

## Chapter Ag 80

## GRADE A MILK AND MILK PRODUCTS

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**Ag 80.01 Definitions.** The following definitions shall apply to the interpretation and enforcement of this regulation:

(1) **MILK** is the fresh, clean lacteal secretion, free from colostrum, obtained by the complete milking of one or more healthy cows. Milk may be standardized by the addition or removal of cream or by the addition of skim milk. It shall contain not less than 8.25% of milk solids not fat and not less than 3% of milk fat.

(2) **CERTIFIED MILK** is milk produced and processed under the supervision of and in conformity with the methods and standards of the American Association of Medical Milk Commissions.

(3) **GOAT MILK** is the lacteal secretion, practically free from colostrum, obtained by the complete milking of healthy goats, and shall comply with all the requirements of this regulation. Goat milk shall be kept separate and apart from cows' milk and shall at all times be labeled or otherwise clearly identified as "goat milk".

(4) **MILK FAT OR BUTTER FAT** is the fat of milk.

(5) **CREAM** is a portion of milk which contains not less than 18% milk fat.

(6) **SOUR CREAM** is cream the acidity of which is more than 0.20%, expressed as lactic acid.

(7) **WHIPPING CREAM, HEAVY CREAM** is cream which contains not less than 30% milk fat.

(8) **WHIPPED CREAM** is cream to which a harmless gas has been added to cause whipping of the product. It may also contain sugar, other harmless flavoring, and a harmless stabilizer.

(9) **CONCENTRATED MILK** is the fluid product, unsterilized and unsweetened, resulting from the removal of a considerable portion of the water from milk and contains not less than 8% of milk fat and not less than 26.15% of milk solids.

(10) **DRY MILK** is milk from which substantially all of the water has been removed and contains not less than 26% of milk fat and not more than 5% of moisture.

(11) **HALF AND HALF** is a product consisting of a mixture of milk and cream which contains not less than 12% of milk fat. Milk solids not fat may be added.

(12) **SKIM MILK** is milk from which a sufficient portion of the cream has been removed to reduce its milk fat percentage to less than 3%, and contains not less than 8.5% of milk solids.

(13) **NONFAT, FAT-FREE OR DEFATED MILK** is skim milk which contains not more than 0.25% of milk fat.

(14) **CONCENTRATED SKIM MILK** is the fluid product, unsterilized and unsweetened, resulting from the removal of a considerable portion of the water and contains not less than 28% of milk solids and not more than one-half of one per cent of milk fat unless otherwise indicated.

(15) **NONFAT DRY-MILK SOLIDS** is the product resulting from the removal of water and fat from milk and contains not more than 5% of moisture and not more than 1.5% of milk fat unless otherwise indicated.

(16) **MILK OR SKIM MILK BEVERAGE** is a food compound or confection consisting of milk or skim milk, as the case may be, to which has been added a syrup or flavor consisting of wholesome ingredients and approved stabilizers. Milk solids not fat may be added to skim milk beverages.

(17) **BUTTERMILK** is a product resulting from the churning of milk or cream, or from the souring or treatment by a lactic acid or other culture of milk or skim milk. It contains not less than 8.25% of milk solids not fat. When cultured, butter granules, salt, sodium citrate and milk solids not fat may be added.

(18) **CULTURED BUTTERMILK** is the product resulting from the ripening of pasteurized skim milk or pasteurized reconstituted skim milk by means of lactic acid producing culture. It contains not less than 8.25% of milk solids and may contain added butter granules, salt, and harmless stabilizer.

(19) **VITAMIN AND/OR MINERAL FORTIFIED MILK AND MILK PRODUCTS** are those the vitamin and/or mineral content of which has been increased, by an approved method, per quart, to at least the following:

400 U.S.P. units in the case of Vitamin D.

2000 U.S.P. units in the case of vitamin A.

1 Mgm. in the case of B<sub>1</sub> or Thiamin.

2 Mgm. in the case of B<sub>2</sub> or Riboflavin.

10 Mgm. in the case of Niacin.

10 Mgm. in the case of Iron.

0.1 Mgm. in the case of Iodine.

(20) **COTTAGE CHEESE** is the soft uncured cheese prepared from the curd obtained by adding harmless lactic acid-producing bacteria, with or without rennet, to pasteurized skim milk, concentrated skim milk, or nonfat dry-milk solids. It contains not more than 80% moisture. It is not subject to grading, unless made from graded products, but is subject to the plant requirements.

(21) **CREAMED COTTAGE CHEESE** is the soft uncured cheese prepared by mixing cottage cheese with pasteurized cream or a pasteurized mixture of cream with milk or skim milk, which contains not less than 4% of milk fat by weight, nor more than 80% of moisture. It is not subject to grading, unless made from graded products, but is subject to the plant requirements.

(22) **HOMOGENIZED MILK** is milk which has been treated in such manner as to insure break-up of the fat globules to such an extent that after 48 hours quiescent storage no visible cream separation occurs on the milk and the fat percentage of the top 100 ml. of milk in a quart bottle, or of proportionate volumes in containers of other sizes, does not differ by more than 10% of itself from the fat percentage of the remaining milk as determined after thorough mixing.

