

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

Agenda Item 7

CRD29

ORIGINAL LANGUAGE ONLY

JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON FRESH FRUITS AND VEGETABLES

Twenty-third meeting

Mexico City (Mexico) February 25 – March 1, 2025

UPDATE - PROPOSAL OF MEXICO DEVELOPMENT OF THE CODEX STANDARD FOR BROCCOLI (*BRASSICA OLERACEA* L. VAR. ITALICA PLENCK) (BROCCOLI, BROCCOLI, GREEN CABBAGE OR ITALIAN KALE)

Prepared by Mexico

TECHNICAL JUSTIFICATION

I. Objective and scope of application of the standard

The objective of this standard is to establish criteria on the quality of broccoli (*Brassica oleracea* L. var. italica Plenck) in its fresh state, its proper labeling among other points that contribute to the protection of consumer health, also facilitating international trade.

This Standard applies to vegetables which have abundant edible fleshy floral heads ("flowers" or "nicolars") of green colour and great abundant hair, arranged in the shape of a tree, on branches that grow from a thick stem; the large mass of heads is surrounded by leaves that must be supplied fresh to the consumer after conditioning and packaging. Those intended for industrial processing are excluded.

II. Relevance and topicality:

The global trend of broccoli production has been increasing during 2019 to 2023, which can be seen in the following table according to FAO reports for 2019-2023.

Year	Global broccoli production in thousands of tons.
2019	26,043
2020	25,782
2021	26,205
2022	26,461
2023	26,472

As for the harvested area, in this same period, a growth trend derived from the consumer demand for this product is also observed.

Year	Harvested area hectares.
2019	1,382,919

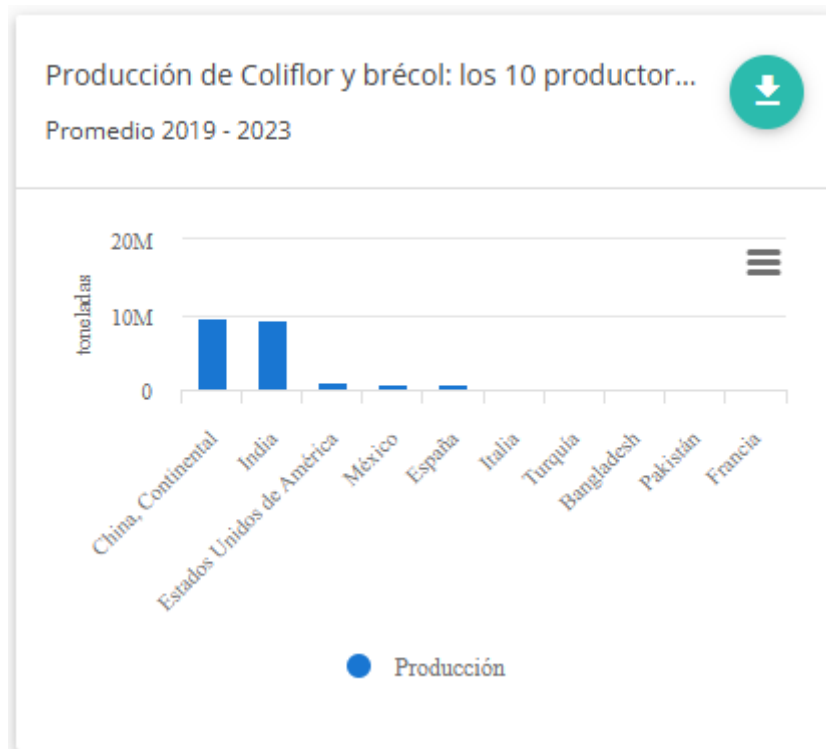
2020	1,374,835
2021	1,393,136
2022	1,399,357
2023	1,404,930

