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Potatoes

A

Connecticut Standard Grades

Sec. 22-33-A1. Connecticut standard grades

The Connecticut standard grades for potatoes shall be the following, which are identical with the standards established by the United States department of agriculture under authority of the congress of the United States:

(a) **General.** (1) Numbers and letters in parentheses following grade terms indicate where such terms are defined under definitions.

(2) All percentages shall be calculated on the basis of weight.

(3) The tolerances for the standards are on a container basis. However, individual packages in any lot may vary from the specified tolerance as stated below, provided the averages for the entire lot, based on sample inspection, are within the tolerances specified.

(4) When the tolerance specified is ten per cent or more, individual packages in any lot may contain not more than one and one-half times the tolerance specified, except that at least one defective and one off-size specimen shall be permitted in a package.

(5) When the tolerance specified is less than ten per cent, individual packages in any lot may contain not more than double the tolerance specified except that for frozen potatoes, or those affected by soft rot or wet breakdown, not more than one-tenth of the packages may contain more than double the tolerance but not more than four times the tolerance specified, and except that at least one defective and one offsize specimen shall be permitted in a package.

(b) **Grades.** (1) Conn. Fancy shall consist of potatoes of one variety or similar varietal characteristics which are firm, mature (1), bright (2), well shaped (3), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, shriveling, sprouting, soft rot or wet breakdown (4), hollow heart, and internal discoloration (5), and free from injury (6) caused by dirt or other foreign matter, sunburn, second growth, growth cracks, air cracks, cuts, external discoloration, scab, dry rot, rhizoctonia, other disease, wireworm, other insects or other means (6).

(2) The diameter (7) of each potato shall be not less than two inches.

(3) For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, not less than forty per cent of the potatoes in any lot shall be six ounces or more in weight.

(4) For round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain, or other similar varieties, not less than sixty per cent of the potatoes in any lot shall be two and one-quarter inches or larger in diameter.

(5) The size of the potatoes may be stated in terms of minimum diameter or minimum weight, or of range in diameter or weight, or of a certain percentage over a certain size, following the grade name, but in no case shall the potatoes be below the sizes specified for this grade. (See Tolerance for Size, (C-7).)

(6) In order to allow for variations other than size, incident to proper grading and handling, not more than a total of six per cent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than three per cent shall be allowed for potatoes affected by southern bacterial wilt, ring rot or late blight,

and including not more than one per cent for potatoes which are frozen, or affected by soft rot or wet breakdown.

(7) Conn. Extra No. 1 shall consist of potatoes of one variety or similar varietal characteristics which are fairly well shaped (8), fairly clean (9), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown (4), and from damage (10) caused by sunburn, second growth (10a), growth cracks (10a), air cracks (10b), hollow heart, internal discoloration (5 and 10), external discoloration (10c), cuts, shriveling (10d), sprouting (10e), scab (10f and g), dry rot, rhizoctonia (10h), other disease (10), wireworm (10i), other insects or mechanical or other means (10). (See Skinning Classification, (D 1-5).)

(8) Unless otherwise specified, size of potatoes (See Size Classification and Tolerance for Size (C 1-8) shall be as follows: (A) The diameter (7) of each potato shall be not less than one and seven-eighths inches. (B) For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, not less than sixty per cent of the potatoes in the lot shall be six ounces or larger, of which not less than one-half or thirty per cent, shall be ten ounces or more in weight. (C) For round or intermediate shaped varieties, such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain or other similar varieties, not less than sixty per cent of the potatoes in the lot shall be two and one-quarter inches or larger, of which not less than one-half, or thirty per cent, shall be two and three-quarters inches, or larger in diameter.

(9) In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of six per cent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than three per cent shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, and including not more than one per cent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than five per cent may be damaged by hollow heart, and internal discoloration.

(10) Conn. No. 1 shall consist of potatoes of one variety or similar varietal characteristics which are fairly well shaped (8), not frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown (4), and from damage (10) caused by dirt (10j) or other foreign matter (10j), sunburn, second growth (10a), growth cracks (10a), air cracks (10b), hollow heart, internal discoloration (5 and 10), external discoloration (10c) cuts, shriveling (10d), sprouting (10e) scab (10f and g), dry rot, rhizectonia (10h), other disease (10), wireworm (10i), other insects or mechanical or other means (10). (See Skinning Classification, (D 1-5).)

(11) Unless otherwise specified the diameter (7) of each potato shall be not less than one and seven-eighths inches. (See Size Classification and Tolerance for Size, (C 1-8).)

(12) In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of six per cent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than three per cent shall be allowed for potatoes affected by southern bacterial wilt, ring rot, or late blight, and including not more than one per cent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than five per cent may be damaged by hollow heart and internal discoloration.