(23) **MILK PRODUCTS** shall be taken to mean and include cream, concentrated milk, goat milk, buttermilk, skim milk, milk beverages, skim milk beverages, and any other product made by the addition of any substance to milk or any of these products and used for similar purposes and designated as a milk product by the department.

(24) **PASTEURIZATION.** The terms "pasteurization", "pasteurized", and similar terms shall be taken to refer to the process of heating every particle of milk or milk products to at least 143° F., and holding continuously at such temperature for at least 30 minutes, or to at least 161° F., and holding at such temperature continuously for at least 15 seconds, in approved and properly operated equipment; provided, that nothing contained in this definition shall be construed as prescribing any other process which has been demonstrated to be equally efficient and is approved by the department.

(25) **ADULTERATED AND MISBRANDED MILK AND MILK PRODUCTS.** Any milk to which water has been added, or any milk or milk product which contains any unwholesome substance, or which if defined in this regulation does not conform with its definition, shall be deemed adulterated. Any milk or milk product which carries a "Grade A" label not authorized by the department, or which fails to conform in any other respect with the statements on the label, shall be deemed to be misbranded.

(26) **MILK PRODUCER** is any person who owns or controls one or more cows, a part or all of the milk or milk products from which is sold or offered for sale.

(27) **MILK DISTRIBUTOR** is any person who offers for sale or sells to another any milk or milk products for human consumption as such.

(28) **DAIRY OR DAIRY FARM** is any place or premises where one or more cows are kept, a part or all of the milk or milk products from which is sold or offered for sale.

(29) **MILK PLANT** is any place or premises or establishment where milk or milk products are collected, handled, processed, stored, bottled, pasteurized, or prepared for distribution, but shall not be construed to include an establishment where milk or milk products are sold at retail only, if no milk or milk products are pasteurized, bottled or otherwise processed at such establishment.

(30) **MILK SANITARIAN** is a well qualified and duly authorized representative of the Wisconsin state department of agriculture.

(31) DEPARTMENT shall mean the Wisconsin state department of agriculture and its authorized representatives.

(32) AVERAGE BACTERIAL PLATE COUNT, AVERAGE DIRECT MICROSCOPIC COUNT, AND AVERAGE COLIFORM COUNT shall be taken to mean the logarithmic average, and average reduction time and average cooling temperature shall be taken to mean the arithmetic average of the respective results of the last four consecutive samples, taken upon separate days, provided, that the 3-out-of-4 method as specified in Ag 80.06 (2) may be used in lieu of the averaging methods herein prescribed.

(33) PERSON shall mean any individual, partnership, corporation, company, trustee, or association.

(34) AND/OR. Where the term "and/or" is used, "and" shall apply where possible, otherwise "or" shall apply.

(35) CERTIFYING AGENCY shall mean the Wisconsin State Board of Health or its authorized representative.

(36) HEALTH AUTHORITY shall mean an authorized representative of a city, or county health department, organized pursuant to statutory provisions.

**Ag 80.02 Restrictions.** (1) No person shall sell, offer or expose for sale, or have in possession any milk or milk product labeled "Grade A", alone or in conjunction with other words, or bearing any other statement, design or device, or otherwise represented in a manner which may induce a prospective customer to believe that the milk or milk product has been produced and/or processed in conformity with the requirements of this regulation:

(a) If such milk or milk product is adulterated, misbranded or ungraded; or

(b) If such milk or milk product shall not have been produced and/or processed in strict compliance with the provisions of this regulation, or with the provisions of a substantially equivalent regulation as provided for in section Ag 80.17 (1) hereof.

(2) It shall be unlawful for any milk producer to, in any manner, represent that the milk produced by him is "Grade A raw milk for pasteurization" unless he is the holder of a valid "producer permit" issued by the department or a recognized health authority as provided in section Ag 80.17 (1) hereof.

(3) It shall be unlawful for any milk plant operator to, in any manner, represent that any of the milk or milk products produced and/or processed by him is "Grade A" unless he is the holder of a valid "Grade A permit" issued by the department, or, if for interstate shipment, by the authorized health authority of the purchasing market or of some other out-of-state governmental unit, acceptable to the health authority of the purchasing market, all as provided for in section Ag 80.17 (1) hereof.

(4) Adulterated, misbranded, and/or improperly labeled ungraded milk may be impounded by the department and disposed of according to law.

**Ag 80.03 Permit.** (1) The operator of any dairy plant desiring to use the "Grade A" label on any milk or milk products processed by him for sale in this state shall make application for a "Grade A"

permit on a form prescribed and furnished by the department; if for interstate sale, such permit may be obtained from the health authority of the purchasing market. The certifying agency shall conduct a survey to determine if the applicant is in compliance with all of the minimum requirements of this or a substantially similar regulation. The permit shall be issued only upon recommendation of the certifying agency.

(2) Surveys for certification of compliance rating shall be made upon filing of application for permit and at least every two years thereafter. The determination of compliance shall be made in accordance with the currently published methods of the U. S. Public Health Service for making milk shed ratings.

(3) Unless the health authority of the purchasing market otherwise prescribes, a rating of 90% shall be required. When a permit holder rates below 90% but not below 85% he shall be granted a probationary period of 90 days to increase his rating to 90%; provided that upon recommendation of the certifying agency, one additional extension can be made.