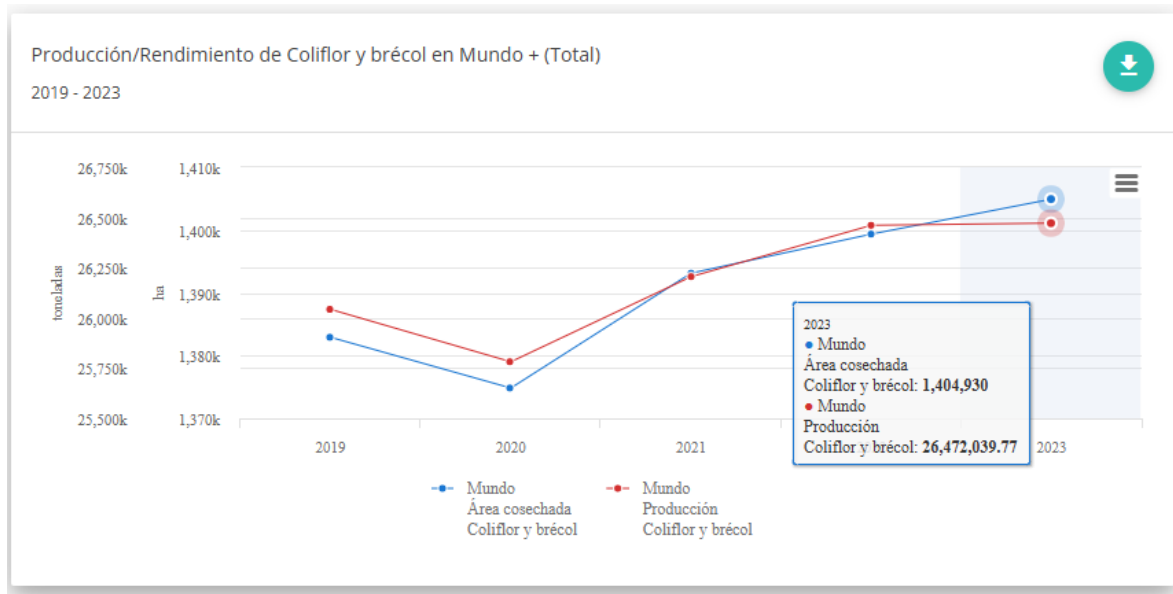
The increase is 1.09% in broccoli consumption.

Main producing countries in 2023.

No.	Country	Harvested Sup (has)	%	Production (ton)	%
1	China, Mainland	495,859	35	9,712,996	37
2	India	491,000	35	9,548,000	36
3	U.S..	62,605	4	1,056,734	4
4	Mexico	41,722	3	768,354	3
5	Spain	39,630	3	637,080	2
6	Italy	14,157	1	367,566	1
7	Türkiye	14,720	1	355,200	1
8	Bangladesh	12,653	1	346,929	1
9	Pakistan	22,853	2	343,758	1
10	France	9,594	1	268,700	1
11	Other	200,138	14	3,062,053	12
	World	1,404,930		26,472,040	

Source: <https://www.fao.org/faostat/es/#data/QCL>





Broccoli is considered one of the so-called "superfood" foods as the world's population is growing rapidly and people demand healthy and nutritious food. It is highly vitamin and has properties that help fight cancer cells and delay aging.

The consumption of broccoli has increased significantly due to its recognized nutritional value and health benefits. This vegetable is rich in vitamins, minerals, and antioxidant compounds, making it a healthy choice in people's diets. Regular consumption can help prevent chronic diseases and promote a healthy lifestyle. In addition, broccoli is versatile in the kitchen and can be used in a wide variety of dishes, which contributes to its popularity among people looking for a balanced diet.

Therefore, it can be considered that the increase in broccoli consumption is a crop that has experienced significant growth in international agricultural trade in recent years. The largest trade flows of broccoli are mainly observed between the United States, Mexico and Spain. The United States is recognized as the main exporter of broccoli, supplying the demand of various countries, while Mexico and Spain stand out as important producers and exporters of this vegetable. These nations have established strong business relationships in the broccoli market, mutually benefiting from the growing demand for this crop around the world.

Mexico has a significant and varied production of vegetables that enable internal distribution and demand from other countries. Vegetables represent the most important part of the crops in Mexico. In 2022, it ranked 9th as a vegetable producer in the world, reaching a production of 14.1 million tons of a wide variety of species of this food that is developed throughout the territory.

Origin of broccoli as an agricultural crop

Broccoli, whose scientific name is *Brassica oleracea* var. *italica*, is an agricultural crop that has its origins in the Mediterranean region. This plant in the *Brassicaceae* family is believed to be a domesticated form of a wild species known as wild cabbage, which grew in the coastal regions of Italy and Greece.

