

UNOFFICIAL

HAWAII ADMINISTRATIVE RULES

TITLE 4

DEPARTMENT OF AGRICULTURE

SUBTITLE 4 DIVISION OF MARKETING AND CONSUMER SERVICES

CHAPTER 41

STANDARDS FOR FRESH FRUITS AND VEGETABLES

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Historical Note: Chapter 4-41 is based substantially upon "Regulation 1. Relating to Labeling; Inspection and Certification; Standards for Grades; and Requirements for Containers, Minimum Export and Advertising of Fresh Fruits and Vegetables," of the Division of Marketing and Consumer Services, Department of Agriculture. [Eff 8/26/68; am 1/4/73; am 5/1/74; R 5/29/81]

SUBCHAPTER 1

LABELING

§4-41-1 Definitions. As used in this chapter, unless otherwise defined:

"Bulk lot display" means any one group of fresh fruit or vegetable offered or exposed for retail sale which contains specimens of similar varietal characteristics, not packed in consumer packages or in lidded containers, and set apart or separated from another group or groups of commodities.

"Consumer packages" means packages of agricultural commodities of the type designed for direct sale by a retailer to a consumer, including commodities that are bunched or tied together but not necessarily wrapped. Individually wrapped or packaged specimens are not consumer packages.

"Imported" means the agricultural commodity has its origin outside the State.

"Master container" means the large container into which is packed consumer packages for delivery or transportation.

"State" means the State of Hawaii.

"Wholesale quantities" means quantities of agricultural commodities contained in one or more packages of a type customarily used in transactions between shippers and wholesalers, and between wholesalers and retailers. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-2 Prohibitions. (a) No person shall sell, offer, expose, or transport for sale any agricultural commodity in wholesale quantities, in consumer packages, or in bulk lot displays, unless the commodity is labeled in the manner specified in this subchapter.

(b) The use of grade terms defined in this chapter, or any abbreviation or variation of the grade terms, that is intended to represent or imply that the agricultural commodity so labeled is grown in Hawaii, is prohibited on an agricultural commodity that is not grown in Hawaii.

(c) The use of any grade term defined in this chapter, or any abbreviation or variation of the grade term, is prohibited on an agricultural commodity for which no grade has been established in this chapter.

(d) the use of the term "Hawaii" or any other form or abbreviation of the term "Hawaii", in conjunction with other fanciful terms which are not defined in this chapter, to represent or imply that an agricultural commodity has a grade adopted under this chapter, is prohibited on a label, sign, placard or in

an advertisement that describes or refers to an agricultural commodity.

(e) The use of the Hawaii wholesale grade terms in section 4-41-5(a)(1) is prohibited on bulk lot displays or lots of consumer packages.

(f) The use of the Hawaii consumer grade terms in section 4-41-5(a)(2) is prohibited on wholesale quantities.

(g) The sale or offering for sale of any fruit or vegetable that has been advertised under the requirements of section 4-41-12(a) which do not meet the minimum requirements of the advertised grade, or in the case where no grade is specified which do not meet the minimum requirements of Hawaii Grade A or U.S. No. 1 as applicable, is prohibited unless the following provisions are met:

- (1) Written documentation shall be submitted to the department in a timely manner, to substantiate that the failure to meet the advertised grade was willful; and
- (2) A statement of the actual grade and the reason for the deviation from the advertised grade, or in the case where no grade was specified the reason for the deviation from Hawaii Grade A or U.S. No. 1, shall be placed on the sign or placard required in section 4-41-3(c). [Eff 5/29/81; am and comp 8/18/83; comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-3 Labels. (a) Any Hawaii-grown agricultural commodity labeled with grade terms defined in this chapter or United States grade terms, or any abbreviation or variation of the grade terms, shall meet the labeled grade.

(b) Any non-Hawaii-grown agricultural commodity in bulk lot displays or consumer packages labeled with United States grades or other state wholesale or consumer grades shall meet the labeled grade.

(c) Each bulk lot display and each lot of consumer packages of fresh fruits and vegetables which has had its retail price advertised subject to section 4-41-12 shall be identified with a suitable sign or placard bearing: "

- (1) The term "as advertised" or other suitable language;
- (2) The name of the agricultural commodity;

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- (3) The advertised grade or offgrade designation if subject to section 4-41-12(a) or the statements required in section 4-41-2(g)(2) if applicable; and
- (4) The minimum unit weight or size if subject to section 4-41-12(b).
- (d) Signs and placards required by subsection (c) shall be posted in such manner that there is no doubt as to the commodity each sign or placard identifies. The letters and figures used to meet the requirements of subsection (c) shall be of bold type and legible. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-4 REPEALED [Eff 5/29/81; am and comp 8/18/83; comp 3/24/86; R 5/26/92]

§4-41-5 Applicable grade terms. (a) Hawaii-grown fresh fruits and vegetables that are classified as to grade based on the Hawaii grade classification system for fresh fruits and vegetables shall be classified as follows:

- (1) For wholesale quantities, with the grades Hawaii Fancy, Hawaii No. 1, Hawaii No. 1 Bronze, Hawaii Young Ginger, Hawaii Commercial, Hawaii No. 2, Hawaii Utility, or Hawaii No. 3, whichever is applicable; and
- (2) For consumer packages or bulk displays, with the grades Hawaii Grade AA, Hawaii Grade A, Hawaii Grade A Bronze, Hawaii Young Ginger; Hawaii Commercial, Hawaii Grade B, Hawaii Utility, or Hawaii Grade C, whichever is applicable.
- (b) The term "Offgrade" is not a grade within the meaning of the standards defined in this chapter but is a descriptive term applicable to individual agricultural commodities which have a market value and designates a quality lower than the lowest defined grade standard for that agricultural commodity.
- (c) Capital letters may be used in place of lower case letters in the grade terms listed in subsection (a) and in the term "Offgrade".
- (d) The grade terms in paragraph (a)(2) shall not be abbreviated except as follows:
 - (1) The term "Hawaii" may be abbreviated as "Haw", "HAW" or "HI";

- (2) The term "Grade" may be abbreviated as "GR" or "Gr"; and
- (3) The use of a period after the abbreviations of grade terms in paragraphs (1) and (2) is optional.
- (e) The offgrade designation shall not be abbreviated when used for consumer packages, bulk lot displays or in advertisements. [Eff 5/29/81; am and comp 8/18/83; comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-6 Obliteration of incorrect label markings.

(a) Grade labels on containers in wholesale quantities which are determined to be incorrect shall be corrected by obliteration of the incorrect information. Any reasonable effort made to efface the incorrect label markings, such as a bold line or X mark drawn across or over the inappropriate markings, shall be considered an obliteration.

(b) Grade and other labels on bulk lot displays or consumer packages which are determined to be incorrect shall be corrected by complete obliteration or removal of the incorrect information and substitution of the correct information as required by section 4-41-3. [Eff 5/29/81; comp 8/18/83; am and comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-7 REPEALED [Eff 5/29/81; comp 8/18/83; comp 3/24/86; R 5/26/92]

§4-41-8 Seller's invoice. (a) Every producer or produce dealer, when selling agricultural commodities to a retailer on the basis of grade, shall furnish to the retailer an invoice showing the applicable grade or offgrade designation of the commodities according to the standards approved by the board of agriculture, the United States Department of Agriculture, or other states.

(b) Every producer or produce-dealer, when selling Hawaii-grown agricultural commodities to a retailer, shall furnish to the retailer an invoice showing that the agricultural commodity is Hawaii-grown.

(c) A copy of the invoice shall be kept on file

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by the producer or produce dealer and by the retailer at the respective places of business for a period of not less than thirty days, and shall be available for inspection at all reasonable times by authorized inspectors of the department. [Eff 5/29/81; comp 8/18/83; comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

SUBCHAPTER 2

CONTAINER AND ADVERTISING REQUIREMENTS

§4-41-9 Definitions. As used in this subchapter, unless otherwise defined:

"Fairly tight" means the commodity is packed to fit fairly snug and not loosely in the container.

"Reasonably clean" means not caked with dirt or other foreign material, or not so badly stained as to seriously affect the appearance of the container.

"Reasonably well filled" means the sack has been filled to approximately ninety per cent or more of its total capacity and the sack is fairly tightly sewn or tied across the top.

"Sound" means the container is constructed to remain intact under the most severe conditions ordinarily encountered during handling and shipment, and is constructed in accordance with good practice.

"Well nailed" means sufficient nails have been used to keep the container intact and the nails are tightly fitted into the wood or other material. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-10 Prohibitions. The sale, offering for sale, or transportation for sale of any agricultural commodity in wholesale quantities is prohibited unless packed as follows:

- (1) The pack in wooden, fiberboard, or wirebound containers shall be fairly tight or fairly well filled, and sacks shall be reasonably well filled;
- (2) All containers used for any one lot shall be sound, reasonably clean, uniform as to size and type, and of the type specifically designed for distribution of agricultural commodities;

- (3) Crates, boxes, lugs, and other similar containers shall be well nailed, wirebound crates shall be adequately wired, fiberboard cartons and other similar containers shall be reasonably rigid, and sacks shall be free of holes and tears; and
- (4) Standard containers shall apply wherever this chapter requires the use of standard containers. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-11 Standard containers. All measurements, unless otherwise specified, shall be inside measurements in inches, and when read from left to right shall represent the length, width, and depth, respectively. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-12 Advertising requirements. (a) When the retail price of any fresh fruit or vegetable that has established Hawaii consumer grades or United States wholesale grades is advertised in any manner, the advertisement shall include the applicable grade for the fresh fruit or vegetable or the offgrade designation if the fresh fruit or vegetable advertised does not meet the minimum requirements of Hawaii Grade A or U.S. No. 1.

(b) When the retail price of any fresh fruit or vegetable is advertised in any manner by the piece or by the package, the advertisement shall include the minimum unit weight or size [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 5/26/92] (Auth: HRS §148-2) (Imp: HRS §148-2)

SUBCHAPTER 3

MINIMUM EXPORT REQUIREMENTS

§4-41-13 Minimum export grades. (a) Grades which may be exported shall be known as export grades and shall be equivalent to the grades provided in subchapter 7. The minimum export grades for Hawaii-grown fresh fruits and vegetables destined for shipment by commercial exporters to points outside the State are

as follows:

- (1) Avocados shall meet the requirements of Hawaii No. 1 avocados;
- (2) Bananas shall meet the requirements of Hawaii No. 1 bananas;
- (3) Beans, snap, shall meet the requirements of Hawaii No. 1 snap beans;
- (4) Burdock (gobo) shall meet the requirements of Hawaii Utility burdock;
- (5) Cabbage, Chinese, shall meet the requirements of Hawaii No. 1 Chinese cabbage, provided the Chinese cabbage shall be free from slugs, worms, and insects;
- (6) Cabbage, head, shall meet the requirements of Hawaii No. 1 head cabbage;
- (7) Carrots (topped) shall meet the requirements of Hawaii No. 1 carrots;
- (8) Cauliflower shall meet the requirements of Hawaii No. 1 cauliflower;
- (9) Celery shall meet the requirements of Hawaii No. 1 celery;
- (10) Corn, sweet, shall meet the requirements of Hawaii No. 1 sweet corn;
- (11) Cucumbers (slicing) shall meet the requirements of Hawaii No. 1 cucumbers;
- (12) Dasheens shall meet the requirements of Hawaii No. 1 dasheens, provided dasheens that are larger than two and one-half inches in diameter and dasheens that have more than three scars where tubers were attached may be exported;
- (13) Eggplants shall meet the requirements of Hawaii No. 1 eggplants;
- (14) Ginger root shall at least meet the requirements of Hawaii Commercial or Hawaii Young Ginger ginger root grade, except that ginger root for processing shall at least meet the requirements of Hawaii Commercial ginger root, except for size, and shall be packed in containers conspicuously marked "For Processing Only - Not For Resale" in upper, lower, or a combination of upper and lower case bold type letters at least one and one-half inches in height. An affidavit stating that the ginger root for processing is not for resale and a relevant bill of lading or sales invoice indicating the volume shipped, name and address of the processor, and date shipped, shall be submitted by the

shipper to the department prior to each export shipment of ginger root for processing;

- (15) Mangoes shall meet the requirements of Hawaii No. 1 mangoes;
- (16) Onions (dry) shall meet the requirements of Hawaii No. 1 onions;
- (17) Papayas shall meet the requirements of Hawaii No. 1 papayas, provided that papayas:
 - (A) Of shapes other than pyriform;
 - (B) Of weights less than fourteen ounces; and
 - (C) Which are hard and green with no yellow color, that are packed in containers clearly marked "Immature" in letters not less than one-half inch in height, with each papaya individually stamped or labeled in a uniform manner with the term "Immature", may be exported;
- (18) Peppers, sweet, shall meet the requirements of Hawaii No. 1 sweet peppers;
- (19) Pineapples shall meet the requirements of Hawaii No. 2 pineapples;
- (20) Potatoes (Irish) shall meet the requirements of Hawaii No. 1 potatoes;
- (21) Squash, Italian, shall meet the requirements of Hawaii No. 1 Italian squash;
- (22) Sweet potatoes shall meet the requirements of Hawaii No. 1 sweet potatoes;
- (23) Tomatoes shall meet the requirements of Hawaii No. 2 tomatoes;
- (24) Watermelons shall meet the requirements of Hawaii No. 1 watermelons;
- (25) Yam bean roots shall meet the requirements of Hawaii No. 1 yam bean roots;
- (26) In-shell macadamia nuts shall meet the requirements of Hawaii No. 1 in-shell macadamia nuts; and
- (27) Shelled macadamia nuts shall meet the requirements of Hawaii No. 1 shelled macadamia nuts.

(b) The board of agriculture may relax the minimum export requirement for an agricultural commodity upon request from a recognized organization, or organizations, which represent the majority of the producers of that agricultural commodity. The request shall state the reasons for the relaxation of the minimum export requirement, the impact upon the

industry if the minimum export requirement is not relaxed, the length of time that the relaxation is required and the suggested temporary minimum export requirement. The period of relaxation shall be set by the board of agriculture for each request. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 8/6/90; am 5/26/92; am 12/12/05] (Auth: HRS §147-22) (Imp: HRS §§147-22 and 147-23)

SUBCHAPTER 4

PROVISIONS FOR ENFORCEMENT, PENALTIES, AND PROSECUTION

§4-41-14 Authorization for inspection. (a) Any authorized inspector of the department may enter any place or conveyance where agricultural commodities are produced, stored, packed, delivered for shipment, processed, loaded, shipped, transported, offered for sale, sold, or advertised to:

- (1) Inspect the quality and condition of the agricultural commodities;
- (2) Enforce labeling requirements; and
- (3) Enforce container and packing requirements.

(b) The inspector may take for inspection and may cut for internal quality determination, representative samples of the agricultural commodities. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §§147-4, 147-22, and 148-2) (Imp: HRS §§147-7 and 147-24)

§4-41-15 Authorization for stop sale. (a) Any authorized inspector of the department, upon determining that this chapter or chapter 147, Hawaii Revised Statutes, is being violated, may place stop sale notices in front of or by the side of the agricultural commodity that is in violation.

(b) Agricultural commodities for which stop sale notices have been issued shall not be sold, offered for sale, transferred, or otherwise disposed of until the stop sale notices have been removed by an authorized inspector of the department.

(c) No person shall remove, deface, or otherwise tamper with any stop sale notice except upon authorization of an authorized inspector of the department. [Eff 5/29/81; comp 8/18/83; am and comp 3/24/86] (Auth: HRS §§147-4 and 147-22) (Imp: HRS §§147-4, 147-5, 147-6, and 147-23)

§4-41-16 Penalties and prosecution. Any person who violates any provision of this chapter may be subject to the actions, procedures, and penalties provided in sections 147-2, 147-25, and 148-3, Hawaii Revised Statutes. [Eff 5/29/81; am and comp 8/18/83; am 1/16/84; comp 3/24/86] (Auth: HRS §§147-4, 147-22, and 148-2) (Imp: HRS §§147-2, 147-25, and 148-3)

SUBCHAPTER 5

INSPECTION AND CERTIFICATION OF FRESH FRUITS AND VEGETABLES

§4-41-17 Definitions. As used in this subchapter, unless otherwise defined:

"Commercial value" means the commodity is reconditionable and the reconditioning does not involve unreasonable expense or loss of time.

"Dumping inspection" means an inspection to determine whether the commodity possesses any commercial value.

"Inspection certificate" means any form of certification, either written or printed, issued by an inspector under this chapter and in accordance with rules and regulations of the United States Department of Agriculture, to certify the identity, class, grade, quality, size, quantity, or condition of agricultural commodities, including compliance of the products with applicable specifications.

"Inspector" means an employee of the department, authorized and licensed by the secretary to investigate, sample, inspect, and certify for any interested party the quality and condition of agricultural commodities under this chapter.

"Office of inspection" means the office of an inspector of agricultural commodities.

"Secretary" means the Secretary or Acting Secretary of Agriculture of the United States of America. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-7) (Imp: HRS §147-7)

§4-41-18 Application for inspection. (a) An application for inspection may be made by:

- (1) An authorized official of the State; or

- (2) Any person having a financial interest in the product involved, including the shipper, receiver, or carrier, or an authorized person on behalf of the applicant.

(b) The application shall be filed in the office of inspection or with any authorized inspector at or near the place where the inspection is desired.

(c) Each application for inspection may require the following:

- (1) Name and post office address of the applicant and of the person, if any, making the application in behalf of the applicant;
- (2) Name and post office address of the shipper;
- (3) Kind and quantity of the products involved;
- (4) Financial interest of the applicant (except the State);
- (5) Identification of the products by:
 - (A) Grade, brand, or other marks;
 - (B) Car initials, car number, truck license number, name of ship, voyage number, and name of the carrier;
 - (C) Name and location of the store, warehouse, or other place where the products are located; and
 - (D) Any other necessary information;
- (6) The particular quality or condition concerning the inspection and the desired time and place where the inspection is to be made;
- (7) Name and address of the receiver when the lot is to be inspected in a receiving market; and
- (8) Name of the shipping point and destination, when known.

(d) Each application shall be considered filed when received at the proper office of inspection. When the application is filed, the date and time of filing shall be recorded by the office of inspection.

(e) The application may, due to non-compliance with this chapter, be rejected by the inspector in charge of the office of inspection in which the application is filed. The inspector shall immediately notify the applicant, by telephone or in writing, of the reasons for the rejection.

(f) An application may be withdrawn by the applicant at any time before the inspection is performed upon payment of any expenses incurred when the application was made.

(g) Proof of the authority of any person applying for inspection on behalf of another may be required at

the discretion of the inspector. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §147-7) (Imp: HRS §147-7)

§4-41-19 Inspection. (a) The applicant shall make the product to be inspected accessible for sampling and inspection, and placed so as to readily disclose its quality and condition.

(b) As many inspections shall be made as facilities permit and as far as practicable, in the order applications are received, except that preference may be given to applications made by an authorized official of the State.

(c) No inspector shall inspect any product in which the inspector has a direct or indirect financial interest.

(d) Unless the applicant requests otherwise, inspection and certification for quality or condition shall be based on the official standards of the State, or the official standards of the United States Department of Agriculture, or shall be by description where official standards are lacking. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §147-7) (Imp: HRS §147-7)

§4-41-20 Inspection certificates. (a) The inspector shall sign and issue a separate certificate for each lot of product inspected. Each kind of fruit or vegetable shall constitute a separate lot, and different varieties of the same kind of fruit or vegetable may be considered as separate lots. A formal certificate need not be issued when the application for inspection is made by an interested party or governmental agency to determine compliance with this chapter or contractual specifications; however, the compliance or non-compliance may be indicated by an appropriate stamp or mark on the products or the containers, at the discretion of the inspector.

(b) The original certificate shall, immediately upon its issuance, be delivered or mailed to the applicant or person designated by the applicant. Upon the request of the applicant prior to the issuance, not more than two additional copies of the certificate may be issued without extra charge. [Eff 5/29/81; comp 8/18/83; comp 3/24/86] (Auth: HRS §147-7) (Imp: HRS §147-7)

§4-41-21 Appeal inspection. (a) An application for appeal inspection by the applicant or other person financially interested in the agricultural commodity may be filed with the inspection office nearest to where the product is located whenever such applicant or person is dissatisfied with the determination stated in the original certificate. The application shall state the reasons for dissatisfaction and may be accompanied by a copy of any previous inspection certificate or inspection report or any other information which the applicant shall have received regarding the quality and condition of the product at the time of the original inspection. The application may be made in writing or orally.

(b) A record showing the date and time of filing of the application shall be made by the receiving office.

(c) An application for appeal inspection may be denied for any of the following conditions:

- (1) Reason stated for an appeal inspection is frivolous or unsubstantial;
- (2) Quality or condition of the product has undergone a material change since the original inspection;
- (3) Inaccessibility of all parts of the lot for a thorough examination; or
- (4) Noncompliance with this chapter.

(d) Inspections requested to determine factors of quality or condition which may have undergone material change since the original inspection shall not be considered appeal inspections. Second inspections requested for the purpose of securing an up-to-date certificate, but where the applicant does not question the correctness of the original certificate covering the lot in question, shall not be considered an appeal inspection.

(e) Appeal inspections shall as far as practicable be made in the order in which the applications are filed and take precedence over all other pending applications.

(f) All appeal inspections shall be performed by at least two inspectors.

(g) Immediately after an appeal inspection has been made, a certificate designated as "Appeal inspection certificate" shall be signed and issued, referring specifically to the original certificate and

stating the quality and condition of the product resulting from the appeal inspection. In all other respects, the provisions of section 4-41-20 shall apply to appeal inspection certificates, except if the applicant for an appeal inspection is not the original applicant, a copy of the appeal inspection certificate shall be mailed to the original applicant. An appeal inspection certificate which differs from the original as to grade nullifies the original. [Eff 5/29/81; comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-8) (Imp: HRS §147-8)

§4-41-22 Fees for inspection. (a) For each lot of agricultural products inspected under this chapter, an inspection service fee shall be charged at the rate of \$33.40 per hour for regular time and \$50.10 per hour for overtime.

(b) Additional charges may be made for transportation, travel time, per diem, traveling expenses, and other actual expenses incurred by the department or when an appeal inspection requiring the services of a second inspector is involved.

(c) Fees charged for appeal inspections in which the findings of the original inspection are sustained shall be double the fees of the original inspection. When it is judged that a material error in determination occurred in the original inspection and the findings are reversed, the fee for the appeal inspection shall not be charged to the applicant.

(d) Fees and related charges shall be paid by the applicant in accordance with the directions on the fee bill furnished by the inspector, and in advance if required by the inspector.

(e) When payments are by check, a service fee shall be assessed for each check that is not honored.

(f) Additional copies of any inspection certificate, other than those provided in section 4-41-20(b), may be supplied to any interested party upon payment of a fee of \$1 for each page. [Eff 5/29/81; am and comp 8/18/83; am 1/16/84; am and comp 3/24/86; am 5/26/92; am 10/5/02] (Auth: HRS §§147-7 147-8) (Imp: HRS §§147-7, 147-8)

§4-41-23 Denial of service. Any intentional misrepresentation or any deceptive or fraudulent practice made or committed by any applicant for

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inspection or reinspection may be deemed sufficient cause for the department to refuse to provide inspection services. [Eff 5/29/81; comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-7) (Imp: HRS §147-7)

SUBCHAPTER 6

STANDARDS FOR PROCESSING

§4-41-24 Wholesale standards for Hawaii-grown topped Japanese daikon for pickling. (a) As used in this section:

"Damage" means any defect which materially affects the appearance or the edible, processing, or shipping quality of the daikon, or which causes a loss of more than three per cent, by weight, in the ordinary preparation for use. Any of the following defects, or any combination of defects, the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (1) Dirt, when the individual daikon is caked with dirt, mud, or other foreign material, or is badly stained;
- (2) Growth cracks, when deep, rough, or materially affecting the appearance of the root, or when causing a loss of more than three per cent, by weight, in the ordinary preparation for use; or
- (3) Pithiness, when there is more than a very slight pithy condition in the central portion of the root.

"Diameter" means the greatest dimension of the root taken at right angles to the longitudinal axis.

"Fairly firm" means the root may be slightly wilted but is not excessively soft or flabby.

"Fairly well formed" means the root is not forked and is not so misshapen or crooked as to materially affect its appearance.

"Pithy" means the root has an open texture or air spaces in the central portion.

"Similar varietal characteristics" means the daikon in any lot have the same general shape and type of growth.

"Smooth" means the root is not rough or ridged, secondary rootlets are not present to the extent that appearance is appreciably affected, and all rootlets over one-eighth inch in diameter have been removed.

"Tender" means the root is not stringy or woody, there is no material checking of the flesh of the root, rays extending from the periphery to the center of the root are not prominent, and there is no dark circular line near the periphery of the root.

"Well trimmed" means both the upper and lower portions of the root are neatly cut off at approximately right angles to the longitudinal axis, and the tough portion at the top has been entirely removed.

(b) Hawaii No. 1 topped Japanese daikon for pickling consists of Hawaii-grown topped Japanese daikon of similar varietal characteristics which are well trimmed, fairly firm, fairly well formed, smooth, tender, and free from soft rot and shriveling and from damage caused by dirt, growth cracks, internal discoloration, pithiness, scratches, dry rot, other diseases, insects, or mechanical or other means. Unless otherwise specified, roots shall be not less than one and three-fourths inches nor more than two and three-fourths inches in diameter, and shall be not less than ten inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the roots in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for roots affected by soft rot, and
- (2) For off-size, not more than five per cent of the roots in any lot may fail to meet the diameter requirements of this grade, and not more than five per cent may fail the length requirement. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

SUBCHAPTER 7

STANDARDS FOR GRADES OF HAWAII-GROWN FRESH FRUITS AND VEGETABLES

§4-41-25 Application of tolerances. As applied in this chapter and unless otherwise specified, averages for the entire lot, based on examination of

representative samples, shall be within the tolerances specified in the grade, but the contents of individual packages or containers in any lot may vary from the specified tolerances, subject to the following limitations:

- (1) When the tolerance specified is more than five per cent, individual packages or containers in any lot may contain not more than one and one-half times the tolerance, provided at least one specimen which fails to meet the requirements of the grade shall be permitted in any package or container; and
- (2) When the tolerance specified is five per cent or less, individual packages or containers in any lot may contain not more than double the tolerance, provided at least one specimen which fails to meet the requirements of the grade shall be permitted in any package or container. [Eff 5/29/81; am and comp 8/18/83; comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-26 Standards for Hawaii-grown asparagus.