(13) Conn. Commercial shall consist of potatoes which meet the requirements for Conn. No. 1 grade except that they shall be free from serious damage by dirt

(1la) and except for the increased tolerance for defects specified below. (See Skinning Classification, (D 1-5).)

(14) Unless otherwise specified, the diameter (7) of each potato shall be not less than one and seven-eighths inches. (See Size Classification and Tolerance for Size, (C 1-8).)

(15) In order to allow for variations other than size and sprouting, incident to proper grading and handling, not more than a total of twenty per cent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than five per cent may be seriously damaged by hollow heart and internal discoloration and not more than six per cent may fail to meet the remaining requirements of Conn. No. 2 grade, but 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 and including not more than one per cent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than ten per cent of the potatoes may have sprouts over three-quarters inches long, but which are not seriously damaged by shriveling, provided, if all of the twenty per cent tolerance is not used for other defects, the unused part of the tolerance may also be used for potatoes having sprouts over three-fourths inch long but which are not seriously damaged by shriveling.

(16) Conn. No. 2 shall consist of potatoes of one variety or similar varietal characteristics which are not seriously misshapen or frozen; which are free from freezing injury, blackheart, late blight, southern bacterial wilt, ring rot, and soft rot or wet breakdown (4), and from serious damage (11) caused by dirt (11a) or other foreign matter (11a) sunburn, second growth, growth cracks, air cracks, hollow heart, internal discoloration (5 and 11), external discoloration (11b), cuts (11c), shriveling (11d), scab (11e and f), dry rot, other disease, wireworm (11g), and other insects, or mechanical or other means (11). (See Skinning Classification, (D 1-5).)

(17) Unless otherwise specified the diameter (7) of each potato shall be not less than one and one-half inches. (See Size Classification and Tolerance for Size, (C 1-8).)

(18) In order to allow for variations other than size, hollow heart, and internal discoloration, incident to proper grading and handling, not more than a total of six per cent of the potatoes in any lot may fail to meet the requirements of the grade, but not more than three per cent shall be allowed for potatoes affected by southern bacterial wilt, ring rot or late blight, and including not more than one per cent for potatoes which are frozen, or affected by soft rot or wet breakdown. In addition, not more than five per cent may be seriously damaged by hollow heart and internal discoloration.

(c) **Size classification for all grades except Conn. Fancy.** (1) When the potatoes are designated as “Conn. No. 1,” “Conn. Commercial” or “Conn. No. 2” without specifying a size classification, it is understood that the potatoes meet the minimum size specified in the grade but that no definite percentage of the potatoes is required to be larger than this minimum size.

(2) When potatoes meet the requirements of Size A or Size B as described below, the size classification may be specified in connection with any of the Conn. grades except Conn. Fancy, as: “Conn. No. 1, Size A”; “Conn. Extra No. 1, Size A”; “Conn. Commercial, Size B”; “Conn. No. 1, Size B”; “Conn. No. 2, Size A”; or “Conn. No. 2, Size B”; in accordance with the facts. When Size A or Size B is used in connection with the grade, it is not permissible to specify any smaller sizes than those specified under these designations.

(3) Size A. For long varieties such as Burbank, Russet Burbank, Early Ohio, White Rose, or other similar varieties, the diameter of each potato shall be not less than one and seven-eighths inches and not less than forty per cent of the potatoes in the lot shall be six ounces or more in weight.

(4) For round or intermediate shaped varieties such as Irish Cobbler, Katahdin, Bliss Triumph, Green Mountain, or other similar varieties, the diameter of each potato shall be not less than one and seven-eighths inches and not less than sixty per cent of the potatoes in the lot shall be two and one-quarter inches or larger in diameter.

(5) Size B. For all varieties the size shall be from one and one-half inches to not more than two inches in diameter.

(6) Other sizes. When any of the above size designations are not used in connection with Conn. Extra No. 1, Conn. No. 1, Conn. Commercial, or Conn. No. 2 grades, it is permissible to specify any other minimum size such as "1½ inches minimum," "2 inches minimum," or both a minimum and a maximum size as "1⅞ inches to 3 inches," "6 to 10 ounces"; or to specify a certain percentage over a certain size as "25 per cent or more 2¼ inches and larger," "50 per cent or more 5 ounces and larger."

(7) In order to allow for variations incident to proper sizing, not more than three per cent of the potatoes in any lot may fail to meet the specified minimum size except that a tolerance of five per cent shall be allowed for potatoes packed to meet a minimum size of two and one-quarter inches or more in diameter, or six ounces or larger in weight. In addition, not more than fifteen per cent may fail to meet any specified maximum size.

