

STANDARD FOR ASPARAGUS
(CODEX STAN 225-2001)

1. DEFINITION OF PRODUCE

This Standard applies to shoots of commercial varieties of asparagus grown from *Asparagus officinalis* L., of the *Liliaceae* family, to be supplied fresh to the consumer, after preparation and packaging. Asparagus for industrial processing is excluded.

Asparagus shoots is classified into four groups according to colour:

- white asparagus;
- violet asparagus, having tips of a colour between pink and violet or purple and part of the shoot white;
- violet/green asparagus, part of which is of violet and green colouring;
- green asparagus having tips and most of the shoot green.

This Standard does not apply to green and violet/green asparagus of less than 3 mm diameter and white and violet asparagus of less than 8 mm diameter, packed in uniform bundles or unit packages.

2. PROVISIONS CONCERNING QUALITY

2.1 MINIMUM REQUIREMENTS

In all classes, subject to the special provisions for each class and the tolerances allowed, the asparagus must be:

- whole;
- sound, produce affected by rotting or deterioration such as to make it unfit for consumption is excluded;
- clean, practically free of any visible foreign matter;
- practically free of pests affecting the general appearance of the produce;
- practically free of damage caused by pests;
- free of abnormal external moisture, excluding condensation following removal from cold storage;
- free of any foreign smell and/or taste;
- fresh in appearance and fresh-smelling;
- practically unbruised;
- free of damage caused by unsuitable washing or soaking.

The cut at the base of the shoots must be as clean as possible.

In addition, shoots must be neither hollow, split, peeled nor broken. Small cracks which have appeared after harvesting are, however, allowed, so long as they do not exceed the limits laid down in Section 4.1, Quality Tolerances.

2.1.1 The development and condition of the asparagus must be such as to enable it:

- to withstand transport and handling; and
- to arrive in satisfactory condition at the place of destination.

2.2 CLASSIFICATION

Asparagus is classified in three classes defined below:

2.2.1 "Extra" Class

Shoots in this class must be of superior quality, very well formed and practically straight. Having regard to the normal characteristics of the group to which they belong, their tips must be very compact.

Only a few very slight traces of rust caused by non-pathogenic agents on the shoot, removable by normal peeling by the consumer, are allowed.

For the white asparagus group, the tips and shoots must be white; only a faint pink tint is allowed on the shoots.

Green asparagus must be green for at least 95% of the length.

No traces of woodiness are allowed for the shoots in this class.

The cut at the base of the shoots must be as square as possible. However, to improve presentation when the asparagus is packed in bundles, those on the outside may be slightly bevelled, so long as the bevelling does not exceed 1 cm.

2.2.2 Class I

Shoots in this class must be of good quality and well formed. They may be slightly curved. Having regard to the normal characteristics of the group to which they belong, their tips must be compact.

Slight traces of rust caused by non-pathogenic agents removable by normal peeling by the consumer are allowed.

For the white asparagus group, a faint pink tint may appear on the tips and the shoots.

Green asparagus must be green for at least 80% of the length

In the white asparagus group, no woody shoots are allowed. For the other groups, a trace of woodiness on the lower part is permissible, provided this woodiness disappears by normal peeling by the consumer.

The cut at the base of the shoots must be as square as possible.

2.2.3 Class II

This class includes shoots which do not qualify for inclusion in the higher classes, but satisfy the minimum requirements specified in Section 2.1 above.

Compared with Class I, shoots may be less well formed, more curved and having regard to the normal characteristics of the group to which they belong, their tips may be slightly open.

Traces of rust caused by non-pathogenic agents, removable by normal peeling by the consumer are allowed.

The tips of white asparagus may have a colouration including a green tint.

The tips of violet asparagus may have a slight green tint.

Green asparagus must at least be green for 60% of the length.

Shoots may be slightly woody.

The cut at the base of the shoots may be slightly oblique.

3. PROVISIONS CONCERNING SIZING

Size is determined by the length and diameter of the shoot.

3.1 SIZING BY LENGTH

The length of the shoots must be:

- above 17 cm for long asparagus;
- 12 to 17 cm for short asparagus;
- for Class II asparagus arranged, but not bundled in the package:
 - (a) white and violet: 12 to 22 cm,
 - (b) violet/green and green: 12 to 27 cm.
- under 12 cm for asparagus tips.

The maximum length allowed for white and violet asparagus is 22 cm and for violet/green and green asparagus 27 cm.

The maximum difference in length of shoots packed in firmly bound bundles must not exceed 5 cm.

3.2 SIZING BY DIAMETER

The diameter of the shoots shall be measured 2.5 cm from the cut end.

The minimum diameter and sizing shall be:

White and Violet:

Class	Minimum diameter	Sizing
Extra	12 mm	Maximum variation of 8 mm between the thinnest and the thickest shoot in the same package or the same bundle.
I	10 mm	Maximum variation of 10 mm between the thinnest and the thickest shoot in the same package or the same bundle.
II	8 mm	No provision as to uniformity.

Violet/green and green asparagus:

Class	Minimum diameter	Sizing
Extra and I	3 mm	Maximum variation of 8 mm between the thinnest and the thickest shoot in the same package or the same bundle.
II	3 mm	No provision as to uniformity.