(4) The department upon recommendation of the certifying agency shall suspend the permit issued by it to any distributor who fails to attain a rating of 90% within the probationary period and of any distributor who rates lower than 85%. When the permit is so suspended the distributor shall forthwith discontinue use of the "Grade A" label on all milk and milk products processed by him.

(5) A permit issued by the department may be temporarily suspended upon violation by the holder of any of the provisions of this regulation, or for interference with a milk sanitarian in the performance of his duties. A permit may be revoked, after opportunity for a hearing, upon serious or repeated violations.

(6) Any producer or distributor of milk or milk products whose permit has been suspended may at any time make application for the reinstatement of his permit.

(7) Upon receipt of a satisfactory application for reinstatement of permit based on correction of a violation of any bacteriological or cooling temperature standard, the milk sanitarian shall take further samples at the rate of not more than 2 per week, and shall approve the application upon compliance with the grade requirements as determined in accordance with section Ag 80.06 (1) hereof; provided, that if samples are not available because of suspension of permit to operate, or for other reasons, the department may issue a temporary permit upon satisfying itself by inspection of the facilities and the operating methods that the conditions responsible for the violation have been corrected, with final reinstatement of permit conditional upon subsequent bacteriological or temperature findings.

(8) In case the permit suspension was due to a violation of an item other than bacteriological standards or cooling temperature, the said application must be accompanied by a statement signed by the applicant to the effect that the violated item of the specifications has been conformed with. Within one week of the receipt of such an application and statement, the sanitarian shall make a reinspection of the applicant's establishment and thereafter as many additional re-inspections as he may deem necessary to assure himself that the applicant is again complying with the requirements, and, in case the findings justify, shall reinstate the permit.

**Ag 80.04 Labeling.** (1) All bottles, cans, packages, and other containers enclosing milk or any milk product as defined in section Ag 80.01 (23) of this regulation shall be plainly labeled or marked with

(a) The name of the contents as given in the definitions in this regulation;

(b) The grade of the contents, in the case of milk and all milk products listed in section Ag 80.01 (23);

(c) The word "pasteurized" only if the contents have been pasteurized;

(d) The phrase "for pasteurization" if the contents are to be pasteurized; and the words "heated milk" if contents have been flashed, with temperature of heating;

(e) The name and address of the processor, packer or dealer, and if the contents are pasteurized and/or bottled by another the name and address. If approved by the department or the market health authority, a code or permit number may be substituted for the name and address; and

(f) In the case of vitamin and/or mineral fortified milk, a proper designation approved by the department disclosing the fortification, and, if represented as suitable for special dietary use, the number of units or milligrams of each per quart.

(2) Only the identity of the producer shall be required on cans delivered to a milk plant which receives only raw milk and/or cream for pasteurization of one grade only and which immediately dumps, washes, and returns the cans to the producer. If such plant receives milk and/or cream for use in ungraded products, the cans containing such milk and/or cream shall be marked "B" or otherwise designated "ungraded".

(3) All labels and label statements or marks shall be in letters of a size, kind and color approved by the department and shall contain no marks, designs or devices which are misleading.

**Ag 80.05 Inspection.** (1) Prior to the issuance of a permit by the department and at least once every 6 months thereafter the department or the supervising health authority of a Wisconsin unit of government shall cause to be inspected all dairy farms and all milk plants producing and/or processing milk or milk products which are sold or intended for sale as "Grade A" or as milk or milk products produced and/or processed under this regulation.

In case a milk sanitarian discovers the violation of any requirement he shall make a second inspection after a lapse of such time as he deems necessary for the defect to be remedied, but not before the lapse of 3 days, and the second inspection shall be used in determining compliance with the grade requirement of this regulation. Any violation of the same requirement of this regulation on such reinspection shall call for immediate suspension of permit.

(2) One copy of the inspection report shall be posted by the inspector in a conspicuous place upon an inside wall of one of the dairy farm or milk plant buildings, and said inspection report shall not be defaced or removed by any person except the milk sanitarian. Another copy of the inspection report will be filed with the department or supervising health authority and shall be available to the certifying agency and the U. S. Public Health Service.

(3) Every milk producer and every dairy plant operator shall, upon the request of the milk sanitarian, permit him access to all parts of the establishment, and every plant operator shall furnish the milk sanitarian, upon his request, for official use only, a true statement of the actual quantities of milk and milk products of each grade purchased and sold, together with a list of all sources, records or other forms containing like information of inspection and tests, and recording thermometer charts.

**Ag 80.06 Examination of milk and milk products.** (1) During each 6 months period at least four samples of milk and cream from each dairy farm and at least four samples of milk, cream and homogenized milk from each milk plant shall be taken on separate days and examined by the department or supervising health authority; provided, that in the case of raw milk for pasteurization the department may accept the results of non-official laboratories which have been accredited by the certifying agency. Samples of other milk products may be taken and examined by the department or supervising health authority as often as it deems necessary. Samples may be taken by the sanitarian at any time prior to the final delivery of the milk or milk products. Samples of milk and milk products from stores, cafes, soda fountains, restaurants, and other places where milk or milk products are sold shall be examined as often as the department or supervising health authority may require. All proprietors of such places shall furnish the sanitarian, upon his request, with the names of all distributors from whom their milk and milk products are obtained. Bacterial plate counts, direct microscopic counts, reduction tests, coliform determinations, phosphatase tests, and other laboratory tests shall conform to the procedures in the current edition of "Standard Methods for the Examination of Dairy Products" recommended by the American Public Health Association. Examinations may include such other chemical and physical determinations as the department may deem necessary for the detection of adulteration. Bioassays and analyses of the vitamin and mineral content of vitamin and/or mineral fortified milk and milk products shall be made when required by the department or supervising health authority in a laboratory approved by the department for such examination.