(a) As used in this section:

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the asparagus.

"Diameter" means the greatest thickness of the stalk measured at a point approximately one inch from the butt.

"Fairly straight" means the stalk is not more than moderately curved in one direction.

"Fairly well trimmed" means at least one-third of the butt of the stalk is cut off neatly at approximately right angles to the stalk's longitudinal axis and the butt is not stringy or frayed.

"Fresh" means the stalk is not limp or flabby.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the asparagus.

"Seriously misshapen" means the stalk has double curves or shepherd crooks, or is seriously flattened.

"Well trimmed" means at least two-thirds of the butt of the stalk is cut off neatly at approximately right angles to the stalk's longitudinal axis.

(b) Hawaii No. 1 (Hawaii Grade A) asparagus

consist of Hawaii-grown asparagus stalks which are fresh, well trimmed, and fairly straight; which have green color over two-thirds or more of the stalk length; and which are free from decay and from damage caused by spreading or broken tips, dirt, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter of each stalk shall be not less than one-half inch.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For trimming, not more than five per cent of the stalks in any lot may fail to meet the trimming requirement;
- (2) For other defects, not more than ten per cent of the stalks in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for stalks affected by decay; and
- (3) For off-size, not more than ten per cent of the stalks in any lot may fail to meet the minimum diameter specified.

(c) Hawaii No. 2 (Hawaii Grade B) asparagus consist of Hawaii-grown asparagus stalks which are fresh, well trimmed, and fifty per cent or more meet the Hawaii No. 1 requirement for shape and color with the remainder not seriously misshapen or badly spread; and which are free from decay and from serious damage caused by spreading or broken tips, dirt, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter of each stalk shall be not less than three-eighths inch.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For trimming, not more than ten per cent of the stalks in any lot may fail to meet the trimming requirement;
- (2) For other defects, not more than ten per cent of the stalks in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for stalks affected by decay; and
- (3) For off-size, not more than ten per cent of the stalks in any lot may fail to meet the minimum diameter specified.

(d) Hawaii No. 3 (Hawaii Grade C) asparagus consist of Hawaii-grown asparagus stalks which are fresh, fairly well trimmed, and not seriously misshapen or badly spread; and which are free from decay and from serious damage caused by spreading or broken tips, dirt, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter of each stalk shall be not less than one-fourth inch.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For trimming, not more than ten per cent of the stalks in any lot may fail to meet the trimming requirement;
- (2) For other defects, not more than ten per cent of the stalks in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for stalks affected by decay; and
- (3) For off-size, not more than ten per cent of the stalks in any lot may fail to meet the minimum diameter specified. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-27 Standards for Hawaii-grown avocados.

(a) As used in this section:

"Clean" means practically free from dirt, staining, spray residue, or other foreign material.

"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 avocados:

- (1) Insect stings, when more than two healed stings are on Guatemalan type avocados, or when more than six healed stings are on West Indian type avocados;
- (2) Rough russeting or rough or dark scars, when aggregating an area three-fourths inch in diameter on an avocado weighing sixteen ounces or more, or an area one-half inch in diameter on an avocado weighing less than sixteen ounces;
- (3) Smooth russeting or light colored smooth

scars, when aggregating more than an area equivalent to fifteen per cent of the fruit surface; or

- (4) Sunburn, when light and aggregating an area more than fifteen per cent of the fruit surface, or when badly discolored and aggregating more than an area three-fourths inch in diameter on an avocado weighing sixteen ounces or more, or more than an area one-half inch in diameter on an avocado weighing less than sixteen ounces.

"Excessive fiber" means the vascular strands or other tissues in the flesh of the fruit are tough and woody, except that a few short fibrous strands may be present near the stem or blossom end.

"Excessively large seeded" means the average weight of the seeds in the avocados in any container or lot is more than twenty-eight per cent of the total weight of the fruit.

"Fairly small seeded" means the average weight of the seeds in the avocados in any container or lot shall be not more than twenty-three per cent of the total weight of the fruit.

"Fairly well formed" means the avocado may be slightly abnormal in shape but not to the extent which detracts materially from its appearance.

"Free from fiber" means none of the vascular strands or other tissues in the flesh of the fruit are tough or fibrous.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the avocados:

- (1) Insect stings, when there is any healed sting on a Guatemalan type avocado, or more than three healed stings on a West Indian type avocado, provided the allowance for scars is not exceeded;
- (2) Rough russeting or rough or dark scars, when aggregating more than an area one-fourth inch in diameter; or
- (3) Smooth russeting or light colored smooth scars, when aggregating an area one inch or more in diameter on an avocado weighing sixteen ounces, or an area three-fourths inch or more in diameter on an avocado weighing

less than sixteen ounces.

"Mature" means the avocado has reached a stage of growth which will insure a proper completion of the ripening process.

"Overripe" means dead-ripe with the flesh becoming excessively soft, or discolored, or past commercial utility. Overripe avocados are considered to be seriously damaged.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the avocados:

- (1) Pulled stem, when there is any pulled stem on Guatemalan or similar type avocados, or when the exposed stem cavity or surrounding skin is injured or torn on West Indian type avocados;
- (2) Rough russeting or rough or dark scars, when aggregating more than an area two inches in diameter on an avocado weighing sixteen ounces or more, or an area one and one-half inches in diameter on an avocado weighing less than sixteen ounces, or when any scar is excessively deep;
- (3) Smooth russeting or light colored smooth scars, when aggregating more than an area equivalent to twenty-five per cent of the fruit surface; or
- (4) Sunburn, when light and aggregating an area more than twenty-five per cent of the fruit surface, or when badly discolored and aggregating more than an area one and one-half inches in diameter on an avocado weighing sixteen ounces or more, or more than one inch in diameter on an avocado weighing less than sixteen ounces.

"Similar varietal characteristics" means the avocados are alike in shape, texture, and color of the skin and flesh.

"Small seeded" means the average weight of the seeds in the avocados in any container or lot shall be not more than twenty per cent of the total weight of the fruit.

"Well formed" means the fruit shape is characteristic of the variety and the avocado is not so abnormally shaped as to appreciably detract from the appearance of the fruit.

"Well trimmed" means the stem, when present, is cut off smoothly at a point not more than one-fourth inch beyond the shoulder of the fruit.

(b) Hawaii Fancy (Hawaii Grade AA) avocados consist of Hawaii-grown avocados of similar varietal characteristics which are mature, not overripe, clean, well trimmed, well formed, and small seeded; which are free from fiber, decay, worms, wormholes, unhealed insect stings, broken skin, bruises, freezing injury, sunburn, disease, and pulled stem; and which are free from injury caused by russeting, scars, insect stings, other insect injury, or mechanical or other means. Minimum individual fruit oil content shall be twelve per cent. Unless classified with an optional size classification, each fruit shall weigh not less than ten ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the avocados in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for avocados seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the avocados in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, shall be allowed for avocados not meeting the specified minimum size.

(c) Hawaii No. 1 (Hawaii Grade A) avocados consist of Hawaii-grown avocados of similar varietal characteristics which are mature, not overripe, clean, well trimmed, well formed, and fairly small seeded; which are free from fiber, decay, worms, wormholes, unhealed insect stings, broken skin, bruises, and freezing injury; and which are free from damage caused by russeting, scars, insect stings, other insect injury, sunburn, disease, or mechanical or other means, and from serious damage caused by pulled stem. Minimum individual fruit oil content shall be twelve per cent.

Unless classified with an optional size classification, each fruit shall weigh not less than ten ounces.

In order to allow for variations incident to

proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the avocados in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for avocados seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the avocados in any lot may vary from the specified size, provided not more than one-half of this amount, or five per cent, shall be allowed for avocados not meeting the specified minimum size.

(d) Hawaii No. 2 (Hawaii Grade B) avocados consist of Hawaii-grown avocados of similar varietal characteristics which are mature, not overripe, clean, well trimmed, fairly well formed, and not excessively large seeded; which are free from excessive fiber, decay, worms, wormholes, unhealed insect stings, broken skin, bruises, and freezing injury; and which are free from serious damage caused by russeting, scars, insects, sunburn, disease, pulled stem, or mechanical or other means. Minimum individual fruit oil content shall be ten per cent.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the avocados in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for avocados affected by decay; and
- (2) For off-size, not more than ten per cent of the avocados in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, shall be allowed for avocados not meeting the specified minimum size.

(e) Size of avocados in any container or any lot may be specified in connection with the grade based on the following optional size classifications:

- (1) Small, each fruit under ten ounces;
- (2) Medium, each fruit ten to sixteen ounces;
- (3) Large, each fruit sixteen to thirty-two ounces; or
- (4) Extra large, each fruit over thirty-two

ounces. [Eff 5/29/81; am and comp 8/18/83;
am and comp 3/24/86] (Auth: HRS §147-4)
(Imp: HRS §147-4)

§4-41-28 Standards for Hawaii-grown bananas.

(a) As used in this section:

"Badly misshapen" means the arrangement of the fingers in the hand is irregular, or more than fifteen per cent of the fingers are badly curved or twisted.

"Blossom-end rot" means the sunken, dry, dark, coarse, discolored area at the blossom-end of the finger which may or may not affect the pulp but appreciably affects the appearance of the fruit.

"Clean" means the fruit is practically free from dirt, staining, spray residue, cobwebs, or other foreign matter.

"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 bananas:

- (1) Blossom-end rot, when fairly deep and exceeds three-fourths inch in diameter;
- (2) Bruises, when soft;
- (3) Russeting, scars, sunscald, bruises, freckles, or similar blemishes, when the appearance of any finger is seriously affected, or the flesh of any finger is more than slightly affected, or the appearance of more than thirty per cent of the fingers is materially affected (dark or scaly scar or scars aggregating an area more than three-fourths inch in diameter, or freckles and other blemishes affecting the appearance more than permitted for dark or scaly scars are considered as materially affecting appearance); or
- (4) Stubs, when more than two fingers are removed, leaving stubs.

"Decay" means any rot (other than blossom-end rot) affecting the fingers, pedicels of the fingers, or any portion of the hand or bunch, except the decay affecting the portion of the main stalk attached to a cut hand of Chinese bananas shall not be scored against the tolerance.

"Fairly clean" means the hand may be dusty or dull colored, but the appearance of the hand is not

materially affected by the presence of staining, spray residue, caked dirt, cobwebs, or other foreign matter.

"Fairly well developed" means the fingers on the hand are not spindly or excessively ridged for the variety.

"Fairly well formed" means the fingers are arranged on the hand in a reasonably regular fashion and not more than ten per cent of the fingers are twisted or abnormally curved, and none of the fingers are badly twisted or curved.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the bananas:

- (1) Bruises, when soft;
- (2) Russeting, scars, sunscald, bruises, freckles, or similar blemishes, when the appearance of any finger is materially affected, or the flesh of any finger is affected, or the appearance of more than thirty per cent of the fingers is slightly affected, or the appearance of more than ten per cent of the fingers is more than slightly affected (dark or scaly scar or scars aggregating more than one-half inch in diameter are considered as affecting appearance more than slightly); or
- (3) Stubs, when more than one finger is removed, leaving a stub.

"Mature" means the banana has reached a stage of growth which will insure a proper completion of the ripening process.

"Overripe" means dead-ripe with the flesh becoming excessively soft or discolored and past commercial value.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the bananas:

- (1) Bruises, when soft and more than two fingers affected per hand, or soft and more than one finger seriously affected;
- (2) Russeting, scars, sunscald, bruises, freckles, or similar blemishes, when the flesh of any finger is materially affected,

or the appearance of more than thirty per cent of the fingers is seriously affected (dark or scaly scar or scars aggregating an area more than one and one-fourth inches in diameter, or freckles and other blemishes affecting appearance more than permitted for scars are considered as seriously affecting appearance); or

- (3) Stubs, when the appearance of the hand is seriously affected by removal of the fingers.

"Split fingers" means bananas with split skins, usually caused by internal pressure.

"Uniform size" means bananas sold as fingers in bundles or trays shall not vary more than one-half inch in apparent length within each bundle or tray. In computing per cent deviation, each bundle or tray shall represent a sample unit.

"Well developed" means all the fingers are plump and any ridge present is normal for well grown, mature bananas of the variety.

"Well formed" means the shape of the hand and arrangement of the fingers on the hand are regular, normal, and fairly compact for the variety, and the fingers are also reasonably uniform in size, not twisted, abnormally curved, or otherwise misshapen.

"Well trimmed" means the pedicel of the finger is cut off smoothly at approximately right angles to the longitudinal axis of the pedicel and is not less than one-fourth inch nor more than one-half inch long; or with hands, the portion of the main stalk shall not exceed three-fourths inch from the point of attachment to the pedicel, measured to the highest point of the cut in either direction on the vertical axis; or with parts of hands, the portion of the main stalk shall not exceed one-half inch as measured on the vertical and horizontal axes from the point of attachment to the pedicel.

(b) Hawaii Fancy (Hawaii Grade AA) bananas in hands, parts of hands, or fingers consist of Hawaii-grown bananas of a single variety which are clean, mature, not overripe or soft, well formed, well developed, and well trimmed; and which are free from decay, breakdown, split fingers, wormholes, fingers with broken pedicel, and blossom-end rot and from injury caused by russetting, scars, sunscald, bruises, stubs, freckles, other diseases, insects, or mechanical or other means. Unless otherwise specified, fingers of the bluefield (gros michel) and similar varieties shall

be not less than eight inches long and other varieties not less than seven inches long, except fingers of the apple (Brazilian) variety shall be not less than six inches long. Fingers, when bundled or packed in trays, shall be of uniform size.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for defects causing damage, including not more than two per cent serious damage and one per cent decay or breakdown; and
- (2) For off-size, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the minimum length specified.

Application of tolerances shall be as provided in subsection (h).

(c) Hawaii Fancy bananas in bunches consist of Hawaii-grown bananas of which seventy per cent or more of the hands, based on count, meets the requirements of Hawaii Fancy grade for hands, with the remaining hands meeting the requirements of Hawaii No. 1. In addition, not more than one-half of one per cent of the fingers may be affected by decay or breakdown, and the main stem shall be free from decay or breakdown. Bunch weight shall be not less than fifty pounds for bluefield (gros michel) and similar varieties, and not less than thirty pounds for apple (Brazilian), Chinese (cavendish), lady finger, and other similar varieties.

In order to allow for variations incident to proper grading, sizing, and handling, not more than a total of ten per cent of the bunches in any lot, based on count, may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, may fail to meet the requirements of Hawaii No. 1 grade for bunches of bananas. Application of tolerances shall be as provided in subsection (h).

(d) Hawaii No. 1 (Hawaii Grade A) bananas in hands, parts of hands, or fingers consist of Hawaii-grown bananas of a single variety which are fairly clean for Hawaii No. 1 and clean for Hawaii Grade A, mature, not overripe or soft, fairly well formed, well developed, and well trimmed; and which are free from decay, breakdown, split fingers, wormholes, and fingers

with broken pedicel and from damage caused by russetting, scars, sunscald, bruises, stubs, freckles, other disease, blossom-end rot, insects, or mechanical or other means. Unless otherwise specified, fingers of the bluefield (gros michel) and similar varieties shall be not less than seven inches long and other varieties not less than six inches long, except fingers of the apple (Brazilian) variety shall be not less than five inches long. Fingers, when bundled or packed in trays, shall be of uniform size.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for bananas affected by serious damage, including not more than one per cent decay or breakdown; and
- (2) For off-size, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the minimum length specified.

Application of tolerances shall be as provided in subsection (h).

(e) Hawaii No. 1 bananas in bunches consist of Hawaii-grown bananas of which seventy per cent or more of the hands, based on count, meets the requirements of Hawaii No. 1 grade for hands, with the remaining hands meeting the requirements of Hawaii No. 2. In addition, not more than one-half of one per cent of the fingers may be affected by decay or breakdown, and the main stem shall be free from decay or breakdown.

In order to allow for variations incident to proper grading, sizing, and handling, not more than a total of ten per cent of the bunches in any lot, based on count, may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, may fail to meet the Hawaii No. 2 grade for bunches of bananas. Application of tolerances shall be as provided in subsection (h).

(f) Hawaii No. 2 (Hawaii Grade B) bananas in hands, parts of hands, or fingers consist of Hawaii-grown bananas of a single variety which are fairly clean for Hawaii No. 2 and clean for Hawaii Grade B, mature, not overripe or soft, not badly misshapen,

fairly well developed, and well trimmed; and which are free from decay, breakdown, split fingers, and wormholes and from serious damage caused by russetting, scars, sunscald, bruises, stubs, freckles, other diseases, insects, blossom-end rot, or mechanical or other means. Unless otherwise specified, fingers of the bluefield (gros michel) and similar varieties shall be not less than six inches long and other varieties not less than five inches long, except fingers of the apple (Brazilian) variety shall be not less than four inches long. Fingers, when bundled or packed in trays, shall be of uniform size.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for bananas affected by decay or breakdown; and
- (2) For off-size, not more than ten per cent of the hands, parts of hands, or fingers in any lot may fail to meet the minimum length specified.

Application of tolerances shall be as provided in subsection (h).

(g) Hawaii No. 2 bananas in bunches consist of Hawaii-grown bananas of which eighty-five per cent or more of the hands, based on count, meets the requirements of Hawaii No. 2 grade for hands. In addition, not more than one per cent of the fingers may be affected by decay or breakdown, and the main stem shall be free from decay or breakdown.

In order to allow for variations incident to proper grading, sizing, and handling, not more than a total of ten per cent of the bunches in any lot, based on count, may fail to meet the requirements of this grade. Application of tolerances shall be as provided in subsection (h).

- (h) In the application of tolerances, the 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 contain not more than double the tolerance, provided at least one specimen failing to meet the requirements shall be

permitted in any container. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-29 Standards for Hawaii-grown snap beans.

(a) As used in this section:

"Bright" means the general appearance of the beans is fresh and unfaded.

"Clean" means the pods are practically free of dirt or other foreign matter.

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the snap beans.

"Fairly bright" means the general appearance of the beans is not noticeably dull in color.

"Fairly uniform size" means the variation in length of the pods in any container does not exceed two and one-half inches and the variation in the length of ninety per cent of the pods is no greater than one and one-half inches. Any pods that are outside the range permitted by the "fairly uniform size" requirement shall be scored as grade defects.

"Fairly well formed" means the pods are no more than moderately crooked, curled, or twisted and are not excessively tapered.

"Fairly young and tender" means strings do not extend more than one-third the length of the pod at either end and the pods are succulent and fairly meaty.

"Firm" means the pods are not wilted or flabby.

"Injury" means any defect or combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the snap beans. Slight blemishes or discolorations that are readily noticeable shall be considered as injury.

"Overmature" means the walls of the pods are tough and fibrous.

"Reasonable size" means the pods are not spindly or excessively short for the variety and have not been prematurely picked.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the snap beans. Pods having wormholes or spots caused by blight, anthracnose, or other disease shall be considered as seriously damaged.

"Seriously misshapen" means the pods are badly

distorted, curled, twisted, or otherwise badly deformed.

"Similar varietal characteristics" means the beans are of the same color and the same type. For example, wax and green beans, flat and round beans, or short and long type beans shall not be mixed.

"Well formed" means the pods have the normal shape for the variety and are smooth and, depending on the variety, are straight or only slightly curved.

"Young and tender" means the pods are meaty, succulent, and free from fibrous strings.

(b) Hawaii Fancy (Hawaii Grade AA) snap beans consist of Hawaii-grown snap bean pods of similar varietal characteristics which are fresh, clean, firm, well formed, young and tender, bright, and of reasonable size and fairly uniform size; and which are free from decay, wormholes, leaves, leaf stems, and other foreign matter and from injury caused by scars, discoloration, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, not more than ten per cent, by weight, of the pods in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for pods which are seriously damaged by any cause, including not more than one per cent for pods affected by soft rot and one-half of one per cent for other foreign matter.

(c) Hawaii No. 1 (Hawaii Grade A) snap beans consist of Hawaii-grown snap bean pods of similar varietal characteristics which are fresh, clean, firm, fairly well formed, fairly young and tender, fairly bright, and of reasonable size; and which are free from decay, wormholes, leaves, leaf stems, and other foreign matter and from damage caused by scars, discoloration, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, not more than ten per cent, by weight, of the pods in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for pods which are seriously damaged by any cause, including not more than one per cent for pods affected by soft rot and one-half of one per cent for other foreign matter.

(d) Hawaii No. 2 (Hawaii Grade B) snap beans consist of Hawaii-grown snap bean pods of similar varietal characteristics which are fresh, clean, firm,

not seriously misshapen, and not overmature; and which are free from decay, wormholes, leaves, leaf stems, and other foreign matter and from serious damage caused by scars, discoloration, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, not more than ten per cent, by weight, of the pods in any lot may fail to meet the requirements of this grade, including not more than one per cent for pods affected by soft rot and one-half of one per cent for other foreign matter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-30 Standards for Hawaii-grown topped beets.

(a) As used in this section:

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the beets; or which causes a loss of more than five per cent, by weight, in the ordinary preparation for use.

"Diameter" means the greatest dimension measured at right angles to the longitudinal axis of the beet.

"Fairly smooth" means the beets are not materially affected by roughness at the crown caused by abnormal growing conditions, shedding of dead leaves, or other means. Beets with only a slight roughness or pitting at the crown shall be considered as being fairly smooth.

"Fairly well shaped" means the beets are not sufficiently malformed as to materially affect appearance or cause material waste in preparation for use.

"Firm" means the beets are not soft, flabby, or shriveled.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the beets; or which causes a loss of more than ten per cent, by weight, in the ordinary preparation for use.

"Similar varietal characteristics" means the beets in any lot are of similar shape and color.

"Soft rot" means any soft, mushy, or leaky condition and does not apply to decays of the dry type.

"Well trimmed" means the tops are trimmed to not more than one-half inch in length and unsightly secondary rootlets have been removed.

(b) Hawaii No. 1 (Hawaii Grade A) topped beets consist of Hawaii-grown beets of similar varietal characteristics which are firm, fairly smooth, fairly well shaped, and well trimmed; and which are free from soft rot and from damage caused by cuts, dirt, dry rot, disease, growth cracks, insects, rodents, or mechanical or other means. Unless otherwise specified, the diameter of each beet shall be not less than two inches nor more than three and one-fourth inches. The size of beets which do not meet the size requirements for Hawaii No. 1 may be specified in terms of minimum and maximum diameters.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the beets in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for beets which are seriously damaged by any cause, including not more than one per cent affected by soft rot; and
- (2) For off-size, not more than five per cent of the beets in any lot may be below the specified minimum diameter and not more than ten per cent may be above the specified maximum diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-31 Standards for Hawaii-grown broccoli.

(a) As used in this section:

"Clean" means the broccoli is practically free from dust, dirt, or other foreign matter.

"Damage" means any of the following specific 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 broccoli:

- (1) Discoloration, when more than very slight;
- (2) Hollow stem or pithiness, when discolored or when affecting appearance more than slightly;
- (3) Insects, when worms or worm frass are present, or when more than slightly infested with insects; or

- (4) Scars, when discolored or when more than slight or superficial.

"Fairly compact" means the head is not open or spread to the extent that it has a loose appearance, and the individual florets are fairly tightly formed and not more than moderately elongated.

"Fresh" means the broccoli is not flabby or more than slightly wilted.

"Good characteristic color" means the stem and external portion of the head have a light green or darker shade of green color.

"Length" means the distance from the top of the broccoli head to the stem butt.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the broccoli.

"Stem diameter" means the greatest thickness of the stem measured at the base.

"Tender" means the broccoli is succulent and the stem is not fibrous, tough, or stringy.

"Well trimmed" means all coarse, damaged, and discolored leaves and leaves extending more than one and one-half inches above the top of the head have been removed, and cross cuts on butts and lengthwise cuts on split stalks are smooth.

(b) Hawaii No. 1 (Hawaii Grade A) broccoli consists of Hawaii-grown broccoli stalks which show good characteristic color and are well trimmed, fairly compact, fresh, tender, and clean; and which are free from decay and from damage caused by discoloration, freezing, hollow stem or pithiness, scars, disease, insects, or mechanical or other means. Unless otherwise specified, the length of each stalk shall be not more than eight inches nor less than three inches, and stem diameter shall be not less than one-fourth inch.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the stalks in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for stalks which are seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than five per cent of

the stalks in any lot may vary from the stalk length and stem diameter specified. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-32 Standards for Hawaii-grown burdock.

(a) As used in this section:

"Badly misshapen" means the root is so crooked or otherwise misshapen as to seriously affect the appearance of the root or to cause a loss of more than ten per cent of the total weight of the burdock root, including the peel covering the defective area, in the ordinary preparation for use; or the root is forked at a point within twelve inches of the crown; or the root is materially smaller below the point where one branch of a fork has been cut off.

"Clean" means practically free from dirt or any foreign material, or not more than materially stained.

"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 burdock roots:

- (1) Dirt, when the general appearance of the lot is more than slightly dirty or stained, or when individual roots are badly stained or caked with dirt, or when other foreign matter materially affects the appearance of the roots;
- (2) Growth cracks, when the appearance of the roots is materially affected; or
- (3) Pithiness, when the center of the root four inches below the crown is more than slightly pithy, or any air space present is more than 1/32 inch in cross section.

"Diameter" means the greatest dimension of the root taken at right angles to the longitudinal axis, exclusive of secondary roots and of that portion of the root within one inch of the crown.

"Fairly smooth" means the root is not so ridged, pebbled, or rough as to seriously affect the appearance of the individual root or to cause a loss of more than ten per cent of the total weight of the root, including the peel covering the defective area, in the ordinary preparation for use.

