When a food must be consumed before a certain date to ensure its safety, the “Use-by Date” or “Use or Consume by date” or “Expires by” or “Expiration date” shall be declared¹**

ICGA approves this clarification that “Use-by” types of date shall be only mandatory for “sensitive” foods. Maybe CCFL shall send a request of clarification to CCFH to define how qualify such “sensitive foods” in broad terms.

(ii) Where a Use-by Date or Use or Consumed by date or Expires by or Expiration Date is not required the Best before Date or Best Before Quality Date or Date of Minimum Durability shall be declared.

ICGA approves this clarification that “Best Before” types of date shall apply only when “Used-by” types of date does not apply in virtue of indent (i).

~~(iii) This shall consist at least of~~ **The date marking should be as follows:**

- ~~On the day and the month for products with a minimum durability of not more than three months~~ **the day and month and year shall be declared;**
- ~~On the month and the year for products with a minimum durability of more than three months~~ **at least the month and year shall be declared. If the month is December, it is sufficient to indicate the year.**

ICGA agrees with the proposed clarification on how data marking shall be provided, depending on the cut-off date of 3 months, regardless on whether the food falls in the category covered by conditions set in indent (i) or (ii).

~~(iiiiv) The date shall be declared~~ **introduced by the words:**

- **“Use-by” or “Best before” as applicable** where the day is indicated; **or “Use-by end....” or “Best before end ...”** in other cases.

(iv) The words referred to in **this** paragraph (iii) shall be accompanied by:

- either the date itself; or
- a reference to where the date is given.

(v) The day, month and year shall **may** be declared in by uncoded numerical sequence **numbers** except that the month may be indicated by letters in those countries where such use will not confuse the consumer **with the year to be denoted by 2 or 4 digits, and the month shall be declared by letters or characters or numbers.**

Where only numbers are used to declare the date or where the year is expressed as only two digits, the sequence of the day month year must be given by appropriate abbreviations accompanying the date mark (e.g. DD/MM/YYYY)

ICGA supports the proposed amendments as ICGA agrees with the underlying clarification they bring to the revised new indent (iv) and which will result in the fusion of former indent (iii), (iv) and (v) in Codex Stan 1.

(vi) [(Notwithstanding 4.7.1 (i) **and 4.7.1 (ii)** an indication of date of minimum durability **or best before date** shall not be required for:

- fresh fruits and vegetables, including ~~potatoes~~ tubers which have not been peeled, cut or similarly
- wines, liqueur wines, sparkling wines, aromatized wines, fruit wines and sparkling fruit wines;
- **alcoholic beverages containing at least 10% alcohol by volume, except those beverages that contain ingredients with protein such as milk and dairy products, eggs and derivatives and plant material which will have a different stability behaviour related to their shelf life.**
- bakers' or pastry-cooks' wares which, given the nature of their content, are normally consumed within 24 hours of their manufacture;
- **naturally fermented white or brown vinegar and white or brown acetic acid** vinegar;
- **non-iodized** food grade salt;
- solid sugars;
- confectionery products consisting of flavoured and/or coloured sugars;
- chewing gum.

ICGA wants to provide more detailed comments on the science-based rationale as to why chewing gum must remain in this list of exemptions. ICGA is of the view that the CCFL should be careful in changing the overall section.

ICGA is neutral about the changes proposed.

Probably the introductory sentence must be amended to clarify further the scope of this section and be consistent with the proposed changes made to 4.7.1 (i) and (ii), as follows:

« Notwithstanding 4.7.1 (i) and 4.7.1 (ii) an indication of **“used by”** and date of minimum durability or **“best before” types of** dates shall not be required for:”

Where a product is not required to bear a date mark in accordance with provision the “Date of Manufacture” or the “Date of Packaging” may/shall be used.]

ICGA is suggesting an editorial change to this sentence as the word « **this** » is probably missing before **“provision”**.

However, ICGA does not find this alternative proposal adequate. This provision would impose to have the date or manufacture or packaging added whereas the list of exemption is basically recognising the lack of need for Use by or Best Before date.

The indication of the date of manufacture or the date of packaging must be voluntary and left to the business operators.

Therefore, its regulation under this Codex standard and within the context of the indent (v) is inadequate.

ICGA requests that this entry be deleted or addressed in a separate part of the standard.

[(x) Only one [type of] date mark should be used on a product at any one time.]

ICGA may support this provision but it would probably make more sense to have this clarification added to the proceedings of the CCFL43 rather than in the revised standard itself.

4.7.2 In addition to the date of minimum durability **date mark**, any special conditions for the storage of the food shall be declared on the label if the validity of the date depends thereon **where they are required to support the integrity of the date mark**.