(2) Whenever the average bacterial count, the average reduction time, the average cooling temperature, or the average coliform count falls beyond the limit herein prescribed, the department or supervising health authority shall send written notice thereof to the person concerned and shall take an additional sample, but not before the lapse of 3 days, for determining a new average in accordance with section Ag 80.01. (32) Violation of the grade requirements by the new average or by any subsequent average during the remainder of the current 6-months' period shall call for immediate suspension of the permit unless the last individual result is within the grade limit.

(3) In case of violation of the pasteurization requirements as evidenced by the phosphatase test, the cause of underpasteurization shall be determined, if possible, and removed before milk or milk products from this plant can again be sold as pasteurized milk or milk products.

Ag 80.07 Grades. (1) STANDARDS. The grade of milk and milk products shall be based on the following standards, the grading of milk products being identical with the grading of milk, except that the bacterial count standards shall be doubled in the case of cream and half and half, and omitted in the case of sour cream, cottage cheese, creamed cottage cheese, buttermilk and cultured buttermilk. Vitamin and/or mineral fortified milk or milk products shall not bear the "Grade A" label or be otherwise represented as Grade A unless made of Grade A pasteurized milk or milk products made therefrom. No milk product shall be labeled or otherwise represented as "Grade A" if any ungraded milk or milk products are used in the composition thereof.

(2) GRADE A RAW MILK FOR PASTEURIZATION. Grade A raw milk for pasteurization is raw milk produced upon dairy farms conforming with all of the following items of sanitation, and such portions of other items as are indicated therein, and the bacterial plate count or the direct microscopic clump count of which, as delivered from the farm, does not exceed 200,000 per milliliter, or the methylene blue reduction time of which is not less than  $5\frac{1}{2}$  hours, or the resazurin reduction time of which to P 7/4 is not less than  $2\frac{3}{4}$  hours, as determined in accordance with section Ag 80.06 (1).<sup>v</sup>

(3) ITEMS OF SANITATION, FARMS. (a) *Cows, health.* 1. In the case of milk for pasteurization all of the animals in all herds shall have been tested for tuberculosis within 6 years prior to the time any of such milk is sold or offered for sale, and at least every 6 years thereafter. Said tests and retests shall be made and any reactors disposed of in accordance with requirements approved by the U. S. Department of Agriculture, Bureau of Animal Industry, for tuberculosis-free accredited herds. A certificate identifying each animal, signed by the veterinarian or attested to by the milk sanitarian and filed as directed by the department, shall be evidence of the above test.

2. Effective July 1, 1955 all milk and milk products for pasteurization shall be from herds certified by the department as following one of the procedures approved by the U. S. Department of Agriculture for the eradication of brucellosis.\* Evidence of this certification shall be filed as directed by the department or the supervising health authority. All additions to the herds must be brucellosis-free. All tests and retests shall be made and any reactors disposed of in accordance with the requirements approved by the U. S. Department of Agriculture for brucellosis-free accredited areas. A certificate identifying each animal, signed by a veterinarian, approved by state or federal livestock sanitation officials and filed as directed by the department, shall be evidence of the test.

3. Cows which show a complete induration of one quarter or extensive induration in one or more quarters of the udder upon physical examination, whether secreting abnormal milk or not, shall be permanently excluded from the milking herd; provided, that this shall not apply in the case of a quarter that is completely dry. Cows giving bloody, stringy, or otherwise abnormal milk, but without entire or

\* Participation by herd owners under Plan A of the Wisconsin Brucellosis Control Program (section 95.26, Wis. Stats.) meets this requirement.



extensive induration of the udder, shall be excluded from the herd until re-examination shows that the milk has become normal.

4. For other diseases such tests and examinations as the department may require shall be made at intervals and by methods prescribed by it, and any diseased animals or reactors shall be disposed of as it may require.

(b) *Milking stable.* 1. Lighting. A milking barn, stable or parlor shall be provided. It shall be provided with adequate light, properly distributed for day or night milking.

2. Air space and ventilation. Such sections of the milking barn, stable or parlor where cows are kept or milked shall be well ventilated and shall be so arranged as to avoid overcrowding.

3. Floors, animals. The floors and gutters of that portion of the barn, stable or parlor in which cows are milked shall be constructed of concrete or other approved impervious and easily cleaned material. Floors and gutters shall be graded to drain properly and shall be kept clean and in good repair. No swine, sheep, goats or fowl shall be housed or permitted in the milking stable or parlor; provided, if horses, dry cows, calves, or bulls are stabled therein, they shall be confined in stalls, stanchions, or pens, which shall be kept clean and in good repair.

