Chapter Ag 107

SAMPLING AND TESTING MILK AND CREAM

History: Chapter Ag 107 as it existed on March 31, 1976 was repealed and a new chapter Ag 107 was created effective April 1, 1976.

Ag 107.01 Definitions. As used in this chapter:

(1) "Calibration sample" means one of a set of 12 or more samples which conform to the requirements of s. Ag 107.06 (1) (c), and are used to calibrate a testing device under s. Ag 107.06 (1).

(2) "Composite sample" means a milk sample preserved with potassium dichromate or another approved chemical preservative and compiled as prescribed in this chapter for use in the testing of milk for a given pay period as prescribed in s. 98.13, Stats.

(3) "Daily performance check" means the daily procedure under s. Ag 107.06 (2) which is used to determine the accuracy of a testing device.

(4) "Daily performance check sample" means one of a set of 5 or more samples which conform to the requirements of s. Ag 107.06 (2) (c), and are used in conducting a daily performance check on a testing device under s. Ag 107.06 (2).

(5) "Department" means the state of Wisconsin department of agriculture, trade and consumer protection.

(6) "Fresh milk sample" means an unpreserved sample of producer milk collected aseptically.

(7) "Mean difference" means the algebraic sum of the performance errors for the individual samples in a set of calibration samples or daily performance check samples, divided by the number of samples in the set.

(8) "Milk component" means milkfat or milk protein.

(9) "Modified Roese-Gottleib method" means the Roese-Gottleib method, modified as follows:

(a) The Mojonnier vacuum oven may be used for drying the fat at a temperature of 135° C with a vacuum of not less than 20 mm of mercury for 5 minutes.

(b) Previously weighed fat tins or dishes may be used so that the rinsing of the fat tins or dishes required by the Roese-Gottlieb method can be eliminated.

(10) "Ounce" means fluid ounce.

(11) "Payment record" means a written or retrievable electronic record showing, for each producer whose milk is tested for payment purposes, the producer letters or number and the daily test result for each milk component or milk quality test on which payment may be based.

(12) "Performance error" means:

(a) With reference to a calibration sample, the known percentage content of a milk component in the calibration sample minus the percentage content as measured by the testing device being calibrated.

(b) With reference to a daily performance check sample, the known percentage content of a milk component in the sample minus the percentage content as measured by the testing device on which a daily performance check is being conducted.

(13) "Preserved fresh milk sample" means a fresh milk sample preserved with potassium dichromate, bronopol (2-bromo-2-nitropropane-1, 3 dial), or another chemical preservative approved by the department.

(14) "Reference method" means the Roese-Gottleib method or the modified Roese-Gottleib method for milkfat, and the Kjeldahl method or the Kel-Foss automated modification of the Kjeldahl method for protein.

(15) "Reference sample" means a sample conforming to the requirements of s. Ag 107.06 (3) (c) which is used in conducting the initial and hourly reference checks under s. Ag 107.06 (3).

(16) "Sample" means a representative sample of milk or cream used for testing to determine the milkfat or protein content of milk or cream, the quality of milk or cream, or any other properties or characteristics of the milk or cream from which the sample is taken.

(17) "Sampler" means a milk weigher and sampler licensed under s. 98.146, Stats., or a cheesemaker or buttermaker licensed under s. 97.17, Stats.

(18) "Standard deviation" means a standard deviation calculated according to the formula set forth in the "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition, section 16.071.

Note: The "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition, is on file in the offices of the department, the secretary of state, and the revisor of statutes, and may be obtained from the Association of Official Analytical Chemists, Inc., 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(19) "Testing device" means an automated testing device used to test milk samples for milkfat or protein, or both, using a test method authorized under s. Ag 107.04 (1) or 107.05 (1).

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; am. (1), renum. (2) to (7) to be (8), (5), (9), (4), (7) and (3) respectively, and am. (3), (4), (7) and (8), cr. (2), (6) and (10), Register, September, 1982, No 321, eff. 10-1-82; am. (intro.), s. (2) and (10), renum. (1), (3) to (9) to be (5), (2), (6), (10), (3), (13), (16), (17) and am. (2), (3), (13) and (16), cr. (1), (4), (7) to (9), (11), (12), (14), (15), (18) and (19), Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.02 Licensing milk weighers and samplers. (1) In addition to the initial examination required for the issuance of an original milk weighers

and samplers license under s. 98.146, Stats., the applicant may be required to demonstrate competency to perform the weighing and sampling functions, either on the department's premises or in a field examination. The applicant shall, as a condition to the first biennial license renewal satisfactorily pass a second and more comprehensive examination as prepared by the department.

