

§ 4-41-56

STANDARDS FOR HAWAII-GROWN POTATOES*

This UNOFFICIAL COPY of standards for potatoes, 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.

<u>HAWAII FANCY (GRADE AA)</u>	<u>HAWAII NO. 1 (GRADE A)</u>	<u>HAWAII NO. 2 (GRADE B)</u>
<u>Basic Requirements</u>	<u>Basic Requirements</u>	<u>Basic Requirements</u>
Similar varietal characteristics (1)	Similar varietal characteristics (1)	Similar varietal characteristics (1)
Well shaped (2)	Fairly well shaped (3)	Not seriously misshapen (4)
Not frozen	Not frozen	Not frozen
Firm	Firm	
Mature (5)		
Clean and bright (6)		
<u>Free From</u>	<u>Free From</u>	<u>Free From</u>
Freezing injury	Freezing injury	Freezing injury
Blackheart	Blackheart	Blackheart
Late blight	Late blight	Late blight
Southern bacterial wilt	Southern bacterial wilt	Southern bacterial wilt
Ring rot	Ring rot	Ring rot
Soft rot or wet breakdown (7)	Soft rot or wet breakdown (7)	Soft rot or wet breakdown (7)
Shriveling	Shriveling	
Hollow heart	Hollow heart	
Sprouting		<u>Free From Damage (10)</u>
Sunburn		<u>Caused By</u>
Internal discoloration (8)		Dirt or other foreign matter
<u>Free From Injury (9)</u>	<u>Free From Damage (10)</u>	<u>Free From Serious Damage (11)</u>
<u>Caused By</u>	<u>Caused By</u>	<u>Caused By</u>
Second growth	Second growth	Second growth
Growth cracks	Growth cracks	Growth cracks
Air cracks	Air cracks	Air cracks
Cuts	Cuts	Cuts
Scab	Scab	Scab

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

Dry rot, rhizoctonia or other diseases
Wireworm or other insects
Mechanical or other means

Dry rot, rhizoctonia or other diseases
Wireworm or other insects
Sunburn
Internal discoloration
External discoloration
Sprouting
Dirt or other foreign matter
Mechanical or other means

Dry rot or other diseases
Wireworm or other insects
Sunburn
Internal discoloration
External discoloration
Hollow heart
Shriveling
Mechanical or other means

Size Requirement

Not less than 2 inches in diameter (12). In addition, for long varieties not less than 40% of the potatoes in any lot shall be 6 ounces or more in weight; and for round or intermediate shape varieties, not less than 60% of the potatoes in any lot shall be 2-1/4 inches or larger in diameter. Size of potatoes may be stated in terms of minimum diameter or minimum weight, or in terms of maximum diameter or maximum weight, or in terms of a certain percentage over a certain size, following the grade term, but in no case shall the potatoes be below the size or sizes specified for this grade.

Tolerances (weight basis)

Defects: Total 6%; provided not more than 3% southern bacterial wilt, ring rot or late blight, including therein not more than 1% frozen, soft rot or wet breakdown.

Off-size: Not more than 3% may fail to meet the specified minimum size, except that a 5% tolerance

Size Requirement

Not less than 1-7/8 inches in diameter (12), unless otherwise specified. Size of potatoes may be stated in terms of minimum diameter or minimum weight, or in terms of maximum diameter or maximum weight, or in terms of a certain percentage over or under a certain size, following the grade term.

Tolerances (weight basis)

Defects: Total 6%; provided not more than 3% southern bacterial wilt, ring rot or late blight, including therein not more than 1% frozen, soft rot or wet breakdown.

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shall be allowed for potatoes packed to meet a minimum size of 2-1/4 inches or more in diameter or 6 oz. or more in weight. In addition, not more than 10% may be larger than any specified maximum size.

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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 potatoes which have a market value, and designates a quality lower than the lowest applicable Hawaii, other states or the United States grade for potatoes.

OPTIONAL SIZE CLASSIFICATIONS FOR HAWAII NO. 1 AND HAWAII NO. 2 GRADES. Size designations that may be used in connection with Hawaii No. 1 and Hawaii No. 2 grades are "Size A" and "Size B".

Size A means that for long varieties, not less than 40 percent of the potatoes in any lot shall be 6 ounces or more in weight; and for round or intermediate shaped varieties, not less than 60 percent of the potatoes in any lot shall be 2-1/4 inches or larger in diameter.

Size B means that the size shall be 1-1/2 inches to not more than 2 inches in diameter.