Social and Economic Importance of Broccoli

Broccoli is an agricultural crop that is of great importance both socially and economically. From a social point of view, the consumption of broccoli has increased significantly.

From an economic point of view, the cultivation of broccoli generates significant benefits for producers and the agricultural industry in general. Broccoli is a profitable crop due to its high demand and price in the markets. Its relatively short growth cycle allows farmers to obtain harvests in a relatively short time, allowing them to earn income quickly. In addition, broccoli can be grown in a wide range of climates and regions, allowing it to

be produced in various parts of the world. This contributes to job creation in the agricultural sector and strengthens the local economy. In many regions, broccoli cultivation has become an important source of income for farmers and has contributed to the economic development of rural communities.

Broccoli crop growth prospects

Broccoli cultivation presents promising prospects for growth in the agricultural market. In recent years, a significant increase in demand for broccoli has been observed due to its reputation as a healthy and nutritious food. This increase in demand is attributed to consumers' growing awareness of the health benefits offered by broccoli, such as its high content of vitamins, minerals, and antioxidant compounds. In addition, broccoli has become popular in the kitchen and is used in a variety of dishes, which has contributed to its constant demand.

The growth of the broccoli market is supported by the expansion of growing areas and the adoption of modern farming practices. Farmers are investing in improved cultivation techniques, such as selecting more resistant broccoli varieties adapted to different climatic conditions and soils. In addition, efficient production techniques are being implemented to maximize yield and minimize costs. These practices allow farmers to grow high-quality broccoli in sufficient quantities to meet growing demand.

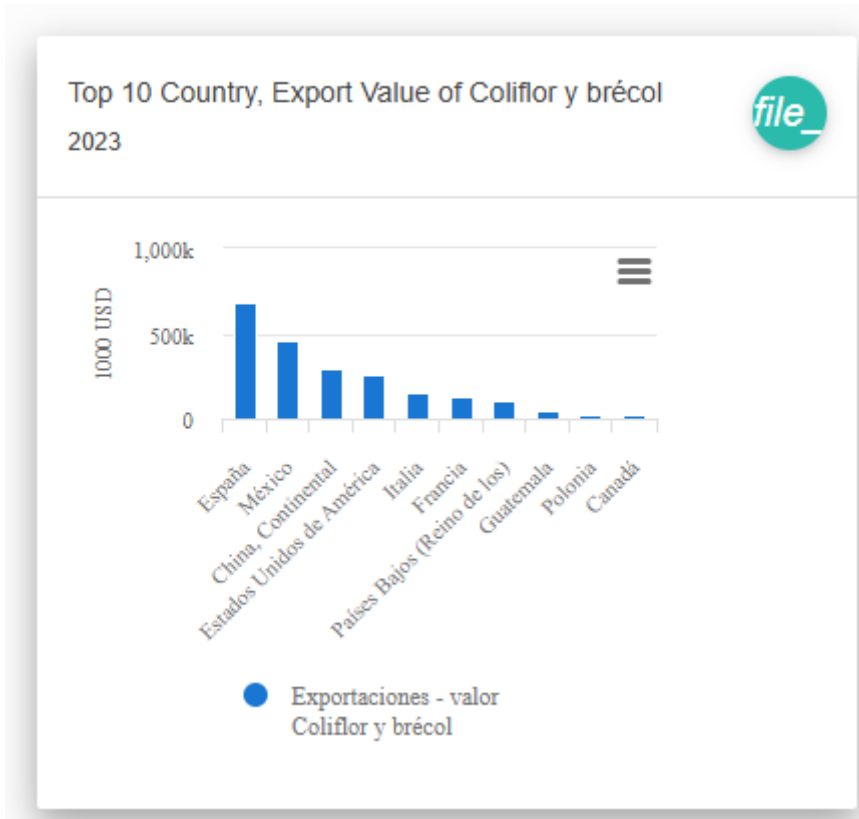
The growth prospects of broccoli cultivation are also boosted by its export potential. Broccoli is a highly marketable product in international markets due to its nutritional value and popularity in global cuisine. Many countries are increasing their broccoli production to take advantage of export opportunities and generate additional income. In addition, broccoli is a versatile crop that can adapt to different climates and regions, expanding its reach and growth potential in various markets.