4. Walls and ceilings. The interior walls and the ceilings of the milking barn, stable or parlor shall be smooth, shall be whitewashed or painted as often as may be necessary, or finished in an approved manner, and shall be kept clean and in good repair. In case there is a second story above the milking barn, stable or parlor the ceiling shall be tight. If feed is ground or mixed, or sweet feed is stored in a feed room or feed-storage space adjoining the milking space, it shall be separated therefrom by a dust tight partition and door.

(c) *Cow yard.* The cow yard shall be graded and drained as well as practicable and so kept that there are no standing pools of water nor accumulations of organic wastes; provided, that in loafing or pen type stables manure droppings shall be removed or clean bedding added at sufficiently frequent intervals to prevent the accumulation of manure on cows' udders and flanks and the breeding of flies. Swine shall be kept out.

(d) *Manure disposal.* All manure shall be removed and stored or disposed of in such manner as best to prevent the breeding of flies therein and the access of cows to piles thereof.

(e) *Milk house or room, construction and equipment.* 1. There shall be provided a milk house or milk room in which the cooling, handling, and storing of milk and milk products and the washing, bactericidal treatment, and storing of milk containers, utensils and equipment other than that which is cleaned in place shall be done. The milk house or room shall be provided with a tight floor constructed of concrete or other impervious material, in good repair, and graded to provide proper drainage.

2. It shall have walls and ceilings of such construction as to permit easy cleaning, and shall be well painted or finished in an approved manner.

3. It shall be well lighted and ventilated.

4. It shall have all openings effectively screened, including outward-opening, self-closing doors, unless other effective means are provided to prevent the entrance of flies.

5. It shall be used for no other purposes than those specified above except as may be approved by the department, shall not open directly into a stable or into any room used for domestic purposes; shall have water piped into it; shall be provided with adequate facilities for the heating of water for the cleaning of utensils; shall be equipped with two-compartment stationary wash and rinse vats. The cleaning and other operations shall be located and conducted so as to prevent any contamination of the milk or of cleaned equipment.

6. The floors, walls, ceilings, and equipment of the milk house or room shall be kept clean at all times. All means necessary for the elimination of flies shall be used.

(f) *Toilet.* Every dairy farm shall be provided with one or more sanitary toilets conveniently located and properly constructed, operated and maintained so that the waste is inaccessible to flies and does not pollute the ground surface or contaminate any water supply and shall comply with the sanitary regulations of the State Board of Health.

(g) *Water supply.* Water for all dairy purposes shall be from a supply properly located, protected, and operated, and shall be easily accessible, adequate, and of a safe sanitary quality.

(h) *Utensils.* 1. Construction. All multi-use containers, equipment, or other utensils used in the handling, storage, or transportation of milk or milk products shall be made of smooth, non-absorbent, non-corrodible, non-toxic material and of such construction as to be easily cleaned, and shall be in good repair. Joints and seams shall be welded or soldered flush. Woven wire cloth shall not be used for straining milk. If milk is strained, filter pads shall be used and shall not be re-used. All milk pails obtained hereafter shall be of the seamless hooded type. All single-service containers, closures, and filter pads used shall have been manufactured, packaged, transported, and handled in a sanitary manner. Bulk milk handling and pipe line milking equipment shall be constructed and maintained in a manner approved by the department.

2. Cleaning. All multi-use containers, equipment (including that which is cleaned in place), and other utensils used in the handling, storage, or transportation of milk and milk products shall be thoroughly cleaned after each usage.

3. Bactericidal treatment. All multi-use containers, equipment (including that which is cleaned in place), and other utensils used in the handling, storage, or transportation of milk or milk products shall, before each usage be effectively subjected to an approved bactericidal process with steam, hot water, chemicals or hot air.

4. Storage. All containers and other utensils used in the handling, storage, or transportation of milk or milk products shall, unless stored in bactericidal solutions, be so stored as to drain dry and so as not to become contaminated before being used.

5. Handling. After bactericidal treatment containers and other milk and milk products utensils shall be handled in such a manner as to prevent contamination of any surface with which milk or milk products come in contact.

(i) *Milking.* 1. Milking shall be done in the milking barn, stable or parlor. The udders and teats of all milking cows shall be clean and wiped with an approved bactericidal solution at the time of milking. Abnormal milk shall be kept out of the milk supply and shall be so handled and disposed of as to preclude the infection of the cows and the contamination of milk utensils.

2. The flanks, bellies, and tails of all milking cows shall be free from visible dirt at the time of milking. All brushing shall be completed before milking commences.

3. Milker's hands shall be washed clean, rinsed with an effective bactericidal solution, and dried with a clean towel immediately before milking and following any interruption in the milking operation. Wet hand milking is prohibited. Convenient facilities shall be provided for the washing of milker's hands. No person with an infected cut or lesion on hands or arms shall milk cows, or handle milk or milk utensils.

(j) *Clean clothing.* Milkers and milk handlers shall wear clean outer garments while milking or handling milk, milk products, containers, utensils or equipment.

(k) *Milk stools.* Milk stools and surcingles shall be kept clean.

(m) *Removal of milk.* Each pail or can of milk shall be removed immediately to the milk house or straining room. No milk shall be strained or poured in the barn unless it is protected from flies and other contamination.

(n) *Cooling.* Milk for pasteurization shall be cooled immediately after completion of milking to 60° F. or less and maintained at that temperature until delivered and dumped, except morning's milk delivered and dumped before 8:00 A.M. standard time; and milk which does not comply with this requirement shall be subject to rejection. On and after the 15th day of November, 1958, the cooling requirement herein shall be 50° F. or less.

