

Chapter Ag 81

AMERICAN CHEESE

Ag 81.01	Definitions	Ag 81.10	Rectangular boxes
Ag 81.02	Holding order	Ag 81.11	New type containers
Ag 81.03	Wisconsin state brand	Ag 81.12	Standards for cheese hoops
Ag 81.04	Wisconsin junior	Ag 81.13	Standards for size and weight of cheese
Ag 81.05	Undergrade	Ag 81.14	Standards for used cheese boxes
Ag 81.06	Colby		
Ag 81.07	Arbitration committee		
Ag 81.08	Marks or stamps		
Ag 81.09	Cylindrical boxes		

Ag 81.01 Definitions. The following terms whenever used in these grades shall have the following meaning:

- (1) "Department" means the state department of agriculture.
- (2) "Grader" is a person authorized by the department to grade cheese.
- (3) "Stamp" means a device for putting factory number, date, type, or grade mark on cheese.
- (4) "Unit" means a cheese factory, cheese warehouse or place where cheese is regularly graded.
- (5) "Cheese" means American or Cheddar cheese made by the American, Cheddar, granular, Colby or washed curd process.
- (6) "Flavor and taste practically clean" means a pleasing cheese flavor, and taste according to the age of the cheese.
- (7) "Good body" means a cheese that is smooth and firm to the touch, is not pasty, sticky, wet, weak, crumbly or mealy.
- (8) "Close" means compact, having neither mechanical nor gas openings.
- (9) "Medium close" means having a few mechanical openings.
- (10) "Open" means having many mechanical openings. Mechanical openings are irregular in shape, which result from failure of the curd to unite solidly under pressure.
- (11) "Shot holes" are spherical shaped openings with smooth glossy walls about the size of B.B. shot.
- (12) "Meatiness" is a quality found in cheese resulting from proper handling of the curd in the process of making.
- (13) "Smoothness" gradually appears in cheese of a good body as the process of curing advances.
- (14) "Corky" means cheese that appears hard, dry and coarse, may lack moisture and does not ripen normally.
- (15) "Gassy" means gas holes, which vary greatly in size and shape.
- (16) "Well dressed" means bandage without wrinkles or folds, smooth and of proper length.
- (17) "Practically uniform in size" means the uniformity that results from careful methods of manufacture. A cheese should be neither overweight nor underweight.
- (18) "Well closed" means surfaces without cracks or openings and there must be no free fat between particles of curd.
- (19) "The date of manufacture" shall begin at 12:01 A. M. of the day on which milk is coagulated for the manufacture of cheese.

(20) "Milk" means as defined in section 97.02, Wis. Stats.

(21) The food commonly known as "Cheddar cheese" is prepared from cows' milk by the following process:

Milk, which may be raw or pasteurized and which may be warmed when necessary, is subjected to the action of harmless lactic-acid-producing bacteria, present in such milk or added thereto. Harmless artificial coloring may be added. Sufficient rennet is then added to cause setting to a semisolid mass. The mass is so cut, stirred, and heated with continued stirring, as to promote the separation of whey and curd. The whey is drained off and the curd is matted into a cohesive mass. The mass of the curd is cut into slabs which are so piled and handled as to promote the drainage of whey and the development of acidity. The slabs of the curd are then cut into pieces, which may be rinsed by sprinkling or pouring water over them with free and continuous drainage; but the duration of such rinsing is so limited that only the whey on the surface of such pieces is removed. The curd is salted, stirred, further drained, and pressed into forms.

(22) The food commonly known as "washed curd cheese" is prepared from cows' milk by the following process:

Milk, which may be raw or pasteurized and which may be warmed when necessary, is subjected to the action of harmless lactic-acid-producing bacteria, present in such milk or added thereto. Harmless artificial coloring may be added. Sufficient rennet is then added to cause setting to a semisolid mass. The mass is so cut, stirred, and heated with continued stirring, as to promote the separation of whey and curd. The whey is drained off and the curd is matted into a cohesive mass. The mass of curd is cut into slabs which are so piled and handled as to promote the drainage of whey and the development of acidity. The slabs of curd are then cut into pieces, cooled in water, and soaked therein until the whey is partly extracted and water is absorbed. The curd is drained, salted, stirred, and pressed into forms.

