§ 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.

<table>
<thead>
<tr>
<th>HAWAII FANCY (GRADE AA)</th>
<th>HAWAII NO. 1 (GRADE A)</th>
<th>HAWAII NO. 2 (GRADE B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Requirements</td>
<td>Basic Requirements</td>
<td>Basic Requirements</td>
</tr>
<tr>
<td>Similar varietal</td>
<td>Similar varietal</td>
<td>Similar varietal</td>
</tr>
<tr>
<td>characteristics (1)</td>
<td>characteristics (1)</td>
<td>characteristics (1)</td>
</tr>
<tr>
<td>Well shaped (2)</td>
<td>Fairly well shaped (3)</td>
<td>Not seriously misshapen (4)</td>
</tr>
<tr>
<td>Not frozen</td>
<td>Not frozen</td>
<td>Not frozen</td>
</tr>
<tr>
<td>Firm</td>
<td>Firm</td>
<td>Firm</td>
</tr>
<tr>
<td>Mature (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clean and bright (6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Free From               | Free From               | Free From               |
| 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         | Soft rot or wet         | Soft rot or wet         |
| breakdown (7)           | breakdown (7)           | breakdown (7)           |
| Shrivelings             | Shrivelings             | Shrivelings             |
| Hollow heart            | Hollow heart            | Hollow heart            |
| Sprouting               |                        |                        |
| Sunburn                 |                        |                        |
| Internal discoloration (8) |                    |                        |

<table>
<thead>
<tr>
<th>Free From Injury (9) Caused By</th>
<th>Free From Damage (10) Caused By</th>
<th>Free From Serious Damage (11) Caused By</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second growth</td>
<td>Second growth</td>
<td>Second growth</td>
</tr>
<tr>
<td>Growth cracks</td>
<td>Growth cracks</td>
<td>Growth cracks</td>
</tr>
<tr>
<td>Air cracks</td>
<td>Air cracks</td>
<td>Air cracks</td>
</tr>
<tr>
<td>Cuts</td>
<td>Cuts</td>
<td>Cuts</td>
</tr>
<tr>
<td>Scab</td>
<td>Scab</td>
<td>Scab</td>
</tr>
</tbody>
</table>

*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

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 or under 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

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

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

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.
Off-size: Not more than 3% may fail to meet the specified minimum size, except that a 5% tolerance
shall be allowed for
potatoes packed to meet
a minimum size of 2-1/4
inches or more in di-
meter or 6 oz. or more
in weight. In addition,
not more than 10% may
be larger than any
specified maximum size.

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

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

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

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>DAMAGE</th>
<th>SERIOUS DAMAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dirt</td>
<td>Individual potato badly caked with dirt or badly stained; or the appearance of the lot in general is more than slight-ly dirty or stained, or materially affected by the presence of foreign matter.</td>
<td>Skinned areas discolored to the extent that appearance is seriously affected.</td>
</tr>
<tr>
<td>Air cracks</td>
<td>Deep cracks; or shallow but materially affecting appearance.</td>
<td></td>
</tr>
<tr>
<td>External</td>
<td>Skinned areas discolored to the extent that appearance is materially affected.</td>
<td></td>
</tr>
<tr>
<td>discoloration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprouting</td>
<td>More than 10% of the potatoes have sprouts over 3/4 inch long.</td>
<td>Aggregating more than 50% of the surface.</td>
</tr>
<tr>
<td>Surface scab</td>
<td>Aggregating more than 5% of the surface.</td>
<td>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.</td>
</tr>
<tr>
<td>Pitted scab</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Wireworm</td>
<td>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</td>
<td>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 and</td>
</tr>
<tr>
<td>Fairly smooth cuts</td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>Shriveling</td>
<td>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. 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.</td>
<td></td>
</tr>
</tbody>
</table>