(o) *Vehicles and surroundings.* All vehicles used for the transportation of milk or milk products shall be constructed, maintained and operated, in a manner approved by the department, so as to protect their contents from the elements and from contamination. All vehicles used for the distribution of milk and milk products shall have the distributor's name prominently displayed. The immediate surroundings of the dairy shall be kept clean and free of health nuisance.

(4) PASTEURIZED MILK. (a) *Grading.* The grading of a pasteurized milk supply shall include the inspection of receiving and collecting stations with respect to compliance with items Ag 80.07 (5) (a) to (p) inclusive, and section Ag 80.07 (5) (r), (s), (t), (v), (w) and (x) except that the partitioning requirement of item Ag 80.07 (5) (e) shall not apply.

(b) *Grade A pasteurized milk.* Grade A pasteurized milk is Grade A raw milk for pasteurization which has been pasteurized, cooled, and placed in the final container in a milk plant conforming with all of the following items of sanitation. In all cases the milk shall show efficient pasteurization as evidenced by satisfactory phosphatase tests, and at no time after pasteurization and before delivery shall have a bacterial plate count exceeding 30,000 per milliliter or a coliform count

(exceeding 10 per milliliter as determined in accordance with section Ag 80.06; provided, that the raw milk, at no time between dumping and pasteurization, has a bacterial plate count or direct microscopic clump count exceeding 400,000 per milliliter or a methylene blue reduction time of less than  $4\frac{1}{4}$  hours, or a resazurin reduction time to P 7/4 of less than  $2\frac{1}{2}$  hours, as determined in accordance with section Ag 80.06 (1); provided further, that the bacterial plate count of the raw cream and of half and half at the time of pasteurization does not exceed 400,000 per milliliter at the place of separation nor 800,000 per milliliter at any time prior to pasteurization; after pasteurization the count shall not exceed 60,000 per milliliter nor shall the coliform count exceed 10 per milliliter.

(c) *Certified milk—pasteurized.* Certified milk—pasteurized is certified milk—raw which has been pasteurized, cooled, and bottled in a milk plant conforming with the requirements for Grade A pasteurized milk.

(5) ITEMS OF SANITATION, DAIRY PLANTS. (a) *Floors.* The floors of all rooms in which milk or milk products are handled or stored or in which milk utensils are washed shall be constructed of concrete or other equally impervious and easily cleaned material and shall be smooth, properly drained, provided with trapped drains, and kept clean and in good repair.

(b) *Walls and ceilings.* Walls and ceilings of rooms in which milk or milk products are handled or stored, or in which milk utensils are washed shall have a smooth, washable, light-colored surface, and shall be kept clean and in good repair.

(c) *Doors and windows.* Unless other effective means are provided to prevent the access of flies, all openings to the outer air shall be effectively screened and all doors shall be self-closing.

(d) *Lighting and ventilation.* All rooms shall be well lighted and ventilated.

(e) *Miscellaneous protection from contamination.* The various milk plant operations shall be so located and conducted as to prevent any contamination of milk or of cleaned equipment. All means necessary for the elimination of flies, other insects, and rodents, shall be used. There shall be separate rooms for:

1. The pasteurizing, processing, cooling and bottling operations, and
2. The washing and bactericidal treatment of containers.

Cans of raw milk shall not be unloaded directly into the pasteurizing room. Rooms in which milk, milk products, cleaned utensils, or containers are handled or stored shall not open directly into any stable or living quarters. The pasteurization plants, milk containers, utensils, and equipment shall be used for no other purposes than the processing of milk and milk products and the operations incident thereto, except as may be approved by the department.

(f) *Toilet facilities.* Every milk plant shall be provided with toilet facilities conforming to the regulations of the state board of health and of the industrial commission. Toilet rooms shall not open directly into any room in which milk, milk products, equipment, or containers are handled or stored. The doors of all toilet rooms shall be self-closing. Toilet rooms shall be kept in a clean condition, in good repair

and well ventilated. A placard containing section Ag 80.13 and a sign directing employees to wash their hands before returning to work shall be posted in all toilet rooms used by employees. In case privies or earth closets are permitted and used, they shall be separate from the building and shall be of a sanitary type constructed and operated in conformity with the requirements of section Ag 80.07(5) (e) hereof.

(g) *Water supply.* The water supply shall be easily accessible, adequate, and of a safe sanitary quality.

(h) *Hand-washing facilities.* Convenient hand-washing facilities shall be provided, including hot and cold running water, soap and approved sanitary towels. Hand-washing facilities shall be kept clean. The use of a common towel is prohibited. No employee shall resume work after using the toilet room without first washing his hands.

(i) *Sanitary piping.* All piping used to conduct milk or milk products shall be "sanitary milk piping" of a type which can be easily cleaned. Pasteurized milk and milk products shall be conducted from one piece of equipment to another only through sanitary milk piping.

(j) *Construction and repair of containers and equipment.* All multi-use containers and equipment with which milk or milk products come in contact shall be so constructed and located as to be easily cleaned and shall be kept in good repair. All single-service containers, closures, and gaskets used shall have been manufactured, packaged, transported and handled in a sanitary manner.