(8) When a percentage of the potatoes is specified to be of a certain size and larger, no part of any tolerance shall be used to reduce such a percentage for the lot as a whole, but individual containers may have not more than fifteen per cent less than the percentage required or specified, provided that the entire lot averages within the percentage specified. For example, a lot specified as twenty-five per cent two and one-half inches and larger may have containers with not less than ten per cent two and one-half inches and larger provided the lot as a whole averages twenty-five per cent two and one-half inches and larger.

(d) **Skinning classification.** (1) The following optional skinning classifications are provided as a basis for classifying lots of potatoes as to the degree of skinning.

(2) "Practically no skinning" means that not more than five per cent of the potatoes in any lot have more than one-tenth of the skin missing or "feathered."

(3) "Slightly skinned" means that not more than ten per cent of the potatoes in any lot have more than one-fourth of the skin missing or "feathered."

(4) "Moderately skinned" means that not more than ten per cent of the potatoes in any lot have more than one-half of the skin missing or "feathered."

(5) "Badly skinned" means that more than ten per cent of the potatoes in any lot have more than one-half of the skin missing or "feathered."

(e) **Unclassified.** (1) Unclassified shall consist of potatoes which have not been classified in accordance with any of the foregoing grades. The term "unclassified" is not a grade within the meaning of these standards but is provided as a designation to show that no definite grade has been applied to the lot.

(f) **Definitions.** As used in these standards:

(1) "Mature" means that the outer skin (epidermis) does not loosen or "feather" readily during the ordinary handling and that practically no skin has been removed from the potatoes.

(2) "Bright" means practically free from dirt or other foreign matter, and that the outer skin (epidermis) has the attractive color normal for the variety.

(3) "Well shaped" means the normal shape for the variety and that the potato is not pointed, dumbbell-shaped, excessively elongated, or otherwise ill-formed.

(4) "Soft rot or wet breakdown" means any soft, mushy, or leaky condition of the tissue such as slimy soft rot, leak, or wet breakdown following freezing injury or sunscald.

(5) "Internal discoloration" means discoloration such as is caused by net necrosis or any other type of necrosis, stem-end browning, internal brown spot, or other similar types of discoloration not visible externally, except blackheart.

(6) "Injury" means any defect which more than slightly affects the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than two per cent of the total weight of the potato including peel covering defective area.

(7) "Diameter" means the greatest dimension at right angles to the longitudinal axis. The long axis shall be used without regard to the position of the stem (rhizome).

(8) "Fairly well shaped" means that the appearance of the individual potato or the general appearance of the potatoes in the container is not materially injured by pointed, dumbbell-shaped or otherwise ill-formed potatoes.

(9) "Fairly clean" means that, from the viewpoint of general appearance, the potatoes in the container are reasonably free from dirt or other foreign matter and that individual potatoes are not materially caked with dirt or materially stained.

(10) "Damage" means any injury or defect which materially injures the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than five per cent of the total weight of the potato including peel covering defective area. Any one 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: (A) Second growth or growth cracks which have developed to such an extent as to materially injure the appearance of the individual potato or the general appearance of the potatoes in the container. (B) Air cracks which are deep, or shallow air cracks which materially injure the appearance of the individual potato or the general appearance of the potatoes in the container. (C) External discoloration, when skinned areas on individual potatoes are materially affected by dark discoloration, or when the general appearance of the lot is materially affected by discoloration. (D) Shriveling, when the potato is more than moderately shriveled, spongy or flabby. (E) Sprouting, when more than ten per cent of the potatoes have sprouts over three-fourths of an inch long. (F) Surface scab which covers an area of more than five per cent of the surface of the potato in the aggregate. (G) Pitted scab which affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than five per cent of the total weight of the potato, including peel covering defective area. (H) Rhizoctonia, when the general appearance of the potatoes in the container is materially injured or when individual potatoes are badly infected. (I) Wireworm, grass root or similar injury, when any hole, on potatoes ranging in size from six to eight ounces, is longer than three-quarters inch or when the aggregate length of all holes is more than one and one-quarter inches. Smaller potatoes shall have lesser amounts and larger potatoes may have greater amounts, provided the removal of the injury by proper trimming does not cause the appearance of such potatoes to be injured to a greater extent

than that caused by the proper trimming of such injury permitted on a six to eight ounce potato. (J) Dirt, when the general appearance of the potatoes in the container is more than slightly dirty or stained, or when individual potatoes are badly caked with dirt or badly stained; or other foreign matter which materially affects the appearance of the potatoes.