(2) Every sixth year after a milk weighers and samplers license has been in effect, the department may, as a condition of renewal thereof, require re-examination, unless the applicant has satisfactorily completed a training course approved by the department within the past 6-year period.

(3) Every milk and cream tester, cheesemaker or buttermaker qualified for testing milk with a testing device shall have that qualification clearly indicated on his or her license. Any licensed milk and cream tester found operating a testing device which is not calibrated and adjusted as required by s. Ag 107.06 (1) may have his or her license suspended by the department.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; am. (1) and (2), cr. (3), Register, September, 1982, No. 321, eff. 10-1-82; am. (3), Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.03 Collection and care of samples. (1) CONTAINER REQUIREMENTS. (a) Sample containers shall be constructed of non-toxic transparent materials and be in a clean, sanitary and dry condition prior to use. All glass or rigid plastic containers used for fresh milk sampling shall be equipped with over-the-lip closures, and have an area on the sample container large enough for placing on it the date of collection and the producer number.

(b) Fresh milk sample containers shall:

1. Be commercially sterile;

2. Have sufficient capacity to hold a quantity large enough to permit 2 tests of the particular test or tests to be applied to the sample; and

3. Be of sufficient size to permit thorough mixing of the sample prior to its use for any test, or for the residual to be used to compile a composite sample.

(c) Composite sample containers shall have a minimum capacity of 8 ounces (240 milliliters) and a satisfactory closure permanently affixed to the sample container.

(d) Composite sample and fresh milk sample containers shall bear legible letters or numbers identifying each patron's sample. Fresh milk sample containers shall also bear the date of collection of the sample by the sampler. Identifying letters or numbers and the date of collection shall be placed on the container by the sampler at the time a fresh milk sample is taken. When a patron discontinues shipping milk or cream to any dairy plant, the letters or numbers used by the plant to identify that patron's milk shall not be reused to identify any milk samples of any other plant patron for a period of at least 90 days.

(2) SAMPLE PROCEDURES. (a) *Weigh tank sampling.* If milk is poured into a weigh tank, the tank shall be constructed in such a manner that the pouring of the milk into the tank results in complete mixing of the milk. A fresh milk sample of each weighing shall be taken immediately

after the milk has been poured into the weigh tank. When multiple weighings of a patron's milk shipment is required, the number of cans of milk poured into the weigh tank in any one weighing shall be equalized as nearly as possible, and the entire contents of each can shall be included in each separate weighing. When multiple weighing of a single delivery is required, a separate sample shall be taken of each weighing, using a separate sample container.

(b) *Farm milk tank sampling.* 1. Each sampler shall grade farm milk by appearance and smell prior to accepting it and loading it on the bulk milk truck. The sampler shall reject all off-odor milk and milk which contains any visible evidence of mastitis and extraneous matter. If the quality of milk is in doubt, the sampler, before accepting any milk, shall call the dairy plant and request inspection by a plant quality control officer or other individual designated by the plant, who shall accept or reject the milk.

2. Samplers shall read and record the temperature of the milk prior to accepting and loading it on the bulk milk truck. When the milk temperature is not ascertainable by reading the farm bulk tank thermometer, the sampler shall take and read the temperature by using a pocket type spring dial or other suitable portable thermometer, accurate to plus or minus 2° F. with the smallest gradation not greater than 2° F. Manufacturing grade milk shall be rejected unless collected within 2 hours after milking if its temperature exceeds 50° F. Grade A milk shall be rejected unless collected within 2 hours after milking if its temperature exceeds 45° F.

3. Samplers shall wash their hands before checking the temperature of the milk by use of a portable thermometer or before measuring the quantity of milk in the tank.

4. Samplers shall take and record an accurate measurement of the amount of milk in the farm bulk tank by the reading of a clean gauge rod or other approved measuring device. The gauge rod shall be rinsed with warm potable water and wiped dry with a clean single-service disposable towel immediately prior to its use. The milk shall be allowed to become motionless before the gauge rod is inserted into the bulk tank for a reading. Immediately after the reading, the sampler shall convert the reading to weight or volume using the bulk milk tank manufacturer's conversion chart, and record the reading on a multiple collection record, one copy of which is posted in the milkhouse and one copy submitted to the dairy plant at the time of delivery.