A case that can be cited as a precedent for the relevance of the creation of this standard is that Mexico is currently the fourth largest producer in the world and the second largest exporter of broccoli. The United States was the main destination for Mexican product with 97.3 percent of the volume, followed by Canada with 2.3 percent and Japan 0.3 percent.

Main exporting countries

No.	Country	Exported Volume (ton)	%	Value 1000 USD	%
1	Spain	376,386	22	685,504	29
2	Mexico	366,967	21	458,640	19
3	China, Mainland	273,756	16	290,640	12
4	United States of America	159,873	9	262,494	11
5	Italy	83,017	5	152,735	6
6	France	108,519	6	134,388	6
7	Netherlands (Kingdom of)	48,295	3	101,096	4
8	Guatemala	43,710	3	45,029	2
9	Poland	19,828	1	25,057	1
10	Canada	23,297	1	22,421	1
11	Other	239,793	14	204,334	9
	World	1,743,441		2,382,339	

Source: <https://www.fao.org/faostat/es/#data/TCL>



Source: [FAOSTAT](#) 2023

Main countries to which Mexico exports

PAIS	2019		2020		2021		2022		2023		PROMEDIO (2019-2023)	
	VOL (Ton)	VALOR (Millones de USD)	VOL (Ton)	VALOR (Millones de USD)	VOL (Ton)	VALOR (Millones de USD)	VOL (Ton)	VALOR (Millones de USD)	VOL (Ton)	VALOR (Millones de USD)	VOL (Ton)	VALOR (Millones de USD)
EUA	530,000	500	360,000	520	370,000	540	380,000	560	390,000	580	406,000	540
JAPON	50,000	70	55,000	75	60,000	80	65,000	85	70,000	90	60,000	80
CANADA	30,000	40	32,000	42	35,000	45	37,000	47	40,000	50	34,800	45

Source: AGRICULTURE – SIAP

Challenges in commercialization

The commercialization of broccoli faces several challenges worldwide. Here are some of the main problems:

- Logistics and Transportation Issues:** Broccoli is a perishable product that requires specific temperature and humidity conditions during transportation. Any interruption in the cold chain can affect the quality of the product.
- Rules and Regulations:** The different import and export rules and regulations in each country can complicate the international trade of broccoli. This includes phytosanitary and labelling requirements.
- International competition:** Countries such as China, the United States and Spain are large producers of broccoli, which generates intense competition in the global market.
- Price Fluctuations:** Broccoli prices can vary significantly due to factors such as supply and demand, weather conditions, and production costs.
- Quality Issues:** Broccoli quality can be affected by pests, diseases, and improper farming practices. Maintaining high quality standards is crucial to successful marketing.
- Sustainability and Environment:** Broccoli production can have a significant environmental impact, including the use of sustainable agricultural practices.

These issues if there are not attend, can affect the profitability and viability of the global broccoli trade

The points that could be considered of greater importance are those related to the establishment of minimum quality requirements, maturity requirements, the definition of quality categories as well as their tolerances and

the section on product marking or labeling.

III. Evaluation of the Criteria for Prioritizing Work:

Relevance to the strategic objectives of Codex:

- It will protect the consumer by promoting fair trade practices by identifying the product, as well as its origin, distinguishing the particularities of each region.
- It will allow the standardization of commercial quality elements.

IV. Identification of the availability of expert scientific advisers in case of need:

There are recognized experts in the field, to name a few:

Name	Institution	Email/Phone
M.C. Maria Antonia Pérez Olvera	Postgraduate College	molvera@colpos.mx (595) 95 202 00 ext. 1500
Rosario García-Mateos	Chapingo Autonomous University	rosario.garcia@chapingo.mx (01) 595 952 1500
Jesús Ernesto Rocha Ibarra	University of Guanajuato, Department of Agroindustrial Engineering	je.rochaibarra@ugto.mx (01) 464 647 99 40 extension 2460
Dr. Brenda Ríos Fuentes	University of Guanajuato	brenda.rios@ugto.mx (01) 464 647 99 40 extension 2460
Dr. Gene Lester	USDA Agricultural Research Service	gene.lester@usda.gov +1 (301) 504-1624
Dr. Michael Cahn	University of California Cooperative Extension	mdcahn@ucanr.edu +1 (831) 759-7377

V. Identifying any need for technical contributions to a standard from outside organizations so that these contributions can be programmed:

The need for technical contributions will depend on the commercial types that are to be included in the standard, there are scientific works developed in this regard, in case the working group determines the need for technical contributions, there are Institutions to which the development of the same could be proposed, this detected from the presentation of the preliminary project in order to be able to program them and have the contributions in the required times.

