

# PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 14:2004  
ICS 65.020.20

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**Fresh vegetables – Common onion (*Allium cepa* L. cv. Group Common Onion) and shallot (*Allium cepa* L. cv. Group Aggregatum) - Specifications**

## **Foreword**

The formulation of this Philippine National Standard for Bulb onion, PNS/BAFPS 14:2004 was prepared by the Bureau of Agriculture and Fisheries Product Standards (BAFPS). The Bulb Onion Standards of the FTI in 1969 and Standards of NFA in 1982 were used as references to reformat the standards in accordance with the BPS Standards guidelines. This standard is harmonized with Canada and US standards.

This Bureau of Agriculture and Fisheries Product Standards (BAFPS) conducted a series of technical reviews and public consultations specifically in Nueva Ecija and Ilocos Sur on the 3<sup>d</sup> Quarter of 2003. Comments from the stakeholders were considered prior to its approval.

In 2003, the Bureau of Agriculture and Fisheries Product Standards (BSFPS) conducted series of technical reviews and public consultations nationwide on the draft standards for fresh durian fruits prior to its approval.

BAFPS technical committee for bulb onion standards was composed of government and private sectors. The committee was chaired by the academe from the University of the Philippines at Los Baños and was co-chaired by NOGROCOMA. Other committee members involved were NAFC, BPI, DAPALSD, BPRE, DA-AMAS, FTI, Philippine Seed Growers Association and Union of Onion Growers in the Philippines.

In the preparation of this standard the following documents were considered:

Coates, L.T. Cooke, D. Persley, B. Beattie, N. Wade and R. Ridgway, 1995, Postharvest Diseases of Horticultural Product: Tropical Fruit (Vol. 2). Manager Publishing Services, Department of Primary Industries, Australia.

Mendoza, D.B. and R.H.H. Wills. 1984. Mango: Fruit Development, Postharvest Physiology and Marketing in ASEAN. ASEAN Food Handling Bureau, Kuala Lumpur, Malaysia.

Organic Fruit and Vegetables from the Tropics. United Nations. New York and Geneva, 2003. Pp 109-118.

Pesticide residues in food. 1993. Joint FAO/WHO Food Standards Programme. Codex Alimentarius Supplement One to Volume Two. Codex Alimentarius Commission. United Nations. World Health Organization, Rome.

Philippine National Standards: Fresh Fruits and Vegetables – Mangoes (*Mangifera indica* Linn.) Grading and Classification. PNS 168:1991; Bureau of Product Standards, Department of Trade and Industry, Makati, Philippines.

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**1 Scope**

This standard establishes a system of grading and classifying common onion (*Allium cepa* L. cv. Group Common Onion) and shallot (*Allium cepa* L. cv. Group Aggregatum).

**2 References**

PNS ISO 874:2004 – Fresh fruits and vegetables – Sampling contains provisions which, through reference in this text form part of this national standard. At the time of publication, the edition indicated was valid.

**3 Definitions**

For the purpose of this standard, the following definitions shall apply:

**3.1 General definitions****3.1****bottlenecks**

onions that have abnormally thick necks with fairly well developed bulbs

**3.2****damage/defect**

any defect, which materially affects the appearance, or the edible or shipping quality of onions

**3.3****fairly well shaped**

onion shows the characteristic shape, not appreciably three, four or five sided, thick necked or badly pinched by hard dry soil

**3.4****mature**

onion exhibits 'tight neck', fairly well-cured, and at least fairly firm

**3.5****similar varietal characteristics**

onions are similar in color, shape and character of growth

**3.6****well-cured**

bulb with tight neck, shiny, well-dried outer paper scales

**4 Kinds of damage/defect**

- 4.1 Seed stems**– Any flower stalk that is tough or woody.
- 4.2 Doubles** – Onions which have developed more than one distinct bulb joined at the based covered by outer scales.
- 4.3 Splits** – Onion which have developed more than one distinct bulb joined only at the base.
- 4.4 Dry sunken areas** – When the affected areas do not have the outer papery scale.
- 4.5 Sunburn** – Discoloration due to exposure to the sun without injury to the underlying tissue.
- 4.6 Sprout**– Any new shoot growth
- 4.7 Stain** – Discoloration due to dirt or other foreign material adhering on the surface.
- 4.8 Mechanical** – When injury exceeds deeper than one fleshy scale.
- 4.9 New roots** – When new roots on an individual onion have grown to a length of 2.0 cm.
- 4.10 Dry roots** – When dry roots are 5.0 cm or more in length.
- 4.11 Translucent scales** – When the entire outer fleshy scales have watersoaked condition.
- 4.12 Water scales** – When the entire outer fleshy scale is affected by an off-color due to water soaked condition.
- 4.13 Diameter**– The greatest equatorial dimension of the bulb.