5. The collection record for each producer shall include the producer's identification letters or number, the sampler's license number and license expiration date, the time and date of collection and sampling, the quantity of milk collected and the temperature of the milk at the time of collection. The collection record for each producer shall be signed by the sampler and delivered with the load of milk at the time of delivery.

6. Milk from which a sample is to be taken shall be agitated by the sampler for at least 5 minutes or more prior to taking a sample. Milk shall be agitated for at least 10 minutes if the farm bulk tank has a capacity greater than 1500 gallons, or when the 3A Standard for a tank requires a longer agitation time. The sampler shall take a representative fresh milk sample from each farm bulk tank prior to collection and delivery of a producer's milk. A sampling procedure which prevents contami-

nation of the sample or sample container shall be used. The dipper shall be cleaned and sanitized in a 100 ppm chlorine or equivalent sanitizing solution and dipped in the milk twice before taking the sample. The milk sample shall be transferred from the dipper to the sample container away from the open port of the farm bulk tank. A sampler shall not commingle fresh milk samples from any other bulk milk tanks on the premises. Producer identification and date of sampling shall be placed on the sample container. The sample shall be placed in a rack in an ice-water bath or ice bath immediately after it is taken, to maintain its temperature between 32°-and 40° Fahrenheit.

7. The sampler shall ensure that the milk truck hose cap is protected from contamination at all times and that the farm bulk tank outlet valve is clean before the hose is connected to the bulk tank. A sampler may sanitize the outlet to the farm bulk tank prior to connecting the truck hose. The truck hose shall enter the milkhouse through the hose port provided in the milkhouse wall. Milk may be pumped only into bulk tank trucks meeting the sanitary and equipment standards of chs. Ag 30, 31, and 80. No milk may be pumped directly or indirectly into bulk tank trucks from containers other than farm bulk tanks.

8. After pumping the milk from the farm bulk tank, the milk hose shall be disconnected from the tank, capped and returned to the bulk milk truck cabinet. The farm bulk tank shall be rinsed with cold or lukewarm water after it has been emptied, but not until after the milk pump has been shut off and the milk truck hose disconnected from the tank and capped.

9. The sampler shall provide the dairy plant purchasing milk from the producer with a representative sample of each patron's milk comprising the load, and an accurate collection record.

a. If a sampler delivers milk to a diverted dairy plant other than the one to which the producers are routinely assigned, the sampler may, upon receipt of written permission from the department, retain the producer samples for 24 hours.

b. All samples retained by a sampler shall be placed in a separate refrigerator until collected by another agent of the receiving dairy plant or the department. The refrigerator shall be maintained at 40° Fahrenheit or less, used for no other purpose than the storage of samples, and shall be accessible to the department at all times.

c. The sampler shall retain dated samples for 24 hours. When a second set of samples is placed in refrigeration, those which exceed the 24 hour time limit must be disposed of and not retained in the same refrigerated storage unit.

d. An agent of the dairy plant purchasing the milk may transport the samples on written approval from the department to the purchasing dairy plant or a central testing laboratory.

10. A sampler shall collect 2 samples at the first collection point for each bulk tank truck load and identify one sample to be used as the temperature control sample for all samples which are subsequently collected for that load and placed in the truck's sample compartment. The container of the temperature control sample shall show the producer letters or number, date, time of collection and temperature of the milk in the farm bulk tank from which the sample was collected.

(c) *Fresh milk sample size.* Every fresh milk sample shall be large enough to permit retesting by the dairy plant, the dairy plant's testing agent, the producer's agent or the department.

(d) *Composite samples.* A composite sample of a patron's milk shall consist of a representative sample from each delivery of milk by the producer to a dairy plant within a given pay period. A minimum of 10 milliliters of milk for each day's production shall be included in the composite sample from every delivery. In no event shall a completed composite sample consist of less than 150 milliliters for a 15 day milk delivery period. When milk is frozen or otherwise delivered in a condition which prevents adequate mixing, a sample of the milk shall not be taken and a notation shall be made on the collection sheet that a sample was excluded from the composite sample. The composite sample shall be built up as follows:

1. For bulk milk deliveries, by transferring a minimum of 10 milliliters of milk for each day's production from each fresh milk sample to the composite sample container. Such transfer shall be made on the day of receipt or by 12:00 o'clock noon of the following day.