"Fairly well formed" means the root is fairly

straight and not forked, constricted, bent sharply, or otherwise irregular in shape. Secondary roots may be cut off if the appearance of the whole root is not materially affected, provided the presence of the secondary roots has not caused the root to be crooked or noticeably smaller in size below the point where the secondary root was cut off. Roots are not considered fairly well formed when the two axes of those portions of the root located at the two ends of a curve or bend form an angle that is less than one hundred sixty-five degrees.

"Firm" means the burdock root is not soft, flabby, or shriveled.

"Length" means the total length of the root, measured from the crown to the tip of the root.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the burdock roots:

- (1) Dirt, when the general appearance of the lot is seriously affected by the presence of caked dirt on the roots, or the presence of other foreign matter seriously affects the appearance of the roots; or
- (2) Growth cracks, when the appearance of the roots is seriously affected.

"Similar varietal characteristics" means the burdock roots in any lot are of the same general shape and character of growth.

"Smooth" means the burdock root is free from ridges, pebbling, and other distinctly uneven surfaces.

"Tender" means the root tissues are free from woodiness and tough fibers.

"Well trimmed" means the top is trimmed back to not more than one inch in length and no part of the upper portion of the root has been cut off.

(b) Hawaii No. 1 (Hawaii Grade A) burdock consists of Hawaii-grown burdock roots of similar varietal characteristics which are clean for Hawaii Grade A and free from damage caused by dirt for Hawaii No. 1, firm, well trimmed, fairly well formed, smooth, and tender; and which are free from soft rot and from damage caused by cuts, bruises, growth cracks, internal discoloration, pithiness, secondary rootlets, disease, nematodes, insects, or mechanical or other means. The individual root shall be not more than one inch in

diameter, but not less than five-eighths inch in diameter over nine inches of its length, and not less than eighteen inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for roots which are seriously damaged by any cause, including not more than one per cent affected by soft rot; and
- (2) For off-size, not more than ten per cent of the roots in any lot may fail to meet the minimum and maximum diameter requirements or the minimum length requirement.

(c) Hawaii No. 2 (Hawaii Grade B) burdock consists of Hawaii-grown burdock roots of similar varietal characteristics which are clean for Hawaii Grade B and free from damage caused by dirt for Hawaii No. 2, firm, well trimmed, fairly well formed, smooth, and tender; and which are free from soft rot and from damage caused by cuts, bruises, growth cracks, internal discoloration, pithiness, secondary rootlets, disease, nematodes, insects, or mechanical or other means. The individual root shall be not less than three-eighths inch in diameter and not less than fifteen inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for roots which are seriously damaged by any cause, including not more than one per cent affected by soft rot; and
- (2) For off-size, not more than ten per cent of the roots in any lot may fail to meet the minimum diameter or minimum length requirement.

(d) Hawaii Utility burdock consists of Hawaii-grown burdock roots of similar varietal characteristics which are firm, well trimmed, not badly misshapen, fairly smooth, and not tough or woody; and which are

free from soft rot and from serious damage caused by cuts, bruises, dirt, internal discoloration, pithiness, secondary rootlets, growth cracks, disease, nematodes, insects, or mechanical or other means. The individual root shall be one inch or larger in diameter and fifteen inches or longer in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the roots in any lot may fail to meet the requirements of this grade, provided not more than one per cent is affected by soft rot; and
- (2) For off-size, not more than ten per cent of the roots in any lot may fail to meet the minimum diameter or minimum length requirement. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp:HRS §147-4)

§4-41-33 Standards for Hawaii-grown Chinese cabbage. (a) As used in this section:

"Chinese cabbage" means the type of Chinese cabbage which normally forms a head.

"Clean" means practically free from dirt or other foreign material.

"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 Chinese cabbage:

- (1) Aphids, when more than a few aphids are present;
- (2) Black leaf speck, when midribs are badly spotted, or other portions of leaves are materially spotted;
- (3) Discoloration or spotting, when more than two midribs show material internal discoloration, or wrapper leaves are materially spotted or discolored, or head leaves are more than slightly spotted or discolored by defects other than black leaf specks;
- (4) Slugs, when more than one slug is present;
- (5) Sucker, when over one-half inch long or materially affecting appearance;

- (6) Wilting, when wrapper leaves are badly wilted, or head leaves are more than slightly wilted;
- (7) Worms, when more than one worm present, or one worm present and the cabbage is more than slightly injured by worms or other insects; or
- (8) Wormholes, when noticeably affecting appearance or extending deeply into the head.

"Excessively trimmed" means the outer head leaves or outer leaves have been removed to such an extent as to expose the tender inner head leaves or the tender inner leaves.

"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.

"Fairly firm" means the head is fairly compact and when moderate pressure is applied, yields not more than slightly over at least one-fourth of the length of the head and not more than moderately over at least two-thirds of the length of the head, exclusive of wrapper leaves.

"Fairly well formed" means the Chinese cabbage does not vary materially from the normal upright type of growth.

"Fairly well trimmed" means the stem is neatly cut off at a point not more than one-half inch beyond the point of attachment of the outer leaves and the wrapper leaves are reasonably upright, not coarse, and not excessive in number. Ends of wrapper leaves and head leaves may be removed or cut off, provided the appearance of the Chinese cabbage is not seriously affected.

"Firm" means the head is compact and when moderate pressure is applied, does not yield more than slightly over at least two-thirds of the length of the head, exclusive of wrapper leaves.

"Flat midribs" means the width of the midrib at the point of maximum width is at least four times the maximum thickness.

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

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the Chinese cabbage:

- (1) Aphids, when more than an occasional isolated aphid is present;
- (2) Black leaf speck, when midribs and other portions of leaves are more than slightly spotted;
- (3) Discoloration or spotting, when more than one midrib shows material internal discoloration, or wrapper leaves are more than slightly spotted or slightly discolored, or more than a few insignificant spots (other than black leaf specks) are present on head leaves; or
- (4) Wilting, when wrapper leaves are more than slightly wilted, or head leaves are slightly wilted.

"Inner leaves" are those leaves on non-headed plants that approximately correspond to head leaves on headed Chinese cabbage.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the Chinese cabbage:

- (1) Aphids, when fairly numerous or their presence is fairly prominent;
- (2) Black leaf specks, when seriously affecting the appearance of midribs or other portions of the leaves;
- (3) Discoloration or spotting, when more than three midribs show material internal discoloration, or wrapper leaves are seriously spotted or discolored, or head leaves are moderately spotted or discolored by defects other than black leaf specks;
- (4) Seedstem, when apparent upon external examination of the cabbage;
- (5) Slugs, when more than three slugs are present;
- (6) Suckers, when over two inches long or seriously affecting appearance;
- (7) Worms, when more than two worms are present, or two worms are present and the cabbage is damaged by worms or other insects; or
- (8) Wormholes, when seriously affecting appearance, or more than one wormhole extends deeply into the head.

"Similar varietal characteristics" means the

Chinese cabbage in any lot have the same general characteristics as to shape, color, and type of growth.

"Well formed" means the Chinese cabbage has the normal upright type of growth.

"Well grown" means the plant is not stunted or poorly grown.

"Well trimmed" means the stem is neatly cut off at a point not more than one-half inch beyond the point of attachment of the outer leaves, and the ends of the head leaves or, in the case of unheaded plants, the inner leaves 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 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.

"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.

(b) Hawaii Fancy (Hawaii Grade AA) Chinese cabbage consists of Hawaii-grown Chinese cabbages of similar varietal characteristics which are firm, well trimmed but not excessively trimmed, clean, well formed, and well grown; which have flat midribs; and which are free from soft rot, seedstem, suckers, slugs, worms, and wormholes and from injury caused by discoloration or spotting, freezing, wilting, black leaf speck or other diseases, aphids or other insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the cabbages in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for cabbages affected by soft rot; and
- (2) For off-size, not more than ten per cent of the cabbages in any lot may vary from the size specified.

(c) Hawaii No. 1 (Hawaii Grade A) Chinese cabbage consists of Hawaii-grown Chinese cabbages of similar varietal characteristics which are fairly firm, well trimmed but not excessively trimmed, clean, well

formed, and well grown; which have flat midribs; and which are free from soft rot and seedstem and from damage caused by discoloration or spotting, freezing, wilting, black leaf speck or other diseases, aphids or other insects, suckers, slugs, worms, wormholes, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the cabbages in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for cabbages affected by soft rot; and
- (2) For off-size, not more than ten per cent of the cabbages in any lot may vary from the size specified.

(d) Hawaii No. 2 (Hawaii Grade B) Chinese cabbage consists of Hawaii-grown Chinese cabbages of similar varietal characteristics which are fairly well trimmed (except that Hawaii Grade B cabbages shall be well trimmed), fairly clean, fairly well formed, and well grown; which have flat midribs; and which are free from soft rot and from serious damage caused by discoloration or spotting, freezing, black leaf speck or other diseases, aphids or other insects, suckers, slugs, worms, wormholes, seedstem, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the cabbages in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for cabbages affected by soft rot; and
- (2) For off-size, not more than ten per cent of the cabbages in any lot may vary from the size specified.

(e) The minimum or maximum size or both the minimum and maximum sizes of Chinese cabbage may be specified in connection with the grade (e.g., "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 in connection with the grade according to the following size classifications:

- (1) Small, when each cabbage weighs less than one and three-fourths pounds;
- (2) Medium, when each cabbage weighs one and three-fourths to two and three-fourths pounds;
- (3) Large, when each cabbage weighs two and three-fourths to four pounds; or
- (4) Extra Large, when each cabbage weighs over four pounds. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-34 Standards for Hawaii-grown head cabbage.

(a) As used in this section:

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the head cabbage.

"Excessively trimmed" means the outer head leaves have been removed, exposing the tender, white inner leaves.

"Fairly firm" means the inner structure of the head is fairly compact and the head yields to moderate pressure but is not soft or puffy.

"Fairly well shaped" means the head is not excessively elongated or otherwise materially off-shape for the type.

"Firm" means the head is closely formed and does not yield readily to pressure.

"Good head formation" means the various sections of the head show about the same degree of solidity, as determined from the outside of the head, and the outer head leaves are not short and at least reach to within an inch of the top of the head.

"Puffy" means the head is very light in weight in comparison to its size, or has excessive air spaces in its central portion.

"Reasonably solid" as applied to pointed type cabbage and domestic type cabbage means at least fairly firm; Danish type cabbage and red cabbage means at least firm; and savoy type cabbage means not soft or puffy (savoy type cabbages are characteristically loosely formed and light in weight).

"Seedstem" means the seed stalk is showing or the formation of a seed stalk has plainly begun.

"Similar varietal characteristics" means the cabbages in any lot have the same general characteristics as to shape, color, and type of growth.

"Soft rot" means any soft or wet decay.

"Well trimmed" means the stem does not extend more than one-half inch beyond the point of attachment of the outer leaves. In addition, head cabbages sold direct to consumers shall have no wrapper leaves and head cabbages sold in wholesale quantities shall have no more than four wrapper leaves.

"Wrapper leaves" mean leaves which do not enfold the head fairly tightly more than two-thirds the distance from the base to the top.

(b) Hawaii No. 1 (Hawaii Grade A) head cabbage consists of Hawaii-grown head cabbages of similar varietal characteristics which are reasonably solid, well trimmed but not excessively trimmed, and fairly well shaped; which have a good head formation; which are not withered, burst, or puffy; and which are free from soft rot and seedstem and from damage caused by discoloration, freezing, dirt, thrips or other insects, disease, or mechanical or other means.

(c) Hawaii No. 2 (Hawaii Grade B) head cabbage consists of Hawaii-grown head cabbages of similar varietal characteristics which are well trimmed but not excessively trimmed, and not withered or burst; and which are free from soft rot and seedstem and from damage caused by discoloration, freezing, dirt, thrips or other insects, disease, or mechanical or other means.

(d) Minimum or maximum size of head cabbage in any container or any lot may be specified in connection with the grade, e.g., "Hawaii No. 1, 1 pound minimum" or "Hawaii No. 2, 2 to 4 pounds" or "Hawaii No. 1, 4 pounds maximum"; or any container or any lot may be classified as small, medium, large, small to medium, or medium to large, based on the following size classifications:

- (1) For pointed and domestic type cabbages, small heads shall weigh under one and one-half pounds, medium heads shall weigh from one and one-half to four pounds, and large heads shall weigh over four pounds; and
- (2) For Danish type cabbages, small heads shall weigh under two and one-half pounds, medium heads shall weigh from two and one-half to five pounds, and large heads shall weigh over five pounds.

(e) In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the heads in any lot may fail to meet the requirements of the grade specified, provided not more than one-fifth of this amount, or two per cent, shall be allowed for heads affected by soft rot; and
- (2) For off-size, not more than five per cent of the heads in any lot may be below the minimum specified size and not more than five per cent of the heads may be above the maximum specified size. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-35 Standards for Hawaii-grown non-heading oriental cabbage. (a) As used in this section:

"Clean" means practically free from dirt, dust, or other foreign matter.

"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 cabbage:

- (1) Cracks, bruises, or tears, when two or more leaves are more than slightly cracked, broken, or bruised at the midrib, or slightly torn; or when any leaf is badly cracked, broken, or bruised at the midrib, or badly torn; or when any midrib crack is more than slightly discolored; or when more than the tip of any leaf is removed or cut off;
- (2) Cuts, when the leaves are trimmed to the extent that the appearance of the cabbage is materially affected;
- (3) Discoloration, when the appearance of the cabbage is materially affected by discolored or yellow leaves (cabbages with inner leaves that are slightly discolored or yellow shall be considered as damaged);
- (4) Seedstem, in pak choy type cabbage, when the seedstem extends above the leaves upon folding of the leaves around the seedstem or when the seedstem is removed or trimmed off, and in kai choy type cabbage, when the flower buds have opened, or when the seedstem extends above the leaves when the latter are folded together around the seedstem, or when

- the seedstem is removed or trimmed off;
- (5) Suckers, when the number or size of suckers materially affects the appearance of the cabbage; or
 - (6) Wilting, when the outermost leaves are badly wilted, or when the inner leaves are more than slightly wilted.

"Fairly compact" means the leaves are reasonably close together throughout most of their length.

"Fresh" means the cabbages are not more than slightly wilted.

"Non-heading oriental cabbage" means a cabbage of the leafy type, such as pak choy and kai choy, which normally does not develop a head.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the cabbage.

"Similar varietal characteristics" means the cabbages in any lot have the same general characteristics as to shape, color, and type of growth.

"Well developed" means the cabbage shows normal growth and is not stunted or poorly developed.

"Well trimmed" means the stem is neatly cut off at a point close to the attachment of the outer leaves and the outer leaves which are coarse, discolored, yellowed, or otherwise damaged have been removed, but not to the extent that the heart or small inner leaves are fully exposed.

(b) Hawaii No. 1 (Hawaii Grade A) non-heading oriental cabbage consists of Hawaii-grown oriental cabbages of similar varietal characteristics which are fresh, clean, well developed, well trimmed, and fairly compact; and which are free from soft rot, slugs, and worms and from damage caused by wormholes, suckers, wilting, seedstems, discoloration, cuts, cracks, bruises, tears, insects, disease, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than ten per cent of the cabbages in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for cabbages seriously damaged by any cause, including not more than one per cent for cabbages affected by decay. Percentages shall be calculated on a weight basis; however, when cabbages in any lot are fairly uniform in size, percentages may be calculated on a

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count basis. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-36 Standards for Hawaii-grown carrots.

(a) As used in this section:

"Badly misshapen" means the carrot is so forked or misshapen as to seriously affect its appearance or cause a loss of more than ten per cent, by weight, in the ordinary preparation for use.

"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 carrots, or which causes a loss of more than three per cent, by weight, in the ordinary preparation for use:

- (1) Growth cracks, when unhealed or when not shallow or smooth; or
- (2) Sunburn, when causing a loss of more than three per cent, by weight, in the ordinary preparation for use, however, superficial light green color at the stem end which does not materially affect the appearance of the root shall be permitted.

"Diameter" means the greatest dimension of the root taken at right angle to the longitudinal axis.

"Excessively rough" means the carrot is so rough or ridged as to seriously affect its appearance or cause a loss of more than ten per cent, by weight, in the ordinary preparation for use.

"Fairly clean" means the individual carrots are reasonably free from dirt, stain, or other foreign matter and the general appearance of the carrots in the lot is not more than slightly affected by these causes.

Carrots caked with dirt are not fairly clean.

"Fairly smooth" means the carrot is not so rough or ridged as to cause a loss of more than three per cent, by weight, in the ordinary preparation for use, or covered with secondary rootlets to an extent which materially affects its appearance.

"Fairly well colored" means the carrot has an orange, orange red, or orange scarlet color, but not a pale orange or distinct yellow color.

"Fairly well formed" means the carrot is not so forked or misshapen as to materially affect its appearance or cause a loss of more than three per cent,

by weight, in the ordinary preparation for use. Carrot roots which are more than slightly smaller below a second growth or a point where a second growth has been cut off are not fairly well formed.

"Firm" means the carrot is not soft, flabby, or shriveled.

"Serious damage" means any defect, or any combination of defects, which seriously detracts from the appearance, or the edible or shipping quality of the carrots, or which causes a loss of more than ten per cent, by weight, in the ordinary preparation for use. Carrots which have an oily or kerosene flavor or odor are considered seriously damaged.

"Similar varietal characteristics" means the carrots are of the same general type. For example, carrots with a short, blunt growth like the oxheart variety shall not be mixed with long or half-long carrots like the imperator or danvers varieties.

"Well-trimmed" means the tops shall be entirely removed, except that where the shoulder of the carrot extends above the base of the top, tops shall be cut back to not more than one-fourth inch in length, but that no portion of the crown shall be cut off.

(b) Hawaii No. 1 (Hawaii Grade A) carrots consist of Hawaii-grown carrots of similar varietal characteristics which are firm, fairly clean, fairly well colored, fairly well formed, fairly smooth, and well trimmed; and which are free from soft rot and from damage caused by freezing, growth cracks, sunburn, pithiness, woodiness, internal discoloration, oil spray, dry rot or other diseases, nematodes, insects, or mechanical or other means. Unless classified with an optional size classification, the diameter of each root shall be from one to three inches and the length not less than five inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the carrots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for carrots seriously damaged by any cause, including not more than two per cent affected by soft rot; and
- (2) For off-size, not more than ten per cent of the carrots in any lot may exceed the specified maximum diameter, and not more than

a total of five per cent may be below the specified minimum diameter and minimum length.

(c) Hawaii No. 2 (Hawaii Grade B) carrots consist of Hawaii-grown carrots of similar varietal characteristics which are firm, not badly misshapen, not excessively rough, and well trimmed; and which are free from soft rot and from serious damage caused by freezing, growth cracks, sunburn, pithiness, woodiness, internal discoloration, oil spray, dry rot or other diseases, nematodes, insects, dirt, or mechanical or other means. Unless classified with an optional size classification, the diameter of each carrot shall be from one to three inches and the length not less than four inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the carrots in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for carrots affected by soft rot; and
- (2) For off-size, not more than ten per cent of the carrots in any lot may be over the specified maximum diameter and not more than a total of five per cent may be below the specified minimum diameter and minimum length.

(d) Size of carrots in any container or any lot may be specified in connection with the grade based on the minimum or maximum diameter, or both a minimum and maximum diameter; or may be specified based on the following optional size classifications:

- (1) Small, when each carrot measures under one and one-half inches in diameter;
- (2) Large, when each carrot measures one and one-half to three inches in diameter; or
- (3) Extra Large, when each carrot measures over three inches in diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-37 Standards for Hawaii-grown cauliflower.

- (a) As used in this section:

"Compact" means the flower clusters are closely united and the head feels solid.

"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 cauliflower:

- (1) Enlarged bracts, when the appearance of the head is materially affected by leaves (bracts) growing up through and extending above the curd;
- (2) Fuzziness, when the head has a distinct fuzzy appearance over more than one-half of its surface;
- (3) Mold, when causing the flesh of the curd to disintegrate, or when exceeding three-eighths inch in diameter in the aggregate, or when any single spot exceeds one-eighth inch in diameter; or
- (4) Riciness, when the appearance of the head is materially affected by curds with abnormally rough or granular surface.

"Diameter" means the average diameter of the head exclusive of the jacket leaves.

"Discolored" means the head is of some abnormal color.

"Overmature" means a stage of growth which is beyond that of a compact, properly developed head. An overmature head usually is loose or open and turning yellow.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the cauliflower.

"Well trimmed" means the jacket leaves shall be limited to the number and length necessary to protect the head. No jacket leaves are required on heads which are individually wrapped or packed with cushions, partitions, or other means to protect the head from bruising.

(b) Hawaii No. 1 (Hawaii Grade A) cauliflower consists of Hawaii-grown cauliflower heads which are compact, not discolored, and not overmature; and which are free from soft rot or wet decay and from damage caused by wilting, fuzziness, riciness, enlarged bracts, mold, bruises, hollow stems, dirt or other

foreign material, disease, insects, or mechanical or other means. Jacket leaves shall be fresh, green, well trimmed, and free from damage by disease and from serious damage by any cause. Unless otherwise specified, heads shall measure not less than four inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the heads in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for heads affected by soft rot or wet decay; and
- (2) For off-size, not more than a total of five per cent of the heads in any lot may be below any specified minimum diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-38 Standards for Hawaii-grown celery. (a)

As used in this section:

"Clean" means the stalk is practically free from dirt or other foreign material.

"Compact" means the branches are fairly close together on the stalk.

"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 celery:

- (1) Blight, when midribs of three or more branches are affected, or there are more than five small spots on midribs of two or more branches, or the tops of three or more branches are slightly spotted, or the tops of two branches are moderately spotted;
- (2) Doubles, when stalks are not separated and appearance is materially affected, or stalks are separated and either of the stalks is badly curved, or the heart branches are not well protected;
- (3) Growth cracks, when more than two branches

- are affected by cracks which are more than one-half inch long;
- (4) Pithy branches, when there is more than one branch with a distinct open texture in the central portion of the midrib;
 - (5) Seedstem, when any identifiable seedstem is present; or
 - (6) Worms, when present, or worm injury occurs on heart branches or on midribs of more than two branches or aggregate an area more than two-thirds square inch on a midrib.

"Fairly compact" means the branches are reasonably close together.

"Fairly good heart formation" means the inner heart branches are of reasonable number, length, and stockiness.

"Fairly well blanched" means the midrib portion of the branches are generally of a light greenish to creamy white color.

"Fairly well developed" means the combined width and thickness of each outer branch, as measured at a point half-way of the midrib length, shall be at least seven-eighths inch for varieties with blocky midribs and at least one inch for varieties with flat midribs.

"Good heart formation" means the stalk has a reasonable number of stocky inner heart branches that are not longer than one-half the overall length of the stalk.

"Midrib length" means the distance between the first node and the point of attachment of the branch to the root.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the celery:

- (1) Blight, when midribs of more than four branches are affected, or there are more than ten small spots on midribs of more than two branches, or the tops of more than five branches are slightly spotted, or tops of more than three branches are moderately spotted, or tops of more than two branches are badly spotted;
- (2) Doubles, when heart branches are exposed;
- (3) Growth cracks, when more than four branches

are affected by cracks that are more than one-half inch long;

- (4) Pithy branches, when more than two branches are pithy; or
- (5) Worms, when worms are present, or worm injury occurs on heart branches or on midribs of more than three branches or aggregate an area more than one square inch on a midrib.

"Similar varietal characteristics" means the stalks are of the same color and character of growth.

"Stalk" means an individual plant.

"Stalk length" means the distance from where the main root is cut off to a point that represents the average length of the longest branches and leaves.

"Thickness" means the greatest thickness at any point and is measured from the inner to the outer part of the midrib.

"Well developed" means the combined width and thickness of each outer branch, as measured at a point half-way of the midrib length, shall total at least one and one-eighth inches for varieties with blocky midribs and one and one-fourth inches for varieties with flat midribs.

"Well trimmed" means the coarse and damaged outer branches and all fibrous roots have been removed, and the remaining portion of the tap root has been neatly cut off and does not extend more than one inch beyond the point of attachment of the outer branches.

"Width" means the overall width of the midrib and is measured from side to side.

(b) Hawaii Fancy (Hawaii Grade AA) celery consists of Hawaii-grown celery stalks of similar varietal characteristics which are well developed, with good heart formation, clean, well trimmed, compact, and fairly well blanched if not of pascal type; and which are free from blackheart, decay, brown stem, and doubles and from damage caused by seedstem, wilting, blight, worms, freezing, suckers, growth cracks, hollow crown, pithy branches, disease, insects, or mechanical or other means. Midrib length of the outer whorl of branches shall average not less than seven and one-half inches.

(c) Hawaii No. 1 (Hawaii Grade A) celery consists of Hawaii-grown celery stalks of similar varietal characteristics which are fairly well developed, with fairly good heart formation, clean, well trimmed, fairly compact, and fairly well blanched if not of pascal type; and which are free from blackheart and decay and from damage caused by seedstem, wilting,

blight, worms, freezing, suckers, growth cracks, hollow crown, pithy branches, disease, insects, brown stem, doubles, or mechanical or other means. Midrib length of the outer whorl of branches shall average not less than six inches.

(d) Hawaii No. 2 (Hawaii Grade B) celery consists of Hawaii-grown celery stalks of similar varietal characteristics which are fairly well developed, clean, well trimmed, and fairly well blanched if not of the pascal type; and which are free from blackheart and decay, from damage caused by seedstem, and from serious damage caused by wilting, blight, worms, freezing, suckers, growth cracks, hollow crown, pithy branches, disease, insects, brown stem, doubles, or mechanical or other means. Midrib length of the outer whorl of branches shall average not less than five inches.

(e) For wholesale quantities only, most branches at the upper end of the stalk shall extend to within one and one-half inches of one side of the container when the butt is touching the opposite side of the container.