VI. Proposed Schedule:

DATE	Progress and Processing
CCFF V 23	Presentation of Mexico's Proposal for the CODEX Standard for Broccoli
CAC 48	Review of the Critical Review and submission of the recommendation to the CCFFV Approval of the work item. Circulation of the proposed draft Standard for comments at Step 3.
CCFFV 24	Presentation of the preliminary draft in process 4
CCEXEC/CAC	CCEXEC – Critical Examination Review. Recommendation to the CCFFV for adoption in step 5 CAC – Adoption of the project in process 5. Circulation of the document for comments in Step 6
CCFFV 25	Revision of the document to consider the approval of the draft Codex Standard for broccoli.
CAC 51	CCEXEC Critical Examination Review. Recommendation for adoption of the document in Procedure 8. CAC Adoption of Step 6: Codex Standard for Broccoli

VII. Diversification of national laws and resulting or potential impediments to international trade.

There are different national and regional standards that contribute in particular to the regulation of broccoli quality at the local or regional level, to name a few:

- **Codex Alimentarius:** The Codex Alimentarius is a collection of globally recognized international food standards, guidelines, and codes of practice. It includes specific standards for fresh and frozen broccoli, such as the Codex Standard for Quick-Frozen Broccoli.
- **Official Mexican Standard (NOM-FF-46-1982):** This standard establishes the quality characteristics that broccoli must meet in its fresh state intended for direct human consumption. It includes classification criteria, allowable defects and sampling methods.
- **International Phytosanitary Standards:** The International Plant Protection Convention (IPPC) establishes phytosanitary standards to prevent the introduction and spread of pests in international trade in agricultural products, including broccoli.
- **Agronomic Quality Standards:** In Mexico, agronomic quality parameters have been established for broccoli, such as the equatorial diameter of the floret and the compaction of the inflorescence, to ensure its fresh commercialization.

VII. Regulation of major consumer protection and trade issues

In relation to this point, the marking or labeling section of the Codex Standard will be of utmost importance when developing particularly the section on commercial specifications: category and caliber, this information will be of great value to the consumer, it will facilitate knowledge of the characteristics of the product, which will allow the consumer to make an informed decision regarding the product he is purchasing. This regulation will also provide certainty of fair trade competition.

Currently in Mexico, broccoli consumers face several problems that can affect their experience and safety when consuming this vegetable. Here are some of the most common problems:

1. **Contamination by Bacteria:** One of the most serious problems is contamination by bacteria such as *Listeria monocytogenes*. This type of contamination can cause serious infections, especially in vulnerable people such as older adults, pregnant women, and people with weakened immune systems¹.
2. **Product Quality:** Broccoli quality can vary due to factors such as post-harvest handling, transportation, and storage. This can affect the freshness and flavor of the product.
3. **Access and Availability:** In some regions, access to broccoli may be limited, making it difficult for consumers to get this fresh, good-quality vegetable.
4. **Food Safety Concerns:** Alerts and recalls of contaminated products can cause concern among consumers, affecting their confidence in food safety.

These issues underscore the importance of implementing rigorous quality control measures and keeping consumers informed about safe handling and consumption practices.

VIII. Number of products that would need independent standards, indicating whether they are raw, semi-processed or processed products.

In the case of broccoli as a raw product, a standard is being proposed that could include the different commercial types, which do not vary significantly and for which a single standard is proposed, if necessary tables could be prepared with comparative values for the cases that merit and justify it.

There is the possibility of creating standards for this product processed in different presentations, which could be considered by the CODEX Committee on Processed Fruits and Vegetables.

IX. Work already initiated by other international bodies in this field and /or proposed by the relevant international intergovernmental body or bodies.

