Hawaii Department of Agriculture Marketing & Consumer Services Division Commodities Branch

84-41-65

# STANDARDS FOR HAWAII-GROWN YAM BEAN ROOTS\*

This UNOFFICIAL COPY of standards for yam bean roots, 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 NO. 1 (GRADE A)

## Basic Requirements

Mature (1) Firm (2)

Fairly well shaped (3)

Not frozen

## Free From

Freezing injury Wet breakdown

Decay

# Free From Damage (5) Caused By

Dirt or staining (5a)

External discoloration (5b)

Internal discoloration (5c)

Growth cracks (5d)

Cuts

Roughness

Disease

Insects

Mechanical or other means

# Size Requirements

Each root shall weigh not less than 3/4 pound and not more than 2-1/2 pounds, unless otherwise specified.

### Tolerances (weight basis)

Defects: Total 6%; provided not more than 1% soft rot or wet breakdown.

Off-size: Not more than 5% of the roots may be larger than the specified maximum weight and not more than 3% may be below the specified minimum weight.

## HAWAII NO. 2 (GRADE B)

### Basic Requirements

Mature (1)

Firm (2)

Not badly misshapen (4)

Not frozen

### Free From

Freezing injury

Wet breakdown

Decay

### Free From Serious Damage (6) Caused by

Dirt or staining

External discoloration

Internal discoloration

Growth cracks

Roughness

Disease

Insects

Insects

Mechanical or other means

#### Size Requirements

Each root shall weigh not less than 1/2 pound and not more than 4 pounds, unless otherwise specified.

# Tolerances (weight basis)

Defects: Total 6%; provided not more than 1% soft rot or wet breakdown.

Off-size: Not more than 5% of the roots may be larger than the specified maximum weight and not more than 3% may be below the specified minimum weight.

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

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

OPTIONAL SIZE CLASSIFICATIONS. The size of yam bean roots in any container or lot may be specified in connection with the grade and according to the size classifications designated below, such as "Hawaii No. 1, Small", "Hawaii No. 2, Medium" or "Hawaii No. 1, Extra Large". in accordance with the facts:

Small Under 3/4 pound
Medium 3/4 to 2-1/2 pounds
Large 2-1/2 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 tolerance 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. Yam bean roots shall be classified in accordance with the grading system designated below:

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

Consumer Packages
and bulk Displays - HAWAII GRADE A or HAWAII GRADE B. whichever is
applicable.

MINIMUM EXPORT GRADE. Yam bean roots for export shall meet the requirements of Hawaii No. 1 yam bean roots.

#### DEFINITIONS

- (1) "Mature" means the outer skin (epidermis) is tight and tough.
- (2) "Firm" means unyielding and free from shriveling.
- (3) "Fairly well shaped" means the root does not materially deviate from the normal shape of a yam bean root. Fairly well shaped yam bean roots normally are nearly flat on the top and bottom and may be deeply scalloped, provided that the

scallops are few in number and not close together. Roots where the length (7) exceeds the diameter (8) are not fairly well shaped.

- (4) "Badly misshapen" means the root shows serious abnormalities in shape. Roots with the length exceeding the diameter by 1-1/2 times or more are considered badly misshapen.
- (5) "Damage" means any of the following specific defects, or an 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 yam bean root, or which causes a loss of more than 3 percent, by weight, in the ordinary preparation for use:
  - (a) Dirt or staining, when the general appearance of the yam bean roots in the lot is materially affected, or when individual roots are badly caked with dirt or badly stained.
  - (b) External discoloration, when the general appearance of the lot is materially affected, or when the individual root is badly discolored.
  - (c) Internal discoloration, when internal portions of the root are materially discolored.
  - (d) Growth cracks, when not shallow or not well healed. or when materially affecting the appearance of the yam bean root.
- (6) "Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the yam bean root, or which causes a loss of more than 10 percent, by weight, in the ordinary preparation for use.
- (7) "Length" means the greatest dimension of the root measured from the crown to the lowest point which is not less than 3/8 inch in diameter.
- (8) "Diameter" means the average of the greatest and smallest dimensions of the root measured at right angles to the longitudinal axis.