2. For can milk deliveries, by transferring 10 milliliters of milk from each day's production directly from the milk weigh tank to the composite sample container immediately after the milk is poured into the weigh tank.

(3) CARE AND STORAGE OF SAMPLES. (a) All milk samples received directly from the farm shall be kept tightly covered and maintained at a temperature between 32° and 40° Fahrenheit at all times during transportation and while held for testing at the dairy plant or a testing laboratory.

(b) No composite sample shall be kept out of refrigeration at the dairy plant for a longer time than necessary to continue building the composite sample from fresh milk samples of a producer, or the completion of weighing and sampling operations for each truck load delivery of can milk. Transporting composite samples from the dairy plant or laboratory to a dairy farm is prohibited. Each dairy plant or laboratory shall use a potassium dichromate or another chemical approved by the department as a preservative for each composite sample. When potassium dichromate is used to preserve composite samples, not less than 100 milligrams (1.5 grains) nor more than 190 milligrams (2.9 grains) may be used in each composite sample, to obtain a concentration of 20 milligrams (0.3 grain) per 30 milliliters (one fluid ounce) of milk in the completed sample.

Note: Potassium dichromate for use as a milk sample preservative is commonly available in tablet form containing 40 milligrams of active ingredient per tablet. The use of these tablets at the rate of one tablet per 2 fluid ounces of milk in a completed composite sample is equivalent to the concentration required in par. (b). Section Ag 29.05(1)(c) contains labeling requirements and limitations on disposal of milk samples preserved with potassium dichromate. The use of mercuric chloride as a preservative for composite milk samples is prohibited.

(c) Fresh and composite milk samples may be transported from a dairy plant to a certified laboratory or other department approved laboratory for milkfat and other component testing only on prior written approval from the department.

(d) Composite samples may be pipetted in duplicate at a dairy plant and transported to a second laboratory for testing on written approval

from the department. Only the 2 pipetted portions may be transported to the testing laboratory, and the residual of the composite shall be left at the dairy plant. When any sample is pre-pipetted for testing, all AOAC procedures for warming, mixing and pipetting the sample, shall be followed. All Babcock test bottles shall be properly sealed and legibly identified with the patron number.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; am. (1), (2), and (3), cr. (2)(b) 9.a. to d. and 10. and (3)(d), Register, September, 1982, No. 321, eff. 10-1-82; emerg. am. (3)(b), eff. 5-21-83; am. (3)(b), Register, November, 1983, No. 335, eff. 12-1-83; am. (1) (a), (2) (b) 1., 2., 5., 6. and 10., (2) (c) and (3) (a); renum. (1) (b) 1. to be (1) (b) and am., r. (1) (b) 2., Register, June, 1985, No. 354, eff 7-1-85.

Ag 107.04 Testing of samples for milkfat. (1) MILKFAT TEST METHODS. (a) Milkfat tests may be made by the Babcock test, ether extraction test, or other test method approved by the department. All Babcock and ether extraction tests shall be conducted as prescribed in the "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition, except as provided under par. (b).

(b) Each milk sample tested by the Babcock method shall be agitated for at least 3 minutes by the use of a mechanical agitator after pipetting the sample and adding sulfuric acid in accordance with the procedure prescribed under par. (a). A reader, such as a needlepoint divider or other mechanical divider, which accurately determines milkfat level in a test bottle shall be used in reading all Babcock tests. All Babcock test readings shall be made against a light-colored surface with adequate natural or artificial light. The Babcock test shall be read to the nearest 0.05% by weight.

Note: The "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition, is on file in the offices of the department, the secretary of state, and the revisor of statutes, and may be obtained from the Association of Official Analytical Chemists, Inc., 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(2) MILKFAT TESTING DEVICES. Testing devices used to test samples for milkfat content shall be calibrated as provided in s. Ag 107.06 (1). Testing devices shall be subjected to a daily performance check prior to each day's use, as provided in s. Ag 107.06 (2), and to hourly reference checks as provided in s. Ag 107.06 (3).