There are several works and proposals from international and intergovernmental organizations in the field of broccoli, some examples:

1. **International Society for Horticultural Science (ISHS):** ISHS has conducted research on broccoli, focusing on its relationship to health and the challenges in its production and marketing. A recent study addresses the benefits of broccoli in preventing chronic disease and its impact on health.
2. **Organisation for Economic Co-operation and Development (OECD):** The OECD has published international standards for fruits and vegetables, including broccoli. These standards facilitate the uniform interpretation of broccoli quality in international trade.
3. **MDPI:** The journal MDPI has published a comprehensive review on the nutritional, antimicrobial, and anti-inflammatory properties of broccoli. This study highlights the importance of broccoli in health and its potential in preventing diseases.
4. **"Improvement of Storage Quality of Broccoli Using a Cold-Shock Precooling Way and the Related Molecular Mechanisms":** This study investigates how cold shock precooling can improve the storage quality of broccoli by increasing its hardness, soluble protein content, and antioxidant capacity.
5. **"Maintaining the Quality of Postharvest Broccoli by Inhibiting Ethylene Accumulation Using Diacetyl":** This article discusses how diacetyl, a naturally occurring compound, can inhibit ethylene buildup and thus maintain the quality of broccoli after harvest.

In Mexico:

1. **"Production System and Agronomic Quality Parameters of Broccoli in Mixquic, D. F.":** This study evaluates the agronomic quality indicators of broccoli in the production systems of San Andrés Mixquic, D. F., where broccoli is grown on 950 ha for two or three cycles per year.
2. **"Growth, Production, and Quality in Broccoli Grown Under Different Doses of Nitrogen Fertilizer":** This paper investigates how different doses of nitrogen fertilization affect broccoli growth, production, and quality.

X. Diversification of national laws and resulting or potential impediments to international trade

Due to the lack of a global standard for broccoli, international trade has been widely affected. Importers prefer to import fruits and vegetables taking as commercial references the standards issued by the CODEX, so this technical work developed by the countries that make up the CCFFV, will provide the standard required worldwide, having a tool that allows regulating the market facilitating commercial transactions between importers and exporters. also ensuring the quality of the product to the end consumer.

There are several international standards and regulations that ensure the quality of broccoli in global trade, some of the most relevant:

1. **Codex Alimentarius:** The Codex Alimentarius is a collection of globally recognized international food standards, guidelines, and codes of practice. It includes specific standards for fresh and frozen broccoli, such as the Codex Standard for Quick-Frozen Broccoli.
2. **UNECE Standard FFV-48:** The United Nations Economic Commission for Europe (UNECE) has developed the FFV-48 standard, which sets out the commercial quality requirements for broccoli. This standard covers aspects such as freshness, turgidity, and the absence of significant defects.
3. **OECD Standards:** The Organization for Economic Co-operation and Development (OECD) has published international standards for fruits and vegetables, including broccoli. These standards facilitate the uniform interpretation of broccoli quality in international trade.
4. **International Phytosanitary Standards:** The International Plant Protection Convention (IPPC) establishes phytosanitary standards to prevent the introduction and spread of pests in international trade in agricultural products, including broccoli.
5. **Agronomic Quality Standards:** In Mexico, agronomic quality parameters have been established for broccoli, such as the equatorial diameter of the floret and the compaction of the inflorescence, to ensure its fresh commercialization.
6. **Mexican Standard NMX-FF-46-1982:** This standard establishes the quality characteristics that broccoli must meet in its fresh state intended for direct human consumption. It includes classification criteria, allowable defects and sampling methods.

It is considered that the Codex standard for broccoli can provide a harmonized standard of an international nature, ensuring commercial quality parameters and also guaranteeing the safety of the end consumer. UNECE and OECD standards can be taken as a starting point to become a more inclusive standard by promoting consensus among the producing and marketing countries of this product.

XI. Product standardization possibilities

The characteristics of broccoli **for marketing** from cultivation to retail, its composition, quality characteristics, packaging and labelling make it possible to establish the agreed parameters to harmonise the national standards of this product. These parameters have been harmonized by regions, such as UNECE and OECD, so it is expected that the CCFFV will develop the global standard considering the needs of the countries or regions that market this product.