(23) The term "soaked curd cheese" is a common name of washed curd cheese.

(24) The food commonly known as "Colby cheese" is prepared from cows' milk by the following process:

Milk, which may be raw or pasteurized and which may be warmed when necessary, is subjected to the action of harmless lactic-acid-producing bacteria, present in such milk or added thereto. Harmless artificial coloring may be added. Sufficient rennet is then added to cause setting to a semisolid mass. The mass is so cut, stirred, and heated with continued stirring, as to promote the separation of whey and curd. A part of the whey is drained off and the curd is cooled by adding water, the stirring being continued so as to prevent the pieces of curd from matting. The curd is drained, salted, stirred, further drained and pressed into forms.

Ag 81.02 Holding order. (1) No cheesemaker or operator of a cheese factory, and no agent or servant of any such cheesemaker or operator, shall pack for sale or ship for sale or deliver for sale any Wisconsin made American or Cheddar cheese in bandages, unless such cheese has been held on the shelves at the factory where made at least two days after the date of manufacture and properly turned and tended and until sufficiently dry on all surfaces. All cheese not in bandage shall be held on the shelves at the factory where made and properly turned and tended until sufficiently dry on all surfaces.

*B + Recd
Reg
1958
7-1-58*

(2) No person, firm or corporation, and no servant or agent of any person, firm or corporation, shall mark for a state grade or paraffine or remove from this state any American or Cheddar cheese made in Wisconsin before the third day after the date of manufacture and until sufficiently dry on all surfaces, or has been previously marked for a state grade and paraffined under the circumstances hereinafter defined, except that cheese of any style not enclosed in bandages may be marked for a state grade and be paraffined at any time after the surfaces of such cheese are sufficiently dry on all surfaces.

Ag 81.03 Wisconsin state brand. Cheese labeled or sold as Wisconsin State Brand must conform to the following standards:

(1) **FLAVOR.** Flavor and taste shall be practically clean, with nothing objectionable. Cheese of this grade must have a flavor clean enough to suit any of our markets, not merely a flavor that will get by in certain markets.

(2) **BODY AND TEXTURE.** Cheese must have good body; must be close or medium close but not open. Scattered shot holes are permitted. Must show meatiness and smoothness according to age. Cheese must not be corky, crumbly, mealy, acid, weak, pasty, gassy, or otherwise defective.

(3) **COLOR.** May be uncolored or of any degree of color recognized in the markets. Must be uniform. Color must not be dull or faded.

(4) **FINISH AND APPEARANCE.** Cheese must be well dressed, well shaped, and practically uniform in size. Surfaces must be well closed, sound, smooth, clean, free from checks, and practically free from mold.

(5) **MOISTURE.** Cheese of this grade shall have not more than 38 per cent of moisture, with an allowance or tolerance of not to exceed one per cent in excess, so that in no case shall the moisture content of said cheese exceed 39 per cent.

e + Recd

Ag 81.04 Wisconsin junior. Cheese labeled or sold as Wisconsin Junior must conform to the following standards:

(1) **FLAVOR.** Flavor and taste may be slightly defective.

(2) **BODY AND TEXTURE.** Body and texture may be slightly defective; may be medium open or slightly gassy.

(3) **COLOR.** May be uncolored or of any degree of color recognized in the markets. May be slightly defective.

(4) **FINISH AND APPEARANCE.** May have slight defects in shape and in finish; must be practically uniform in size; surfaces may have slight defects but must be reasonably clean.

(5) **MOISTURE.** Cheese of this grade may have not more than 39 per cent of moisture with an allowance or tolerance of not to exceed one per cent, so that in no case shall the moisture content of said cheese exceed 40%.

*e +
Recd*

Ag 81.05 Undergrade. Cheese of inferior quality or finish, having any pronounced inferior or objectionable flavor or taste, which is corky, crumbly, short, mealy, acid, weak, pasty, gassy or otherwise seriously defective, and cheese uneven in color, mottled or too highly colored and faulty in shape, finish and appearance, with surfaces which are defective, and cheese which is inferior to Wisconsin Junior, shall be considered Undergrade.

*e +
Recd*

Ag 81.06 Colby cheese. (1) In the case of Colby cheese, the above grades are modified to the extent that the texture of Colby cheese must be medium open to open, having numerous comparatively small mechanical openings distributed throughout the cheese.