4. PROVISIONS CONCERNING TOLERANCES

Tolerances in respect of quality and size shall be allowed in each package for produce not satisfying the requirements of the class indicated.

4.1 QUALITY TOLERANCES

4.1.1 "Extra" Class

Five percent by number or weight of shoots not satisfying the requirements of the class, but meeting those of Class I or, exceptionally, coming within the tolerances of that class, or having slight unscarred cracks appearing after harvesting.

4.1.2 Class I

Ten percent by number or weight of shoots not satisfying the requirements of the class, but meeting those of Class II or, exceptionally, coming within the tolerances of that class, or having slight unscarred cracks appearing after harvesting.

4.1.3 Class II

Ten percent by number or weight of shoots satisfying neither the requirements of the class nor the minimum requirements, with the exception of produce affected by rotting or any other deterioration rendering it unfit for consumption.

In addition to the above, 10% by number or weight can be allowed for hollow shoots or shoots showing very slight cracks due to washing. In no case can there be more than 15% hollow shoots in each package or bundle.

4.2 SIZE TOLERANCES

For all classes, 10% by number or weight of shoots not corresponding to the size indicated and deviating from the specified limits with a maximum deviation of 1 cm in length.

For all classes, 10% by number or weight of shoots not corresponding to the size indicated and deviating from the specified limits with a maximum deviation of 2 mm in diameter. In no case shall the diameter be less than 3 mm.

5. PROVISIONS CONCERNING PRESENTATION

5.1 UNIFORMITY

The contents of each package, each unit package or each bundle in the same package must be uniform and contain only asparagus of the same origin, quality, colour group and size (if sized).

Nevertheless, with respect to colour, shoots of a different colour group may be allowed within the following limits:

- (a) white asparagus: 10% by number or weight of violet asparagus in Classes Extra and I and 15% in Class II;
- (b) violet, violet/green and green asparagus: 10% by number or weight of asparagus of another colour group.

In the case of Class II a mixture of white and violet asparagus is allowed provided it is appropriately marked.

The visible part of the contents of the package, unit package or bundle must be representative of the entire contents.

5.2 PACKAGING

Asparagus must be packed in such a way as to protect the produce properly. The materials used inside the package must be new¹, clean, and of a quality such as to avoid causing any external or internal damage to the produce. The use of materials, particularly of paper or stamps bearing trade specifications is allowed, provided the printing or labelling has been done with non-toxic ink or glue.

Packages must be free of all foreign matter.

Asparagus shall be packed in each container in compliance with the Recommended International Code of Practice for Packaging and Transport of Fresh Fruits and Vegetables (CAC/RCP 44-1995).

¹ For the purposes of this Standard, this includes recycled material of food-grade quality.

5.3 PRESENTATION

The asparagus may be presented under one of the following forms:

- (i) In bundles firmly bound.

Shoots on the outside of each bundle must correspond in appearance and diameter with the average of the whole bundle.

In "Extra" Class, asparagus shoots packed in bundles must be of the same length.

Bundles must be arranged evenly in the package, each bundle may be protected by paper.

In any one package, bundles must be of the same weight.

- (ii) Arranged, but not bundled in the package.
(iii) In prepackaged units placed in another package.

6. MARKING OR LABELLING

6.1 CONSUMER PACKAGES

In addition to the requirements of the Codex General Standard for the Labelling of Prepackaged Foods (CODEX STAN 1-1985), the following specific provisions apply:

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled as to the name of the produce and may be labelled as to name of the variety.

6.2 NON-RETAIL CONTAINERS

Each package must bear the following particulars, in letters grouped on the same side, legibly and indelibly marked, and visible from the outside, or in the documents accompanying the shipment.

6.2.1 Identification

Name and address of exporter, packer and/or dispatcher. Identification code (optional)².

6.2.2 Nature of Produce

"Asparagus" followed by the indication "white", "violet", "violet/green" or "green" if the contents of the package are not visible from the outside and, where appropriate, the indication "short" or "tips" or "mixture white and violet".

6.2.3 Origin of Produce

Country of origin and, optionally, district where grown or national, regional or local place name.

6.2.4 Commercial Identification

- Class;
- Size expressed:
 - (a) for asparagus subject to the uniformity rules as minimum and maximum diameters,
 - (b) for asparagus not subject to the uniformity rules, as minimum diameter followed by maximum diameter or the words "and over".
- Number of bundles or number of unit packages, for asparagus packed in bundles or unit packages.

6.2.5 Official Inspection Mark (optional)

² The national legislation of a number of countries requires the explicit declaration of the name and address. However, in the case where a code mark is used, the reference "packer and/or dispatcher (or equivalent abbreviations)" has to be indicated in close connection with the code mark.

7. CONTAMINANTS

7.1 The produce covered by this Standard shall comply with the maximum levels of the Codex General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995).

7.2 The produce covered by this Standard shall comply with the maximum residue limits for pesticides established by the Codex Alimentarius Commission.

8. HYGIENE

8.1 It is recommended that the produce covered by the provisions of this Standard be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice – General Principles of Food Hygiene (CAC/RCP 1-1969), Code of Hygienic Practice for Fresh Fruits and Vegetables (CAC/RCP 53-2003), and other relevant Codex texts such as Codes of Hygienic Practice and Codes of Practice.

8.2 The produce should comply with any microbiological criteria established in accordance with the Principles for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).