PROPOSAL DRAFT CODEX STANDARD FOR FRESH BROCCOLI

1. SCOPE OF APPLICATION

The purpose of the standard is to define the quality requirements for fresh broccoli after packaging and packaging. When applied in subsequent stages of packaging, the product may show in relation to the requirements of the standard:

- a slight/slight decrease in the fresh and turgid state,
- a slight/slight deterioration due to its degree of development and its more or less perishable nature.

The owner/seller of products may not display such products or offer them for sale or deliver or market them in any way other than in accordance with this policy. The owner/seller will be responsible for such compliance.

2. PRODUCT DEFINITION

This Standard applies to commercial varieties obtained from *Brassica oleracea*, L. convar. botrytis (L.), Alef. var. *cymosa* Duch. which must be supplied fresh to the consumer after proper washing and packaging, excluding broccoli intended for industrial processing.

3. QUALITY PROVISIONS

3.1 Minimum requirements

In all categories, subject to the specific provisions of each category and the permitted tolerances, broccoli must be:

- whole; for presentation, some shoots may be removed;
- healthy; products affected by rot or alterations that make them unfit for consumption are excluded;
- clean, practically free of any visible foreign matter;
- fresh-looking;
- practically free of pests;
- virtually free from pest damage;
- free of abnormal external humidity;
- free of strange smells and/or tastes;
- They must have a green or greyish-violet colour characteristic of the variety.

The cut of the flower stem should be clean and as square as possible.

Hollow stems are not considered a defect as long as the hollow part is healthy, fresh, and not discolored

3.1.2 Minimum Maturity Requirements

Broccoli must be sufficiently developed and must have reached an appropriate degree of development in accordance with the criteria of the variety and/or commercial type and the area in which they are grown.

The development and condition of broccoli should be such that it allows it to:

- withstand transport and handling
- arrive in satisfactory conditions at the place of destination.

3.2 Classification

Broccoli is classified into three categories that are defined below:

3.2.1 Extra Category

Broccoli in this class should be of superior quality. They must be characteristic of the variety and/or commercial type. They must be free from defects, with the exception of very slight surface defects, provided that they do not affect the general appearance of the product, its quality, its conservation and its presentation in the package.

Broccoli in this category must be firm and compact, have a tight grain, free of any defect within the tolerance established for this quality

The buds should be completely closed and the flower stem should be tender enough and free of woodiness.

3.2.1 Category I

Broccoli in this category should be of good quality. It must be characteristic of the variety and/or commercial type. Broccoli should be:

However, the following minor defects may be allowed, provided that they do not affect the general appearance of the product, its quality, its state of conservation or its presentation in the packaging:

A slight defect in form

a slight discoloration defect.

Leaves extending above the head may be allowed, provided that they are green, healthy, fresh and tender.

3.2.2. Category II

This category includes broccoli that does not qualify for inclusion in Category I, but meets the minimum requirements specified in 3.1. Broccoli may:

- be slightly loose and less compact;
- be of less tight fiber;
- the shoots must be practically closed;
- The flower stem should be reasonably tender and may have a trace of woodiness.

The following defects may be allowed as long as the broccoli retains its essential characteristics in terms of quality, preservation and presentation:

- defects of form;
- discoloration defects;
- bruises and minor wounds.
- presence of leaves that protrude from the head, as long as they are green, healthy, fresh and tender.

4. PROVISIONS RELATING TO CLASSIFICATION BY CALIBRE

The caliber is determined by the diameter of the flower stem at the cut end or by the maximum diameter of the head.

4.1 Extra Category

For broccoli sorted by the diameter of the flower stem, the minimum stem will be 7 cm. The difference between the smallest and largest flower stem in each package should not exceed 11 cm

4.2 Category I

For broccoli sorted by the diameter of the flower stem, the minimum diameter will be 8 mm. The difference between the smallest and largest flower stem in each package should not exceed 20 mm.

4.3 Category II

For broccoli sorted by head diameter, the minimum diameter will be 6 cm. However, for packaged broccoli or in bunches, the minimum diameter will be 2 cm. The difference between the smallest and largest head in each package should not exceed

- 4 cm if the smallest head has a diameter of less than 10 cm
- 8 cm if the smallest head has a diameter of 10 cm or more.

In any case, the ratio between the diameter of the head and the flower stem, in each package should not be less than 2:1. Broccoli should not exceed 20 cm in length.