(2) State Brand grade for Colby cheese is modified to permit not more than 39% of moisture with an allowance of tolerance of not to exceed one per cent, so that in no case shall the moisture content of said cheese exceed 40%.

Ag 81.07 Arbitration committee. In case of disagreement between producers, buyers, or supervisors, or any of them, as to the grade of cheese, a neutral party shall be called in to check the findings. In case of further disagreement, each party shall select a competent person as an arbitrator and such two arbitrators shall select a third competent person. All three must be present to determine the final grade jointly. The decision of the majority of such arbitrators as to grade of cheese shall be final, and any person who has bargained for such cheese shall make settlement according to the findings of said committee. Failure to make such settlement on such basis shall be deemed a violation of this order and shall subject the person guilty of such violation to the penalties provided by law. Such arbitrators shall be selected from the list of competent persons compiled by the department from a list selected by producers and dealers of American cheese. The party requesting the arbitration committee shall pay the costs thereof.

Ag 81.08 Marks or stamps. (1) Every cheesemaker or operator of a cheese factory by himself or by his agent or servant shall mark plainly and conspicuously on the side of each cheese, before it leaves the factory, with dark colored vegetable ink the words "Wisconsin" and "Factory", the serial number of the factory as designated by the state department of agriculture, a designation of the vat in which the cheese was made by letters "A", "B", "C", etc. in any case where more than one vat was used in making such cheese, and the date on which such cheese was manufactured (day, month and year); also, to comply with federal regulations, the words "Cheddar Cheese", "Colby Cheese", or "Washed Curd Cheese", depending on the type of cheese being made. The name of the type of cheese, where possible, shall be placed just above, or in flat types at the side of the factory stamp. The date of manufacture shall mean the date on which an agent was added to coagulate the milk from which such cheese was made.

(2) No person engaged in the business of buying cheese from cheesemakers or from operators of cheese factories, or their agents, shall receive for sale any American or Cheddar cheese made in Wisconsin unless it is marked as required by the first-paragraph of this section.

(3) All American or Cheddar cheese made in Wisconsin of the following styles: Mammoths, Cheddars, Daisies, Twins, Midgets, and Longhorns, which will qualify as Wisconsin State Brand, shall be marked at least once, and all Wisconsin Junior and Undergrade cheese of the above styles shall be marked in at least 3 places, on the side of each cheese to indicate its grade before it enters retail channels, leaves the state, is paraffined or converted into another

subsections

food product, or delivered to any person, firm or corporation, unless such person, firm or corporation represents an authorized American cheese grading unit located in the state. 10-pound square prints, 5-pound loaves and similar styles shall be marked in 2 places equally spaced on one side of each cheese to indicate its grade. Cheese weighing less than 5 pounds shall be marked in at least one place to indicate its grade.

(4) The size of type used in marking cheese as heretofore set forth in paragraphs 1, 2 and 3 shall be at least $\frac{1}{2}$ inch in height, except that on cheese 10 pounds or less it shall be optional to use the regular stamp or a stamp issued by the department that is approximately two-thirds the size of the regular stamps. All factory stamps for cheese as defined herein shall be furnished by the department at cost.

n

(5) Such cheese as is held for the Fancy Aged class may be paraffined and stored without grade marks, said cheese to be described and listed under its lot number with the department, and to be finally graded by the department, and if qualified may be certified as Wisconsin Fancy Aged cheese.

over

(6) American or Cheddar cheese assembled in Wisconsin from other states and the receptacles thereof shall be branded or marked in 2 conspicuous places with the name of the state of its origin and the grader's number of the unit applying the brand or mark, the size of the type used to be at least $\frac{1}{2}$ inch high.

(7) Every operator who does not intend to market all his cheese in conformity with the state standards established by this order shall mark or stamp all his cheese "Not Graded" in type at least one inch high before it is paraffined and before it leaves the state.

(8) An individual who desires to grade cheese shall make application for a license to the state department of agriculture in writing on a form furnished by the department, naming the unit where the grading is to be done.

(9) Granting of grading stamps may be denied when the department is not satisfied with the fitness of the party intending to use the stamps, and the department has the right to suspend or revoke the right to use the grade stamps.