(3) TIME PERIODS FOR COMPLETION OF TESTING. Testing of samples for milkfat content shall be completed within the time periods specified under s. Ag 107.07.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; am. (1), (2), (4) and (5), r. and recr. (3), Register, September, 1982, No. 321, eff. 10-1-82; r. and recr. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.05 Testing of samples for protein content or milk quality. (1) TEST METHODS. Test methods and equipment used in testing samples for protein content or milk quality shall, if the test results may affect the amount paid for milk, be limited to:

(a) Test methods and equipment cited in the American Public Health Association, Inc., "Standard Methods for the Examination of Dairy Products," 14th edition;

(b) Test methods and equipment prescribed in the "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition; or

(c) Other test methods and equipment approved in writing by the department.

Note: The American Public Health Association, Inc., "Standard Methods for the Examination of Dairy Products," 14th edition, is on file in the offices of the department, the secretary of state, and the revisor of statutes, and may be obtained from the American Public Health Association, Inc., 1015 Eighteenth Street, N.W., Washington, D.C. 20036.

The "Official Methods of Analysis of the Association of Official Analytical Chemists," 14th edition, is on file in the offices of the department, the secretary of state and the revisor of statutes, and may be obtained from the Association of Official Analytical Chemists, Inc., 1111 North 19th Street, Suite 210, Arlington, VA 22209.

(2) REAGENTS. Every reagent used in a test method authorized under sub. (1) shall be used in accordance with the authorized test method, and be fully and clearly labeled to ensure that it is the proper reagent to be used with the authorized test method.

(3) ABNORMAL MILK; TEST RESULTS AFFECTING PAYMENT. (a) The denial of milk component premiums or payments, based on test results obtained on abnormal milk standards tests or other authorized milk quality tests, may be based on individual test results or on a monthly average test result.

(b) Results obtained from the Wisconsin Mastitis Test (WMT) may not be used to deny milk component premiums or payments to producers unless the test results are confirmed by the direct microscopic somatic cell count (DMSCC) method, or by the electronic somatic cell count (ESCC) method. This paragraph shall take effect on March 1, 1986.

(4) PROTEIN TESTING DEVICES. Testing devices used to test samples for protein content shall be calibrated as provided in s. Ag 107.06 (1). Testing devices shall be subjected to a daily performance check prior to each day's use, as provided in s. Ag 107.06 (2), and to hourly reference checks as provided in s. Ag 107.06 (3).

(5) TIME PERIODS FOR COMPLETION OF TESTING. Testing of samples for protein content or other milk quality characteristics shall be completed within the time periods specified under s. Ag 107.07.

History: Cr. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.06 Milk component testing devices; calibration; daily performance checks; reference checks. (1) CALIBRATION. (a) *Calibration requirement; frequency of calibration.* Every testing device used to test samples for milkfat or protein content shall be calibrated as provided in this subsection. The testing device shall be calibrated for each milk component for which samples are tested by the testing device. For each milk component, the testing device shall be calibrated:

1. Upon installation;

2. At regular 3 month intervals after installation;

3. Immediately after every significant repair or alteration to the testing device; and

4. Whenever the mean difference obtained on a daily performance check of the testing device under sub. (2) exceeds plus or minus 0.04%.

(b) *Calibration procedure.* To calibrate a testing device, a set of 12 or more calibration samples, each having a known percentage content of

milkfat and protein, shall be tested using the testing device. If, for any calibration sample, the performance error of the testing device is not equal to zero, the testing device shall be adjusted to bring the performance error as near as practicable to zero. Upon adjustment, the mean difference for the entire set of calibration samples shall be brought as near as practicable to zero, and may not exceed plus or minus 0.04%. The standard deviation, as defined in s. Ag 107.01 (18), may not exceed 0.04.

(c) *Calibration samples.* 1. The calibration procedure under this subsection shall be performed using a set of calibration samples. Each calibration sample shall be a preserved herd sample not more than 14 days old, and shall have a known percentage content of milkfat and protein. The known percentage content of milkfat or protein in each calibration sample shall be determined by averaging the test results obtained for the milkfat or protein component in 3 tests of the sample using the reference method. If, for either the milkfat or the protein component, the test results on any sample using the reference method vary by more than 0.03%, the sample may not be used as a calibration sample.

2. The known milkfat content of a calibration sample shall be not less than 2.5%. The range of the known milkfat content within a set of calibration samples shall be at least 2.5 percentage points.

3. The known protein content of a calibration sample shall be not less than 2.7%. The range of the known protein content within a set of calibration samples shall be at least 0.8 percentage points.