(k) *Plumbing and disposal of wastes.* All wastes shall be properly disposed of. All plumbing and equipment shall be so designed and installed as to prevent contamination of the water supply and of milk equipment by backflow and shall comply with the Wisconsin plumbing code.

(m) *Cleaning and bactericidal treatment of containers and equipment.* All milk and milk products containers and equipment, except single-service containers, shall be thoroughly cleaned after each usage. All containers shall be effectively subjected to an approved bactericidal process after each cleaning and all equipment immediately before each usage. When empty and before being returned to a producer by a milk plant each container shall be thoroughly cleaned and effectively subjected to an approved bactericidal process.

(n) *Storage of containers and equipment.* After bactericidal treatment, all bottles, cans and other multi-use milk or milk products containers and equipment shall be stored in such manner as to be protected from contamination.

(o) *Handling of containers and equipment.* Between bactericidal treatment and usage and during usage, containers and equipment shall not be handled or operated in such manner as to permit contamination of the milk. Pasteurized milk or milk products shall not be permitted to come in contact with equipment with which unpasteurized milk or milk products have been in contact, unless the equipment has first been thoroughly cleaned and effectively subjected to an approved bactericidal process. No graded milk or milk products shall be permitted to come in contact with equipment with which ungraded or lower grade milk or milk products have been in contact, unless the equipment has first been thoroughly cleaned and effectively subjected to an approved bactericidal process.

(p) *Storage of caps, parchment paper and single-service containers.* Milk bottle caps or cap stock, parchment paper for milk cans, and single-service containers and gaskets shall be purchased and stored only in sanitary tubes, wrappings and cartons, shall be kept therein in a clean, dry place until used, and shall be handled in a sanitary manner.

(q) *Pasteurization.* Pasteurization shall be performed as described in section Ag 80.01 (24) of this regulation.

(r) *Cooling.* All milk and milk products received for pasteurization shall immediately be cooled in approved equipment to 50° F. or less and maintained at that temperature until pasteurized, unless they are to be pasteurized within 2 hours after receipt; and all pasteurized milk and milk products except those to be cultured shall be immediately cooled in approved equipment to a temperature of 50° F. or less and maintained thereat until delivery, as determined in accordance with section Ag 80.06 (1) hereof.

(s) *Bottling.* Bottling, packaging or canning of milk and milk products shall be done at the place of pasteurization in approved mechanical equipment.

(t) *Overflow milk.* Overflow milk or milk products shall not be sold for human consumption.

(u) *Capping.* Capping of milk or milk products shall be done in a sanitary manner by approved equipment. Hand capping is prohibited. The cap or cover shall protect the pouring lip to at least its largest diameter.

(v) *Personnel, health.* A physician licensed in Wisconsin to practice medicine shall examine and take a careful morbidity history of every person connected with a pasteurization plant, or about to be employed, whose work brings him in contact with the production, handling, storage, or transportation of milk, milk products, containers, or equipment. If such examination or history suggests that such person may be a carrier of or infected with the organisms of typhoid or paratyphoid fever or any other communicable disease likely to be transmitted through milk, he shall secure appropriate specimens of body discharges and cause them to be examined in a laboratory approved by state health authorities for such examination, and if the results justify such person shall be barred from such employment. Such persons shall furnish such information, submit to such physical examinations, and submit such laboratory specimens as required by the state board of health for the purpose of determining freedom from infection. No person with an infected cut or lesion on hands or arms shall handle milk, milk products, milk containers or milk equipment.

(w) *Personnel, cleanliness.* All persons coming in contact with milk, milk products, containers, or equipment shall wear clean outer garments and shall keep their hands clean at all times while thus engaged.

(x) *Vehicles.* All vehicles used for the transportation of milk or milk products shall be enclosed as provided in section Ag 30.02 of the department regulations and be so constructed and operated as to protect their contents from the sun, from freezing and from contamination. All vehicles used for the distribution of milk or milk products shall have the name of the distributor prominently displayed.

Milk tank cars and tank trucks shall comply with construction, cleaning, bactericidal treatment, storage, and handling requirements of items section Ag 80.07 (5) (i), (j), (m), (n) and (o). While containing milk or cream they shall be sealed and labeled in an approved manner. For each tank shipment a bill of lading containing all necessary information shall be prepared in triplicate and shall be kept on file by the shipper, the consignee, and the carrier for a period of six months for the information of the department.

**Ag 80.08 Handling ungraded milk and milk products.** From and after the effective date of this regulation no person holding a permit or participating in this program shall permit any graded milk or milk products to come in contact with equipment with which ungraded or lower grade milk or milk products have been in contact unless such equipment has first been thoroughly cleaned and subjected to bactericidal treatment.

**Ag 80.09 Facilities for ungraded or lower grade milk and milk products.** No milk plant holding a permit or participating in this program shall permit any graded milk or milk products to come in contact with equipment with which ungraded milk or milk products have been in contact unless such equipment has first been thoroughly cleaned and subjected to bactericidal treatment, nor receive and/or process any ungraded or lower grade milk or milk products unless it shall have at least the following equipment, approved by the department:

(1) A separate weigh can for such milk and milk products, or a divided weight can, part of which is used only for the ungraded or lower grade milk and milk products.