ICGA supports the proposed amendments as ICGA agrees with the underlying clarification they bring to the revised section 4.7.2

General Comments

IN SUPPORT OF MAINTAINING CURRENT CHEWING GUM EXEMPTION FROM MANADATORY DATE MARKING IN CODEX STAN 1- 1985 (Rev. 2010)

- To ensure continuity, chewing gum products should remain exempt from date marking requirements, as they have been since 1985; such continuity is consistent with long standing global industry practice, and a change would be burdensome to the industry with no commensurate benefit to consumers.
- Chewing gum should remain categorically exempt from date marking because it is a food having a low moisture content and low water activity, making it unfavorable to any microbiological growth.
- Best Before Date (BBD) marking should be permitted, regardless of categorical exemptions for chewing gum, based on the manufacturer's determination of product quality issues.

ICGA thanks the Codex and Canada Secretariats of the CCFL for the opportunity to comment on the proposed changes to the *Codex General Standard on Labelling of Prepackaged Foods* (i.e. Codex STAN 1-1985, as last amended in 2010), in response to the Codex Circular Letter CL 2014/30-FL on date marking, while taking into account the written comments available in CX/FL 16/43/4.

ICGA supports the continued food category exemption for chewing gum products

ICGA notes that the proposed change to the date marking provisions was not in the initial mandate for new work assigned to the Committee, but, rather, was an issue that was spontaneously raised in discussions at the last CCFL meeting. Accordingly, the issue must properly be discussed at the next CCFL meeting, before a decision is taken in that regard.

ICGA further notes that the European Union and its Member States, as well as a number of other countries around the world, have adopted the exemptions of those foods listed in the current Codex general standard on the labelling of prepackaged foods (CODEX STAN 1). Any precipitous changes in that fundamental horizontal Codex general standard would cause significant disruptions between the Codex standard and national standards adopted for the sake of global consistency and thus introduce a great deal of confusion for all prepackaged foods subject to international trade, including chewing gum products.

Finally, there is no new evidence relating to food safety or transparency that would justify such a precipitous regulatory change.

ICGA Rationale:

Chewing Gum is a Unique Food

Chewing gum is a food, as defined in the Procedural Manual of the Codex alimentarius Commission¹⁹. Chewing gum is made from natural or synthetic elastomers, natural or synthetic resins, and inert fillers and softeners combined with flavors, sweeteners and other permitted food additives. The chewable part of chewing gum is a non-nutritive, insoluble component that provides its basic mechanic properties and it is formulated to gradually release flavors, sweeteners (nutritive or non-nutritive), and other functional ingredients, such as micronutrients, during sustained chewing, before the gum cud is disposed adequately by consumers in trash bins.

2. Chewing Gum Should Be Exempted from Mandatory Date Marking Requirements.

Date marking typically provides consumers with an understanding of the shelf life of a food. However, some foods, such as chewing gum, are unfavorable matrices for microbiological growth, and, accordingly, are typically exempted from mandatory date of minimum durability by food safety authorities around the world.

Indeed, chewing gum, as a food category, is explicitly exempted from any mandatory date marking under the European Union Regulation (EU) No. 1169/2011 of the European Parliament and of the Council²⁰ and has

¹⁹ See on Page 24 of the 24th (English) edition of the Procedural Manual at <http://www.fao.org/fao-who-codexalimentarius/procedures-strategies/procedural-manual/en/>

²⁰ See <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32011R1169>

been exempted by the Codex alimentarius Commission since the very first adoption of CODEX STAN 1, i.e. since July 1985.

• Chewing Gum Has a Low Water Activity Level.

The presence of water in a food product – in particular, the availability of the water in the food – has a major effect on the perishability of the food, due to possible microbial proliferation. Indeed, water is required for micro-organisms to multiply.

Water activity is the main criterion to understanding water's impact on chewing gum safety.

Water activity (A_w) is a measurement of the water that is not bound to components in the food, and therefore available for microbial growth. All microorganisms have an optimal level of water activity for growth (and well as optimal acidity and needs of the presence of some basic nutrients).

Not only is chewing gum at the low end of the range of water activity for confectionery products, with a range of 0.40-0.65, but it also contains a relatively low moisture level of 3 to 6 percent. Low water activity is one of the key factors imparting microbial safety to chewing gum.

The table below lists ranges of water activity in which various microorganisms grow, and the types of foods which fall within this water activity range:

Range of a_w	Microorganisms Generally Inhibited by Lowest a_w in This Range	Foods Generally within This Range
1.00 – 0.95	<i>Pseudomonas</i> , <i>Escherichia</i> , <i>Proteus</i> , <i>Shigella</i> , <i>Klebsiella</i> , <i>Bacillus</i> , <i>Clostridium perfringens</i> , some yeasts	Highly perishable (fresh) foods and canned fruits, vegetables, meat, fish, and milk
0.95 – 0.91	<i>Salmonella</i> , <i>Vibrio parahaemolyticus</i> , <i>C. botulinum</i> , <i>Serratia</i> , <i>Lactobacillus</i> , <i>Pediococcus</i> , some molds, yeasts (<i>Rhodotorula</i> , <i>Pichia</i>)	Some cheeses (Cheddar, Swiss, Muenster, Provolone), cured meat (ham)
0.91 – 0.87	Many yeasts (<i>Candida</i> , <i>Torulopsis</i> , <i>Hansenula</i>), <i>Micrococcus</i>	Fermented sausage (salami), sponge cakes, dry cheeses, margarine
0.87 – 0.80	Most molds (mycotoxigenic penicillia), <i>Staphylococcus aureus</i> , most <i>Saccharomyces</i> (<i>bailii</i>) spp., <i>Debaryomyces</i>	Most fruit juice concentrates, sweetened condensed milk, syrups
0.80 – 0.75	Most halophilic bacteria, mycotoxigenic aspergilli	Jam, marmalade, marzipan, glacé fruits
0.75 – 0.65	Xerophilic molds (<i>Aspergillus chevalleri</i> , <i>A. candidus</i> , <i>Wallemia sebi</i>), <i>Saccharomyces bisporus</i>	Jelly, molasses, raw cane sugar, some dried fruits, nuts
0.65 – 0.60	Osmophilic yeasts (<i>Saccharomyces rouxii</i>), few molds (<i>Aspergillus echinulatus</i> , <i>Monascus bisporus</i>)	Dried fruits containing 15-20% moisture; some toffees and caramels; honey
0.60 – 0.50	No microbial proliferation	Dry pasta, spices
0.50 - 0.40	No microbial proliferation	Whole egg powder
0.40 - 0.30	No microbial proliferation	Cookies, crackers, bread crusts
0.30 - 0.20	No microbial proliferation	Whole milk powder; dried vegetables

* Adapted from Beuchat (1981).

Note that, with a water activity range of 0.40-0.65 – and with most chewing gum having a water activity of approximately 0.55 – chewing gum is the type of food in which there is little to no microbial proliferation, and no proliferation of the types of microorganisms that are of greatest food safety concern.

Accordingly, the absence of such pathogenic microorganisms ensures the safety of chewing gum, even after the ideal best before date has passed, because its chemical composition does not permit the growth of bacteria.

• Chewing Gum Has a Low pH Value.

The pH value of the food environment has a significant impact on the ability of microorganisms to grow in the food. In terms of the guidance on food processing²¹ provided by the Ministry of Agriculture, Food and Rural Affairs in Ontario, Canada, if the pH value of a food is less than 4.6, micro-organisms are inhibited when the water activity is below 0.85.

Also, the "Safe Practices for Food Processes"²² published by the U.S. Food and Drug Administration states that a pH of 4.6 is appropriate to control spore-forming pathogens while a pH minimum of 4.2 is appropriate to control for *Salmonella* Spp. and other vegetative pathogens.

The pH value of chewing gum typically is at the low end of these suggested ranges and, accordingly, does not promote the growth of microorganisms.

• Chewing Gum Provides Minimal Nutritive Value and is Sold in Small Packs.

²¹ See http://www.omafra.gov.on.ca/english/food/industry/food_proc_guide_html/chapter_5.htm

²² See <http://www.fda.gov/Food/FoodScienceResearch/SafePracticesforFoodProcesses/ucm094145.htm>

Microorganisms require certain basic nutrients for growth and maintenance of metabolic functions.

As explained above, the primary components of chewing gum are gum base, flavors, sweeteners and some colors. Gum base is typically non-nutritive, thereby providing itself no nutrients that support the growth and maintenance of microorganisms. Beyond gum base, there are typically most of the time no nutrients provided, other than sweeteners. Indeed, chewing gum is typically not consumed as a substantial source of nutrients in the diet. Instead, chewing gum is a wholesome and lower-calorie food that provides taste and enjoyment to consumers as well as breath freshening and dental health benefits. Even when chewing gum contains some micronutrients, they are typically focusing on one type only (e.g. calcium or vitamin C).

Further, chewing gum is typically sold in small packs, making it eligible for exemption from certain labeling requirements, including date marking, in many jurisdictions, including Australia, New Zealand, China, Malaysia, Korea and the European Union, as well as under Codex.

Accordingly, for global consistency, and because there is no resulting “risk” to consumers, chewing gum should be exempted from all mandatory date marking requirements (especially “use by” and manufacturing dates), which may not exclude the possibility that in practice manufacturers may decide to put an indicative “best before date”. In all cases, chewing gum labelling must comply with the national legislation of the countries to where chewing gums are exported.

For all of these reasons, ICGA asserts that the contemplated “fast track” changes to such a long-standing and technically justified standard would be ill-advised and in conflict with the role of Codex to develop science-based standards; that can serve as a global model, thereby facilitating international trade.

4850-4685-4704, v. 1

²³ See <http://www.fda.gov/Food/FoodScienceResearch/SafePracticesforFoodProcesses/ucm094145.htm>