(10) The grade stamps will be furnished by the department. All replacements of stamps issued to the licensed grader shall be ordered through the department and paid for by the user. All grade stamps remain the property of the department. They shall not be sold or transferred.

(11) Each factory shall provide the stamps to indicate the type of cheese it is making.

(12) American or Cheddar cheese containing more than the permitted amount of moisture as provided in subsection (9) of section 97.02, Wis. Stats., may be sold in Wisconsin provided it is plainly and conspicuously marked or branded in one or more places to indicate the moisture content in type and numerals at least $\frac{1}{2}$ inch high. For example:

American cheese, Moisture 40 to 42%
 Moisture 42 to 44%
 Moisture 44 to 46%
 Moisture over 46%

Such cheese shall not bear the grade marks fixed by the department.

(13) Cheese which contains any added substance or ingredients which are poisonous, injurious, or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture, shall not be graded or bear a grade mark, but shall bear a stamp in letters at least $\frac{1}{2}$ inch high the words "THIS CHEESE IS NOT FIT FOR HUMAN CONSUMPTION".

Ag 81.09 Cylindrical boxes. (1) The inside measurements of commercially dry boxes for cheese shall be as follows:

(a) Cheddar and Twin boxes shall be 15 inches in diameter; height of said boxes shall be 12 inches, with a permitted tolerance of $\frac{1}{4}$ inch from this measurement.

(b) Single Daisy boxes shall be 14 inches in diameter; height of said boxes shall be $4\frac{1}{4}$ inches, with a permitted tolerance of $\frac{1}{8}$ inch from this measurement.

(c) Double Daisy boxes shall be 14 inches in diameter; height of said boxes shall be $8\frac{1}{2}$ inches, with a permitted tolerance of $\frac{1}{4}$ inch from this measurement.

(d) Longhorn boxes (4 in a box) shall be $14\frac{1}{2}$ inches in diameter; height of said boxes shall be $13\frac{3}{4}$ inches with a permitted tolerance of $\frac{1}{4}$ inch from this measurement.

(e) Young American boxes (4 in a box) shall be 17 inches in diameter; height of said boxes shall be $8\frac{1}{4}$ inches, with a permitted tolerance of $\frac{1}{8}$ inch from this measurement.

(f) Flat boxes (single) shall be 15 inches in diameter; height of said boxes shall be $6\frac{1}{2}$ inches, with a permitted tolerance of $\frac{1}{8}$ inch from this measurement.

(g) Commodore, Midget, Junior Twin, etc., boxes shall be $10\frac{1}{4}$ inches in diameter; height of said boxes shall be $4\frac{1}{2}$ inches, with a permitted tolerance of $\frac{1}{8}$ inch from this measurement. Boxes for 2 cheese of this type placed in a box shall be $10\frac{1}{4}$ inches in diameter; height of said boxes shall be 9 inches, with a permitted tolerance of $\frac{1}{8}$ inch from this measurement; provided, that boxes of this type manufactured for Colby cheese may be of a height of $9\frac{1}{2}$ inches, with a permitted tolerance of $\frac{1}{8}$ inch.

(2) Cylindrical boxes for cheese shall also conform to the following specifications:

(a) Boxes shall be made of sound material, free from defects that materially lessen their strength.

(b) Workmanship and placing of fasteners shall be such that will make all parts of the box sufficiently strong.

(c) Heading shall be not less than $\frac{7}{16}$ inch thick, dressed on one side at least, and must be commercially dry, having not more than 18 per cent of moisture when cut into circular form and when assembled. Such assembled boxes shall not be sold, delivered or used until all parts are commercially dry.

(d) Heading shall be matched with tongue and groove well fitted. Said tongue and groove shall be not less than $\frac{5}{16}$ inch and not more than $\frac{3}{8}$ inch in depth and length, respectively.

(e) Bottom heading shall be made of not more than 4 pieces, not counting outside pieces less than $1\frac{1}{4}$ inches wide.

(f) Cover heading shall be made of not more than 5 pieces, not counting the outside pieces less than $1\frac{1}{4}$ inches wide.

(g) The veneer used in boxes throughout shall be single ply, at least 1/6 inch thick, or 2-ply each at least 1/12 inch thick.