(2) Separate holding tank and storage facilities in which such ungraded or lower grade milk and milk products are held prior to processing.

(3) A separate pipe line between the weigh can or that part thereof used for the receipt and holding tank used for the storage of the ungraded or lower grade milk and/or milk products prior to processing.

**Ag 80.10 Transferring or dipping milk; delivery containers.** (1) Except as permitted in this section, no milk producer, milk hauler, or milk plant operator shall transfer milk or milk products from one container to another on the street, or in any vehicle, store, or in any place except a bottling or milk room especially used for that purpose. The sale of dip milk is hereby prohibited.

(2) All milk and milk products labeled or otherwise represented as "Grade A" or as having been produced and/or processed in compliance with this regulation which are sold in the distributor's containers in quantities of one gallon or less shall be delivered in standard milk bottles or in single-service containers of equivalent sizes.

(3) The delivery of any such milk or milk products to and the collection of containers for any such milk or milk products from residences in which cases of communicable disease transmissible through milk supplies exist shall be subject to special requirements of the department and the supervising health authority.

**Ag 80.11 Rated inspection.** No person holding a permit and participating in this program, or holding a permit and participating in a similar program pursuant to the provisions of a substantially equivalent regulation under the supervision of a duly authorized health authority as provided in section Ag 80.17 (1) hereof, shall sell or offer to sell any milk or milk products labeled or otherwise represented as "Grade A" or as having been produced and/or processed in compliance with this regulation to a consumer or to any store, cafe, soda fountain, hotel, restaurant or similar establishment in this state unless its compliance and the compliance of its producers, as determined by U. S. Public Health Service rating, meet the minimum standards as established by this regulation.

**Ag 80.12 Future dairies and milk plants.** (1) All dairies and milk plants, selling or intending to sell milk or milk products under this regulation, which are hereafter constructed, reconstructed, or extensively altered shall conform in their construction to the Grade A requirements of this regulation. Properly prepared plans for all dairies and milk plants, selling or intending to sell milk or milk products under this regulation, which are hereafter constructed, reconstructed, or extensively altered shall be submitted to the department and its written approval obtained before work is begun. In all new construction or extensive alteration, separate facilities for processing ungraded milk and milk products are recommended.

(2) All new and/or replacement equipment installed in any dairy plant shall conform to the "3A" standards wherever such standards shall have been established.

**Ag 80.13 Notification of disease.** No person who is affected with any disease in a communicable form or is a carrier of such disease shall work at any dairy farm or milk plant in any capacity which brings him in contact with the production, handling, storage, or transportation of milk, milk products, containers, or equipment; and no dairy farm or milk plant shall employ in any such capacity any such person or any person suspected of being affected with any disease in a communicable form or of being a carrier of such disease. Any producer or plant operator upon whose dairy farm or in whose milk plant any communicable disease occurs, or who suspects that any employe has contracted any disease in a communicable form or has become a carrier of such disease, shall notify the local health officer and milk sanitarian immediately.

**Ag 80.14 Procedure when infection suspected.** When suspicion arises as to the possibility of transmission of infection from any person concerned with the handling of milk or milk products, the department is authorized to require any or all of the following measures:

- (1) The immediate exclusion of that person from milk handling.
- (2) The immediate exclusion of the milk supply concerned from distribution and use.
- (3) Adequate medical and bacteriological examination of the person, of his associates, and of his and their body discharges.

**Ag 80.15 Enforcement interpretation.** This regulation shall be enforced in accordance with the interpretations of corresponding provisions as contained in the current edition of the U. S. Public Health



Service Milk Code, a copy of which shall be on file in the office of the department.

**Ag 80.16 Penalties.** Violations of this regulation shall be prosecuted and punished as provided by the Wisconsin Statutes. When an act is a violation of both this regulation and an applicable statute, the person committing such act may be prosecuted under either provision. Each and every violation of the provisions of this regulation shall constitute a separate offense.

**Ag 80.17 Scope of regulation.** (1) None of the provisions of this regulation shall be construed to prohibit the use of the grade designations as specified in this regulation for any milk or milk products which are sold or offered or exposed for sale to any out-of-state market or to a consumer or to any store, cafe, soda fountain, hotel, restaurant, or similar establishment in this state if such milk and milk products are produced and/or processed in compliance with the provisions of a substantially equivalent regulation under the supervision of a duly authorized health department and if, upon survey for certification of compliance, the production and processing operations maintain a rating as provided in section Ag 80.03 (2) and (3).

(2) None of the provisions of this regulation shall be construed as invalidating any local ordinance requirement that the local health authorities shall satisfy themselves that the health authorities having jurisdiction over the production and processing are properly enforcing the provisions of a substantially equivalent regulation.

**Ag 80.18 Fees, inspection service.** (1) To assure compliance with this regulation the state will provide a service for the continuous inspection of the milk and milk products, and of the premises and plants where such milk and milk products are produced and processed, which service shall be performed by trained and duly qualified milk sanitarians.

(2) Persons holding a permit and engaging in milk production and/or processing operations desiring to qualify under this regulation shall agree to pay to the state the cost of such inspection service at rates to be established from time to time by the department; provided, that the cost of the inspection service rendered to individual producers shall be paid by plants processing and/or distributing such milk and the milk products made therefrom.