



THAI AGRICULTURAL STANDARD

TAS 1500-2004

ASPARAGUS

National Bureau of Agricultural Commodity and Food Standards

Ministry of Agriculture and Cooperatives

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Asparagus, Peppers, Okra, Tomato, Chinese parsley**

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Asparagus is produced in Thailand and an important export commodity of the country. In order to provide the Thai asparagus with better acceptance by both national and international levels in term of food safety for consumers and export promotion. The Ministry of Agriculture and Cooperatives deems it proper to establish a standard for asparagus.

The provisions of this standard are based upon the information of the following document:

FAO/WHO. 1999. Codex Alimentarius Volume 5B. Fresh Fruits and Vegetables, CODEX STANDARD FOR ASPARAGUS (CODEX STAN 225-2001). Joint FAO/WHO Food Standard Programme, FAO, Rome. 6p.

Remark:

The standard title has been revised from “Thai Agricultural Commodity and Food Standard (TACFS)” to “Thai Agricultural Standard (TAS)” in accordance with the enforcement of the Agricultural Standards Act B.E. 2551 (2008).



**NOTIFICATION OF THE NATIONAL COMMITTEE ON
AGRICULTURAL COMMODITY AND FOOD STANDARDS
SUBJECT: ASPARAGUS
B.E. 2547 (2004)**

It is appropriate to establish the national standard for asparagus for the benefit of quality improvement, trade facilitation and consumer protection. Therefore, the National Committee on Agricultural Commodity and Food Standards notifies the establishment of Thai Agricultural Commodity and Food Standard entitled Asparagus to be used as a voluntary standard as attached herewith.

Notified on 26 April B.E.2547 (2004)

Somsak Thepsutin

Minister of Agriculture and Cooperatives

Chairperson of the National Committee on Agricultural Commodity and Food Standards

THAI AGRICULTURAL STANDARD
ASPARAGUS

1. DEFINITION OF PRODUCE

This standard applies to 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 processing is excluded.

The asparagus under this standard is classified into 4 groups by colour of the shoots:

- 1.1 white;
- 1.2 purple (white shoot, pink or purplish pink shoot tip);
- 1.3 green with purple;
- 1.4 green (majority of the shoot and shoot tip are green);

This standard does not apply to asparagus of less than 3 mm. diameter.

2. PROVISIONS CONCERNING QUALITY

2.1 MINIMUM REQUIREMENTS

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

- 2.1.1.1 whole and fresh ;
- 2.1.1.2 neither bent nor stunted ;
- 2.1.1.3 free of prominent abrasion and bruises ;
- 2.1.1.4 clean, practically free of any visible foreign matter ;
- 2.1.1.5 practically free of pests affecting the general appearance of the produce ;
- 2.1.1.6 practically free of damage caused by pests ;
- 2.1.1.7 the cut at the base of the shoots must be clean ;
- 2.1.1.8 free of any foreign smell and/or taste ;
- 2.1.1.9 free of abnormal external moisture, excluding condensation following removal from cold storage ;

2.1.2 The asparagus must be properly harvested, postharvest handled, stored and transported in order to obtain proper size and quality, 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

Asparagus in this class must be of superior quality, straight with compact tip. Shoots are free of woody fibers. No defects due to pests and diseases. However, slight defects that are easily removable by the consumer are allowed. Cut at the base of the shoots must be smooth and as square as possible. Green asparagus should be a minimum of 95% green in colour of the shoot length, whereas the white shoots must be white throughout: however, light purplish-pink tip may be allowed.

2.2.2 Class I

Asparagus in this class must be of good quality. The shoots may be slightly curved with compact tips. Slight amount of woody fibers at the peel of the base may be allowed. No defects due to pests and diseases. However, slight defects that are easily removable by the consumer are allowed. Cut at the base of the shoots must be smooth and as square as possible. Green asparagus should be a minimum of 80% green in colour of the shoot length, whereas light- purplish pink colour may be allowed on the tip and shoot of white asparagus.

2.2.3 Class II

This class includes shoots which do not qualify for inclusion in the higher classes but satisfy the minimum quality requirements specified in section 2.1 above. The shoots may be curved. Scale leaves at the tip may be split, but no lateral shoot growth is evident. Small amount of woody fibers at the peel of the base is allowed. Slight defects due to non-pathogenic factor may be allowed at the shoot base that they are easily removable by the consumer. Cut at the base of the shoots may be slightly slant. Green asparagus should be a minimum of 60% green in colour of the shoot length, whereas other colours may be allowed on the tip of white asparagus.

