

§ 4-41-33

STANDARDS FOR HAWAII-GROWN CHINESE CABBAGE *

This UNOFFICIAL COPY of standards for Chinese cabbage, rewritten for easy interpretation, is based on Chapter 4-41, Hawaii Administrative Rules, Standards for Fresh Fruits and Vegetables. The general provisions of this Chapter, summaries of standards for other fruits and vegetables, and official copies of the complete chapter are available in each county.

HAWAII FANCY (GRADE AA)	HAWAII NO. 1 (GRADE A)	HAWAII NO. 2 (GRADE B)
<u>Basic Requirements</u>	<u>Basic Requirements</u>	<u>Basic Requirements</u>
Similar varietal characteristics (1)	Similar varietal characteristics (1)	Similar varietal characteristics (1)
Firm (2)	Fairly firm (3)	Fairly well trimmed (5)
Well trimmed (4) but not excessively trimmed (6)	Well trimmed (4) but not excessively trimmed (6)	except that Hawaii Grade B cabbages shall be well trimmed (4)
Clean (7)	Clean (7)	Fairly clean (8)
Well formed (9)	Well formed (9)	Fairly well formed (10)
Well grown (11)	Well grown (11)	Well grown (11)
Flat midribs (12)	Flat midribs (12)	Flat midribs (12)
<u>Free From</u>	<u>Free From</u>	<u>Free From</u>
Soft rot	Soft rot	Soft rot
Seedstem	Seedstem	
Suckers		
Slugs		
Worms		
Wormholes		
<u>Free From Injury (13)</u>	<u>Free From Damage (14)</u>	<u>Free From Serious</u>
<u>Caused By</u>	<u>Caused By</u>	<u>Damage (15) Caused By</u>
Discoloration or spotting	Discoloration or spotting	Discoloration or spotting
Freezing	Freezing	Freezing
Wilting	Wilting	Black leaf speck or other diseases
Black leaf speck or other diseases	Black leaf speck or other diseases	Aphids or other insects
Aphids or other insects	Aphids or other insects	Suckers
Mechanical or other means	Suckers	Slugs
	Slugs	Worms
	Worms	Wormholes
	Wormholes	Seedstem
	Mechanical or other means	Mechanical or other means

*Numbers in parentheses following grade terms indicate where such terms are defined under "Definitions."

Tolerances (weight basis)

Defects: Total 10%;
provided not more than
2% soft rot.

Off-size: Total 10%.

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OFF-GRADE. "Off-grade" is not a grade within the meaning of these standards, but is a descriptive term applicable to Chinese cabbage which have a market value, and designates a quality lower than the lowest applicable Hawaii, other states or the United States grade for Chinese cabbage.

SIZE CLASSIFICATION. The minimum or maximum size or both the minimum and maximum sizes of Chinese Cabbage may be specified in connection with the grade, such as "Hawaii Fancy, 1 pound minimum" or "Hawaii No. 1, 4 pounds maximum" or "Hawaii No. 2, 2 to 3 pounds"; or any lot may be classified as Small, Medium, Large or Extra Large, in accordance with the facts:

Small	Under 1-3/4 pounds
Medium	1-3/4 to 2-3/4 pounds
Large	2-3/4 to 4 pounds
Extra Large	Over 4 pounds

APPLICATION OF TOLERANCES. Averages for the entire lot, based on examination of representative samples, shall be within the tolerances specified, but the contents of individual containers in any lot may vary from the specified tolerances subject to the following limitations:

When the tolerance specified is more than 5 percent, individual packages in any lot may contain not more than 1-1/2 times the tolerance, provided that at least one specimen which fails to meet the requirements shall be permitted in any container.

When the tolerance specified is 5 percent or less, individual packages in any lot may contain not more than double the tolerance, provided that at least one specimen which fails to meet the requirements shall be permitted in any container.

APPLICABLE GRADE TERMS. Chinese cabbages shall be classified in accordance with the grading system designated below:

Wholesale Quantities - HAWAII FANCY, HAWAII NO. 1 or HAWAII NO. 2,
whichever is applicable.

Consumer Packages
and Bulk Displays - HAWAII GRADE AA, HAWAII GRADE A or HAWAII
GRADE B, whichever is applicable.

MINIMUM EXPORT GRADE. Chinese cabbage for export shall at least meet the requirements of Hawaii No. 1 Chinese cabbage, provided the cabbage shall be free from slugs, worms and insects.

DEFINITIONS.

