

PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 18:2005
ICS 65.020.20

**Vegetables – Cauliflower (*Brassica oleracea* var, *botrytis* L.) –
Grading and classification**

Foreword

The formulation of this **PNS/BAFPS 18:2005**, Philippine National Standard for Vegetables – Cauliflower (*Brassica oleracea* var, *botrytis* L.) - Grading and classification, was initially drafted by the Bureau of Agriculture and Fisheries Product Standards (BAFPS) with reference to US Standards for Grades of Cauliflower (1997) and CBT Product Grades, Packaging, Storage and Seasonality (1994).

This standard was reviewed by the BAFPS' Technical Committee prior to its presentation in a public consultation in the three major islands of the country. Comments from the stakeholders were carefully evaluated and were inputted accordingly in the final draft.

The Technical Committee created by BAFPS for this purpose was composed of experts from DA-AMAS, DA-NAFC, PHTRC-UPLB, IPB-UPLB and the Vegetables Growers Association.

**Vegetables – Cauliflower (*Brassica oleracea* var, *botrytis* L.) –
Grading and classification**

1 Scope

This standard applies to fresh cauliflower, *Brassica oleracea* var, *botrytis* L.

2 References

The titles of the standards publications referred to in this standard are listed on the inside back cover.

3 Definitions**3.1 Product definition****3.1.1****bracts**

small leaf-like structures immediately beneath the curd

3.1.3**cauliflower**

a member of cabbage family, which is composed of, bunches of tiny creamy white florets on stalks of the same color

3.1.2**curd**

the edible portion of the head composed of tiny creamy white florets exclusive of the butt and any attached jacket leaves

3.1.4**jacket leaves**

broad leaves attached to the stem

3.2 Essential composition and quality factors**3.2.1****quality factors****3.2.1.1****clean**

the curd and jacket leaves are practically free from dirt or other foreign matter

3.2.1.2**compact**

the flower clusters are closely united and the curd is solid

3.2.1.3

diameter

the greatest dimension measured in a line which would pass through the center of the curd

3.2.1.4

fairly clean

the jacket leaves are not badly smeared or caked with dirt or other foreign matter

3.2.1.5

fresh

the jacket leaves are green, no yellowing and are not wilted

3.2.1.6

similar varietal characteristics

the curds in any container are of the same general type

3.2.1.7

well-trimmed

the butts are smoothly trimmed and the number of the jacket leaves should just be enough to protect the curd against bruising. The length of the jacket leaves and bracts must not extend above the crown of the curd. The stem must be cut below the third layer of jacket leaves

3.2.2 Defects

Examples of Cauliflower with and without defect are shown in Annex A.

3.2.2.1

discoloration

yellowing or the presence of other colors that materially detracts from the appearance of the curd or the jacket leaves of a well-trimmed cauliflower

3.2.2.2

bruise/abrasion

discoloration and/or softening of any portion of the curd resulting from compression or any form of physical damage

3.2.2.3

cuts

a portion of the curd has been broken off

3.2.2.4

fuzziness

velvet-like surface causing chalky appearance of the curd

3.2.2.5

insect damage

any evident feeding injury on the curd and leaves caused by insects.

3.2.2.6

riciness

elongation of the stems of the flower clusters causing the cluster to separate, thus, making it appear granular

3.2.2.7

soft or wet decay

any soft or mushy breakdown of the curd, butt, or leaves

4 Classification

4.1 Cauliflower shall be classified according to their curd size. Classification of curd size shall be according to Table 1.

Table 1 – Curd size classification

Size classification	Curd size diameter (cm)
Small	8-10
Medium	11-14
Large	15-18

5 Grading

Fresh cauliflower shall be graded according to its general appearance, quality and conditions listed in Table 2.

5.1 Grade 1 – Consists of heads of cauliflower which meets requirements in Table 2.

5.2 Grade 2 – Consists of heads of cauliflower which meet the requirements of Table 2 except for the increased tolerances for defects.

5.3 Unclassified – Consists of cauliflower that has not been classified in accordance with either of the grades.

6 Tolerance

6.1 Defects

6.1.1 Grade 1 – Ten percent for heads of cauliflower in any lot that fail to meet the requirements of the grade, but not more than one-half of this tolerance, or five percent shall be allowed for defects causing serious damage, 1 percent for soft or wet decay affecting the curd.

Table 2 - Quality grade requirements of fresh cauliflower

Quality factors of fresh cauliflower	Grade	
	1	2
Curd ❖ clean ❖ compact ❖ color (white, creamy white or cream)	✓	✓
Jacket leaves and bracts ❖ Fresh ❖ Well-trimmed ❖ Fairly clean	✓	✓
Free from soft or wet decay Free from damage due to: ❖ Bruising ❖ Cuts ❖ Discoloration ❖ Fuzziness ❖ Insects ❖ Riciness ❖ Wilting ❖ Other means	✓ ✓	✓ ✓

6.1.2 Grade 2 – Twenty percent for heads of cauliflower in any lot that fail to meet the requirements of the grade, but not more than one-half of this tolerance, or ten percent shall be allowed for defects causing serious damage, one percent for soft or wet decay affecting the curd.

6.2 Off-size

6.2.1 Grade 1 – Five percent for heads of cauliflower smaller than the specified minimum curd size and five percent for heads of cauliflower larger than any specified maximum curd size.

6.2.2 Grade 2 – Ten percent for heads of cauliflower smaller than the specified minimum curd size and ten percent for heads of cauliflower larger than any specified maximum curd size.

7 Sampling and methods of analysis

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

8 Packing

Fresh cauliflower of the same variety shall be individually-wrapped with clean white paper and packed in plastic, lined wooden crates, carton boxes or similarly protective containers to protect them against mechanical damage and to facilitate handling and transport. The net weight of the commodity must be within the capacity of the container but not to exceed 22 kg-25 kg.