3. PROVISIONS CONCERNING SIZING

Size is determined by the length and diameter of the shoot as follows:

3.1 SIZING BY LENGTH

All quality classes are classified into 3 sizes as follows

3.1.1 Long : L, asparagus is longer than 17 cm

3.1.2 Short : S, asparagus is between 12-17 cm

3.1.3 Tip : T, asparagus is shorter than 12 cm

3.2 SIZING BY DIAMETER

The diameter of the shoots of 25 cm long shall be measured at the widest part of the cut end. Diameter sizing is classified into 4 sizes as follows:

Size Code	Diameter at the base (mm)
1	> 10
2	> 8 – 10
3	> 6 - 8
4	3 – 6

It is noted that when the shoots are trimmed for packaging, the shoot diameters vary according to the shoot length.

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 Extra Class, but meeting those of Class I.

4.1.2 Class I

Ten percent by number or weight of shoots not satisfying the requirements of Class I, but meeting those of Class II.

4.1.3 Class II

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

4.2 SIZE TOLERANCES

4.2.1 Length tolerances. For all classes, 10% by number or weight of shoots not corresponding to the length indicated is allowed. If they are present in bundle, the shoot length is shorter or longer than the requirements of each size by a maximum of 1 cm.

4.2.2 Diameter tolerances. For all classes, 10% by number or weight of all shoots not corresponding to the diameter indicated is allowed. If they are present in bundle, the shoot diameter is shorter or longer than the requirements of each size by a maximum of 2 mm.

5. PROVISIONS CONCERNING PRESENTATION**5.1 UNIFORMITY**

The contents of the same package or each bundle in the same package should be uniform in quality, colour, size and should contain asparagus of the same origin. With respect to colour, shoots of a different colour group may be incorporated with allowance within the following limits :

5.1.1 White asparagus : 10% by weight or total shoot number of violet asparagus in Classes Extra and I and 15% in Class II.

5.1.2 Green, violet and violet with green asparagus : 10% by weight or total shoot number of asparagus of another colour group in Classes Extra and I and 15% in class II.

In the case of Class II, if they are not in bundle, different colour and length may be mixed, clearly marked of mixed colour.

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 new, 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 labeling has been done with non-toxic ink or glue.

5.3 PRESENTATION

Presentation of asparagus in the packages must not be top dressing. The visible portion in any package must be representative of the entire content. The arrangement may be carried out in 2 forms:

5.3.1 In bundles, asparagus at the outer part of the bundle must be representative of the whole bundle. Each bundle should be equal in weight. Presentation of each bundle in the package may be protected from collision with paper.

5.3.2 Arrangement of asparagus in the package without bundling.

6. PROVISIONS CONCERNING MARKING OR LABELLING**6.1 Consumer Packages**

There must be clearly visible with no false detail information as follows :

6.1.1 Nature of Produce

If the produce is not visible from the outside, each package shall be labelled. "Asparagus" and /or "Type of Asparagus".

6.1.2 Class

6.1.3 Size (optional) if packaged with size grading.

6.1.4 Net weight in metric system.

6.1.5 Data of packaging.

6.1.6 Retailers' data

Name and address of retailers or packers, or display registered trade mark.

6.1.7 Country of origin. Indication to avoid misunderstanding or deceiving.

6.2 Non – retail Containers

Each package must bear information which indicates in documents accompanying goods or labels or displaying on the container. The detail must be legible and indelible as follows:

6.2.1 Non – retailer ' Data

Name and address of wholesalers and / or packer.

6.2.2 Nature of Produce

“Asparagus” and/or “Type of Asparagus”

6.2.3 Origin of Produce

Country of origin or production location within the country.

6.2.4 Commercial Specifications

6.2.4.1 Class

6.2.4.2 Size (optional) if packaged with size grading.

6.2.4.3 Net weight in metric system.

6.2.4.4 Date of packaging

6.3 Language

Label must be in Thai. For export, appropriated language should be used.

6.4 Official Inspection Mark

It is carried out in accordance to the criteria and conditions set up by the inspection unit or the accredited unit certified by the Ministry of Agriculture and Cooperatives.

7. CONTAMINANTS

It is carried out in accordance with the related codes and provisions concerning Thai Agricultural Standard on Contaminants.

8. PESTICIDE RESIDUES

It is carried out in accordance with the related codes and provisions concerning Thai Agricultural Standard on Pesticide Residues.

9. HYGIENE

Different steps of asparagus handling such as harvest, storage and transport must be hygienically carried out in order to prevent the produce from biological, chemical and physical contaminations which are harmful to consumers.

10. METHOD OF ANALYSIS AND SAMPLING

It is carried out in accordance with the related codes and provisions concerning Thai Agricultural Standard on Analytical Method and Drawing Samples.