**5 Classification**

Onions shall be classified according to size and color specified in Table 1.

**Table 1 – Classification of common onion and shallot**

| Size classification | Variety of common onion and shallot |              |           |
|---------------------|-------------------------------------|--------------|-----------|
|                     | Diameter (cm)                       |              |           |
|                     | Red onion                           | Yellow onion | Shallot   |
| Small               | 1.5 - 3                             | 2.5 – 4.5    | <1.5      |
| Medium              | 3.1 - 5                             | 4.6 – 6.5    | 1.6 – 2.5 |
| Large               | >5.1                                | >6.6         | 2.6 – 3.0 |
| Jumbo               | –                                   | –            | >3.0      |

## **6 Grading**

Onions shall be graded according to its variety, general appearance, quality and condition.

**6.1 Grade 1** – Similar varietal characteristics, mature, firm and well-shaped. They shall be free from decay, wet sunscald, doubles and bottlenecks and free from damages/defects caused by splits, dry sunken areas, sunburn, sprouting, staining, dirt or foreign material, mechanical, tops, roots, translucent scales, watery scales, moisture, disease, insect and other means.

**6.2 Grade 2** – Similar varietal characteristics, not soft or spongy, free from decay, wet sunscald, and bottleneck. They shall be free from serious damage/defect caused by dry sunken areas, sprouting, staining, dirt or other foreign material, mechanical, watery scales, insects, diseases and other means.

**6.3 Combination** – Consists of combination of Grade 1 and Grade 2 onions. Provided that at least 50 percent, by weight, of the onions in each lot meet the requirements of Grade 1.

## **7 Tolerance**

**7.1 Grade 1** – Incident to proper grading and handling a tolerance 5 percent of defects of onions by weight, in any lot, which fail to meet the requirement of the specified grade including not more than 2 percent of onions, which are affected by decay.

**7.2 Grade 2** – Incident to proper grading and handling a tolerance 10 percent of defects of onions by weight in any lot, which fail to meet the requirement of the specified grade including not more than 5 percent of onions, which are affected by decay.

## **8 Sampling**

Sampling method to be used for ascertaining conformance to the requirements of this specification shall be in accordance with PNS ISO 874.

## **9 Packing**

Onions shall be packed in appropriate containers that will adequately protect the product from normal hazards of transportation and handling and shall weigh not more than 25 kilograms net.

## **10 Marking or labelling**

Each container shall be legibly labeled with the following information:

**10.1** Name of the product;

**10.2** Grade, variety name and size classification;

**10.3** Net weight in kilograms;

**10.4** Brand name (if any);

**10.5** Name of producer; and

**10.6** The words “Product of the Philippines”.

**11 Pesticide Residue**

Onion shall comply with those maximum residue levels established by the Codex Alimentarius Commission for this commodity.

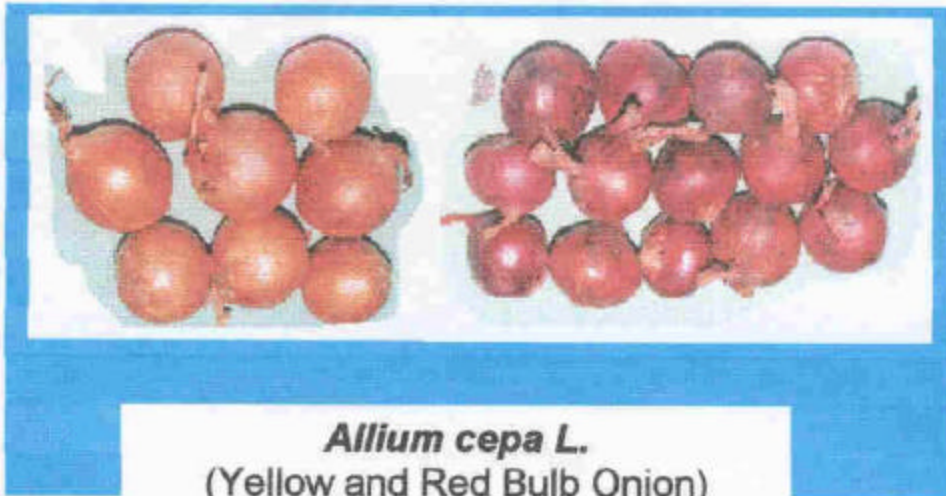
**12 Hygiene**

It is recommended that the product 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, Rev. 3-1997, Amd. (1999) and other relevant Codex texts such as Codes of Hygiene Practice and Codes of Practice.

Annex A



***Allium cepa L. var.***  
***ascalonicum***  
**(Shallots)**



***Allium cepa L.***  
**(Yellow and Red Bulb Onion)**

**Bulb onion**

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Bureau of Agriculture and Fisheries Product Standards**

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