(f) In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the stalks in any lot may fail to meet the requirements of the grade specified, provided not more than one-fifth of this amount, or two per cent, shall be allowed for stalks affected by decay; and
- (2) For off-size, not more than five per cent of the stalks in any lot may fail to meet the midrib length requirement and not more than five per cent may fail to meet the stalk length requirement. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-39 Standards for Hawaii-grown sweet corn.

(a) As used in this section:

"Clean" means the ears are practically free from dirt or other foreign material.

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the corn. Any worm injury on clipped ears shall be scored as damage.

Worm injury on unclipped ears, when extending more

than one and one-half inches from the tip of the cob or affecting kernels on other parts of the cob, shall be considered as damage.

"Fresh" means the husks are not wilted, dried, or turning yellow.

"Plump and milky" means the kernels are well developed and the contents have a milky or creamy consistency, but are not overmature or shriveled.

"Properly clipped" means the end or ends of the ear have been neatly cut off at approximate right angles to the longitudinal axis.

"Similar varietal characteristics" means the units in any lot are of similar color and character of growth. Units of white and yellow corn shall not be mixed together.

"Tender" means the kernels break under only a moderate pressure from the thumbnail.

"Unit" means the whole or portion of a husked or unhusked corn on the cob.

"Well filled" means the rows of kernels show fairly uniform development and the appearance of the ear is not materially affected by poorly developed rows; or when the ear has not been clipped, not more than one-fourth of the length of the cob may have poorly developed or missing kernels at the tip; or when the ear has been clipped, there shall be practically no poorly developed kernels at the tip of the cob. Missing or poorly developed kernels on other parts of a well filled ear shall not aggregate more than one square inch on a cob six inches in length, and a proportionately greater area shall be permitted on a longer cob and a proportionately lesser area on a shorter cob.

"Well formed" means the ears are straight and not stunted. Nubbins shall not be considered well formed ears.

"Well trimmed" means unhusked ears are practically free from loose husks and have shanks that are not more than three inches in length nor extending more than one-half inch beyond the point of attachment of the outside husk; and husked ears are practically free from husks and silk and have shanks that do not extend more than one-half inch beyond the base of the cob.

(b) Hawaii Fancy (Hawaii Grade AA) sweet corn consists of Hawaii-grown sweet corn of similar varietal characteristics which are well trimmed, well formed, clean, and free from decay, insect injury, smut, discoloration, bruising, worms, or defects caused by mechanical or other means. Cobs shall be well filled

with tender, plump, and milky kernels. Unhusked ears shall have fresh, green husks. Each clipped ear shall be properly clipped. Unless otherwise specified, each unit, whether clipped or unclipped, shall be not less than six inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the units in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for units affected by decay; and
- (2) For off-size, not more than a total of five per cent of the units in any lot may vary from the specified size.

(c) Hawaii No. 1 (Hawaii Grade A) sweet corn consists of Hawaii-grown sweet corn of similar varietal characteristics which are well trimmed, well formed, clean, and free from decay, insect injury, and smut and from damage caused by discoloration, bruising, or mechanical or other means. Cobs shall be well filled with tender, plump, and milky kernels. Unhusked ears shall have fresh, green husks. Each clipped ear shall be properly clipped. Unless otherwise specified, each unit, whether clipped or unclipped, shall be not less than five inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the units in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for units affected by decay; and
- (2) For off-size, not more than a total of five per cent of the units in any lot may vary from the specified size.

(d) Hawaii No. 2 (Hawaii Grade B) sweet corn consists of Hawaii-grown sweet corn of similar varietal characteristics which are well trimmed, well formed, clean, and free from decay, insect injury, and smut and from damage caused by discoloration, bruising, or mechanical or other means. Cobs shall be well filled with tender, plump, and milky kernels. Unhusked ears shall have fresh, green husks. Each clipped ear shall

be properly clipped. Unless otherwise specified, each unit, whether clipped or unclipped, shall be not less than four inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of fifteen per cent of the units in any lot may fail to meet the requirements of this grade, provided not more than two per cent of the units may be affected by decay; and
- (2) For off-size, not more than five per cent of the units in any lot may vary from the specified size.

(e) Units in any container or package shall not vary in length by more than one-half inch. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-40 Standards for Hawaii-grown cucumber.

(a) As used in this section:

"Badly deformed" means the cucumber is so badly curved, constricted, or tapered, or otherwise so badly misshapen, that the appearance is seriously affected or excessive waste is caused in preparation for use.

"Clean" means the cucumbers are practically free from dirt or other foreign material and no caked dirt is on the cucumbers.

"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 cucumbers:

- (1) Hollowness, when the transverse area of the hollow space exceeds the area of a circle $\frac{3}{16}$ inch in diameter;
- (2) Pulled ends, when the broken flesh outside of the stem attachment is more than one-eighth inch deep or aggregating an area more than one-fourth inch in diameter;
- (3) Scars, when heavy, rough, dark, or sunken and aggregating an area more than one-half inch in diameter, or when deep, or when superficial, light colored, and smooth and aggregating an area more than one and one-half inches in diameter; or

- (4) Yellowing, when any distinct yellow cast is present.

"Diameter" means the greatest thickness of the cucumber measured at right angles to the longitudinal axis, exclusive of warts.

"Fairly well colored" means not less than one-half of the surface of the cucumber is of medium green or darker color, and at least a light green color extends to the blossom end on one side of the cucumber.

"Fairly well formed" means the cucumber may be moderately curved but not deeply constricted, not extremely tapered or pointed, and not otherwise misshapen.

"Firm" means the cucumber yields only slightly to moderate pressure and is not shriveled.

"Length" is the length of the cucumber, exclusive of the stem.

"Moderately colored" means at least one-third of the surface of the cucumber is of a light green or darker color.

"Overgrown" means the cucumber has passed slightly beyond the best stage for slicing. Seeds are tough and fibrous, and the pulp in the seed cavity is usually watery or jelly-like.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the cucumbers:

- (1) Bruises, when soft and aggregating an area more than three-fourths inch in diameter;
- (2) Insect stings, when unhealed, or more than one-fourth inch in any dimension, or seriously affecting shape, or more than three stings present;
- (3) Pulled ends, when the broken flesh outside of the stem attachment is more than 3/16 inch deep or aggregating an area more than three-eighths inch in diameter;
- (4) Scars, when heavy, rough, dark, or sunken and aggregating an area more than one inch in diameter, or when excessively deep, or when superficial, light colored, and smooth and aggregating an area more than two inches in diameter; or
- (5) Yellowing, when a distinct yellow color is present.

"Similar varietal characteristics" means the cucumbers are alike as to shape, color, and other general characteristics.

"Well colored" means not less than three-fourths of the surface of the cucumber is of a medium green or darker color, and at least a light green color extends to the blossom end on one side of the cucumber.

"Well formed" means the cucumber is practically straight and not more than very slightly constricted or more than moderately tapered or pointed.

(b) Hawaii Fancy (Hawaii Grade AA) cucumber consists of Hawaii-grown cucumbers of similar varietal characteristics which are clean, well colored, well formed, not overgrown, fresh, and firm; and which are free from decay, breakdown, wormholes, clipped ends, insect stings, shriveling, and pulled ends and from damage caused by freezing, yellowing, scars, hollowness, broken skin, bruises, mosaic or other diseases, insects, or mechanical or other means. Unless otherwise specified, each cucumber shall be one and seven-eighths to two and one-half inches in diameter and not less than six inches nor more than eleven inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the cucumbers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for cucumbers seriously damaged by any cause, including not more than three per cent for wormholes and one per cent for cucumbers affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten per cent of the cucumbers in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the minimum diameter and not more than five per cent may be below the minimum length.

(c) Hawaii No. 1 (Hawaii Grade A) cucumber consists of Hawaii-grown cucumbers of similar varietal characteristics which are clean, fairly well colored, fairly well formed, not overgrown, fresh, and firm; and which are free from decay, breakdown, wormholes, clipped ends, insect stings, and shriveling and from damage caused by freezing, yellowing, scars,

hollowness, pulled ends, broken skin, bruises, mosaic or other diseases, insects, or mechanical or other means. Unless otherwise specified, each cucumber shall be not less than one and seven-eighths and not more than two and one-half inches in diameter and not less than six inches nor more than eleven inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the cucumbers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for cucumbers seriously damaged by any cause, including not more than three per cent for wormholes and one per cent for cucumbers affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten per cent of the cucumbers in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the minimum diameter and not more than five per cent may be below the minimum length.

(d) Hawaii No. 2 (Hawaii Grade B) cucumber consists of Hawaii-grown cucumbers of similar varietal characteristics which are clean, moderately colored, not badly deformed, not overgrown, fresh, and firm; and which are free from decay, breakdown, wormholes, and clipped ends, from damage caused by freezing, and from serious damage caused by yellowing, scars, bruises, pulled ends, broken skin, shriveling, mosaic or other diseases, insect stings, insects, or mechanical or other means. Unless otherwise specified, each cucumber shall be not less than one and one-half inches in diameter and not less than five inches in length.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the cucumbers in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for cucumbers with wormholes and one per cent for cucumbers affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten

per cent of the cucumbers in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the minimum diameter and not more than five per cent may be below the minimum length.

(e) Long type cucumbers, such as the fertila, bambina, evergreen, and longfellow varieties, shall be exempt from all size requirements of this section.

(f) Cucumbers in any container or lot may be classified with the optional size designation "small" when the cucumbers are four to seven inches in length and not less than one and one-half inches in diameter. The optional size designation shall be specified in connection with the grade; e.g. Hawaii No. 1, Small. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-41 Standards for Hawaii-grown dasheen.

(a) As used in this section:

"Badly misshapen" means the dasheen is more than slightly constricted, or so curved or elongated as to seriously affect its appearance.

"Clean" means the dasheens are practically free from dirt or staining of any kind.

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the dasheen.

"Diameter" means the greatest dimension of the dasheen taken at right angles to the longitudinal axis.

"Dry" means the dasheens are entirely free from external moisture.

"Fairly clean" means the dasheens show only a slight amount of dirt or are only appreciably stained.

"Fairly smooth" means the dasheen has no more than seven scars where tubers were attached; no young tubers extend more than three-eighths inch beyond the surface of the dasheen; and there are no other swellings or rough areas.

"Fairly well shaped" means the dasheen is fairly symmetrical, fairly well rounded, not constricted, not flat or sunken on either end, and not so curved or elongated for the variety or otherwise misshapen as to materially affect the appearance of the dasheen.

"Fairly well trimmed" means the dasheens are practically free from leaf stalks and feeding roots, and loose fibers are not present in excessive amounts.

"Firm" means the dasheen does not yield to heavy pressure of the thumb and shows no evidence of flabbiness.

"Free from shriveling" means the dasheen shows no evidence of shriveling.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the dasheen.

"Similar varietal characteristics" means the dasheens in any lot shall be of the same color and type.

"Slightly dirty" means the dasheens are not caked with dirt or materially stained.

"Slightly shriveled" means the dasheen shows only a very small amount of shriveling.

"Smooth" means the dasheen has no more than three scars where tubers were attached and such scars are not excessively large; no young tubers extend more than 3/16 inch beyond the surface of the dasheen; and there are no other swellings or slightly rough areas.

"Well shaped" means the dasheen is symmetrical, plump, and well rounded for the variety, and well rounded on top.

"Well trimmed" means the dasheens are free from leaf stalks and feeding roots and practically free from loose fibers.

(b) Hawaii Fancy (Hawaii Grade AA) dasheen consists of Hawaii-grown dasheens of similar varietal characteristics which are dry, well trimmed, smooth, firm, well shaped, and clean; and which are free from sprouts, shriveling, freezing injury, wet breakdown, and soft rot or other decay and from damage caused by cuts, bruises, root scars, disease, or mechanical or other means. Unless otherwise specified, each dasheen shall be one and one-half to two and one-half inches in diameter and weigh not less than one and three-fourths ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the dasheens in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for dasheens seriously damaged by any cause, including not more than one per cent affected by soft rot

or wet breakdown; and

- (2) For off-size, not more than ten per cent of the dasheens in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the specified minimum diameter or minimum weight.

(c) Hawaii No. 1 (Hawaii Grade A) dasheen consists of Hawaii-grown dasheens of similar varietal characteristics which are dry, well trimmed, smooth, firm, fairly well shaped, and fairly clean; and which are free from sprouts, shriveling, freezing injury, wet breakdown, and soft rot or other decay and from damage caused by cuts, bruises, root scars, disease, or mechanical or other means. Unless otherwise specified, each dasheen shall be one and one-half to two and one-half inches in diameter and weigh not less than one and three-fourths ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the dasheens in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for dasheens seriously damaged by any cause, including not more than one per cent affected by soft rot or wet breakdown; and
- (2) For off-size, not more than ten per cent of the dasheens in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the specified minimum diameter or minimum weight.

(d) Hawaii No. 2 (Hawaii Grade B) dasheen consists of Hawaii-grown dasheens of similar varietal characteristics which are dry, fairly well trimmed, fairly smooth, firm, not badly misshapen, not more than slightly dirty, and not more than slightly shriveled; and which are free from sprouts, freezing injury, wet breakdown, and soft rot or other decay and from serious damage caused by cuts, bruises, disease, or mechanical or other means. Unless otherwise specified, each dasheen shall be one and one-fourth to three inches in diameter and weigh not less than one ounce.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the dasheens in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for dasheens affected by soft rot or wet breakdown; and
- (2) For off-size, not more than ten per cent of the dasheens in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, may be below the specified minimum diameter or minimum weight.

(e) Minimum or maximum size, or both, of the dasheens in any container may be specified in connection with the grade, such as "Hawaii No. 1, 1 inch minimum" or "Hawaii No. 2, 2 to 3 inches"; or the size of dasheens in any container may be specified in connection with the grade according to the following size classifications:

- (1) Small, when each dasheen measures one and one-fourth to two inches in diameter;
- (2) Medium, when each dasheen measures one and three-fourths to two and one-half inches in diameter; or
- (3) Large, when each dasheen measures over two and one-half inches in diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-42 Standards for Hawaii-grown eggplants.

(a) As used in this section:

"Badly misshapen" means the eggplant varies decidedly from the normal shape and is seriously deformed. A long type eggplant eight inches in length is badly misshapen when the distance between the inner curvature and a straight line extending from one end of the eggplant to the other, exclusive of the attached stem, exceeds two and one-fourth inches at any one point. Shorter eggplants shall have a proportionately lesser curvature and longer eggplants may have greater curvatures, provided such curvatures do not affect the appearance of the eggplants to a greater extent than the curvature permitted on an eight-inch eggplant.

"Bruises" means bruising injuries other than those that are slight and incident to proper packing and handling.

"Clean" means practically free from dirt or other foreign material, and from staining.

"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 eggplants:

- (1) Cracks, when unhealed or affecting appearance to a greater extent than permitted for scars;
- (2) Scars on long type eggplant, when smooth and aggregating an area more than three-fourths inch in diameter, or rough and aggregating an area more than one-half inch in diameter, or excessively rough and affecting shape; or
- (3) Scars on thick, chunky, and intermediate type eggplant, when smooth and aggregating an area more than one inch in diameter, or rough and aggregating an area more than three-fourths inch in diameter, or excessively rough and affecting shape.

"Fairly smooth" means the eggplant is not materially ridged or rough.

"Fairly well colored" means:

- (1) For thick, chunky, and intermediate types of purple eggplant, at least ninety per cent of the surface is a deep purple or purplish black color;
- (2) For long type purple eggplant, at least sixty per cent of the surface is of purple color and the remainder of the surface is not yellow or otherwise abnormally colored; and
- (3) For eggplants that are of other than purple type, the color is fairly bright and typical of the variety.

"Fairly well shaped" means the eggplants do not vary more than moderately from the normal shape. Long type eggplants may be no more than moderately curved, curled, or twisted. A long type eggplant eight inches in length is more than moderately curved when the distance between the inner curvature of the eggplant and a straight line extending from one end of the eggplant to the other, exclusive of the attached stem, exceeds one and one-half inches at any one point. Shorter eggplants shall have a proportionately lesser curvature and longer eggplants may have greater curvatures, provided such curvatures do not affect the appearance of the eggplants to a greater extent than the curvature permitted on an eight-inch eggplant.

Intermediate type eggplants shall be no more than slightly curved, but may be cylindrical.

"Firm" means not soft, flabby, or shriveled.

"Injury" means any defect or combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the eggplant. Smooth, blossom-end scars shall be permitted on thick, chunky, or intermediate type eggplants, provided the scars do not aggregate an area more than three-fourths inch in diameter.

"Intermediate types" means oval, cylindrical, or pear shaped, or similar types of eggplants that appear elongated as compared to thick, chunky type eggplants.

"Length" means the measurement along the entire outer curvature of a long type eggplant, exclusive of the attached stem.

"Overgrown" means the eggplant has passed the best stage for eating, indicated by a spongy flesh and seeds that are tough or dark brown.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the eggplants:

- (1) Cracks, when unhealed or affecting appearance to a greater extent than permitted for scars;
- (2) Scars, when smooth and aggregating an area more than fifteen per cent of the surface, or rough and aggregating an area more than five per cent of the surface; or
- (3) Yellowing, when any yellow color or any abnormal color seriously affects appearance.

"Similar varietal characteristics" means the eggplants are alike as to shape, color, and other general characteristics.

"Smooth" means free from cracks, rough areas, or rough scars.

"Well colored" means:

- (1) For purple type eggplant, the individual eggplant is uniformly colored with a deep purple or purplish black color, the color is bright, and the eggplants in any container are reasonably uniform in color; and
- (2) For all other types of eggplant, the color of the eggplant is bright and typical of the

variety, and the eggplants in any container are reasonably uniform in color.

"Well shaped" means the eggplant is well proportioned and has the normal shape for the variety. Long type eggplants may be no more than very slightly curved. A long type eggplant eight inches in length is more than very slightly curved when the distance between the inner curvature of the eggplant and a straight line extending from one end of the eggplant to the other, exclusive of the attached stem, exceeds three-fourths inch at any one point. Shorter eggplants shall have a proportionately lesser curvature and longer eggplants may have greater curvatures, provided such curvatures do not affect the appearance of the eggplants to a greater extent than the curvature permitted on an eight-inch eggplant.

"Well trimmed" means the stem is not longer than one and one-half inches; is cut off neatly; and is not sharp or frayed.

(b) Hawaii Fancy (Hawaii Grade AA) eggplant consists of Hawaii-grown eggplants of similar varietal characteristics which are clean, firm, well trimmed, well colored, well shaped, smooth, and not overgrown; and which are free from decay, freezing injury, wormholes, and bruises and from injury caused by scars, disease, insects, or mechanical or other means. Thick, chunky, and intermediate type eggplants shall be one-half to one and three-fourths pounds in weight.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the eggplants in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for eggplants damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the eggplants in any lot may vary from the size requirements of the grade.

(c) Hawaii No. 1 (Hawaii Grade A) eggplant consists of Hawaii-grown eggplants of similar varietal characteristics which are clean, firm, well trimmed, fairly well colored, fairly well shaped, fairly smooth, and not overgrown; and which are free from decay, freezing injury, wormholes, and bruises and from damage caused by scars, disease, insects, cracks, or mechanical or other means. Unless otherwise specified,

thick, chunky, or intermediate type eggplants shall be not less than three-eighths pound in weight.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the eggplants in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for eggplants seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the eggplants in any lot may vary from the size specified.

(d) Hawaii No. 2 (Hawaii Grade B) eggplant consists of Hawaii-grown eggplants of similar varietal characteristics which are clean, firm, well trimmed, not badly misshapen, and not overgrown; and which are free from decay, freezing injury, and wormholes and from serious damage caused by scars, disease, insects, cracks, yellowing, bruises, or mechanical or other means. There is no size requirement for this grade but an optional size designation may be used.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the eggplants in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, may be affected by decay; and
- (2) For off-size, not more than ten per cent of the eggplants in any lot may vary from the size specified.

(e) Size of eggplants in any container or any lot may be specified in connection with the grade in terms of count, or minimum weight, or minimum and maximum weights. If designated in terms of count, eggplants in individual containers shall be fairly uniform in size; i.e., the weight of the smallest eggplant in any container shall be not less than one-half the weight of the largest eggplant, provided that one eggplant which does not meet this requirement shall be permitted in any container. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-43 Standards for Hawaii-grown ginger roots.

(a) As used in this section:

"Clean" means practically free from dirt or other foreign material, and there are no caked dirt on the rhizome.

"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 marketing quality of the ginger root:

- (1) Cuts, breaks, or tears, when ragged or more than three-eighths inch deep;
- (2) Cuts, breaks, or tears, excluding points of mother plant and shoot attachments, when:
 - (A) More than one defect is present per two ounces of rhizome; or
 - (B) More than fifteen defects are present per rhizome (excluding inconspicuous tears where roots were attached); or
 - (C) Large, conspicuous, and materially affecting the appearance or marketing quality; or
 - (D) Obviously not at the end of a segment and exceeds an area three-fourths inch in diameter; or
 - (E) Any single tear exceeds one-half inch in diameter; or
 - (F) An aggregate of tears exceeds an area one inch in diameter;
- (3) Discolored flesh, when removal of the discolored area causes a loss of more than five per cent of the total weight of the rhizome;
- (4) Insects, when there is more than one small, shallow feeding depression per one-half ounce of rhizome, or any feeding depression exceeds three-eighths inch in diameter or three-sixteenths inch in depth;
- (5) Rootlets, when more than two short rootlets are present per ounce of rhizome;
- (6) Shriveling, when:
 - (A) Area not adjacent to cuts, tears, breaks, or bruises are more than slightly shriveled; or
 - (B) Areas adjacent to cuts, tears, breaks,

or bruises are more than materially shriveled; or

- (7) Sprouts, when any sprout exceeds three-fourths inch in length.

"Dry" means the ginger roots are free from external moisture, but dampness due to condensation shall be allowed.

"Fairly clean" means reasonably free from dirt or other foreign matter and there is no caked dirt on the rhizome.

"Fairly well matured" means the skin of the ginger root is tight and more than one-half of the surface of the rhizome is of a silvery tan color. The remaining surface of the rhizome may show slight tints of yellow or brown color.

"Firm" means the ginger root is not shriveled or flabby and is unyielding to moderately heavy pressure.

"Immature" means the skin of the ginger root has the yellow or brown color characteristic of immature ginger root, and the ginger root has a stem attached.

"Injury" 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 appreciably detracts from the appearance, or the edible or marketing quality of the ginger root:

- (1) Cuts, breaks, or tears, when ragged or more than one-fourth inch deep;
- (2) Cuts, breaks, or tears, excluding points of mother plant and shoot attachments, when:
 - (A) More than one defect is present per four ounces of rhizome; or
 - (B) More than three defects are present per rhizome (excluding inconspicuous tears where roots were attached); or
 - (C) Large, conspicuous, and more than slightly affecting the appearance or marketing quality; or
 - (D) Obviously not at the end of a segment and exceeds an area one-half inch in diameter; or
 - (E) Any single tear exceeds one-fourth inch in diameter; or
 - (F) An aggregate of tears exceeds an area one-half inch in diameter;
- (3) Discolored flesh, when removal of the discolored area causes a loss of more than

- three per cent of the total weight of the rhizome;
- (4) Insects, when there is more than one small, shallow feeding depression per one ounce of rhizome, or any feeding depression exceeds one-fourth inch in diameter or one-eighth inch in depth;
 - (5) Rootlets, when more than one short rootlet is present per ounce of rhizome;
 - (6) Shriveling, when:
 - (A) Occurring in areas not adjacent to cuts, tears, breaks, or bruises; or
 - (B) Areas adjacent to cuts, tears, breaks, or bruises are more than slightly shriveled;
 - (7) Skin cracks, when prominent or numerous and affecting more than fifty per cent of the rhizome surface; or
 - (8) Sprouts, when any sprout exceeds three-eighths inch in length.

"Mature" means the skins of the ginger root is tight and more than three-fourths of the surface of the rhizome is of a silvery tan color. The remaining surface of the rhizome may show slight tints of yellow or brown color.

"Reasonable size" means all segments of the rhizome shall be at least seven-eighths inch wide as measured from the side, except that terminal segments which have no attached buds longer than three-fourths inch may be less than seven-eighths inch in width.

"Serious 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 seriously detracts from the appearance, or the edible or marketing quality of the ginger root:

- (1) Cuts, breaks, or tears, when very ragged or more than one-half inch deep;
- (2) Cuts, breaks, or tears, excluding points of mother plant and shoot attachments, when:
 - (A) More than one defect is present per one ounce of rhizome; or
 - (B) More than twenty-five defects are present per rhizome (excluding inconspicuous tears where roots were attached); or
 - (C) Large, conspicuous, and seriously affecting the appearance or marketing quality; or

- (D) Obviously not at the end of a segment and exceeds an area one inch in diameter; or
 - (E) Any single tear exceeds three-fourths inch in diameter; or
 - (F) An aggregate of tears exceeds an area one and one-half inches in diameter;
- (3) Discolored flesh, when removal of the discolored area causes a loss of more than ten per cent of the total weight of the rhizome;
 - (4) Insects, when there is more than one small shallow feeding depression per one-fourth ounce of rhizome, or any feeding depression exceeds one-half inch in diameter or three-eighths inch in depth; or
 - (5) Rootlets, when more than three short rootlets are present per ounce of rhizome.

"Similar varietal characteristics" means the ginger roots are of the same general type with similar flesh color, flavor, and fiber content.

"Skin cracks" means shallow cracks of the epidermis, which usually occur on well matured rhizomes and are generally parallel to the longitudinal axis of the segment.

"Soft rot" means any soft, mushy, or leaky condition of the tissue.

"Wet breakdown" means the leaky condition of ginger root tissue following freezing.

(b) Hawaii No. 1 (Hawaii Grade A) ginger root consists of Hawaii-grown ginger roots of similar varietal characteristics which are fairly well matured, dry, clean, firm, and of reasonable size; and which are free from soft rot or other decay, wet breakdown, wormholes, and sunscald and from injury caused by cuts, breaks, or tears, insects, rootlets, disease, skin cracks, growth cracks, discolored flesh, shriveling, sprouts, or mechanical or other means. Each ginger root shall weigh not less than four ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the ginger roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for ginger roots with damage by any cause,

including not more than one per cent affected by soft rot; and

- (2) For off-size, not more than five per cent of the ginger roots in any lot may be below the specified minimum weight.