(2) DAILY PERFORMANCE CHECK. (a) *Requirement; procedure.* A daily performance check shall be conducted on every testing device prior to each day's testing, as provided in this subsection. A daily performance check shall be conducted for each milk component for which samples are tested by the testing device. To conduct a daily performance check on a testing device, a set of 5 or more daily performance check samples, each having a known percentage content of milkfat and protein, shall be tested using the testing device. The daily performance check samples shall conform to the requirements under par. (c). For each milk component being tested, the performance error of the testing device shall be determined with respect to each daily performance check sample. The mean difference for the entire set of samples shall then be computed for each milk component being tested.

(b). *Adjustment or calibration based on daily performance check.* Based on the daily performance check, the testing device shall be adjusted as necessary to eliminate significant performance errors. Adjustments, if made, shall bring performance errors as near as practicable to zero. If the mean difference obtained on a daily performance check of a testing device exceeds plus or minus 0.04%, the testing device shall be recalibrated as provided in sub. (1) prior to any further use.

(c) *Daily performance check samples.* 1. The daily performance check under this subsection shall be performed using a set of daily performance check samples. Each daily performance check sample shall be a fresh or preserved unhomogenized sample, having a known percentage content of milkfat and protein. The known percentage content of milkfat or protein in each daily performance check sample shall be determined by averaging the test results obtained for the milkfat or protein component in 3 tests of the sample using the reference method. If, for either the milkfat or the protein component, any 2 of the 3 test results using the reference

method vary by more than 0.03%, the sample does not qualify as a daily performance check sample.

2. The known milkfat content of a daily performance check sample shall be not less than 2.8%. Within a set of daily performance check samples, the known milkfat content shall vary by at least 1.5%.

3. The known protein content of a daily performance check sample shall be not less than 2.7%. Within a set of daily performance check samples, the known protein content shall vary by at least 0.5%.

(3) REFERENCE CHECKS; INITIAL AND HOURLY. (a) *Initial reference check.* An initial reference check shall be conducted on each testing device prior to each day's testing, at the time of the daily performance check under sub. (2). An initial reference check shall be conducted for each milk component for which samples are tested by the testing device. An initial reference check shall consist of 10 tests on a reference sample, using the testing device. The reference sample shall conform to the requirements under par. (c). For each milk component, the 10 test results shall be averaged, and the average result used as a comparison value for purposes of the hourly reference checks under par. (b).

(b) *Hourly reference checks; comparison to initial reference check; adjustments.* An hourly reference check shall be conducted on every testing device during each day of testing. An hourly reference check shall be conducted for each milk component for which samples are tested by the testing device. The hourly reference check shall be conducted by testing the reference sample with the testing device. The reference sample shall be the same sample tested in that day's initial reference check under par. (a). For each milk component being tested, the hourly reference check result shall be compared to the initial reference check average. If the hourly reference check result differs from the initial reference check average by more than 0.03%, the condition causing the difference shall be found and corrected. No results from producer samples tested between the last previous conforming reference check and the time of correction may be used for payment purposes.

(c) *Reference sample.* A reference sample may be one of the daily performance check samples under sub. (2), or it may be a homogenized milk sample which is not a daily performance check sample. For any given day, the same reference sample shall be used for the initial reference check under par. (a) and the hourly reference checks under par. (b).

(4) TESTING DEVICES; CONSTANT VOLTAGE. A constant voltage regulator shall be connected to, or form a part of all testing devices in line with a single phase 115 or 220 volt power supply.

(5) RECORDS. Records of all calibrations, daily performance checks, initial reference checks and hourly reference checks shall be made and kept in a manner approved by the department. Records shall be signed by the licensed tester who performed the calibration, daily performance check or reference check, and be maintained on file at the testing laboratory for at least one year. Calibration records shall be kept separate from daily performance check or reference check records. Records shall be made available for inspection and copying by the department upon request.

History: Cr. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.07 Time periods for completion of testing. (1) COMPOSITE SAMPLES. Testing of a composite sample for milk component contents or milk quality shall be completed within 3 days, excluding Saturdays, Sundays and holidays, after compilation of the composite sample has been completed pursuant to s. 98.13, Stats. and s. Ag 107.03 (2) (d). The time period for the completion of testing may not be extended except with the prior written approval of the department. A composite sample may not be replaced for testing purposes by fresh or preserved fresh milk samples except with the prior written approval of the department. If a composite sample is lost or spilled due to a laboratory accident, the lost or spilled sample shall be replaced with 3 subsequent fresh milk samples. The unused portion of a tested composite sample shall be retained for at least 5 days after testing to permit retesting by the department.