- (1) "Similar varietal characteristics" means the Chinese cabbage in any lot have the same general characteristics as to shape, color and type of growth. "Chinese cabbage", as used in these grades, refers to that type of Chinese cabbage which normally forms heads.
- (2) "Firm" means the head is compact and when moderate pressure is applied, does not yield more than slightly over at least 2/3 of the length of the head, exclusive of wrapper leaves.
- (3) "Fairly firm" means the head is fairly compact and when moderate pressure is applied, yields not more than slightly over at least 1/4 of the length of the head and not more than moderately over at least 2/3 of the length of the head, exclusive of wrapper leaves.
- (4) "Well trimmed" means the stem is neatly cut off at a point not more than 1/2 inch beyond the point of attachment of the outer leaves, and the ends of the head leaves (16) or, in the case of unheaded plants, the inner leaves (17) have not been removed or cut off. In addition, no wrapper leaves shall be permitted on Chinese cabbages sold direct to consumers, and Chinese cabbages sold in wholesale quantities shall have no more than seven wrapper leaves (18) which shall be upright and not coarse. Ends of wrapper leaves may or may not be cut off, but if cut off the leaf ends shall be neatly cut off.
- (5) "Fairly well trimmed" means the stem is neatly cut off at a point not more than 1/2 inch beyond the point of attachment of the outer leaves and the wrapper leaves (18) are reasonably upright, not coarse and not excessive in number. Ends of wrapper leaves and head leaves (16) may be removed or cut off, provided the appearance of the Chinese cabbage is not seriously affected.
- (6) "Excessively trimmed" means the outer head leaves (16) or outer leaves have been removed to such an extent as to expose the tender inner head leaves (16) or the tender inner leaves (17).
- (7) "Clean" means practically free from dirt or other foreign material.
- (8) "Fairly clean" means the Chinese cabbage may show a small amount of dirt or sand, but is not smeared or caked with mud or its appearance materially affected by the presence of any foreign material.
- (9) "Well formed" means the Chinese cabbage has the normal upright type of growth.
- (10) "Fairly well formed" means the Chinese cabbage does not vary materially from the normal upright type of growth.
- (11) "Well grown" means the plant is not stunted or poorly grown.
- (12) "Flat midribs" means the width of the midrib at the point of maximum width is at least four times the maximum thickness.

(13) "Injury" means any specific defects described in Table 1, Classification of Defects; or any equally objectionable variation of any one of these defects, any other defect, or any combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the Chinese cabbage.

(14) "Damage" means any specific defect described in Table 1, Classification of Defects; or any equally objectionable variation of any one of these defects, any other defect, or any combination of defects which materially detracts from the appearance, or the edible or shipping quality of the Chinese cabbage.

(15) " Serious damage" means any specific defect described in Table 1, Classification of Defects; or an equally objectionable variation of any one of these defects, any other defect, or any combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the Chinese cabbage.

(16) "Head leaves" means those leaves which curve inward at the top to form a head.

(17) "Inner leaves" means those leaves on non-headed plants that approximately correspond to head leaves on headed Chinese cabbage.

(18) "Wrapper leaves" means those leaves on headed Chinese cabbage which do not curve inward at the top to form the head, or those leaves on non-headed Chinese cabbage which approximately correspond to wrapper leaves on headed Chinese cabbage.

Table 1. Classification of Defects

FACTOR	INJURY	DAMAGE	SERIOUS DAMAGE
Discoloration or spotting	More than 1 midrib shows material internal discoloration; wrapper leaves more than slightly spotted or slightly discolored; or more than a few insignificant spots, other than black leaf specks, present on head leaves.	More than 2 midribs show material internal discoloration; wrapper leaves materially spotted or discolored; or head leaves more than slightly spotted or discolored by defects other than black leaf specks.	More than 3 midribs show material internal discoloration; wrapper leaves seriously spotted or discolored; or head leaves moderately spotted or discolored by defects other than black leaf specks.
Wilting	Wrapper leaves more than slightly wilted; or head leaves slightly wilted.	Wrapper leaves badly wilted; or head leaves more than slightly wilted.	

Black leaf speck	Midribs and other portions of leaves more than slightly spotted.	Midribs badly spotted or other portions of leaves materially spotted.	Seriously affecting appearance of midribs or other portions of leaves.
Aphids	More than an occasional isolated aphid present.	More than a few aphids present.	Fairly numerous or their presence is fairly prominent.
Suckers		Over 1/2 inch long or materially affecting appearance.	Over 2 inches long or seriously affecting appearance.
Slugs		More than 1 slug present.	More than 3 slugs present.
Worms		More than 1 worm present; or 1 worm present and the cabbage is more than slightly injured by worms or other insects.	More than 2 worms present; or 2 worms present and the cabbage is damaged by worms or other insects.
Wormholes		Noticeably affecting appearance or extending deeply into the head.	Seriously affecting appearance or more than 1 wormhole extending deeply into the head.
Seedstem			Apparent upon external examination of the cabbage.