(c) Hawaii Commercial ginger root consists of Hawaii-grown ginger roots of similar varietal characteristics which are fairly well matured, dry, fairly clean, firm; and which are free from soft rot or other decay, wet breakdown, wormholes, and sunscald and from damage caused by cuts, breaks, or tears, insects, rootlets, disease, growth cracks, discolored flesh, shriveling, sprouts, or mechanical or other means. Each ginger root shall weigh not less than two ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the ginger roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for ginger roots with serious damage by any cause, including not more than one per cent affected by soft rot; and
- (2) For off-size, not more than five per cent of the ginger roots in any lot may be below the specified minimum weight.

(d) Hawaii Young Ginger ginger root consists of Hawaii-grown ginger roots of similar varietal characteristics which are immature, dry, fairly clean, firm; and which are free from soft rot or other decay, wet breakdown, wormholes, and sunscald and from damage caused by cuts, breaks, or tears, insects, rootlets, disease, growth cracks, discolored flesh, shriveling, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by weight, of the ginger roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for ginger roots with serious damage by any cause, including not more than one per cent affected by soft rot. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 8/6/90; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-44 Standards for Hawaii-grown lettuce.

(a) As used in this section:

"Burst" means the head is broken open.

"Clean" means the head is practically free from dirt or other foreign material.

"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 lettuce:

- (1) Aphids, when infestation is on the compact portion of the head, or wrapper leaves are badly infested;
- (2) Broken midribs, when more than two outer head leaves are affected;
- (3) Dirt, when the head is smeared with mud, or wrapper leaves are badly smeared with mud, or the basal portion is caked with mud or dry dirt, or head and wrapper leaves are covered with a heavy layer of dust;
- (4) Freezing, when outer head leaves show discoloration over more than half the crown, or more than three outer head leaves are appreciably affected;
- (5) Seedstems, when apparent upon inspection of the head;
- (6) Sunburn, when discoloration of head leaves affect more than half the crown; or
- (7) Tipburn, when aggregating an area more than one inch long and one-half inch wide.

"Doubles" means two heads on the same stem.

"Excessively trimmed" means the outer head leaves have been removed exposing the tender, inner leaves.

"Fairly clean" means the appearance of the head or plant is not materially affected by the presence of dirt or other foreign material.

"Fairly firm" when applied to heads of iceberg type lettuce means the head is fairly compact and has good head formation and is not soft or spongy; and when applied to big boston type lettuce means the head is not soft or spongy.

"Fairly well formed" means the head is fairly symmetrical and not decidedly off shape in any respect, and the midribs are not excessively prominent and protruding.

"Firm" when applied to heads of iceberg lettuce

means the head is compact but may yield slightly to moderate pressure; and when applied to big boston type lettuce means the head is fairly compact.

"Fresh" means the head is crisp although the wrapper leaves may be slightly wilted, or in the absence of wrapper leaves, one or two head leaves may be slightly wilted.

"Not badly misshapen" means the midribs are not badly curved and do not protrude excessively, although the head may be asymmetrical and irregular in shape.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the lettuce:

- (1) Broken midribs, when more than four outer head leaves are affected; or
- (2) Tipburn, when any single spot is more than one and one-half inches long and three-fourths inch wide.

"Similar varietal characteristics" means the heads have the same characteristic leaf growth.

"Well formed" means the head is reasonably symmetrical and the midribs are not protruding or abnormally prominent.

"Well grown" means the heads or the plants are not stunted or poorly developed.

"Well trimmed" means the butt is trimmed off neatly close to the point of attachment of the outer leaves and the outermost leaves of the head show some shade of green color. No wrapper leaves shall be permitted on lettuce sold direct to consumers, and lettuce sold in wholesale quantities shall have no more than four wrapper leaves per head, provided such wrapper leaves are not coarse, materially torn, or badly blistered.

"Wrapper leaves" means leaves which do not closely enfold the compact portion of the head.

(b) Hawaii Fancy (Hawaii Grade AA) head lettuce consists of Hawaii-grown head lettuce of similar varietal characteristics which are fresh, firm, clean, well formed, well trimmed but not excessively trimmed, well grown, and not split, burst, or open; and which are free from decay, tipburn, doubles, russet, brown blight, and spotted wilt and from damage caused by seedstems, broken midribs, freezing, sunburn, discoloration, disease, aphids or other insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by count, of the heads in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for heads with serious damage by any cause, including not more than two per cent with soft rot affecting the compact portion of the head.

(c) Hawaii No. 1 (Hawaii Grade A) head lettuce consists of Hawaii-grown head lettuce of similar varietal characteristics which are fresh, fairly firm, fairly well formed, well trimmed but not excessively trimmed, well grown, and not split, burst, or open; and which are free from decay and doubles and from damage caused by seedstems, broken midribs, freezing, sunburn, discoloration, disease, aphids or other insects, russet, brown blight, spotted wilt, tipburn, or mechanical or other means. Hawaii Grade A lettuce shall be clean and Hawaii No. 1 lettuce may be fairly clean.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by count, of the heads in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for heads with serious damage by any cause, including not more than two per cent with soft rot affecting the compact portion of the head.

(d) Hawaii No. 2 (Hawaii Grade B) head lettuce consists of Hawaii-grown head lettuce of similar varietal characteristics which are fresh, not badly misshapen, well trimmed but may be excessively trimmed, and not split, burst, or open; which are free from decay; and which are free from damage caused by seedstems, freezing, russet, brown blight, spotted wilt, or dirt and from serious damage caused by wilting, tipburn, broken midribs, discoloration, disease, aphids or other insects, or mechanical or other means. Hawaii Grade B lettuce shall be clean.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by count, of the heads in any lot may fail to meet the requirements of this grade, including not more than two per cent with soft rot affecting the compact portion of the head. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-45 Standards for Hawaii-grown leaf lettuce.

(a) As used in this section:

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the lettuce.

"Fairly clean" means the appearance of the plant is not materially affected by the presence of dirt or other foreign material.

"Fresh" means the leaves are not wilted.

"Similar varietal characteristics" means the plants in any lot have no distinct head formation and are of the same general type.

"Well grown" means the plants are not stunted or poorly developed.

"Well trimmed" means the butt is trimmed off neatly close to the point of attachment of the first whorl of leaves and leaves which are more than slightly bleached or discolored have been removed.

(b) Hawaii No. 1 (Hawaii Grade A) leaf lettuce consists of Hawaii-grown leaf lettuce of similar varietal characteristics which are fresh, well trimmed, well grown, and fairly clean; and which are free from decay and seedstem and from damage caused by coarse stem, bleached or discolored leaves, sprayburn, wilting, freezing, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by count, of the lettuce in any lot may fail to meet the requirements of this grade, provided not more than two per cent may be affected by soft rot.

[Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-46 Standards for Hawaii-grown in-shell macadamia nuts.

(a) As used in this section:

"Clean" means the shell is practically free from dirt or other foreign material, or the general appearance of the lot is not more than appreciably affected by dirt or other foreign material.

"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 in-shell macadamia nuts:

- (1) Shell defects:
 - (A) Adhering husk, when more than ten per cent of the shell surface is covered with husk;
 - (B) Crack, when open or exceeds one-half the long axis of the nut;
 - (C) Holes and punctures, when extending through the shell to the kernel;
 - (D) Rodent injury, when the shell shows evidence of gnawing; or
 - (E) Surface mold, when conspicuous; and
- (2) Kernel defects:
 - (A) Discolored area, when any markedly discolored spot is present, or any more than slightly discolored spot exceeds an area $\frac{3}{32}$ inch in diameter, or any more than slightly discolored spot exceeds one-eighth inch in length or width, or a markedly discolored ring is present, or speckles that affect appearance more than slightly are present; or
 - (B) Insect scar, when any feeding scar exceeds an area $\frac{3}{32}$ inch in diameter, or two or more scars are present within a one-half inch area.

"Diameter" means the shortest axis of the nut.

"Doubles" means the nuts that result when two nuts have a common husk.

"Dry" means the shell is free from surface moisture.

"Insect infestation" means an insect or insect fragment, web, or frass is present within the nut.

"Loose extraneous or foreign material" means loose pieces of husk or shell, empty shell, plant material, and substance other than macadamia nuts in the shell.

"Off-odor or off-flavor by any cause" means the macadamia nut kernel possesses an odor or flavor which is not characteristic of macadamia nuts and which appreciably affects the eating quality of the kernel.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the in-shell macadamia nuts:

- (1) Discolored area on kernel, when any markedly discolored or prominent spot (abnormalities such as an area encircled by a reddish brown

line) or an aggregate of such spots within a one-half inch area exceeds an area $\frac{3}{16}$ inch in diameter, or speckles that seriously affect appearance are present;

- (2) Insect scar on kernel, when any feeding scar or an aggregate of such scars within a one-half inch area exceeds an area one-eighth inch in diameter; or
- (3) Shriveling, when excessive.

"Similar varietal characteristics" means the macadamia nuts have similar shape and shell texture; for example, smooth-shell type nuts shall not be mixed with rough-shell type in any lot.

"Well developed" means the kernel is plump and not shriveled or excessively soft.

(b) Hawaii No. 1 (Hawaii Grade A) in-shell macadamia nut consists of Hawaii-grown husked in-shell macadamia nuts of similar varietal characteristics which are more than five-eighths inch in diameter and free from doubles, live insect, and loose extraneous or foreign material; which have shells that are clean, dry, and free from damage caused by rodents, adhering husk, cracks, holes or punctures, surface mold, or other means; and which have kernels that are well developed and free from mold, decay, rodent injury, off-odor or off-flavor by any cause, and insect infestation and from damage caused by insect scar, discolored area, or other means. The average moisture content of the kernels shall not exceed three per cent, by weight.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For shell requirements, not more than five per cent, by gross in-shell weight, of the macadamia nuts in any lot may fail to meet the requirements of this grade;
- (2) For kernel requirements, not more than a total of ten per cent, by gross kernel weight, of the kernels in any lot may fail to meet the requirements of this grade, provided not more than a total of three per cent of the kernels may be affected by mold, decay, rodent injury, insect infestation other than live insect, off-odor or off-flavor by any cause, or serious damage other than by insect scar, not more than two per cent may be affected by serious damage by insect scar, and no live insect shall be permitted; and

- (3) For other requirements, not more than three per cent, by gross in-shell weight, of the macadamia nuts in any lot may fail to meet the requirements of this grade, provided not more than one-third of this amount, or one per cent, shall be allowed for loose extraneous or foreign material, and no live insect shall be permitted.

(c) Tolerances provided in these standards are on a lot basis and shall be applied to a composite sample representative of the lot; however, any identifiable container or group of containers in which the macadamia nuts are obviously of a quality materially inferior from the majority of the containers in the lot shall be considered as a separate lot. [Eff 5/29/81; am and comp 8/18/83; am 1/16/84; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-47 Standards for Hawaii-grown shelled macadamia nuts. (a) As used in this section:

"Clean" means the kernel is practically free from dirt or other foreign material, or the general appearance of the lot is not more than appreciably affected by dirt or other foreign or extraneous substance.

"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 shelled macadamia nuts:

- (1) Adhering shell, when shell specks affect the appearance or eating quality more than slightly, or any shell piece present exceeds 1/32 inch both in length and width;
- (2) Dark center, when the naturally exposed kernel center is appreciably dark or discolored;
- (3) Discolored area, when any markedly discolored spot is present or any more than slightly discolored spot exceeds an area 3/32 inch in diameter, or any more than slightly discolored spot exceeds an area one-eighth inch in length or width, or a markedly discolored ring is present, or speckles affecting appearance more than slightly are present; or

(4) Insect scar, when any feeding scar present exceeds an area $\frac{3}{32}$ inch in diameter, or there are two or more feeding scars within a one-half inch area.

"Dry" means the kernel is free from surface moisture.

"Half kernel" means the approximate half of a whole kernel with not more than one-eighth of its mass chipped off or missing.

"Insect infestation" means an insect or insect fragment, web, or frass is present.

"Loose extraneous material" means any loose substance which will pass through a $\frac{3}{32}$ inch square opening in styles I, II, III, and IV.

"Loose foreign matter" means any loose substance, other than macadamia kernels, which will not pass through a $\frac{1}{16}$ inch square opening.

"Off-odor or off-flavor by any cause" means the macadamia nut kernel possesses an odor or flavor which is not characteristic of macadamia nuts and which appreciably affects the eating quality of the kernel.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the shelled macadamia nuts:

- (1) Adhering shell, when shell specks seriously affect the appearance or eating quality, or any shell piece exceeding an area $\frac{1}{16}$ inch in diameter is present;
- (2) Dark center, when the naturally exposed kernel center is markedly dark or discolored;
- (3) Discolored area, when any dark brown or black spot or an aggregate of such spots within a one-half inch area exceeds an area $\frac{1}{16}$ inch in diameter, or any markedly discolored or prominent spot (abnormalities such as an area encircled by a reddish brown line) or an aggregate of such spots within a one-half inch area exceeds an area $\frac{3}{16}$ inch in diameter, or speckles seriously affecting appearance are present;
- (4) Insect scar, when any feeding scar or an aggregate of such scars within a one-half inch area exceeds an area one-eighth inch in diameter; or
- (5) Shriveling, when the kernel is excessively shriveled.

"Well developed" means the kernel is plump and not shriveled or excessively soft.

"Whole kernel" means the kernel is not split or separated into halves, and the kernel contour is not more than materially affected by a missing portion or portions, and not more than one-fourth of the kernel is chipped off or missing.

(b) Hawaii No. 1 (Hawaii Grade A) shelled macadamia nut consists of Hawaii-grown macadamia nut kernels which are well developed, clean, and dry; and which are free from loose extraneous material, mold, decay, insect infestation, rodent injury, off-odor or off-flavor by any cause, hollow center, and loose foreign material and from damage caused by adhering shell, insect scar, discolored area, dark center, or other means. The average moisture content of the kernels shall not exceed one and one-half per cent, by weight.

In order to allow for variations incident to proper grading and handling, the following tolerances, based on weight, are provided:

- (1) For all defects, not more than a total of five per cent of the kernels in any lot may fail to meet the requirements of this grade;
- (2) For dirt, mold, decay, and serious damage, not more than one per cent of the kernels in any lot may be affected;
- (3) For loose extraneous material, not more than one-half of one per cent of the kernels in any lot may be affected;
- (4) For insect infestation and off-odor or off-flavor, not more than one-tenth of one per cent of the kernels in any lot may be insect infested and not more than one-tenth of one per cent of the kernels may be affected by off-odor or off-flavor, provided there shall be no tolerance for live insect; and
- (5) For loose foreign matter, the amount present shall not exceed one-tenth of one per cent.

(c) Tolerances provided in this section are on a lot basis and shall be applied to a composite sample representative of a lot; provided, any identifiable container or group of containers in which the macadamia nuts are obviously of a quality materially inferior from the majority of the containers in the lot shall be considered a separate lot.

(d) The style of shelled macadamia nuts shall be specified in accordance with the following

requirements, based on weight, for which no part of any tolerance shall be allowed:

- (1) Style I (wholes) shall consist of not less than ninety per cent whole kernels with the remaining units of such size that not more than one per cent will pass through a one-fourth inch square opening;
- (2) Style II (wholes and halves) shall consist of at least fifty per cent whole kernels with the remaining units of such size that not more than two per cent will pass through a 5/16 inch square opening;
- (3) Style III (cocktail) shall consist of at least ninety per cent half or larger kernels, included therein at least twenty-five per cent whole kernels, with the remaining units of such size that not more than two per cent will pass through a one-fourth inch square opening;
- (4) Style IV (halves and pieces) shall consist of at least fifty per cent half kernels with the remaining units of such size that not more than two per cent will pass through a one-fourth inch square opening, and not more than five per cent are larger than half kernels;
- (5) Style V (large diced) shall consist of units which are smaller than half kernels but of such size that not more than five per cent will pass through a 5/16 inch by one inch opening, included therein not more than two per cent that will pass through a 3/32 inch square opening;
- (6) Style VI (chips) shall consist of units of such size that at least ninety-five per cent will pass through a 5/16 inch by one inch opening but not more than two per cent will pass through a 3/32 inch square opening;
- (7) Style VII (bits, diced) shall consist of units which are smaller than half kernels and of such size that at least ninety-five per cent will pass through a 5/16 inch square opening but not more than ten per cent will pass through a 3/32 inch square opening; and
- (8) Style VIII (fines) shall consist of broken, chipped, or chopped kernels of such size that all units will pass through a one-fourth inch square opening and most will also pass through a 3/32 inch square opening. [Eff 5/29/81; am and comp 8/18/83; am 1/16/84; am

and comp 3/24/86] (Auth: HRS §147-4) (Imp:
HRS §147-4)

§4-41-48 Standards for Hawaii-grown mangoes.

(a) As used in this section:

"Badly misshapen" means the mango is seriously irregular or abnormal in shape.

"Bruises" means bruising injury other than those incident to proper handling and packing.

"Clean" means practically free from dirt, dust, spray residue, or other foreign matter and the amount of sap on the fruit is not excessive.

"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 mangoes:

- (1) Discoloration, when aggregating an area more than two and one-half per cent of the surface; or
- (2) Russeting or scars, when light colored, smooth, and aggregating an area more than ten per cent of the surface, or rough, scaly, dark, or sunken and aggregating an area more than one-half inch in diameter, or so deep as to materially affect appearance.

"Diameter" means the distance across the smallest round opening through which the mango will pass without pressure.

"Fairly well formed" means the mango may be slightly abnormal in shape, but not to an extent whereby its appearance is materially affected.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the mangoes:

- (1) Discoloration, when aggregating an area more than three-eighths inch in diameter;
- (2) Fiber, when the flesh of the fruit is fibrous in areas not immediately adjacent to the seed, or fibers normally present in areas immediately adjacent to the seed are so long as to appreciably affect palatability; or
- (3) Russeting or scars, when light colored,

smooth, and aggregating an area more than three-eighths inch in diameter, or rough, scaly, dark, or prominent and aggregating an area more than one-eighth inch in diameter, or the affected area is sunken.

"Insect stings" means punctures made by insects that can be identified with the naked eye without cutting the fruit.

"Mature" means the mango has reached the stage of growth which insures a proper completion of the ripening process.

"Overripe" means dead ripe, very soft, and past commercial utility.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the mangoes:

- (1) Anthracnose, when any single spot is more than one-eighth inch in diameter, or when affected areas aggregate more than one-half inch in diameter;
- (2) Cracks, when not shallow, unhealed, or affecting an aggregate area more than one inch in diameter;
- (3) Discoloration, when affecting more than one-third of the surface; or
- (4) Russetting or scars, when rough, scaly, dark, or prominent and aggregating an area more than one and one-half inches in diameter, or so deep as to seriously affect appearance.

"Small seeded" means the weight of the seed in any fruit does not exceed twenty-five per cent of the total weight of the fruit.

"Smooth" means there are no ridges, grooves, or other irregularities of the skin of the fruit. Rough scars or cracks shall not be considered a factor of smoothness.

"Well formed" means the mango has a shape typical of the variety and is symmetrical and without irregularities in shape.

"Well trimmed" means the stem is neatly and smoothly cut or broken off at a point not more than one-half inch beyond the shoulder of the fruit.

(b) Hawaii Fancy (Hawaii Grade AA) mango consists of Hawaii-grown mangoes of a single variety which are mature, not overripe, clean, well trimmed, well formed, smooth, and small seeded; and which are free from

anthracnose or other decay, wormholes, insect stings, freezing injury, bruises, cuts, punctures, and cracks and from injury caused by fiber, discoloration, russeting, scars, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the mangoes in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for mangoes with anthracnose or damage by any cause, including not more than one per cent for mangoes affected by decay other than anthracnose; and
- (2) For off-size, not more than a total of ten per cent of the mangoes in any lot may vary from the size specified.

(c) Hawaii No. 1 (Hawaii Grade A) mango consists of Hawaii-grown mangoes of a single variety which are mature, not overripe, clean, well trimmed, fairly well formed, smooth, and small seeded; which are free from anthracnose or other decay, wormholes, insect stings, freezing injury, bruises, cuts, punctures, and cracks; and which are free from injury caused by fiber and from damage caused by discoloration, russeting, scars, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the mangoes in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for mangoes with anthracnose or serious damage by any cause, including not more than one per cent for mangoes affected by decay other than anthracnose; and
- (2) For off-size, not more than a total of ten per cent of the mangoes in any lot may vary from the size specified.

(d) Hawaii No. 2 (Hawaii Grade B) mango consists of Hawaii-grown mangoes of a single variety which are mature, not overripe, clean, well trimmed, not badly misshapen, smooth, and small seeded; which are free

from decay (except anthracnose), wormholes, insect stings, freezing injury, bruises, cuts, and punctures; and which are free from injury caused by fiber and from serious damage caused by discoloration, russeting, scars, disease, insects, anthracnose, cracks, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the mangoes in any lot may fail to meet the requirements of this grade, provided not more than one tenth of this amount, or one per cent, shall be allowed for mangoes affected by decay other than anthracnose; and
- (2) For off-size, not more than a total of ten per cent of the mangoes in any lot may vary from the size specified.

(e) Numerical count or minimum diameter or the applicable size classification shall be specified in connection with the grade to describe the size of mangoes in any container. When the numerical count is specified, the diameter of the largest mango in any container shall not exceed the diameter of the smallest mango by more than one-half inch when most of the mangoes are three inches or larger in diameter, nor by more than three-eighths inch in diameter when most of the mangoes are less than three inches in diameter. Size of mangoes may also be specified based on the following size classifications:

- (1) Small, each mango shall measure under two and one-half inches in diameter;
- (2) Medium, each mango shall measure from two and one-half to three inches in diameter; or
- (3) Large, each mango shall measure over three inches in diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

□4-41-49 Standards for Hawaii-grown onions.

(a) As used in this section:

"Badly misshapen" means the onion is so badly deformed its appearance is seriously affected.

"Breakdown" means the condition in which the scales are watersoaked.

"Bottlenecks" means the onions have abnormally thick necks and usually poorly developed bulbs.

"Clean" means free from staining or dirt or other foreign material.

"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 onions:

- (1) Breakdown or freezing injury, when the equivalent of one or more scales is watersoaked;
- (2) Splits, when distinct bulbs are readily apparent on casual examination of the onion, or the onion is not completely covered by two or more outer scales;
- (3) Sunburn, when the appearance of the individual bulb is materially affected, or the contents of a package have a distinct greenish cast; or
- (4) Sunscald, when the appearance of a dry, well cured onion is affected, or the affected area is soft, mushy, or wet.

"Diameter" means the greatest dimension taken at right angles to a straight line running from the stem of the onion to its root.

"Distinctive pink color" means the pink color often found on onions in a lot of yellow bermuda onions is so conspicuous as to materially affect the appearance of the individual onion.

"Doubles" means the onion has developed more than one distinct bulb joined only at the base.

"Dry" means entirely free from any trace of dampness.

"Fairly clean" means reasonably free from dirt or other foreign material and the individual onions are not caked with dirt or materially stained.

"Fairly dry" means not moist or damp, although not necessarily completely dry.

"Fairly firm" means the onion is not materially soft or spongy.

"Fairly well shaped" means the onions are characteristically shaped and are not three, four, or five-sided, thick necked, or badly pinched.

"Firm" means the onion is not appreciably soft or spongy.

"Injury" means any defect or combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the onions.

"Mature" means well developed and not wrinkled or shriveled.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the onions:

- (1) Breakdown or freezing injury, when the equivalent of two or more scales is watersoaked;
- (2) Shriveling, when more than slight; or
- (3) Splits, when the presence of distinct bulbs seriously affects the appearance, or the onion is not completely covered by one or more outer scales.

"Single variety" means the onions have the same characteristics as to shape, color, and character of growth.

"Splits" means an onion has developed more than one distinct bulb all of which are at least partially covered by an outer scale.

"Well shaped" means the onion is well rounded, well proportioned as to the neck and other characteristics, and has the shape typical of the variety.

(b) Hawaii Fancy (Hawaii Grade AA) onion consists of Hawaii-grown onions of a single variety which are mature, firm, dry, clean, and well shaped; and which are free from decay, breakdown, sprouts, new neck growth, bottlenecks, doubles, distinctive pink color, seedstems, splits, sunburn, sunscald, cuts, and freezing injury and from injury caused by peeling, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than five per cent of the onions in any lot may fail to meet the requirements of this grade, provided not more than one per cent may be badly watersoaked or affected by decay; and
- (2) For off-size, not more than five per cent of the onions in any lot may be below the specified minimum size and not more than ten per cent may be over the specified maximum size.

(c) Hawaii No. 1 (Hawaii Grade A) onion consists of Hawaii-grown onions of a single variety which are mature, firm, fairly dry, fairly clean, and fairly well

shaped; and which are free from decay, sprouts, new neck growth, bottlenecks, doubles, distinctive pink color, and seedstems and from damage caused by peeling, disease, insects, breakdown, splits, sunburn, sunscald, cuts, freezing, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the onions in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, may fail to meet the requirements of Hawaii No. 2 (Hawaii Grade B), including not more than one per cent which may be badly watersoaked or affected by decay; and
- (2) For off-size, not more than five per cent of the onions in any lot may be below the specified minimum size and not more than ten per cent may be over the specified maximum size.

(d) Hawaii No. 2 (Hawaii Grade B) onion consists of Hawaii-grown onions of a single variety which are fairly firm, fairly dry, fairly clean, and not badly misshapen; which are free from decay, sprouts, new neck growth, bottlenecks, doubles, distinctive pink color, and seedstems; and which are free from damage caused by sunburn and sunscald and from serious damage caused by peeling, disease, insects, breakdown, splits, cuts, freezing, shriveling, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than ten per cent of the onions in any lot may fail to meet the requirements of this grade, provided not more than one per cent may be affected by decay or badly watersoaked; and
- (2) For off-size, not more than five per cent of the onions in any lot may be below the specified minimum size and not more than ten per cent may be over the specified maximum size.

