

# PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 37:2006  
ICS 67.080

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Taro (*Colocasia esculenta* (L.) Schott) leaves

**Foreword**

The development of Philippine National Standard (PNS) on Taro Leaves was initially undertaken by the Bureau of Agriculture Fisheries Product Standards (BAFPS) of the Department of Agriculture in consequence to apparent increase in demand of an orderly domestic and export marketing of Philippine indigenous crops.

In collaboration with the members of the Technical Working Group, Bicol University College of Agriculture and Forestry (BUCAF), Department of Science & Technology - Region V and Department of Agriculture of Region V, and the Bureau of Agriculture Fisheries Product Standards created through Special Order No. 048 s. 2006 convened series of technical reviews and public consultation on the draft standard for taro leaves.

BAFPS deemed it necessary to adopt a standard providing common understanding on the essential composition, classes, characterization and quality factors, marketing, sampling, and hygienic practices for handling of taro leaves.

**Taro (*Colocasia esculenta* (L.) Schott) leaves**

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**1 Scope**

The standard applies to taro leaves *Colocasia esculenta* (L.) Schott. of the family Araceae to be supplied fresh or dried shredded leaves for cooking and processing into *laing* and *pinangat* or for any local food preparations where taro leaves are used.

**2 References**

The title of the publications referred to in the standard are listed in the inside back cover.

**3 Definitions**

For the purpose of this standard the following definitions apply:

**3.1****acrid**

sharp bitter taste or smell

**3.2****calcium oxalate**

a chemical compound forming crystal in the form of either druses or raphides which is responsible for the itchiness of taro

**3.3****clean**

free from dust or other adhering foreign matter

**3.4****damage**

any defect which materially affects the appearance of the product

**3.5****defect**

any injury or imperfection which detracts the appearance, edibility and quality of either fresh or dried taro leaves. The following should be considered as defect

**3.5.1****discoloration**

any deviation from the normal color of taro leaves

**3.5.2**

**leaf blight**

disease of taro leaves characterized as purplish to brownish circular water soaked spots

**3.5.3**

**seriously deformed**

the normally heart-shaped leaves are curled or distorted

**3.5.4**

**soft rot**

any soft, leaky or mushy condition of the leaves

**3.5.5**

**stained leaves**

blackened, bruised and discolored caused by improper drying

**3.6**

**dried leaves**

exposed under full sun for one (1) day; leaves are wilted but does not break when handled

**3.7**

**druse**

a surface or crust composed of small projecting crystals

**3.8**

**itchy**

sharp, irritating or biting sensation due to high concentration of calcium oxalate in some cultivars

**3.9**

**laing**

a dish made out of sliced/shredded taro leaves with or without petioles and/or tubers cooked in coconut milk with meat or fish, fish paste and spices

**3.10**

**maturity**

stage of development of the leaves appropriate for harvesting leaving 3 uncut leaves from the shoot

**3.11**

**pinangat**

a specialty product of Bicol Region made out of shredded taro leaves mixed with coconut milk, pork or dried/smoked fish and spices with or without hot pepper wrapped in layers of whole taro leaves and cooked in coconut milk

**3.12**

**raphide**

a crystal of an acicular or needlelike form occurring in plants cells, usually consisting of calcium oxalate crystal responsible for the itchiness of taro

**3.13****same variety**

the dried taro leaves have the same characteristic leaf color, texture and aroma

**3.14****taro**

*Colocasia esculenta* (L.) Schott. One of the oldest food crops, widely distributed throughout Asia and Pacific also known as *gabi*, *natong*, *abaeong*, *magsaeoeo*, *dumanhog*, *ginatos*, *sinuksukang bahi*, *katnga*, *apay*, *dasheen*, *eddo* and *dalo*. It is a herbaceous plant with succulent petiole and generally heart-shaped leaves

**3.15****well-shredded**

leaves are sliced uniformly into not more than 1 cm width

**4 General requirements****4.1 Fresh leaves**

- 4.1.1 Same variety
- 4.1.2 Free from defects
- 4.1.2 Fresh and clean
- 4.1.3 Not itchy
- 4.1.4 Uniformity in size and color

**4.2 Dried leaves**

- 4.2.1 Same variety
- 4.2.2 Free from defects
- 4.2.3 Dried, clean and uniform in color
- 4.2.4 Not itchy
- 4.2.5 Uniformly shredded leaves

**5 General characteristic**

Fresh or dried taro leaves shall be graded according to its general appearance, quality and condition.

**6 Classes**

Fresh taro leaves shall be graded according to the following classes:

**Class A** – ranges from 24 cm - 30 cm diameter of leaves of same variety

**Class B** – ranges from 16 cm - 23 cm diameter of leaves of same variety

**Class C** – not less than 10 cm but not more than 15 cm diameter of leaves of same variety

## **7 Quality tolerance**

Tolerance in respect to quality shall be allowed in each package for produce not satisfying the requirements of the class indicated.

## **8 Packaging**

Dried taro leaves shall be packed in packaging materials that will provide protection from normal hazards of transportation and handling.

## **9 Marketing**

Each package/container shall be properly labeled with the following information:

- 9.1** Place where grown;
- 9.2** Class and grade;
- 9.3** Name and address of producer or association;
- 9.4** Net weight; and
- 9.5** Best before (optional).

## **10 Sampling**

Sampling method to be used shall be in conformance with the PNS.

The lot should be prepared for sampling so that the samples can be drawn without delay.

## **11 Contaminants**

### **11.1 Heavy metals**

Fresh and dried taro leaves shall comply with those acceptable/tolerable residue levels for heavy metals by the Codex Alimentarius Commission and/or authority for the commodity.

### **11.2 Pesticide residues**

Fresh and dried taro leaves shall comply with those acceptable residues established by the Codex Alimentarius Commission and/or authority for the commodity.

## **12 Hygiene**

Fresh and dried taro leaves shall be prepared and handled in accordance with the appropriate sections of the Recommended International Code of Practice of the Codex.

## **Annex A**

### **Varieties**

**A.1 Princesa** – White to light green petiole and green leaves.

**A.2 Balitaka** – Green with purple tinge petiole and dark green leaves.

- Any suitable, or available variety maybe used as long as it possess the following characteristics:

**A.2.1** It must be of similar varietal characteristic

- a) White or green to light purple stalks.
- b) Green to dark green leaves.

**A.2.2** Not itchy

**A.2.3** Planted in lowland or upland conditions

**A.2.4** Not mushy or fibrous when cooked

**A.2.5** Aromatic

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**Philippine National Standard on Taro Leaves**

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