Size requirements will not apply to miniature products^{1/}

5. PROVISIONS RELATING TO TOLERANCES

At all stages of marketing, tolerances in terms of quality and size shall be permitted in each batch for products which do not meet the requirements of the category indicated.

¹ Miniature broccoli refers to broccoli that has been grown with the specific goal of obtaining small-sized broccoli. Broccoli that is not fully developed will be excluded. All other requirements of the standard must be met.

5.1 Quality tolerances

5.1.1 Extra Category

A tolerance of 5.0%, in number or weight, is permitted for broccoli that does not meet the requirements of this class, but meets those of Class I.

5.1.2 Category I

A total tolerance of 10%, in number or weight, is permitted for broccoli that does not meet the requirements of category II but meets those of category I. Within this tolerance, not more than 1 per cent in total may consist of products which do not meet either the quality requirements of category II or the minimum requirements, or products affected by rot.

5.1.3 Category II

A total tolerance of 10%, in number or weight, is allowed for broccoli that does not meet either the requirements of the category or the minimum requirements. Within this tolerance, not more than 2 per cent in total may consist of products affected by rot.

5.2 Gauge Tolerances

For all categories: a total tolerance of 10%, in number or weight, is allowed for broccoli that does not meet the size requirements.

6. PROVISIONS RELATING TO THE PRESENTATION

6.1 Homogeneity

The contents of each package must be homogeneous and contain only broccoli of the same origin, quality and size (if they are sizes).

- Broccoli in the Extra category and category I must be of uniform color.
- The visible part of the contents of the package must be representative of the entire contents.

6.2 Packaging

Broccoli should be packaged in such a way that the product is properly protected.

The materials used inside the packaging must be clean and of such a quality that they do not damage the product on the outside or inside. The use of materials, in particular paper or stamps with commercial specifications, is permitted, provided that the printing or labelling has been made with non-toxic ink or glue.

Packaging must be free of all foreign matter.

7. PROVISIONS RELATING TO MARKING OR PACKAGING

7.1 Consumer packaging

In addition to the requirements of the General Standard for the Labelling of Pre-Packaged Foods (CXS 1-1985),² the following specific provisions shall apply:

7.1.1 Product Name

If the product is not visible from the outside, each package shall be labelled with the name of the product ("Broccoli" as defined in Section 2 Product Definition) and may be labelled with the name of the variety and/or commercial type.

7.1.2 Product Origin

Country of origin and, optionally, name of the place, district, or region of production.

In the case of a mixture of distinctly different varieties or commercial types of broccoli from different origins, the indication of the country of origin must appear next to the name of the variety, commercial type and/or colour in question.

² The full name or the name that is commonly used must be indicated

7.2 Packaging not intended for retail sale

Labelling of non-retail packaging must be in accordance with the General Standard for the Labelling of Non-Retail Food Packaging (*CXS 346-2021*).

In addition, the following requirements will apply:

Each package must bear the following indications in letters grouped on the same side, marked legibly and indelibly and visible from the outside.

7.2.1 Product Origin

Country of origin and, optionally, name of the place, district or region of production.

In the case of a mixture of distinctly different varieties of commercial types and/or colours of broccoli from different origins, the indication of the country of origin should appear next to the name of the commercial types and/or colours concerned.

7.2.2 Commercial Specifications

- category;
- variety and/or commercial type (optional);
- caliber (if the product is classified by calibers) expressed as minimum and maximum diameters or according to the method used.

7.2.3 Official inspection mark (optional)

8 FOOD ADDITIVES

The use of food additives in broccoli is not permitted.

9 POLLUTANTS

9.1 The product covered by this Standard must comply with the maximum limits for pesticide residues established by the Codex Alimentarius Commission.

9.2 The product covered by this Standard must comply with the General Standard for Contaminants and Toxins in Food and Feed (*CXS 193-1995*).

10 HYGIENE

10.1 It is recommended that products covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the General Principles of Food Hygiene (**CXC 1-1969**), the Code of Hygienic Practice for Fresh Fruit and Vegetables (*CXC 53-2003*) and other relevant Codex texts, such as codes of hygienic practice and codes of practice.

10.2 The product must conform to the microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria for Food (*CXG 21-1997*).