(h) Boxes of height similar to Twins, Cheddars and Longhorns shall when 2-ply veneer is used be reinforced with 5 strips to each box, such strips to be at least 5 inches wide and at least 1/12 inch thick and equally spaced, or the equivalent of 5 such strips. Such strips shall be placed flush with the bottom edge of the outer plies of veneer and shall extend 12 inches above the bottom edge of the bottom heading and shall be fastened to the other plies with tacks or staples to hold them in place. The lap in the veneer forming the body of the box shall apply as a sixth reinforcement strip.

(i) Body veneer shall overlap not less than 3 inches and shall be fastened with either tacks or staples spaced not more than 1 inch apart, such fasteners to be well clinched in the inside of the box.

(j) All cover bands, except for Daisy boxes, shall be 2¼ inches wide with a permitted tolerance of ¼ inch from this measurement.

(k) Cover bands for Daisy boxes shall be 2 inches wide, with a permitted tolerance of ¼ inch from this measurement.

(m) Nails required by this section shall be the common wire type. Tacks shall be small, short, sharp pointed nails having broad flat heads. Staples required by this section are U-shaped having two points.

n
near
(n) Nails must be spaced not more than 4 inches apart when fastening cover bands to cover heading or bottom band and box sides to bottom heading, not counting nails entering lumber joints or cracks. Twins, Cheddars, Fats, Longhorns and Double Daisy boxes shall have at least 14 nails to fasten cover bands to cover heading, and at least 14 nails to fasten bottom band and box sides to bottom heading. Boxes larger than 15 inches in diameter up to and including boxes of the size to hold 4 Young American cheese shall have at least 16 nails to fasten cover band to cover heading and at least 16 nails to fasten bottom band and box sides to bottom heading.

(o) Nails not shorter than 1 inch and not lighter than 15 gauge or staples not lighter than 18 gauge nor with less than 1 inch long prongs, shall be used to fasten bands to cover heading.

(p) Bottom bands must be at least 1 inch wide and not more than 1½ inches wide except in the case of Single Daisy boxes where the bottom band shall not be over 1¼ inches wide.

(q) Nails not shorter than 1½ inch and not lighter than 15 gauge must be used to fasten bottom bands, box sides, and reinforcement strips to bottom heading.

(r) All boxes must be securely nailed or bound together to properly carry the load intended for them. Workmanship and placing of fasteners must be such as will make all parts of the box sufficiently strong.

(s) Name and address of the manufacturer must be plainly stamped or impressed on the body of all boxes covered by these standards in type at least ¼ inch high.

(t) In cases where cheese boxes are manufactured in Wisconsin for export to foreign countries, such boxes shall be manufactured in accordance with the Federal regulations if the specifications therein are different than the Wisconsin specifications which would otherwise be applicable.

Ag 81.10 Rectangular boxes. (1) Boxes for two 10-pound Square Prints, or four 5-pound loaves, or eight 2½ pound loaves, shall be 14¾ inches by 11½ inches by 3¾ inches, inside measurement.

(2) Rectangular boxes for cheese shall also conform to the following specifications:

(a) Boxes shall be made of sound material free from defects that materially lessen their strength.

(b) Boxes covered in this section shall be made of sawed stock. Veneer covers which will not seriously warp or buckle may be used.

(c) Each end and each side shall be made of one piece, which end and side shall be at least 7/16 inch thick, dressed on at least one side.

(d) Covers of sawed stock and bottoms shall be not less than 7/32 inch thick and shall be made of not more than three pieces each.

(e) Covers shall be so prepared by the manufacturers as to reach the user with each unit assembled.

(f) Each box shall be nailed with not less than 44 wire nails not lighter than 15 gauge which shall be applied as follows:

1. Not less than 3 nails to each joint shall be used in fastening sides to ends, which nails shall be not less than 1½ inch long.

2. Not less than 6 nails at least 1 inch long shall be used to fasten each end of each cover and each end of each bottom to the sides of the box.

3. Not less than 2 nails at least 1 inch long shall be used to fasten each side of each cover and each side of each bottom to the box.

(g) The use of cleats and dimensions of the same shall be optional with the user.

(h) Name and address of the manufacturer shall be plainly stamped or impressed on the end of said Square Print boxes in type at least ¼ inch high.