SKINNING CLASSIFICATIONS. The following optional skinning classifications are provided as a basis for classifying lots of potatoes as to the degree of skinning:

"Practically no skinning" means that not more than 5 percent of the potatoes in any lot have more than 1/10 of the skin missing or "feathered".

"Slightly skinned" means that not more than 10 percent of the potatoes in any lot have more than 1/4 of the skin missing or "feathered".

"Moderately skinned" means that not more than 10 percent of the potatoes in any lot have more than 1/2 of the skin missing or "feathered".

"Badly skinned" means that more than 10 percent of the potatoes in any lot have more than 1/2 of the skin missing or "feathered".

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. Potatoes 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. Potatoes for export shall at least meet the requirements of Hawaii No. 1 potatoes.

DEFINITIONS.

- (1) "Similar varietal characteristics" means the potatoes in any lot have the same general shape, color and character of skin, and color of flesh.
- (2) "Well shaped" means the normal shape for the variety and that the potato is not tapered, pointed, dumbbell-shaped, elongated or otherwise appreciably deformed.
- (3) "Fairly well shaped" means the potato is not materially pointed, dumbbell-shaped or otherwise materially deformed; or the general appearance of the potatoes in a container or lot is not materially affected by the presence of materially pointed, dumbbell-shaped or otherwise deformed potatoes.
- (4) "Seriously misshapen" means the potato is seriously pointed, dumbbell-shaped or otherwise badly deformed.
- (5) "Mature" means the outer skin (epidermis) does not loosen or "feather" readily during ordinary handling and practically no skin has been removed from the potato.
- (6) "Clean and bright" means practically free from dirt or other foreign matter, and the outer skin (epidermis) has the attractive color typical of the variety.
- (7) "Soft rot or wet breakdown" means any soft, mushy or leaky condition of the tissue.
- (8) "Internal discoloration" means any discoloration (except blackheart) caused by necrosis, stem end browning or internal brown spot, or other similar types of discoloration not externally visible.
- (9) "Injury" means any defect or combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the potatoes; or which cannot be removed without a loss of more than 2 percent of the total weight of the potato, including the peel covering the defective area.
- (10) "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 materially detracts from the appearance, or the edible or shipping quality of the potatoes; or any defect which cannot be

removed without a loss of more than 5 percent of the total weight of the potato, including the peel covering the defective area.

(11) "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 potatoes; or any defect which cannot be removed without a loss of more than 10 percent of the total weight of the potato, including the peel covering the defective area.

(12) "Diameter" means the greatest dimension at right angles to the longitudinal axis, without regard to the position of the stem end.

Table 1. Classification of Defects

FACTOR	DAMAGE	SERIOUS DAMAGE
Dirt	Individual potato badly caked with dirt or badly stained; or the appearance of the lot in general is more than slightly dirty or stained, or materially affected by the presence of foreign matter.	
Air cracks	Deep cracks; or shallow but materially affecting appearance.	
External discoloration	Skinned areas discolored to the extent that appearance is materially affected.	Skinned areas discolored to the extent that appearance is seriously affected.
Sprouting	More than 10% of the potatoes have sprouts over 3/4 inch long.	
Surface scab	Aggregating more than 5% of the surface.	Aggregating more than 50% of the surface.
Pitted scab	Affecting appearance to a greater extent than the amount of surface scab permitted, or causing a loss of more than 5% of the total weight of the potato including the peel covering the defective area.	Affecting appearance to a greater extent than the amount of surface scab permitted, or causing a loss of more than 10% of the total weight of the potato including the peel covering the defective area.
Wireworm	Any hole on a 6 to 8 ounce potato is longer than 3/4 inch or when the aggregate length of all holes exceeds 1-1/4 inches. Smaller potatoes shall have lesser amounts and	Any hole on a 6 to 8 ounce potato is longer than 1-1/4 inches or when the aggregate length of all holes exceeds 2 inches. Smaller potatoes shall have lesser amounts

Fairly smooth cuts	larger potatoes may have greater amounts, provided the removal of the defect by proper trimming does not cause appearance to be affected to a greater extent than that caused by proper trimming of such defect permitted on a 6 to 8 ounce potato.	and larger potatoes may have greater amounts, provided the removal of the defect by proper trimming does not cause appearance to be affected to a greater extent than that caused by proper trimming of such defect permitted on a 6 to 8 ounce potato.
Shriveling		Both ends are clipped; more than 1/4 of the potato is cut away; or in the case of long varieties, the remaining portion of the clipped potato weighs less than 6 ounces.
		Excessively shriveled, spongy or flabby.