(e) Onions may be classified as to size on the basis of minimum or maximum diameter, or both minimum and maximum diameters, or the following optional size classifications:

- (1) Small, when each onion is one to two inches in diameter;
- (2) Medium, when each onion is two to three and one-half inches in diameter;
- (3) Large, when each onion is three and one-half to four and one-half inches in diameter; or
- (4) Extra large, when each onion is four and one-half inches or larger in diameter.
[Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-50 Standards for Hawaii-grown green onions.

(a) As used in this section:

"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 green onion:

- (1) Bent, broken, or bruised leaves, when materially affecting appearance; or
- (2) Clipping, when more than half the leaves on a plant are clipped or pinched back beyond the tip but not to the extent that appearance is seriously affected. When the tops of all the onions have been evenly clipped back to a fairly uniform length and the designation "clipped tops" is specified in connection with the grade, such onions shall not be considered as damaged.

"Diameter" means the greatest dimension of the stem taken at right angles to the longitudinal axis.

"Fairly clean" means the onion is reasonably free from dirt or other foreign matter.

"Fairly well formed" means the onion is not more than slightly curved, angular, crooked, or otherwise slightly misshapen.

"Fairly well trimmed" means the stalk is not broken or cut above the point of root attachment, and is reasonably free from dead, discolored, or slick outer skin.

"Fresh" means the onion is not more than slightly wilted or withered.

"Good green color" means the tops have a normal green color characteristic of healthy plants. Slight discoloration of the extreme tips and slight scarring caused by thrips shall be permitted.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the green onion.

"Similar varietal characteristics" means the onions in any lot are alike as to color, shape, and character of growth.

"Tender" means the onion is not tough, stringy, or advanced to the stage where the stalk is flabby.

(b) Hawaii No. 1 (Hawaii Grade A) green onion consists of Hawaii-grown green onions of similar varietal characteristics which are fresh, with good green color, tender, fairly well formed, fairly clean, and fairly well trimmed; and which are free from decay and from damage caused by clipping, bent, broken, or bruised leaves, insects, worm droppings, disease, or mechanical or other means. Stalk diameter shall be not less than one-fourth inch.

In order to allow for variations incident to proper grading, sizing, and handling, not more than ten per cent, by weight or count, of the green onions in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for green onions seriously damaged by any cause, including not more than one per cent for green onions affected by decay.

(c) Percentages of defects shall be calculated on a weight basis. However, for bunched green onions where the bunches in the lot are fairly uniform in size, percentages may be calculated on a count basis with each bunch representing a unit. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-51 Standards for Hawaii-grown oranges.

(a) As used in this section:

"Acid" means grams of acid calculated as anhydrous citric acid per one hundred milliliter of juice as determined by titration with sodium hydroxide solution using phenolphthalein as the indicator.

"Clean" means free from dirt or other foreign material.

"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 oranges:

- (1) Ammoniation, when not occurring as light speck type similar to melanose;
- (2) Creasing, when the skin is materially weakened;
- (3) Discoloration, when light golden brown and affecting more than twenty-five per cent of the surface (lighter shades caused by superficial scars or other means may affect a greater area and darker shades shall affect a lesser area, provided no discoloration caused by melanose or other means may affect the appearance to a greater extent than the light golden brown discoloration allowed);
- (4) Dryness or mushy condition, when affecting all segments of the fruit more than one-fourth inch at the stem end or a greater area is affected in other portions of the fruit;
- (5) Green spots or oil spots, when more than five spots are present or when aggregating an area more than three-fourths inch in diameter on an orange three inches in diameter (smaller fruits shall have a lesser number or lesser area of spots and larger fruits may have more, provided appearance is not affected to a greater extent than by spots permitted on a three-inch orange);
- (6) Ricey or woody flesh, when fairly excessive hand pressure is required to extract the juice;
- (7) Scab, when not classifiable as discoloration and appreciably affects shape or texture;
- (8) Scales, when more than twenty scales are present on a fruit three inches in diameter (smaller fruits shall have less scales and larger fruits may have more, provided appearance is not affected to a greater extent than by scales permitted on a three-inch orange);
- (9) Scars, when not smooth, or shallow or fairly shallow and detracts from appearance to a greater extent than the amount of discoloration permitted in the grade;
- (10) Split, rough, or protruding navel, when the split is unhealed, or more than three well healed splits are present, or the split is more than one-fourth inch long, or the navel is three cornered, star shaped, or any other

- irregular shape and has an opening so wide and a navel growth so folded and ridged that appearance is materially affected, or the navel flares, bulges, or protrudes beyond the general contour of the orange to render the fruit subject to mechanical injury during normal handling or packing;
- (11) Sunburn, when more than twenty-five per cent of the surface is affected, or the skin is appreciably flattened, dry, darkened, or hard; or
 - (12) Thorn scratches, when not well healed, or hard, light colored, concentrated, and aggregating an area more than one-fourth inch in diameter, or slight, light colored, concentrated, and aggregating an area more than one inch in diameter, or dark or scattered and detracting from appearance to a greater extent than from the other conditions in this paragraph.

"Diameter" means the greatest dimension measured at right angles to a line from the stem to the blossom end of the fruit.

"Fairly well formed" means the orange is not appreciably elongated, pointed, lopsided, or otherwise deformed.

"Fairly smooth texture" means the skin is fairly thin and not coarse for the variety and size of the fruit.

"Fairly well colored" means ten per cent of the area of the fruit that is not discolored is yellow or orange in color.

"Firm" means the orange is not soft, or noticeably wilted or flabby.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the oranges:

- (1) Ammoniation, when more than slightly affecting appearance;
- (2) Creasing, when the skin is slightly weakened;
- (3) Discoloration, when light golden brown and affecting more than ten per cent of the surface (lighter shades caused by superficial scars or other means may affect a greater area and darker shades shall affect a lesser

- area, provided no discoloration caused by melanose or other means may affect appearance to a greater extent than the light golden brown discoloration allowed);
- (4) Green spots or oil spots, when more than slightly affecting appearance;
 - (5) Scab, when not classifiable as discoloration and affects shape or texture more than slightly;
 - (6) Scales, when more than ten scales are present on a fruit three inches in diameter (smaller fruits shall have less scales and larger fruits may have more, provided appearance is not affected to a greater extent than by scales permitted on a three-inch orange);
 - (7) Scars, when depressed, or not smooth, or detracts from appearance to a greater extent than the amount of discoloration permitted in the grade;
 - (8) Split, rough, or protruding navel, when the navel protrudes beyond the general contour of the orange, or the navel is flush with the general contour but has an opening so wide and a navel growth so folded and ridged that appearance is noticeably affected; or
 - (9) Thorn scratches, when more than slight, or not well healed, or more unsightly than the discoloration allowed in the grade.

"Mature" means the orange has reached the stage of development which will insure proper completion of the ripening process.

"Reasonably well colored" means a yellow or orange color predominates over the green color over one-fourth of that portion of the fruit surface that is not discolored.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the oranges:

- (1) Ammoniation, when dark and aggregating an area more than three-fourths inch in diameter, or light colored and aggregating an area more than one and one-fourth inches in diameter, or scars are cracked;
- (2) Buckskin, when more than twenty-five per cent of the surface is affected, or fruit texture is seriously affected;

- (3) Creasing, when so deep and extensive that the skin is seriously weakened;
- (4) Discoloration, when light golden brown and affecting more than fifty per cent of the surface (lighter shades caused by superficial scars or other means may affect a greater area and darker shades shall affect a lesser area, provided no discoloration caused by melanose or other means may affect appearance to a greater extent than the light golden brown discoloration allowed);
- (5) Dryness or mushy condition, when affecting all segments of the fruit more than one-half inch at the stem end or a greater area is affected in other portions of the fruit;
- (6) Green spots or oil spots, when seriously affecting appearance;
- (7) Ricey or woody flesh, when excessive hand pressure is required to extract the juice;
- (8) Scab, when not classifiable as discoloration and materially affects shape or texture;
- (9) Scales, when more than forty scales are present on a fruit three inches in diameter (smaller fruits shall have less scales and larger fruits may have more, provided appearance is not affected to a greater extent than by scales permitted on a three-inch orange);
- (10) Scars, when very deep, or not fairly smooth, or not very deep but detracts from appearance to a greater extent than the amount of discoloration permitted in the grade;
- (11) Split, rough, or protruding navel, when the split is unhealed, or one well healed split is at each corner of an irregular navel and these aggregate more than one inch in length or exceed four in number or any one is more than one-half inch long, or any irregular navel has an opening so wide and a navel growth so badly folded and ridged that appearance is seriously affected, or the navel protrudes beyond the general contour of the orange to render the fruit subject to mechanical injury during normal grading, handling, or packing;
- (12) Sprayburn, when seriously affecting appearance, or the affected area is hard, or

- light brown and aggregating an area more than one and one-fourth inches in diameter;
- (13) Sunburn, when more than one-third of the surface is affected, or the affected area is hard, or the fruit is decidedly one sided, or light brown and aggregating an area more than one and one-half inches in diameter; or
- (14) Thorn scratches, when not well healed, or hard, light colored, concentrated, and aggregating an area more than one-half inch in diameter, or slight, light colored, concentrated, and aggregating an area more than one and one-half inches in diameter, or dark or scattered and detracts from the appearance to a greater extent than from the other conditions in this paragraph.

"Similar varietal characteristics" means the oranges are similar in color and shape.

"Slightly rough texture" means the skin is not materially ridged, grooved, or wrinkled.

"Smooth texture" means the skin is thin and smooth for the variety and size of fruit.

"Soluble solids" means the refractometric sucrose value of the juice obtained in accordance with the refractometric method for sugar and sugar products.

"Well colored" means fifty per cent of the area of the fruit that is not discolored is yellow or orange in color.

"Well formed" means the orange has the shape characteristic of the variety.

"Well trimmed" means the buttons are attached and are shorter than one-eighth inch in length.

(b) Hawaii Fancy (Hawaii Grade AA) orange consists of Hawaii-grown oranges of similar varietal characteristics which are firm, well formed, clean, well colored, mature, smooth textured, and well trimmed; which are free from bruises, unhealed cuts, buckskin or similar type discoloration, decay, growth cracks, sprayburn, undeveloped or sunken segments, and sprouting; and which are free from injury caused by ammoniation, bird pecks, creasing, discoloration, green spots or oil spots, pitting, scab, scale, scars, thorn scratches, or split, rough, or protruding navel and from damage caused by dryness or mushy condition, sunburn, ricey or woody flesh, disease, insects, or mechanical or other means. The lot shall average not less than ten per cent soluble solids and one-half of one per cent acid.

In order to allow for variations incident to

proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the oranges in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for oranges seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than a total of ten per cent of the oranges in any lot may vary from the size specified, provided not more than three-tenths of this amount, or three per cent, may be under the specified size.

(c) Hawaii No. 1 (Hawaii Grade A) orange consists of Hawaii-grown oranges of similar varietal characteristics which are firm, well formed, clean, fairly well colored, mature, fairly smooth textured, and well trimmed; which are free from bruises, unhealed cuts, buckskin or similar type discoloration, decay, growth cracks, sprayburn, undeveloped or sunken segments, and sprouting; and which are free from damage caused by ammoniation, bird pecks, creasing, discoloration, green spots or oil spots, pitting, scab, scale, scars, split or rough or protruding navel, thorn scratches, sunburn, dryness or mushy condition, ricey or woody flesh, disease, insects, or mechanical or other means. The lot shall average not less than nine per cent soluble solids and one-half of one per cent acid.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the oranges in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for oranges seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than a total of ten per cent of the oranges in any lot may vary from the size specified, provided not more than three-tenths of this amount, or three per cent, may be under the size specified.

(d) Hawaii No. 1 Bronze (Hawaii Grade A Bronze) orange consists of Hawaii-grown oranges that meet all the requirements of Hawaii No. 1 (Hawaii Grade A)

orange, except for discoloration. In this grade, at least ninety per cent, by count, of the oranges shall show more than ten per cent discoloration but not including dark, rough, or deep scars, green spots, caked melanose or ammoniation, pitting, or similar defects. The tolerances for this grade are the same as for Hawaii No. 1 (Hawaii Grade A) orange.

(e) Hawaii No. 2 (Hawaii Grade B) orange consists of Hawaii-grown oranges of similar varietal characteristics which are firm, fairly well formed, clean, reasonably well colored, mature, not more than slightly rough textured, and well trimmed; which are free from bruises, unhealed cuts, decay, growth cracks, undeveloped or sunken segments, and sprouting; and which are free from serious damage caused by ammoniation, bird pecks, creasing, discoloration, green spots or oil spots, pitting, scab, scale, scars, split or rough or protruding navel, thorn scratches, sunburn, dryness or mushy condition, ricey or woody flesh, disease, insects, buckskin, sprayburn, or mechanical or other means. The lot shall average not less than eight and one-half per cent soluble solids and one-half of one per cent acid.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the oranges in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, may be affected by decay; and
- (2) For off-size, not more than a total of ten per cent of the oranges in any lot may vary from the size specified, provided not more than three-tenths of this amount, or three per cent, may be under the size specified.

(f) Size of oranges in any container shall be specified in connection with the grade, based on the following size classifications:

- (1) Small, wherein each orange shall measure less than two and one-half inches in diameter;
- (2) Medium, wherein each orange shall measure from two and one-half to three inches in diameter; or
- (3) Large, wherein each orange shall measure over three inches in diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-52 Standards for Hawaii-grown papaya.

(a) As used in this section:

"Brown spot" means the disease characterized by superficial spots which are brownish green to brownish slate in color, irregular to round in shape, and frequently with a corky pimple near the center.

"Catfaces" means structural deformities of the fruit characterized by a scar, usually sunken, which extends downward from the stem on one side of the fruit and causes slight to serious malformation of the fruit.

"Clean" means practically free from dirt, dust, spray residue, staining, other foreign material, and latex.

"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 marketing quality of the fruit:

- (1) Brown spot, when affecting appearance to a greater extent than the allowance for damage by scars;
- (2) Catfaces, when more than one inch in length or when depressed or rough; or
- (3) Scars, when deep and aggregating an area more than three-fourths inch in diameter, or scaly, cracked, or not smooth and aggregating an area more than five per cent of the fruit surface, or smooth and aggregating an area more than ten per cent of the fruit surface.

"Excessively rough" means the surface of the papaya is so lumpy as to seriously detract from the appearance, or more than three-fourths of the surface is distinctly pebbled, or creases or depressions are so deep as to seriously affect the appearance of the fruit.

"Fairly clean" means practically free from dirt, dust, staining, spray residue, and other foreign material, except that ten per cent of the surface of the fruit may be coated with a light layer of latex or five per cent of the surface may be coated with caked latex.

"Fairly smooth" means not more than one-third of the fruit surface is pebbled and the pebbled surface is not excessively rough; grooves or creases are not so deep or so wide as to materially affect the appearance of the fruit; and sharp or deep depressions do not

affect an aggregate area more than one inch in diameter.

"Fairly well formed" means the fruit may be moderately lopsided, flattened, elongated, or otherwise lacking in symmetry, but the fruit shall not be sufficiently misshapen to materially detract from the appearance.

"Good internal quality" means that the fruits contain not less than eleven and one-half per cent soluble solids.

"Immature" means the fruit is hard and green with no yellow color.

"Injury" means any defect or any combination of defects which appreciably detracts from the appearance, or the edible or marketing quality of the fruit. Scars that are deep, or scaly, cracked, or not smooth and aggregating an area more than one-half inch in diameter, or smooth and aggregating an area more than one inch in diameter shall be scored as injury.

"Internal hard lumps" means the hard, lumpy masses in the flesh of the fruit.

"Mature" means at least a portion of the lower or blossom-end half of the papaya shows a definite tinge of yellow.

"Not badly misshapen" means the fruit is not so badly deformed that the appearance is seriously affected.

"Overripe" means dead ripe, soft, and past commercial utility.

"Scalding" means the injury resulting from exposure to hot water, vapor heat, or direct sunlight.

"Serious 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 seriously detracts from the appearance, or the edible or marketing quality of the fruit:

- (1) Brown spot, when affecting appearance to a greater extent than the allowance for serious damage by scars;
- (2) Catfaces, when extending more than one-half the length of the fruit, or excessively deep, wide, or rough; or
- (3) Scars, when deep and aggregating an area more than five per cent of fruit surface, or scaly, cracked, or not smooth and aggregating an area more than ten per cent of the fruit surface, or smooth and aggregating an area

more than twenty per cent of the fruit surface.

"Similar varietal characteristics" means the papayas are alike as to shape, size, flesh color, and other general characteristics.

"Smooth" means there is no appreciable pebbling or other roughness on the surface of the fruit; the fruit is not more than slightly grooved, ridged, or creased; and sharp or deep depressions do not affect an aggregate area more than three-eighths inch in diameter.

"Solo type" means the papaya is of the solo type characterized by its shape and small size, usually under two pounds and pyriform in shape.

"Soluble solids" means the sucrose value, as determined by a hand refractometer, of the combined juice extracted from a sample of papaya selected at random.

"Uniform size" means the difference in weight between the heaviest and lightest papaya in a wholesale container is not more than eight ounces.

"Well formed" means the fruit is very symmetrical and not flattened, lopsided, or elongated, and no part is disproportionately large or small.

"Well trimmed" means the stem is firmly attached to the fruit and broken off fairly smoothly at the point of abscission or cut off at approximately right angles to the longitudinal axis at a point not more than one-fourth inch beyond the shoulder of the fruit.

(b) Hawaii Fancy (Hawaii Grade AA) papaya consists of Hawaii-grown papayas of the solo type, which are of similar varietal characteristics, mature, not overripe, clean, well trimmed, well formed, and smooth; and which are free from decay, breakdown, internal hard lumps, soft bruise, scalding, cuts or punctures, catfaces, and brown spot and from injury caused by scars, surface bruise, disease, insects, or mechanical or other means. Papayas in wholesale quantities shall be uniform in size. Unless otherwise specified, each papaya shall weigh at least sixteen ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than ten per cent of the papayas in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for papayas with

defects causing damage, including not more than one per cent affected by decay or breakdown;

- (2) For uniformity of size, not more than ten per cent of the containers in any lot may fail to meet uniform in size requirements; and
- (3) For offsize, not more than ten per cent of the papayas in any lot may vary from the size specified.

(c) Hawaii No. 1 (Hawaii Grade A) papaya consists of Hawaii-grown papayas of the solo type, which are of similar varietal characteristics, mature, not overripe, clean, well trimmed, fairly well formed, and fairly smooth; and which are free from decay, breakdown, internal hard lumps, soft bruise, and scalding and from damage caused by scars, surface bruise, disease, insects, catfaces, brown spot, cuts or punctures, or mechanical or other means. Papayas in wholesale quantities shall be uniform in size. Unless otherwise specified, each papaya shall weigh from fourteen to thirty-two ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than ten per cent of the papayas in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for papayas with defects causing serious damage, including not more than one per cent affected by decay or breakdown;
- (2) For uniformity of size, not more than ten per cent of the containers in any lot may fail to meet uniform in size requirements; and
- (3) For offsize, not more than ten per cent of the papayas in any lot may vary from the size specified.

(d) Hawaii No. 2 (Hawaii Grade B) papaya consists of Hawaii-grown papayas of the solo type, which are of similar varietal characteristics, mature, not overripe, fairly clean, well trimmed, not badly misshapen, and not excessively rough; and which are free from decay, breakdown, internal hard lumps, soft bruise, and scalding and from serious damage caused by scars, surface bruise, disease, insects, catfaces, brown spot, cuts or punctures, or mechanical or other means.

In order to allow for variations incident to

proper grading and handling, the following tolerances, based on count are provided:

- (1) For defects, not more than ten per cent of the papayas in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, shall be allowed for papayas affected by decay or breakdown; and
 - (2) When any optional size is applied to the lot, not more than ten per cent by count of the papayas in any lot may vary from the size specified
- (e) Size of papayas in any container or lot may be specified in connection with the grade, based on the following size classifications:
- (1) Small, when each papaya weighs from ten to thirteen ounces;
 - (2) Medium, when each papaya weighs from thirteen to sixteen ounces;
 - (3) Large, when each papaya weighs from sixteen to thirty-two ounces; or
 - (4) Extra large, when each papaya weighs over thirty-two ounces.
- (f) Optional internal quality requirement. "Good internal quality" may be specified in connection with the grade. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 8/6/90; am 12/12/05] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-53 Standards for Hawaii-grown sweet pepper.

- (a) As used in this section:
- "Clean" means free from staining and dirt or other foreign material.
- "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 sweet peppers:
- (1) Scars, when excessively prominent or aggregating an area more than one-half inch in diameter; or
 - (2) Sunburn, when the appearance of the pepper is materially affected.
- "Diameter" means the greatest dimension measured at right angles to the longitudinal axis.

"Fairly clean" means reasonably free from staining and dirt or other foreign material.

"Fairly well shaped" means the pepper is indented or curved but not badly misshapen. A badly misshapen pepper is of the type commonly known as "button", or is decidedly crooked, constricted, or otherwise so seriously deformed that its appearance is seriously affected.

"Firm" means the pepper is not soft, shriveled, limp, or pliable, although it may yield to slight pressure.

"Injury" means any defect or any combination of defects which appreciably detracts from the appearance, or the edible or shipping quality of the sweet peppers. Peppers with scars aggregating an area more than one-fourth inch in diameter shall be scored as affected by injury.

"Length" means the greatest overall length of the pepper, exclusive of the stem, measured in a straight line.

"Mature green" means the seeds are fully developed and the pepper has reached the stage of maturity which will insure a proper completion of the ripening process.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the sweet peppers:

- (1) Scars, when aggregating an area more than fifteen per cent of the surface; or
- (2) Sunburn, when the appearance of the pepper is seriously affected.

"Similar varietal characteristics" means the peppers are alike as to general type; i.e., thin walled (soft type) peppers shall not be mixed with thick walled (hard type) peppers.

"Well shaped" means not more than slightly curved or dented.

(b) Hawaii Fancy (Hawaii Grade AA) sweet pepper consists of Hawaii-grown sweet peppers of similar varietal characteristics which are mature green, firm, clean, and well shaped; and which are free from decay, freezing injury, weevils, weevil injury, sunscald, unhealed skin breaks, and sunburn and from injury caused by scars, bruises, insects, disease, or mechanical or other means. Unless otherwise specified, the individual pepper shall be not less than three

inches in length nor less than three inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the peppers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for peppers damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the peppers in any lot may fail to meet the specified minimum length or minimum diameter.

(c) Hawaii No. 1 (Hawaii Grade A) sweet pepper consists of Hawaii-grown sweet peppers of similar varietal characteristics which are mature green, firm, clean, and well shaped; and which are free from decay, freezing injury, weevils, weevil injury, sunscald, and unhealed skin breaks and from damage caused by scars, bruises, insects, disease, sunburn, or mechanical or other means. Unless otherwise specified, the individual pepper shall be not less than two and one-half inches in length nor less than two and one-half inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the peppers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for peppers which are seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the peppers in any lot may fail to meet the specified minimum length or minimum diameter.

(d) Hawaii No. 2 (Hawaii Grade B) sweet pepper consists of Hawaii-grown sweet peppers of similar varietal characteristics which are mature green, firm, fairly clean, and fairly well shaped; and which are free from decay, freezing injury, weevils, weevil injury, sunscald, and unhealed skin breaks and from serious damage caused by scars, bruises, insects, sunburn, or mechanical or other means. Unless

otherwise specified, the individual pepper shall be not less than two and one-fourth inches in length nor less than two and one-fourth inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are specified:

- (1) For defects, not more than a total of ten per cent of the peppers in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for peppers affected by sunscald and not more than one per cent for peppers affected by decay; and
 - (2) For off-size, not more than ten per cent of the peppers in any lot may fail to meet the specified minimum length or minimum diameter.
- (e) Peppers which conform to the requirements of the respective grades except as to color or type, may be designated in accordance with the following color or type classifications:
- (1) When uniformly red or turning red, the peppers may be designated "Hawaii Fancy Red", "Hawaii No. 1 Red", or "Hawaii No. 2 Red". When red and green peppers are mixed, the peppers may be designated "Hawaii Fancy Mixed Color", "Hawaii No. 1 Mixed Color", or "Hawaii No. 2 Mixed Color"; or
 - (2) When peppers do not have similar varietal characteristics, the peppers may be designated "Hawaii Fancy Mixed Types", "Hawaii No. 1 Mixed Types", or "Hawaii No. 2 Mixed Types". [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-54 Standards for Hawaii-grown pineapples.

(a) The United States Standards for Grades of Pineapples, effective July 5, 1990, as specified in section 51.1485 through 51.1510 of Title 7, Part 51, Code of Federal Regulations, is made a part of this section.

(b) Hawaii Fancy (Hawaii Grade AA) pineapple consists of Hawaii-grown pineapples which meet the requirements of U.S. Fancy pineapples.

(c) Hawaii No. 1 (Hawaii Grade A) pineapple consists of Hawaii-grown pineapples which meet the requirements of U.S. No. 1 pineapples.

(d) Hawaii No. 2 (Hawaii Grade B) pineapple

consists of Hawaii-grown pineapples which meet the requirements of U.S. No. 2 pineapples. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 5/26/92] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-55 Standards for Hawaii-grown plums.

(a) As used in this section:

"Badly misshapen" means the fruit is so malformed or rough that the appearance is seriously damaged. Doubles shall be considered to be badly misshapen.