Ag 81.11 New type containers. To permit progress in the boxing and packaging of cheese, types of containers other than those prescribed in the above regulations may be used for a limited time as an experiment to determine whether the box or package is practical, provided it is done after complete specifications have been given to the department and the department has given its consent to such experimentation. If at any time the department feels that the container being used in the experiment is not satisfactory, it may withdraw its consent and further use of the container shall be discontinued forthwith. If the container is found to be satisfactory, the department may authorize its general use.

Ag 81.12 Standards for cheese hoops. Hoops used for the manufacture of American or Cheddar type cheese shall be of such size and shape that when used in accordance with the directions of the hoop manufacturer, the cheese molded therein will conform to the standards for size and weight as set forth in Ag 81.13.

Ag 81.13 Standards for size and weight of cheese. The weight and size (diameter across the large round end) of the various styles of cheese shall be as follows:

(1) **CHEDDARS.** Cheddar style cheese shall be 14½ inches in diameter, and should weigh 70 to 78 pounds each, but shall not exceed 78 pounds.

(2) TWINS. Single twin cheese shall be 14½ inches in diameter and should weigh 32 to 37 pounds and shall in no case weigh 38 pounds or over. A pair of cheese in a box should be practically uniform in size and should weigh from 64 to 74 pounds.

(3) DAISY. Daisy style cheese shall be 13½ inches in diameter and should weigh 20 to 22 pounds and in no case weigh 23 pounds or over.

(4) LONGHORNS. Longhorn style cheese shall be 6 inches in diameter, and each cheese in a box of four Longhorn cheese shall be practically uniform in size, and in no case shall the total weight exceed 53 pounds.

(5) YOUNG AMERICAN. Young American style cheese shall be 7 inches in diameter, and each cheese in a box of four Young American cheese shall be practically uniform in size, and in no case shall the total weight exceed 48 pounds.

(6) COMMODORES, MIDGETS, JUNIOR TWINS. Each cheese shall be 9¾ inches in diameter, each cheese to weigh 11 to 12 pounds, and in no event to exceed 12½ pounds. A pair of cheese in a box should be practically uniform in size and should weigh 22 to 24 pounds, but should in no case exceed 25 pounds.

Ag 81.14 Standards for used cheese boxes. (1) All cheese boxes that have been used as containers for cheese, before being used again in the marketing or transporting of cheese, shall be reconditioned so as to be clean and sanitary and free from adhering material, objectionable odors and mold, and shall be marked by the reconditioner on the lower band, in case of cylindrical boxes; and on the end piece, in case of rectangular shaped boxes; and on the side where other markings are usually applied, with the used box stamp as herein provided.

(2) Before such used cheese boxes are again used in the marketing or transporting of cheese, all markings on such boxes shall be removed excepting the marking used to designate the original manufacturer of each box and except that all marks for used boxes herein provided for shall be left thereon.

(3) Any person desiring to recondition used cheese boxes shall make application to the department for a used box marking stamp. Each such stamp shall remain the property of the department and shall include the words "Used Box" and letters or figures, or both, identifying such reconditioner.

(4) Every person who uses a used cheese box as a container for marketing or transporting cheese shall cancel it with a heavy indelible pencil mark in the form of an X through the last reconditioner's identifying letters and figures in the used box marking thereon as soon as he has placed cheese in the same.

(5) Every person who buys or receives any used cheese boxes shall keep available for inspection by the department all invoices of all used cheese boxes bought or received by him.

(6) No person shall buy, receive, use or have in possession with intent to use for marketing or transporting cheese, and no person shall sell, offer for sale, or deliver, or have in possession with intent to sell, or to offer for sale, or deliver, for use in marketing or transporting cheese, any used cheese box which does not conform to these

mu
re

Repeal
Req
June
1958
eff
7-1-58

standards or which does not bear the used box markings identifying all the reconditioners thereof as herein required, one of which markings shall be uncanceled; provided that such boxes coming from outside the state of Wisconsin may be so used or possessed if each such box is plainly and conspicuously marked with the name and address of the manufacturer on the body of the box in type at least one-quarter inch high, and if each such box which does not conform to these standards is plainly and conspicuously marked on the body of the box in type at least one-quarter inch high with the words: "Used box not up to Wisconsin standards".