(11) "Serious damage" means any injury or defect which seriously injures the edible or shipping quality, or the appearance of the individual potato or the general appearance of the potatoes in the container, or which cannot be removed without a loss of more than ten per cent of the total weight of the potato, including peel covering defective area. Any one of the following defects or any combination of defects the seriousness of which exceeds the defects or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect shall be considered as serious damage: (A) Dirt, when the general appearance of the potatoes in the container is seriously affected by tubers badly caked with dirt; or other foreign matter which seriously affects the appearance of the potatoes. (B) External discoloration, when skinned areas on individual potatoes are seriously affected by very dark discoloration, or when the general appearance of the lot is seriously affected by discoloration. (C) Fairly smooth cuts such as are made by the digger or by a knife to remove injury, when both ends are clipped, or when more than an estimated one-fourth of the potato is cut away, or, in the case of long varieties, when the remaining portion of the clipped potato weighs less than six ounces. Irregular types of cuts which seriously affect the appearance of the individual potato, or which cannot be removed without a loss of more than ten per cent of the total weight of the potato, including peel covering defective area. (D) Shriveling, when the potato is excessively shriveled, spongy, or flabby. (E) Surface scab which covers an area of more than fifty per cent of the surface of the potato in the aggregate. (F) Pitted scab which affects the appearance of the potato to a greater extent than the amount of surface scab permitted or causes a loss of more than ten per cent of the total weight of the potato including peel covering defective area. (G) Wireworm, grass root or similar injury, when any hole, on potatoes ranging in size from six to eight ounces, is longer than one and one-quarter inches or when the aggregate length of all holes is more than two inches. Smaller potatoes shall have lesser amounts and larger potatoes may have greater amounts, provided the removal of the injury by proper trimming does not cause the appearance of such potatoes to be injured to a greater extent than that caused by the proper trimming of such injury permitted on a six to eight ounce potato.

(See 1963 Supp. §22-27; Regs. 22-35-1, 22-35-2.)

B

Charter Oak Brand

Obligations of Packers

Sec. 22-33-B1. Obligations of packers

Each packer of "Charter Oak Brand Potatoes" shall (1) have a certificate renewable for each marketing season from the department of agriculture and natural resources obtainable on written application to use this brand; (2) have suitable equipment and demonstrate ability to grade and pack "Charter Oak Brand" potatoes in sufficient volume to participate in the program (Generally fifteen thousand pounds or more per day or per inspection lot); (3) use standard approved bags, properly

labeled and satisfactorily identified; (4) have all potatoes inspected for grade by federal-state inspectors before sale and shall pay the department of agriculture and natural resources inspection fees to cover the cost of furnishing such inspection at a rate not to exceed five dollars per forty-five thousand pound carload, plus travel at four cents per mile in excess of twenty miles based on the nearest headquarters; (5) use new bags purchased from dealers licensed to make "Charter Oak Brand" containers; (6) furnish the purchaser with a sales slip with each load sold showing the appropriate inspection certificate number of the lot or lots involved and keep a file of duplicate copies for the duration of the marketing season; (7) furnish the department of agriculture and natural resources such records and information as may be necessary to protect and promote the marketing of "Charter Oak Brand" potatoes; (8) comply with the spirit and letter of the marketing plan; (9) surrender his certificate and refrain from identifying potatoes as "Charter Oak Brand" for failure to comply with any of the provisions of rules and regulations.

(See 1963 Supp. § 22-27.)

Sec. 22-33-B2. Obligations of manufacturers of "Charter Oak Brand" potato bags

Each manufacturer of "Charter Oak Brand" bags for potatoes shall (1) show integrity and satisfactory ability to produce "Charter Oak Brand" bags for potatoes; (2) sell only to licensed growers; (3) furnish "Charter Oak Brand" bags of satisfactory workmanship and the following minimum specifications: (a) Fifteen-pound size bags shall be of No. 1 grade, sized finished kraft paper, two walls of fifty-pound quality. Outer wall white; (b) Fifty-pound size bags shall be of No. 1 kraft paper, sized finished three walls of fifty-pound quality; (c) one-hundred-pound size shall be of new burlap, seven and one-half ounce quality; (4) faithfully reproduce the "Charter Oak Brand" on all packages in satisfactory ink from designs to be supplied at cost by the department of agriculture and natural resources; (5) furnish such records and information concerning the sale of "Charter Oak Brand" bags as may be requested by the department of agriculture and natural resources; (6) collect an advertising tax on all "Charter Oak Brand" bags sold, at a rate equivalent to three dollars per forty-five thousand pound carload of potatoes. All such moneys collected shall be turned over on request of commissioner of agriculture and natural resources to an advertising committee for the specific purpose of advertising "Charter Oak Brand" potatoes; (7) supply the department of agriculture and natural resources with a copy of the order agreement bearing the signature of the buyer and seller, and one copy of the shipping invoice; (8) surrender his permit and refrain from manufacturing or selling "Charter Oak Brand" bags for failure to comply with any of the provisions of rules and regulations.

(See 1963 Supp. § 22-27.)