"Damage" means any of the following specific defects, or an equally objectionable variation of any one of those defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or shipping quality of the plums:

- (1) Broken skin, when skin breaks are unhealed, except those caused by pulled stems where the skin is not torn beyond the stem basin;
- (2) Drought spot, when aggregating an area more than one-fourth inch in diameter;
- (3) Growth crack, when deep, or not well healed, or more than three-eighths inch in length, or more than one external crack (internal growth cracks are not considered a defect) is on a fruit;
- (4) Gum spot, when external (internal gum spots are not considered a defect) and aggregating an area more than one-fourth inch in diameter;
- (5) Hail marks, when not shallow or superficial, or aggregating an area more than three-eighths inch in diameter, or the skin has been broken;
- (6) Heat injury, when extensive or not light colored;
- (7) Russeting, when not excessively rough but aggregating more than ten per cent of the surface, or excessively rough and aggregating an area more than one-fourth inch in diameter;
- (8) Scars, when dark, rough, or depressed and aggregating an area more than one-fourth inch in diameter, or fairly smooth, superficial (including fairly light discolorations such as that caused by handling or packing or by plums rubbing against one another while on

- the tree), and aggregating an area more than one-half inch in diameter, or twig and limb scratches that are not well healed or aggregate more than one inch in length;
- (9) Split pit, when causing a readily apparent crack at the stem end, or affecting shape to the extent that the fruit is not well formed; or
 - (10) Sunburn, when the normal color of the fruit is materially changed, or the skin is blistered or cracked.

"Diameter" means the greatest distance through the center of the fruit measured at right angles to a line running from the stem to the blossom end.

"Mature" means the fruit has reached the stage of maturity which will insure a proper completion of the ripening process.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the plums:

- (1) Broken skin, when unhealed skin breaks (healed skin breaks shall be handled as scars) are more than one-eighth inch in diameter or depth, except those caused by pulled stems where the skin is not torn beyond the stem basin;
- (2) Drought spots, when aggregating an area more than one-half inch in diameter;
- (3) Growth crack, when external (internal growth cracks are not considered a defect) and more than 3/16 inch in depth or more than one-half inch in length;
- (4) Gum spots, when external (internal gum spots are not considered a defect) and aggregating an area more than one-half inch in diameter;
- (5) Hail marks, when more than 3/16 inch in depth, or aggregating an area more than one-half inch in diameter;
- (6) Heat injury, when a softening or dark discoloration of the flesh occurs;
- (7) Russeting, when not excessively rough but aggregating more than one-third of the surface, or excessively rough and aggregating an area more than one-half inch in diameter;
- (8) Scars, when more than 3/16 inch in depth, or very dark or excessively rough and

- aggregating an area more than one-half inch in diameter;
- (9) Split pit, when causing a crack at the stem (including any part covered by the stem) more than 3/16 inch in length, or affecting shape to the extent that the fruit is badly misshapen; or
 - (10) Sunburn, when the fruit is decidedly flattened, or the skin is seriously blistered, cracked, or discolored.

"Sunscald" means the injury caused by the sun in which a softening or collapse of the flesh is apparent.

"Well formed" means the fruit has the shape characteristic of the variety. Doubles shall not be considered as well formed.

(b) Hawaii Fancy (Hawaii Grade AA) plum consists of Hawaii-grown plums of a single variety which are well formed, mature, and not overripe, soft, or shriveled; and which are free from decay, sunscald, growth cracks, heat injury, sunburn, split pit, and hail marks and from damage caused by broken skin, drought spots, gum spots, russeting, scars, dirt or other foreign material, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter of each plum shall be not less than one and three-fourths inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the plums in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for plums seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the plums in any lot may fail to meet the size specified.

(c) Hawaii No. 1 (Hawaii Grade A) plum consists of Hawaii-grown plums of a single variety which are well formed, mature, and not overripe, soft, or shriveled; and which are free from decay and sunscald, and from damage caused by heat injury, broken skin, growth cracks, drought spots, gum spots, sunburn, russeting, split pit, scars, hail marks, dirt or other foreign material, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter

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of each plum shall be not less than one and one-half inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the plums in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for plums seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the plums in any lot may fail to meet the size specified.

(d) Hawaii No. 2 (Hawaii Grade B) plum consists of Hawaii-grown plums of a single variety which are not badly misshapen, mature, and not overripe, soft, or shriveled; and which are free from decay and sunscald and from serious damage caused by heat injury, broken skin, growth cracks, drought spots, gum spots, sunburn, russeting, split pit, scars, hail marks, dirt or other foreign material, disease, insects, or mechanical or other means. Unless otherwise specified, the diameter of each plum shall be not less than one inch in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the plums in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for plums affected by sunscald or seriously damaged by insects or heat injury, including not more than one per cent affected by decay; and
- (2) For off-size, not more than ten per cent of the plums in any lot may fail to meet the size specified. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-56 Standards for Hawaii-grown potatoes.

(a) As used in this section:

"Clean and bright" means practically free from dirt or other foreign material, and the outer skin

(epidermis) has the attractive color typical of the variety.

"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 potatoes, or any defect which cannot be removed without a loss of more than five per cent of the total weight of the potato, including the peel covering the defective area:

- (1) Air cracks, when deep or when shallow but materially affecting appearance;
- (2) Dirt, when the individual potato is badly caked with dirt or badly stained, or the appearance of the lot in general is more than slightly dirty or stained or is materially affected by the presence of foreign matter;
- (3) External discoloration, when skinned areas are discolored to the extent that appearance is materially affected;
- (4) Pitted scab, when affecting appearance to a greater extent than the amount of surface scab permitted;
- (5) Sprouting, when more than ten per cent of the potatoes have sprouts over three-fourths inch long;
- (6) Surface scab, when aggregating more than five per cent of the surface; or
- (7) Wireworm, when any hole on a six to eight ounce potato is longer than three-fourths inch or when the aggregate length of all holes exceeds one and one-fourth inches (smaller potatoes shall have lesser amounts 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 six to eight ounce potato).

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

"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.

"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 two per cent of the total weight of the potato, including the peel covering the defective area.

"Internal discoloration" means any discoloration (except blackheart) caused by necrosis, stem end browning, internal brown spot, or other similar types of discoloration not externally visible.

"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.

"Serious damage" means any of the following specific defects, or any 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 ten per cent of the total weight of the potato, including the peel covering the defective area:

- (1) External discoloration, when skinned areas are discolored to the extent that appearance is seriously affected;
- (2) Fairly smooth cuts, when both ends are clipped, or more than one-fourth of the potato is cut away, or in the case of long varieties, the remaining portion of the clipped potato weighs less than six ounces;
- (3) Pitted scab, when affecting appearance to a greater extent than the amount of surface scab permitted;
- (4) Shriveling, when excessively shriveled, spongy, or flabby;
- (5) Surface scab, when aggregating more than fifty per cent of the surface; or
- (6) Wireworm, when any hole on a six to eight ounce potato is longer than one and one-fourth inches or when the aggregate length of all holes exceeds two inches (smaller potatoes shall have lesser amounts 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 six to eight ounce potato).

"Seriously misshapen" means the potato is seriously pointed, dumbbell-shaped, or otherwise badly deformed.

"Similar varietal characteristics" means the potatoes in any lot have the same general shape, color and character of skin, and color of flesh.

"Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissue.

"Well shaped" means the normal shape for the variety and the potato is not tapered, pointed, dumbbell-shaped, elongated, or otherwise appreciably deformed.

(b) Hawaii Fancy (Hawaii Grade AA) potato consists of Hawaii-grown potatoes of similar varietal characteristics which are well shaped, not frozen, firm, mature, clean, and bright; and which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, soft rot or wet breakdown, shriveling, hollow heart, sprouting, sunburn, and internal discoloration and from injury caused by second growth, growth cracks, air cracks, cuts, scab, dry rot, rhizoctonia or other diseases, wireworm or other insects, or mechanical or other means. The potatoes shall be not less than two inches in diameter. In addition, for long varieties, not less than forty per cent of the potatoes in any lot shall be six ounces or more in weight; and for round and intermediate shape varieties, not less than sixty per cent of the potatoes in any lot shall be two and one-fourth inches or larger in diameter. Size of potatoes may be specified in connection with the grade 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, but in no case shall the potatoes be below the size specified for this grade.

(c) Hawaii No. 1 (Hawaii Grade A) potato consists of Hawaii-grown potatoes of similar varietal characteristics which are fairly well shaped, not frozen, and firm; and which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, soft rot or wet breakdown, shriveling, and hollow heart and from damage caused by second growth, growth cracks, air cracks, cuts, scab, dry rot, rhizoctonia or other diseases, wireworm or other insects, internal discoloration, external discoloration, sprouting, sunburn, dirt or other

foreign matter, or mechanical or other means. Unless otherwise specified, the potatoes shall be not less than one and seven-eighths inches in diameter. Size of potatoes may be specified in connection with the grade 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.

(d) Hawaii No. 2 (Hawaii Grade B) potato consists of Hawaii-grown potatoes of similar varietal characteristics which are not seriously misshapen nor frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown; and which are free from damage caused by dirt or other foreign material and from serious damage caused by second growth, growth cracks, air cracks, cuts, scab, dry rot or other diseases, wireworm or other insects, sunburn, internal discoloration, external discoloration, hollow heart, shriveling, or mechanical or other means. Unless otherwise specified, potatoes shall be not less than one and seven-eighths inches in diameter. Size of potatoes may be specified in connection with the grade 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.

(e) In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of six per cent of the potatoes in any lot may fail to meet the requirements of the grade specified, provided not more than one-half of this amount, or three per cent, shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, including not more than one per cent for frozen potatoes or potatoes affected by soft rot or wet breakdown; and
- (2) For off-size, not more than three per cent of the potatoes in any lot may fail to meet the specified minimum size (except a five per cent tolerance for undersize shall be allowed for potatoes packed to meet a minimum size of two and one-fourth inches or more in diameter, or six ounces or more in weight), and not more than ten per cent of the potatoes in any lot may be larger than the specified maximum size.

(f) Size of potatoes in any container or lot may be specified in connection with Hawaii No. 1 potato and Hawaii No. 2 potato grades, based on the following size classifications:

- (1) Size A, which shall consist for long variety potatoes, not less than forty per cent of the potatoes in any lot weighing six ounces or more, and for round or intermediate shaped varieties, not less than sixty per cent of the potatoes in any lot with diameters two and one-fourth inches or larger; and
- (2) Size B, which shall consist of potatoes that are one and one-half inches to not more than two inches in diameter.

(g) Potatoes in any lot may be classified as to the degree of skinning based on the following skinning classifications:

- (1) "Practically no skinning", when not more than five per cent of the potatoes have more than one-tenth of the skin missing or feathered;
- (2) "Slightly skinned", when not more than ten per cent of the potatoes have more than one-fourth of the skin missing or feathered;
- (3) "Moderately skinned", when not more than ten per cent of the potatoes have more than one-half of the skin missing or feathered; or
- (4) "Badly skinned", when more than ten per cent of the potatoes in any lot have more than one-half of the skin missing or feathered.
[Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-57 Standards for Hawaii-grown sweet potatoes. (a) As applied to this section:

"Badly misshapen" means the sweet potato is so curved, crooked, constricted, ridged, or otherwise misshapen that its appearance is seriously affected, or there is a loss of more than ten per cent of the total weight of the sweet potato in the ordinary preparation for use.

"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 sweet potato, or any defect, except shape, which

cannot be removed without a loss of more than five per cent of the total weight of the sweet potato, including the peel covering the defective area:

- (1) Grass root, wireworm, weevil, or similar injury, when any hole is longer than three-fourths inch on a six to eight ounce sweet potato, or when the aggregate length of all holes is more than one and one-fourth inches (smaller potatoes shall have proportionately lesser amounts and larger potatoes may have greater amounts, provided the removal of the defect by proper trimming does not affect appearance of the sweet potato to a greater extent than the proper trimming of such defect on a six to eight ounce sweet potato);
- (2) Growth cracks, when materially affecting appearance of the individual sweet potato or the general appearance of the lot;
- (3) Scurf, when the general appearance of the lot is materially affected, or more than one-fourth of the surface of the individual sweet potato is affected by a solid, light brown discoloration (lighter shades of discoloration may be permitted over a greater area and darker shades shall be restricted to a lesser area, provided that no discoloration shall be permitted which affects the appearance of the sweet potato to a greater extent than the amount of solid light brown discoloration permitted);
- (4) Secondary rootlets, when the appearance of the individual sweet potato is badly affected or the general appearance of the lot is materially affected; or
- (5) Sprouts, when more than ten per cent of the sweet potatoes have sprouts over three-fourths inch long.

"Diameter" means the distance across the smallest round opening through which the sweet potato will pass.

"Fairly clean" means the individual sweet potato is not noticeably caked with dirt and the lot is reasonably free from dirt or foreign material.

"Fairly smooth" means the sweet potato is not prominently veined and is free from other defects which cause a roughness to the extent that its appearance is materially affected.

"Fairly well shaped" means the sweet potato is not so curved, crooked, constricted, ridged, or otherwise misshapen that its appearance is materially affected,

or there is a loss of more than five per cent of the total weight of the sweet potato in the ordinary preparation for use.

"Firm" means not flabby or shriveled.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the sweet potato, or any defect, except shape, which cannot be removed without a loss of more than two per cent of the total weight of the sweet potato, including the peel covering the defective area:

- (1) Scurf, when the general appearance of the lot is appreciably affected, or more than one-eighth of the surface of the individual sweet potato is affected by a solid, light brown discoloration (lighter shades of discoloration may be permitted over a greater area and darker shades shall be restricted to a lesser area, provided that no discoloration shall be permitted which affects the appearance of the sweet potato to a greater extent than the amount of solid light brown discoloration permitted); or
- (2) Secondary rootlets, when more than five short rootlets are present or when a lesser number of longer rootlets affect appearance to a greater extent than five short rootlets.

"More than slightly dirty" means the individual sweet potato is badly caked with dirt, or the appearance of the lot is seriously affected by sweet potatoes caked with dirt.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the sweet potato, or any defect, except shape, which cannot be removed without a loss of more than ten per cent of the total weight of the sweet potato, including the peel covering the defective area:

- (1) Dry rot, when present in any degree;
- (2) Grass root, wireworm, weevil, or similar injury, when any hole is longer than one and one-fourth inches on a six to eight ounce sweet potato, or when the aggregate length of all holes is more than two inches (smaller

potatoes shall have proportionately lesser amounts and larger potatoes may have greater amounts, provided that the removal of the defect by proper trimming does not affect appearance of the sweet potato to a greater extent than the proper trimming of such defect on a six to eight ounce sweet potato);
or

- (3) Growth cracks, when unhealed or seriously affecting the appearance of the individual sweet potato or the general appearance of the lot.

"Single type" means the sweet potatoes have the same type of flesh and do not show an extreme range in skin color. For example, dry type sweet potatoes shall not be mixed with semi-moist or moist type sweet potatoes, and deep red or purple skinned sweet potatoes shall not be mixed with sweet potatoes that are yellow or reddish copper in color.

"Single variety" means the sweet potatoes have the same type and color of flesh and practically the same skin color.

"Smooth" means the sweet potato is free from coarse veining or other defects which cause a roughness to the extent that its appearance is appreciably affected.

"Well shaped" means the sweet potato is not so curved, crooked, constricted, ridged, or otherwise misshapen that its appearance is appreciably affected.

(b) Hawaii Fancy (Hawaii Grade AA) sweet potato consists of Hawaii-grown sweet potatoes of a single variety which are firm, smooth, fairly clean, and well shaped; and which are free from freezing injury, internal breakdown, black rot, wet breakdown or other decay, insects, insect hole or tunnel, rodent injury, sprouts, and growth cracks and from injury caused by secondary rootlets, cuts, bruises, scars, scurf or other disease, insects, or mechanical or other means. Each sweet potato shall be not less than one and three-fourths inches nor more than three and one-fourth inches in diameter; not less than three inches nor more than nine inches in length; and shall weigh not more than sixteen ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the sweet potatoes in any lot may fail to meet the requirements of this grade,

provided not more than one-half of this amount, or five per cent, shall be allowed for sweet potatoes damaged by any cause, including not more than three per cent seriously damaged by weevils and not more than one per cent affected by soft rot or wet breakdown; and

- (2) For off-size, not more than ten per cent of the sweet potatoes in any lot may fail to meet the size requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for sweet potatoes below the specified minimum diameter or minimum length.

(c) Hawaii No. 1 (Hawaii Grade A) sweet potato consists of Hawaii-grown sweet potatoes of a single type which are firm, fairly smooth, fairly clean, and fairly well shaped; and which are free from freezing injury, internal breakdown, black rot, wet breakdown or other decay, insects, and rodent injury and from damage caused by secondary rootlets, cuts, bruises, scars, scurf or other disease, growth cracks, grass roots, wireworms, weevils or other insects, sprouts, or mechanical or other means. Unless otherwise specified, each sweet potato shall be not less than one and three-fourths inches nor more than three and three-fourths inches in diameter; not less than three inches nor more than ten inches in length; and shall weigh not more than twenty-four ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the sweet potatoes in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for sweet potatoes seriously damaged by any cause, including not more than three per cent seriously damaged by weevils and not more than one per cent affected by soft rot or wet breakdown; and
- (2) For off-size, not more than ten per cent of the sweet potatoes in any lot may fail to meet the specified size, provided not more than one-half of this amount, or five per cent, shall be allowed for sweet potatoes

below the specified minimum diameter or minimum length.

(d) Hawaii No. 2 (Hawaii Grade B) sweet potato consists of Hawaii-grown sweet potatoes of a single type which are firm, not more than slightly dirty, and not badly misshapen; and which are free from freezing injury, internal breakdown, black rot, wet breakdown or other decay, and insects and from serious damage caused by cuts, bruises, scars, growth cracks, grass roots, wireworms, weevils or other insects, or mechanical or other means. Unless otherwise specified, each sweet potato shall be not less than one and three-fourths inches in diameter and shall weigh not more than thirty-two ounces.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of ten per cent of the sweet potatoes in any lot may fail to meet the requirements of this grade, provided not more than three-tenths of this amount, or three per cent, shall be allowed for sweet potatoes seriously damaged by weevils and not more than one per cent for sweet potatoes affected by soft rot or wet breakdown; and
- (2) For off-size, not more than ten per cent of the sweet potatoes in any lot may fail to meet the size requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for sweet potatoes below the minimum diameter specified. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-58 Standards for Hawaii-grown red and icicle radishes. (a) As used in this section:

"Clean" means practically free from dirt or other foreign material, and there is no caked dirt on the root.

"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 radish:

- (1) Cuts, when discolored, rough, or deep, or

- when aggregating an area more than three-eighths inch in diameter;
- (2) Growth cracks or air cracks, when discolored or deep, or more than three-eighths inch in length, or the appearance is materially affected;
 - (3) Pithiness, when there is more than a slight pithy condition, or when the edible quality is materially affected;
 - (4) Russeting, when smooth and, alone or in combination with light colored scars, affecting more than fifteen per cent of the root surface, or when rough and, alone or in combination with dark colored scars, affecting more than five per cent of the root surface; or
 - (5) Yellowing or other discoloration, when the appearance of the top or leafstem is materially affected, but slight yellowing or discoloration and other abnormal color affecting only a few leaves shall not be considered as materially affecting appearance if the top as a whole shows a predominantly normal green color.

"Diameter" means the greatest dimension of the radish root measured at right angles to a line running from the crown to the base of the root.

"Fairly well shaped" means the root is not misshapen to the extent that the appearance is seriously affected.

"Firm" means the root is crisp and not soft or flabby.

"Fresh" means the tops are not badly wilted.

"Proper length" means the tops are not clipped on radishes with full length tops, or the remaining leafstems on topped radishes are not more than three-eighths inch long and no portion of the crown is cut off to the extent that the flesh is exposed.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the radish.

"Similar varietal characteristics" means the radishes are similar in color and shape.

"Tender" means the root is not woody or stringy.

"Well trimmed" means the root is not covered with secondary rootlets to the extent that the appearance is

materially affected, and any objectionable long or coarse tail-like root has been removed.

(b) Hawaii No. 1 (Hawaii Grade A) red and icicle radishes consist of Hawaii-grown red and icicle radishes of similar varietal characteristics which are clean, well trimmed, fairly well shaped, firm, and tender; and which are free from freezing injury, decay, and shriveling and from damage caused by growth cracks or air cracks, russeting, pithiness, cuts, disease, insects, or mechanical or other means. Unless otherwise specified, each radish root shall be not less than five-eighths inch in diameter. Tops of red and icicle radishes shall be clean, fresh, and of proper length; and free from decay and from damage caused by freezing, seedstem, yellowing or other discoloration, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defective roots, not more than a total of ten per cent of the radish roots in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for radishes seriously damaged by any cause, including not more than one per cent affected by decay;
- (2) For defective tops, not more than a total of ten per cent of the tops in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, may fail to meet the requirement for proper length and not more than two per cent may be affected by decay; and
- (3) For off-size, not more than ten per cent of the radishes in any lot may fail to meet the specified size.

(c) Hawaii No. 2 (Hawaii Grade B) red and icicle radishes consist of Hawaii-grown red and icicle radishes which meet the requirements in subsection (b), except for grade tolerances.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defective roots, not more than a total of ten per cent of the radish roots in any lot may fail to meet the requirements of this

- grade, provided not more than one per cent may be affected by decay;
- (2) For defective tops, not more than a total of ten per cent of the radish tops in any lot may fail to meet the requirements of this grade, provided not more than two per cent may be affected by decay; and
 - (3) For off-size, not more than a total of ten per cent of the radishes in any lot may fail to meet the size specified. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-59 Standards for Hawaii-grown romaine.

(a) As used in this section:

"Clean" means practically free from dirt, dust, spray residue, or other foreign material.

"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 romaine:

- (1) Seedstems, when the length of the attached seedstem is more than one-fourth the overall plant length, or when any portion of the seedstem has been removed; or
- (2) Wormholes, when noticeably affecting the appearance of the plant.

"Fresh" means the plant has normal succulence but the outermost leaves may be slightly wilted.

"Serious damage" means any defect or combination of defects which seriously detracts from the appearance, or the edible or shipping quality of the romaine.

"Similar varietal characteristics" means the plants in any lot are of the same general type.

"Well developed" means the romaine shows normal growth and shape.

"Well trimmed" means the stem is trimmed off close to the point of attachment of the outer leaves.

(b) Hawaii No. 1 (Hawaii Grade A) romaine consists of Hawaii-grown romaine of similar varietal characteristics which are fresh, clean, well developed, and well trimmed; and which are free from decay and from damage caused by seedstem, broken, bruised, or discolored leaves, tipburn, wilting, wormholes,

freezing, disease, insects, or mechanical or other means.

In order to allow for variations incident to proper grading and handling, not more than a total of ten per cent, by count, of the plants in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for romaine seriously damaged by any cause, including not more than one per cent affected by decay. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-60 Standards for Hawaii-grown Italian squash. (a) As used in this section:

"Clean" means the squash is practically free from dirt, staining, or other foreign material.

"Damage" means any of the following specific 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 Italian squash:

- (1) Cuts or punctures, when materially penetrating the flesh; or
- (2) Discoloration or scars, when aggregating an area more than three-fourths inch in diameter, or when materially affecting appearance.

"Diameter" means the greatest dimension measured at right angles to the longitudinal axis.

"Fairly smooth" means although there may be noticeable ridges, such ridging or other roughness is not prominent.

"Fairly uniform in size" means the squash in any container do not vary more than two inches in length nor more than one-half inch in diameter.

"Fairly well formed" means the shape of the squash is characteristic of the variety, and the squash is not more than moderately curved or bulged and not tapered or constricted.

"Fairly young and fairly tender" means the skin is fairly tender, the seeds are tender and undeveloped, and the seed cavity tissue is firm, moist, and free from fiber.

"Firm" means the squash does not yield appreciably to moderate pressure and is not noticeably wilted.

"Not badly misshapen" means the squash is not

excessively curved or bulged, or more than moderately tapered or constricted.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the Italian squash:

- (1) Bruise, when soft and aggregating an area more than three-fourths inch in diameter;
- (2) Cuts or punctures, when penetrating more than one-fourth inch or aggregating an area more than one-fourth inch in diameter; or
- (3) Discoloration or scars, when aggregating an area more than one and one-fourth inches in diameter, or when seriously affecting appearance.

"Similar varietal characteristics" means the squash are alike in color and shape.

"Smooth" means there are no ridges or rough areas on the squash.

"Uniform in size" means the squash in any container do not vary more than one and one-fourth inches in length nor more than three-eighths inch in diameter.

"Well formed" means the shape of the squash is characteristic of the variety, and the squash is no more than very slightly curved or bulged and is not tapered or constricted.

"Well trimmed" means the stem is cut off smoothly at approximately right angles to the longitudinal axis of the squash and is not more than three-fourths inch long.

"Young and tender" means the skin and flesh of the squash are very succulent, tender, and free from fiber.

(b) Hawaii Fancy (Hawaii Grade AA) Italian squash consists of Hawaii-grown Italian squash of similar varietal characteristics which are clean, well formed, uniform in size, tender and young, smooth, firm, and well trimmed; and which are free from decay, breakdown, soft bruises, worms, wormholes, unhealed insect stings, and freezing injury and from damage caused by discoloration or scars, cuts or punctures, disease, insects, or mechanical or other means. Unless otherwise specified, each squash shall be not more than one and five-eighths inches in diameter.

In order to allow for variations incident to

proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the squash in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for squash seriously damaged by any cause, including not more than one per cent affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten per cent of the squash in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, shall be allowed for squash exceeding the maximum diameter by more than one-eighth inch, including not more than one per cent exceeding the maximum diameter by more than one-fourth inch.

(c) Hawaii No. 1 (Hawaii Grade A) Italian squash consists of Hawaii-grown Italian squash of similar varietal characteristics which are clean, fairly well formed, fairly uniform in size, fairly young and fairly tender, fairly smooth, firm, and well trimmed; and which are free from decay, breakdown, soft bruises, worms, wormholes, unhealed insect stings, and freezing injury and from damage caused by discoloration or scars, cuts or punctures, disease, insects, or mechanical or other means. Unless otherwise specified, each squash shall be not more than two inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the squash in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for squash seriously damaged by any cause, including not more than one per cent affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten per cent of the squash in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, shall be allowed for squash exceeding the maximum diameter by more than one-eighth inch, including not more than one per cent exceeding the maximum diameter by more than one-fourth inch.