9 Marking

Each container shall be properly labeled using legible characters grouped on the same side, stamped in indelible ink to provide the following:

- 9.1** Name of the product;
- 9.2** Grade;
- 9.3** Name and address of Grower (s)/Suppliers; and
- 9.4** Net weight in kilograms.

10 Contaminants

Pesticide residues

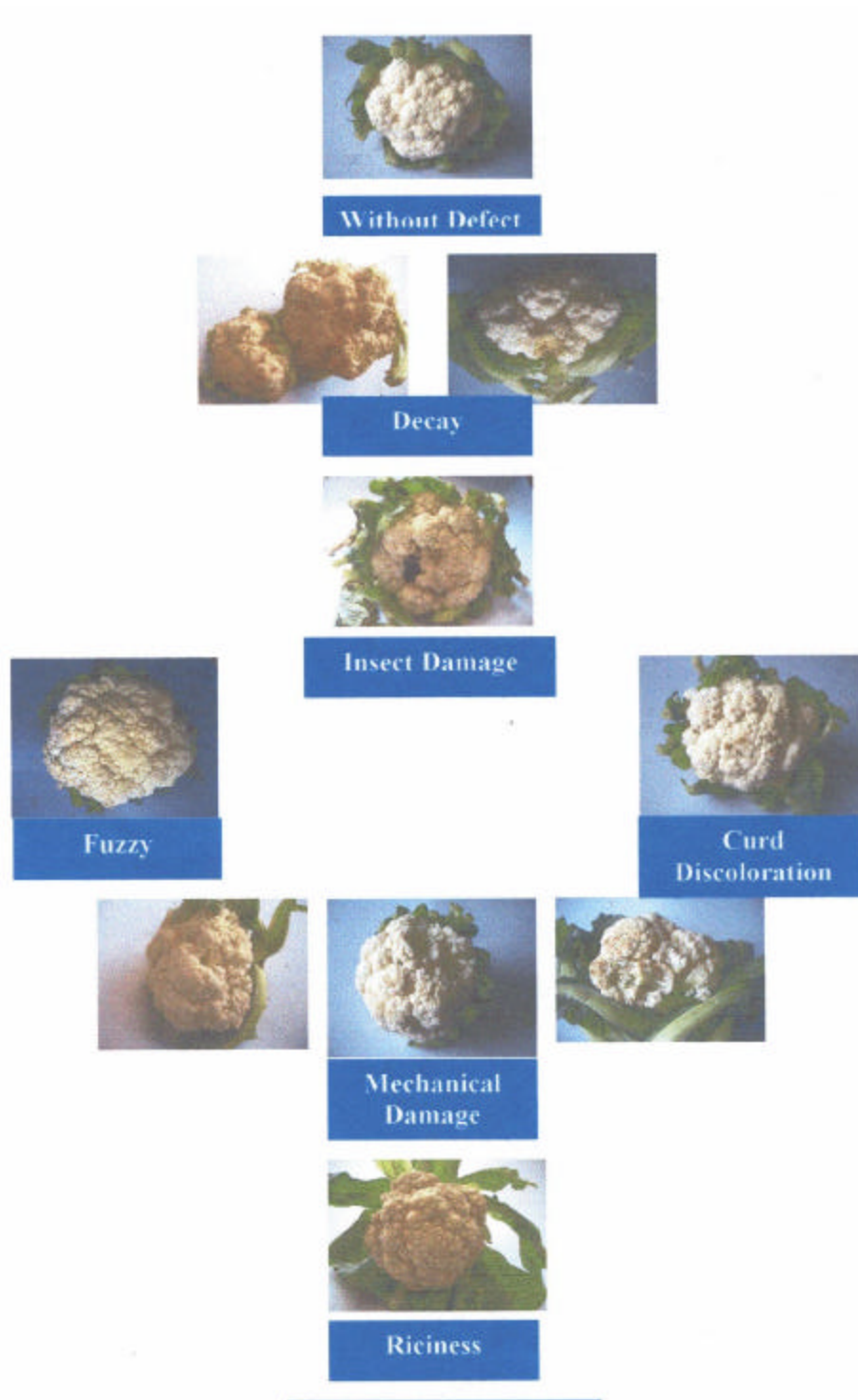
Fresh Cauliflower shall comply with the maximum residue levels established by the Codex Alimentarius Commission for this commodity.

11 Hygiene

It is recommended that the produce covered by the provisions of this standard be prepared and handled in accordance with 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

Examples of Cauliflower with and without defect



References

PNS/BAFPS 18:2005

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CAC Vol. 2 (1993) – Pesticide Residue in Foods

CAC/RCP 1 – 1969, Rev. 3 – 1997, Amd. (1999) - Recommended International Code of Practice General Principles of Food Hygiene

Philippine Trade Standard Specification for Fresh Cauliflower (1969)

PNS/ISO 874-Sampling and Methods of Analysis

US Standards for Grades of Cauliflower (Revised 1997)

CBT Product Grades, Packaging, Storage and Seasonality (1994)

BPS

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The use of the PS Certification Mark is governed by the provisions of Department Administrative Order No. 01 series of 1997 – Revised Rules and Regulations Concerning the Philippine Standard (PS) Quality and / or Safety Certification Mark Scheme by the Bureau of Product Standards. This mark on a product/container is an assurance by the manufacturer/producer that the product conforms with the requirements of a Philippine standard. Details of conditions under which a license to use the PS Certification Mark may be granted can be obtained from the Bureau of Product Standards, Department of Trade and Industry, 361 Sen. Gil J. Puyat Avenue, Makati City.



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