



## FOOD SAFETY AND QUALITY REQUIREMENTS OF CHINESE CABBAGE (*Brassica rapa pekinensis*) PRODUCED IN BENGUET, PHILIPPINES

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### Executive Summary

The BAFS Standards Development Division requested information for the development of the Philippine National Standard for Chinese cabbage (*Brassica rapa pekinensis*). This study document and compared Philippine practices (Benguet Province) with Codex, United Nations Economic Commission for Europe Standard (UNECE Standard FFV-44), and ASEAN Standard for Chinese Cabbage (ASEAN Stan 41:2015). The goal is to recommend product classification and food safety requirements for Chinese cabbage. Primary and secondary research were conducted using data from Benguet trading posts and international and regional standards.

The following are the key findings:

1. Quality and size classification of napa cabbage
  - a. Class I and Class II are commonly used to classify quality of napa cabbage in Philippine trading posts, UNECE, and ASEAN standards, while Extra Class and Class III are exclusively used in ASEAN and the Philippines, respectively, based on head firmness and damage. The color and length of floral stem are distinct criteria to Philippines and UNECE, respectively.
  - b. Napa cabbage in the Philippines is classified as big and medium based on head height, maximum width, and weight, with big having significantly higher measurements than medium. Big has an average head height of 30 cm, a



maximum width of 139 mm, and weighs 1467 g. Medium has an average head height of 27 cm, a maximum width of 124 mm, and weighs 888 g.

## 2. Pesticide MRLs and Heavy Metals MLs of napa cabbage

- a. Codex standard has set limits for chlorpyrifos (1 mg/kg), diazinon (0.05 mg/kg), and permethrin (5 mg/kg). ASEAN standard requires compliance with pesticide MRLs established by Codex. These active ingredients are not registered with the Fertilizer and Pesticide Authority (FPA).
- b. The Philippines adopts the Codex maximum limits on cadmium (0.2 mg/kg) and lead (0.3 mg/kg) for Brassica leafy vegetables in PNS on General Standard for Contaminants and Toxins in Food and Feed. The ASEAN standard requires adherence to Codex standard on HM.

## 3. Packaging and labeling requirements of napa cabbage

- a. UNECE and ASEAN standards require uniformity in packaging napa cabbage, considering factors such as product origin, quality, size, variety, color, and length. The Philippine trading posts, packaging is based on buyer's preference, with packaging arrangements such as "balagbag" for firm heads and "salubong" for less firm heads.
- b. Labeling in the Philippines is not commonly practiced by consolidators. Codex, UNECE, and ASEAN standards require that each package shall be labeled with the product identification, nature, origin, commercial identification or specifications, and optional inclusion of official control mark in packaging.

The following are the recommendations to BAFS-SDD for the development of a PNS for Chinese cabbage:

## 1. Quality and size classification of napa cabbage

- a. The Philippines may consider the color, firmness of head, length of floral stem, and degree of damage as key criteria to classify napa cabbage quality.
- b. The Philippines may consider the size coding system of ASEAN standard per type of napa cabbage.

## 2. Pesticide MRLs and Heavy Metal MLs of napa cabbage

The Philippines may consider Codex and ASEAN MRLs for chloropyrifos, diazinon, and permethrin, and set MLs of HM on cadmium and lead for Brassica leafy vegetables based on Codex, ASEAN, and PNS.

## 3. Packaging and labeling requirements of napa cabbage

- a. The Philippines may consider requiring uniformity of napa cabbage on each package in terms of size, quality, varieties, color, and firmness.
- b. The Philippines may consider labeling of napa cabbage with product identification, nature, origin, commercial identification, and optional inclusion of official control mark in packaging.

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