(d) Hawaii No. 2 (Hawaii Grade B) Italian squash consists of Hawaii-grown Italian squash of similar varietal characteristics which are clean, not badly misshapen, fairly young and fairly tender, firm, and well trimmed; and which are free from decay, breakdown, unhealed insect stings, and freezing injury and from serious damage caused by discoloration or scars, cuts or punctures, disease, insects, or mechanical or other means. Unless otherwise specified, each squash shall be not more than two and one-half inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the squash in any lot may fail to meet the requirements of this grade, provided not more than one-tenth of this amount, or one per cent, may be affected by decay or breakdown; and
- (2) For off-size, not more than a total of ten per cent of the squash in any lot may vary from the size specified, provided not more than one-half of this amount, or five per cent, shall be allowed for squash exceeding the maximum diameter by more than one-eighth inch, including not more than one per cent exceeding the maximum diameter by more than one-fourth inch. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-61 Standards for Hawaii-grown tangerines.

(a) As used in this section:

"Acid" means grams of acid calculated as anhydrous citric acid per one hundred milliliter of juice, as determined by titration with sodium hydroxide solution using phenolphthalein as the indicator.

"Clean" means free from dirt or other foreign material.

"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 tangerine:

- (1) Ammoniation, when not occurring as speck-type similar to melanose, provided no ammoniation

- shall be permitted which detracts from the appearance to a greater extent than the amount of discoloration or scars allowed in the grade;
- (2) Buckskin, when affecting appearance to a greater extent than the discoloration or scars allowed in the grade;
 - (3) Creasing, when materially affecting appearance or shipping quality;
 - (4) Discoloration, when more than ten per cent of the surface is affected;
 - (5) Dryness or mushy condition, when all segments are affected to a depth of more than one-eighth inch at the stem end or the equivalent amount of affected flesh occurs in other portions of the fruit;
 - (6) Green spots or oil spots, when affecting appearance to a greater extent than the discoloration or scars allowed in the grade;
 - (7) Melanose, when not small, smooth speck-type, or speck-type and affecting appearance to a greater extent than the discoloration or scars allowed in the grade;
 - (8) Pitting, when affecting appearance to a greater extent than the amount of scars allowed in the grade;
 - (9) Scales, when more than six scales are present;
 - (10) Scars, when dark or rough and aggregating an area more than one-fourth inch in diameter, or fairly light in color, slightly rough, or of slight depth and aggregating an area more than one-half inch in diameter, or light colored, fairly smooth with no depth, and aggregating more than ten per cent of the surface; or
 - (11) Sprayburn or sunburn, when the skin is hardened or when affecting appearance to a greater extent than the amount of scars allowed in the grade.

"Diameter" means the greatest dimension measured at right angles to a line from the stem to the blossom end of the fruit.

"Fairly firm" means the flesh is not soft and the fruit is no more than slightly puffy.

"Fairly well formed" means the fruit has a shape fairly typical of the variety and is not so misshapen as to seriously affect its appearance or edible quality.

"Firm" means the flesh is not soft, the fruit is not puffy, and the skin is fairly tightly attached to the flesh of all segments of the fruit.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the tangerine:

- (1) Discoloration, when more than three per cent of the surface is affected; or
- (2) Scars, when dark or rough, or fairly light in color, slightly rough, or of slight depth and aggregating an area more than one-fourth inch in diameter, or light colored, fairly smooth with no depth, and aggregating more than three per cent of the surface.

"Mature" means the tangerine has reached the stage of development which will insure proper completion of the ripening process.

"Serious 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 seriously detracts from the appearance, or the edible or shipping quality of the tangerine:

- (1) Ammoniation, when scars are cracked, or dark and aggregating an area more than one-half inch in diameter, or light colored and aggregating an area more than one inch in diameter;
- (2) Buckskin, when affecting appearance to a greater extent than the discoloration or scars allowed in the grade;
- (3) Creasing, when the skin is seriously weakened;
- (4) Discoloration, when more than twenty per cent of the surface is affected;
- (5) Dryness or mushy condition, when all segments are affected to a depth of more than one-fourth inch at the stem end or the equivalent amount of affected flesh occurs in other portions of the fruit;
- (6) Green spots or oil spots, when affecting appearance to a greater extent than the discoloration or scars allowed in the grade;
- (7) Melanose, when badly caked and aggregating an area more than one-half inch in diameter, or

- when affecting the appearance to a greater extent than the discoloration or scars allowed in the grade;
- (8) Pitting, when affecting appearance to a greater extent than the amount of scars allowed in the grade;
 - (9) Scales, when more than twelve scales are present;
 - (10) Scars, when dark, rough, or deep and aggregating an area more than three-eighths inch in diameter, or fairly light in color, slightly rough, or of slight depth and aggregating an area more than three-fourths inch in diameter, or light colored, fairly smooth with no depth, and aggregating more than twenty per cent of the surface; or
 - (11) Sprayburn or sunburn, when the skin is hardened, or when affecting the appearance to a greater extent than the amount of scars allowed in the grade.

"Soluble solids" means the refractometric sucrose value of the juice obtained in accordance with the refractometric method for sugar and sugar products.

"Well formed" means the fruit has the characteristic tangerine shape.

"Well trimmed" means the button is attached and is shorter than one-eighth inch.

(b) Hawaii Fancy (Hawaii Grade AA) tangerine consists of Hawaii-grown tangerines which are mature, firm, clean, well formed, and well trimmed; which are free from soft bruise, fruit fly sting, wormhole, bird pecks, unhealed skin break, pulled stem, sprouted seeds, decay, ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scales, sprayburn, sunburn, buckskin, or scab; and which are free from injury caused by discoloration, scars, disease, insects, or mechanical or other means. In any lot, soluble solids shall average not less than ten per cent and acid shall average not less than one-half of one per cent. Unless otherwise specified, the diameter of each tangerine shall be not less than two and three-fourths inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tangerines in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or

five per cent, shall be allowed for tangerines damaged by any cause, including not more than one per cent affected by decay; and

- (2) For off-size, not more than five per cent of the tangerines in any lot may be below the specified minimum diameter.

(c) Hawaii No. 1 (Hawaii Grade A) tangerine consists of Hawaii-grown tangerines which are mature, firm, clean, well formed, and well trimmed; which are free from soft bruise, fruit fly sting, wormhole, bird pecks, unhealed skin break, pulled stem, sprouted seeds, and decay; and which are free from damage caused by discoloration, scars, disease, insects, ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scales, sprayburn, sunburn, buckskin, melanose, scab, or mechanical or other means. In any lot, soluble solids shall average not less than nine per cent and acid shall average not less than one-half of one per cent. Unless otherwise specified, the diameter of each tangerine shall be not less than two and one-fourth inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tangerines in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for tangerines seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than five per cent of the tangerines in any lot may be below the specified minimum diameter.

(d) Hawaii No. 1 Bronze (Hawaii Grade A Bronze) tangerine consists of Hawaii-grown tangerines which meet the requirements of subsection (c), except for discoloration. In Hawaii No. 1 Bronze (Hawaii Grade A Bronze) grade, at least ninety per cent, by count, of the tangerines shall show more than ten per cent surface discoloration, not including dark or rough or deep scars, green spots, caked melanose or ammoniation, pitting, or similar defects. Grade tolerances shall be as provided in subsection (c).

(e) Hawaii No. 2 (Hawaii Grade B) tangerine consists of Hawaii-grown tangerines which are mature,

fairly firm, clean, fairly well formed, and well trimmed; which are free from soft bruise, fruit fly sting, wormhole, bird pecks, unhealed skin break, pulled stem, sprouted seeds, and decay; and which are free from serious damage caused by discoloration, scars, disease, insects, ammoniation, creasing, dryness or mushy condition, green spots or oil spots, pitting, scales, sprayburn, sunburn, buckskin, melanose, scab, or mechanical or other means. In any lot, soluble solids shall average not less than eight and one-half per cent and acid shall average not less than one-half of one per cent. Unless otherwise specified, the diameter of each tangerine shall be not less than two inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tangerines in any lot may fail to meet the requirements of this grade, provided not more than one per cent may be affected by decay; and
- (2) For off-size, not more than five per cent of the tangerines in any lot may be below the specified minimum diameter. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-62 Standards for Hawaii-grown tomatoes.

(a) As used in this section:

"Badly misshapen" means the tomato is so badly deformed that its appearance is seriously affected.

"Clean" means practically free from dirt or other foreign material.

"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 tomatoes:

- (1) Catface (irregular, dark, leathery scars at blossom end), when not fairly smooth, or deep, or channels extend into locules, or fairly smooth and exceeds an area one-half inch in diameter on a two and one-half inch tomato (smaller tomatoes shall have lesser areas of fairly smooth catfaces and larger tomatoes may have more, provided the

appearance is not affected to a greater extent than that caused by the fairly smooth catfaces permitted on a two and one-half inch tomato);

- (2) Cuts, when not shallow, not well healed, or more than one-half inch long;
- (3) Growth cracks (cracks radiating from stem scar or concentric to stem scar), when not healed, or more than one-half inch long, or very narrow and well healed but so numerous as to materially affect appearance;
- (4) Puffiness, when the open space in one or more locules materially affects the appearance of the tomato when the tomato is cut through the center at right angles to a line running from the stem to the blossom end; or
- (5) Scars, when aggregating an area more than three-eighths inch in diameter on a two and one-half inch tomato (smaller tomatoes shall have lesser areas of scars and larger tomatoes may have more, provided the appearance is not affected to a greater extent than that caused by scars permitted on a two and one-half inch tomato).

"Fairly smooth" means the tomato is not conspicuously ridged or rough.

"Fairly well formed" means the tomato is not decidedly kidney shaped, lopsided, elongated, angular, or otherwise deformed.

"Injury" 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 appreciably detracts from the appearance, or the edible or shipping quality of the tomatoes:

- (1) Catface (irregular, dark, leathery scars at the blossom end), when not smooth or more than one-fourth inch in diameter; or
- (2) Scars, when smooth and aggregating an area more than 3/16 inch in diameter, or slightly sunken or slightly rough and aggregating an area more than one-eighth inch in diameter, or more than slightly rough or slightly sunken.

"Mature" means the contents of one or more seed cavities have developed a jelly or glue-like consistency and the seeds are well developed.

"Serious damage" means any of the following

specific defects, or an equally objectionable variation of any 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 tomatoes:

- (1) Catface (irregular, dark, leathery scars at the blossom end), when excessively rough or deep, or fairly smooth and exceeds an area three-fourths inch in diameter on a two and one-half inch tomato (smaller tomatoes shall have lesser areas of fairly smooth catfaces and larger tomatoes may have more, provided the appearance is not affected to a greater extent than that caused by the fairly smooth scars permitted on a two and one-half inch tomato);
- (2) Cuts, when there is any fresh cut or hole, or any hole or cut penetrates the tomato wall;
- (3) Puffiness, when open spaces in two or more locules seriously affect the appearance of the tomato when the tomato is cut through the center at right angles to a line running from the stem to the blossom end; or
- (4) Scars, when aggregating an area more than one-half inch in diameter on a two and one-half inch tomato (smaller tomatoes shall have lesser areas of scars and larger tomatoes may have more, provided the appearance is not affected to a greater extent than that caused by scars permitted on a two and one-half inch tomato).

"Similar varietal characteristics" means the tomatoes are alike as to shape, firmness of flesh, and shade of color; e.g., soft fleshed, early maturing varieties shall not be mixed with firm fleshed, midseason or late varieties, or bright red varieties shall not be mixed with varieties having a purplish tinge.

"Smooth" means free from ridges or rough areas, except when permitted under injury caused by catfaces and scars.

"Uneven ripening" means distinctly red or pink and distinctly green areas appear on the same fruit, or the walls of the fruit are appreciably gray in color, or the general appearance of the tomatoes in a lot is materially affected.

"Well developed" means the tomato shows normal growth; i.e., the tomatoes are not ridged or peaked at the stem end, do not contain dry tissue, and usually

contain no open spaces.

"Well formed" means the tomato is well proportioned and is not appreciably lopsided, elongated, angular, or otherwise appreciably deformed.

(b) Hawaii Fancy (Hawaii Grade AA) tomato consists of Hawaii-grown tomatoes of similar varietal characteristics which are mature, not overripe or soft, clean, well developed, well formed, and smooth; and which are free from decay, freezing injury, uneven ripening, sunscald, sunburn, cuts, puffiness, growth cracks, and shriveling and from injury caused by bruises, catfaces, scars, diseases, insects, or mechanical or other means. Unless otherwise specified, the diameter of each tomato shall be not less than two and three-fourths inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tomatoes in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for tomatoes damaged by any cause, including not more than one per cent affected by soft ripe or decay; and
- (2) For off-size, not more than a total of ten per cent of the tomatoes in any lot may vary from the specified size.

(c) Hawaii No. 1 (Hawaii Grade A) tomato consists of Hawaii-grown tomatoes of similar varietal characteristics which are mature, not overripe or soft, clean, well developed, fairly well formed, and fairly smooth; and which are free from decay, freezing injury, uneven ripening, and sunscald and from damage caused by bruises, catfaces, scars, diseases, insects, sunburn, puffiness, growth cracks, shriveling, cuts, or mechanical or other means. Unless otherwise specified, the diameter of each tomato shall be not less than two and one-half inches.

In order to allow for variation incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tomatoes in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for tomatoes

seriously damaged by any cause, including not more than one per cent affected by soft ripe or decay; and

- (2) For off-size, not more than ten per cent of the tomatoes in any lot may vary from the specified size.

(d) Hawaii No. 2 (Hawaii Grade B) tomato consists of Hawaii-grown tomatoes of similar varietal characteristics which are mature, not overripe or soft, clean, and not badly misshapen; and which are free from decay and freezing injury and from serious damage caused by bruises, catfaces, scars, diseases, insects, sunburn, puffiness, growth cracks, shriveling, cuts, sunscald, or mechanical or other means. Unless otherwise specified, the diameter of each tomato shall be not less than two and one-fourth inches.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the tomatoes in any lot may fail to meet the requirements of this grade, including not more than one per cent for tomatoes affected by soft ripe or decay; and
- (2) For off-size, not more than a total of ten per cent of the tomatoes in any lot may vary from the specified size.

(e) Size of tomatoes in any container may be specified in connection with the grade, based on the following optional size classifications:

- (1) Four by five and larger, when each tomato is not less than $3\frac{15}{32}$ inches in diameter;
- (2) Five by five and five by six, when each tomato is $2\frac{28}{32}$ inches to $3\frac{15}{32}$ inches in diameter;
- (3) Six by six, when each tomato is $2\frac{17}{32}$ inches to $2\frac{28}{32}$ inches in diameter;
- (4) Six by seven, when each tomato is $2\frac{9}{32}$ inches to $2\frac{17}{32}$ inches in diameter;
- (5) Seven by seven, when each tomato is $2\frac{4}{32}$ inches to $2\frac{9}{32}$ inches in diameter; or
- (6) Seven by eight, when each tomato is $1\frac{28}{32}$ inches to $2\frac{4}{32}$ inches in diameter.

To determine compliance with the size designations in paragraphs (1) to (6), the measurement for minimum diameter shall be the largest diameter of the tomato measured at right angles to a line from the stem end to the blossom end. The measurement for maximum diameter shall be the smallest dimension of the tomato

determined by passing the tomato through a round opening in any position.

(f) In lieu of specifying size according to the size classifications in subsection (g), the size of tomatoes in any container may be specified by giving the range in size in terms of whole inches or whole inches and not less than sixteenth inch fractions, or based on the following terms:

- (1) Medium, when each tomato is two and one-half to three inches in diameter; or
- (2) Large, when each tomato is over three inches in diameter.

The measurement for diameter shall be the largest diameter of the tomato taken at right angles to a line from the stem end to the blossom end. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-63 Standards for Hawaii-grown topped turnips or rutabagas. (a) As used in this section:

"Damage" means any defect or combination of defects which materially detracts from the appearance, or the edible or shipping quality of the turnip or rutabaga, or which cannot be removed without a loss of more than five per cent of the total weight of the turnip or rutabaga, including the peel covering the defective area.

"Diameter" means the greatest dimension of the turnip or rutabaga taken at right angles to the longitudinal axis.

"Fairly well shaped" means the turnip or rutabaga is not misshapen to such an extent as to materially affect its appearance.

"Firm" means the turnip or rutabaga is not soft, flabby, or shriveled.

"Proper maturity" means the turnips or rutabagas are not so immature or have not become so mature as to materially affect the edible or shipping quality.

"Similar varietal characteristics" means the turnips or rutabagas in any lot are of the same color and shape. For example, white fleshed varieties shall not be mixed with yellow fleshed varieties; and flat, globe, and long varieties shall not be mixed in the same lot.

"Soft rot" means any soft, mushy, or leaky condition of the tissue.

"Well trimmed" means the tops are trimmed to not

more than three-fourths inch in length; unattractive secondary rootlets have been removed; and any objectionable long or coarse tail-like portion of the root has been cut off.

(b) Hawaii No. 1 (Hawaii Grade A) topped turnip or rutabaga consists of Hawaii-grown topped turnips or rutabagas of similar varietal characteristics which are of proper maturity, firm, fairly smooth, fairly well shaped, and well trimmed; and which are free from soft rot and from damage caused by freezing, pithiness, watercore, secondary rootlets, growth cracks, cuts, dirt, discoloration, disease, insects, or mechanical or other means. Unless otherwise specified, each turnip or rutabaga shall be not less than three inches or more than five inches in diameter.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the turnips or rutabagas in any lot may fail to meet the requirements of this grade, provided not more than one-fifth of this amount, or two per cent, shall be allowed for turnips or rutabagas affected by soft rot; and
- (2) For off-size, not more than a total of fifteen per cent of the turnips or rutabagas in any lot may vary from the specified size, provided not more than one-third of this amount, or five per cent, shall be allowed for turnips or rutabagas below any specified minimum size. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-64 Standards for Hawaii-grown watermelon.

(a) As used in this section:

"Badly misshapen" means the watermelon is deformed to the extent that its appearance is seriously affected.

"Clean" means free from dirt, other foreign material, or staining.

"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 marketing quality of the watermelon:

- (1) Hollow heart, when the cracks cross the longitudinal axis, or the aggregate width of cracks that run approximately parallel to the longitudinal axis exceeds one-half inch on melons weighing less than sixteen pounds or exceeds one inch on melons weighing sixteen pounds or more;
- (2) Red spider, when an aggregate area more than two and one-half per cent of the melon surface is affected;
- (3) Scars, when smooth, not prominent, and aggregating an area more than ten per cent of the melon surface, or when prominent, more than slightly rough, or affecting the contour of the melon more than slightly and aggregating an area more than two and one-half per cent of the melon surface, or when more than one-fourth inch deep and affecting an area more than one-half inch in diameter; or
- (4) Sunburn, when aggregating an area more than two and one-half per cent of the melon surface, or an aggregate area of more than one per cent of the melon surface is covered with a golden yellow sunburn.

"Fairly bright" means not dull colored.

"Fairly clean" means reasonably free from dirt, other foreign matter, or staining.

"Fairly well formed" means the watermelon may be slightly abnormal in shape but is not tapered or materially lopsided, indented, irregular, or constricted.

"Injury" means any defect or any combination of defects which appreciably detracts from the appearance, or the edible or marketing quality of the watermelon. Scars that are prominent or rough; or not shallow; or affecting an area more than two and one-half per cent of the melon surface shall be considered as injury.

"Longitudinal axis" is the line from the stem end to the blossom end of the melon.

"Mature" means the watermelon is reasonably sweet in flavor; the flesh has a good red or good pink color, whichever is typical of the variety; and the flesh is crisp and not tough or rubbery.

"Overripe" means the watermelon is lacking in firmness and has an insipid or unpleasant flavor caused by age; or the flesh lacks crispness and is mushy, dark, and watersoaked or excessively mealy.

"Serious 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 seriously detracts from the appearance, or the edible or marketing quality of the watermelon:

- (1) Hollow heart, when the aggregate width of the cracks exceeds one and one-fourth inches on melons weighing less than sixteen pounds, or exceeds two inches on melons weighing sixteen pounds or more;
- (2) Insect sting, when unhealed, or seriously affecting shape or internal quality, or more than two stings are present;
- (3) Red spider, when an aggregate area more than fifteen per cent of the melon surface is affected;
- (4) Scars, when not prominent and aggregating an area more than twenty per cent of the melon surface, or when prominent, more than slightly rough, or affecting the contour of the melon more than slightly and aggregating an area more than five per cent of the melon surface, or when more than one-fourth inch deep and affecting an area more than one inch in diameter; or
- (5) Sunburn, when aggregating an area more than five per cent of the melon surface, or an aggregate area of more than two and one-half per cent of the melon surface is covered with a golden yellow sunburn.

"Similar varietal characteristics" means the watermelons in any lot are of the same general type as to shape, color, thickness of rind, and flesh characteristics.

"Well formed" means the watermelon is regular in shape and has the shape typical of the variety.

(b) Hawaii Fancy (Hawaii Grade AA) watermelon consists of Hawaii-grown watermelons of similar varietal characteristics which are mature, not overripe, fairly clean, well formed, and fairly bright; and which are free from anthracnose and other decay, sunscald, bruises, whiteheart, hollow heart, sunburn, insect injury, wormholes, aphid injury, and insect sting and from injury caused by scars, disease, or mechanical or other means. Unless otherwise specified, each melon shall weigh not less than fifteen pounds.

In order to allow for variations incident to proper grading, sizing, and handling, the following

tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the melons in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for watermelons damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than five per cent of the melons in any lot may be below the specified weight.

(c) Hawaii No. 1 (Hawaii Grade A) watermelon consists of Hawaii-grown watermelons of similar varietal characteristics which are mature, not overripe, fairly clean, fairly well formed, and fairly bright; and which are free from anthracnose and other decay, sunscald, bruises, whiteheart, wormholes, aphid injury, and insect stings and from damage caused by scars, disease, hollow heart, sunburn, red spider and other insects, or mechanical or other means. Unless otherwise specified, each melon shall weigh not less than thirteen pounds.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the melons in any lot may fail to meet the requirements of this grade, provided not more than one-half of this amount, or five per cent, shall be allowed for watermelons seriously damaged by any cause, including not more than one per cent affected by decay; and
- (2) For off-size, not more than five per cent of the melons in any lot may be below the specified weight.

(d) Hawaii No. 2 (Hawaii Grade B) watermelon consists of Hawaii-grown watermelons of similar varietal characteristics which are mature, not overripe, clean, and not badly misshapen; and which are free from anthracnose and other decay, sunscald, bruises, whiteheart, wormholes, and aphid injury and from serious damage caused by scars, disease, hollow heart, sunburn, red spider and other insects, insect stings, or mechanical or other means. Unless otherwise specified, each melon shall weigh not less than ten pounds.

In order to allow for variations incident to proper grading, sizing, and handling, the following tolerances, based on count, are provided:

- (1) For defects, not more than a total of ten per cent of the melons in any lot may fail to meet the requirements of this grade, provided not more than one per cent may be affected by decay; and
- (2) For off-size, not more than five per cent of the melons in any lot may be below the specified weight. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86; am 8/6/90]
(Auth: HRS §147-4) (Imp: HRS §147-4)

§4-41-65 Standards for Hawaii-grown yam bean roots. (a) As used in this section:

"Badly misshapen" means the root shows serious abnormalities in shape. Roots with the length exceeding the diameter by one and one-half times or more are considered badly misshapen.

"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 three per cent, by weight, in the ordinary preparation for use:

- (1) 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;
- (2) External discoloration, when the general appearance of the lot is materially affected, or when the individual root is badly discolored;
- (3) Growth cracks, when not shallow or not well healed, or when materially affecting the appearance of the yam bean root; or
- (4) Internal discoloration, when internal portions of the root are materially discolored.

"Diameter" means the average of the greatest and smallest dimensions of the root measured at right angles to the longitudinal axis.

"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 exceeds the diameter are not fairly well shaped.

"Firm" means unyielding and free from shriveling.

"Length" means the greatest dimension of the root measured from the crown to the lowest point which is not less than three-eighths inch in diameter.

"Mature" means the outer skin (epidermis) is tight and tough.

"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 ten per cent, by weight, in the ordinary preparation for use.

(b) Hawaii No. 1 (Hawaii Grade A) yam bean root consists of Hawaii-grown yam bean roots which are mature, firm, fairly well shaped, and not frozen; and which are free from freezing injury, wet breakdown, and decay and from damage caused by dirt or staining, external discoloration, internal discoloration, growth cracks, cuts, roughness, disease, insects, or mechanical or other means. Unless otherwise specified, each root shall weigh not less than three-fourths pound and not more than two and one-half pounds.

(c) Hawaii No. 2 (Hawaii Grade B) yam bean root consists of Hawaii-grown yam bean roots which are mature, firm, not badly misshapen, and not frozen; and which are free from freezing injury, wet breakdown, and decay and from serious damage caused by dirt or staining, external discoloration, internal discoloration, growth cracks, roughness, disease, insects, or mechanical or other means. Unless otherwise specified, each root shall weigh not less than one-half pound and not more than four pounds.

(d) Size of yam bean roots in any container or lot may be specified in connection with the grade, based on the following size classifications:

- (1) Small, when each root is under three-fourths pound;
- (2) Medium, when each root is from three-fourths pound to two and one-half pounds;
- (3) Large, when each root is from two and one-half to four pounds; or
- (4) Extra large, when each root is over four pounds.
- (e) In order to allow for variations incident to

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proper grading, sizing, and handling, the following tolerances, based on weight, are provided:

- (1) For defects, not more than a total of six per cent of the roots in any lot may fail to meet the requirements of the grade specified, provided not more than one per cent is affected by soft rot or wet breakdown; and
- (2) For off-size, not more than five per cent of the roots in any lot may be larger than the specified maximum weight and not more than three per cent may be below the specified minimum weight. [Eff 5/29/81; am and comp 8/18/83; am and comp 3/24/86] (Auth: HRS §147-4) (Imp: HRS §147-4)