(2) FRESH OR PRESERVED FRESH MILK SAMPLES. Testing of a fresh or preserved fresh milk sample for milk component contents shall be completed within 3 days after the sample is taken. No fresh or preserved fresh milk sample may be tested for milk quality, as defined in s. Ag 30.01 (7), more than 36 hours after the sample is taken.

(3) MILKFAT AND PROTEIN TESTS; SEQUENCE. If milkfat and protein tests are to be conducted on the same sample, the milkfat test shall be conducted first, and the protein test shall be conducted within 24 hours after the milkfat test. Unless the protein test is conducted within 2 hours after the milkfat test, the sample shall be refrigerated between tests.

History: Cr. Register, September, 1982, No. 321, eff. 10-1-82; r. and recr. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.08 Sample retention and retesting. The residual of each composite sample shall be removed from the water bath immediately after each sample is pipetted. The residual of each composite sample shall be held intact after initial testing and kept refrigerated at a temperature between 32° and 40° F. on the premises where tested for a period of not less than 5 days. Except as provided in s. Ag 107.06 (3) (b), fresh milk samples may be disposed of after testing unless the department gives notice by telephone or in writing that the samples are to be retained for department retesting. The department may, by written or telephone notice, require that samples be retained for up to 24 hours. The department may require that retained samples be refrigerated to between 32° and 40° F. The department may retest any composite or fresh milk samples on the premises where they were tested or remove them to a department laboratory for this purpose. The department shall, upon written request of the licensed tester or the employer give notice of the time and location for retesting the plant samples, providing the request is made at the time the samples are collected by the department for retesting. Notice of department retesting of a dairy plant's samples is not required to be given to a marketing association engaged in testing composite or fresh milk samples for its member patrons, unless a written request, signed by the marketing association tester who executed the official test record, is left at the dairy plant. The department may retain retested samples for investigative or evidentiary purposes, or return them in a sealed condition to the dairy plant upon written request.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; renum. from Ag 107.05 and am. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.09 Test records. (1) Each licensed tester, immediately after testing a sample, shall record in a manner approved by the department, the

name or identification letters or number of the patron whose milk or cream was tested, the date of the test, and the test results. The record or log shall be signed by the tester and be kept on file at the testing laboratory. All original test records shall be kept for a period of not less than one year. No test records may be altered except that errors, if made, shall be corrected by striking through the original entry and inserting the correct entry immediately adjacent to the original, along with the initials of the tester who made the corrective entry.

(2) When using fresh milk component tests for payment to patrons, the arithmetic average of 3 or more milkfat or other component test results shall be used for each 15 or 16 day pay period, or the arithmetic average of all milkfat or other component tests but no less than 4 tests results shall be used for a one month pay period. The frequency of milkfat or other component tests shall be evenly distributed throughout a pay period.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; am. (1) and (2), r. and recr. (3), Register, September, 1982, No. 321, eff. 10-1-82; renum. from Ag 107.06 and am. (1) and (2), r. (3), Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.10 Accuracy of samples and tests. No sampler, tester, cheesemaker, buttermaker or any other person shall falsely identify milk samples, submit false samples of milk to a dairy plant, make any false record or report concerning a milk sample or the test results, or the quality or quantity of milk, or violate any other provision of these rules.

History: Cr. Register, March, 1976, No. 243, eff. 4-1-76; renum. from Ag 107.07 and am. Register, September, 1982, No. 321, eff. 10-1-82; renum. from Ag 107.08, Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.11 Enforcement. The department may make periodic enforcement checks of all testing devices used to test samples for purposes of payment or official records. Enforcement checks shall be made using samples pre-tested by the department using the reference method.

History: Cr. Register, June, 1985, No. 354, eff. 7-1-85.

Ag 107.12 Authority. This chapter is adopted under authority of ss. 93.07(1), 97.24(4) and 98.13(5), Stats.

History: Cr. Register, September, 1982, No. 321, eff. 10-1-82; renum. from Ag 107.09, Register, June, 1985, No. 354, eff. 7-1-85.