

**CHAPTER 144. ELECTRONIC METHODS FOR TESTING MILK
FOR FAT AND COMPONENT CONTENT**

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Authority

The provisions of this Chapter 144 issued under the Milk Marketing Law (31 P. S. §§ 700j-101—700j-1302), unless otherwise noted.

Source

The provisions of this Chapter 144 adopted February 27, 1987, effective February 28, 1987, 17 Pa.B. 884, unless otherwise noted.

Cross References

This chapter cited in 7 Pa. Code § 143.22 (relating to acceptable test methods).

§ 144.1. Electronic methods—general.

(a) Reference methods used to determine the component content of milk for payment purposes shall be those recognized or approved and set forth in the latest edition of the SMEDP, by the AOAC in Official Methods of Analysis, published by the AOAC, Gaithersburg, Maryland, or by the USDA. Only electronic instruments capable of performance standards as referenced in § 144.4 (relating to routine inspection and control) shall be used to test milk for payment purposes in this Commonwealth.

(b) A certified tester using an electronic testing instrument shall make available upon request to the Board a complete instrument operation and maintenance manual and further information as requested.

Authority

The provisions of this § 144.1 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.1 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237843) to (237845).

Cross References

This section cited in 7 Pa. Code § 144.4 (relating to routine inspection and control).

§ 144.1a. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

AOAC—AOAC International.

Accuracy check—A test made at the beginning of each testing session and once per hour thereafter to determine the continued accuracy of the electronic testing apparatus.

Calibration—The adjustment of an electronic instrument so that the results for a given payment component meet the comparison criteria results of an AOAC, SMEDP or USDA approved reference method.

Certified tester—A Board certified technician as provided in section 602 of the act (31 P. S. § 700j-602).

Control milk or *control sample*—Samples produced by a commercial laboratory or by the USDA, or its successor agency, used to do the following:

- (i) Determine the calibration of an electronic instrument.
- (ii) Set the calibration of an electronic instrument.

Electronic method—A method for determining the components in raw milk using an electronic testing instrument.

Milk component or *component*—A unique compound within milk whose relative mass within the milk may be used to determine the payment to producers. Component parts of milk include but are not necessarily limited to the following:

- (i) Butterfat.
- (ii) Protein.
- (iii) Lactose.
- (iv) Solids nonfat.
- (v) Other solids.
- (vi) Total solids.

Reference method—A standard method using analytical chemistry or other approved techniques by which all other electronic methods of testing milk are compared for determining the components in milk.

Repeatability check—A test run at the beginning of each testing session to demonstrate the ability of a given electronic testing instrument or piece of equipment to meet the requirements for repeatability in § 144.4(b)(2) (relating to routine inspection and control).

SMEDP—Standard Methods for the Examination of Dairy Products published by the American Public Health Association, Washington, D.C.

USDA—The United States Department of Agriculture.

Authority

The provisions of this § 144.1a issued under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.1a adopted January 11, 2013, effective January 12, 2013, 43 Pa.B. 216.

§ 144.2. Certification and approval requirements.

(a) No person may use a method to test milk for component content for payment purposes unless the method has been approved by the Board, the SMEDP, the AOAC or the USDA or their successor organizations.

(b) No person may use or employ an electronic instrument or method to test milk for component content for payment purposes unless certified by the Board under section 602 of the act (31 P. S. § 700j-602).

Authority

The provisions of this § 144.2 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.2 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237845).

§ 144.3. Laboratory facilities and supplies.

Laboratories and other facilities using an electronic instrument or method to test milk for component content for payment purposes shall have the following supplies and facilities available and in proper working order:

(1) An electronic testing instrument capable of performance standards as referenced in § 144.4 (relating to routine inspection and control), required accessories and reagents and an instruction manual for operation of the instrument.

(2) A thermostatically controlled water, or other manufacturer-prescribed medium, bath with recording thermometer having proper temperature distribution, set to maintain samples at the temperature specified by the manufacturer of the electronic testing instrument or other methods of obtaining the required temperature as specified by the instrument manufacturer.

Authority

The provisions of this § 144.3 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.3 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237845) to (237846).

§ 144.4. Routine inspection and control.

(a) *Preparation of control samples.* Control samples shall be prepared in accordance with the methods in § 144.1 (relating to electronic methods—general).

(b) *Daily performance.*

(1) *Accuracy check.* Each day before routine testing begins, at least once each hour during the course of the testing session, and when the testing session ends, at least one subsample of control milk shall be tested using the electronic instrument. The certified tester shall read the test to 0.01%. The result difference obtained by the reference method must be 0.05 or less than the known reference test sample result. If the difference of the samples exceeds 0.05, the certified tester shall discontinue operation of the instrument, determine the reason for the difference and correct the deficiencies before resuming operation.

(2) *Repeatability check.* Each day before routine testing begins, and generally within the first hour of the session, at least ten consecutive readings on a single well-mixed sample of milk that has not been homogenized shall be made and recorded as a permanent record. If more than ten consecutive readings are taken, the certified tester shall use the last ten results. The repeatability check is acceptable if the range of the ten readings is 0.04 or less.

Authority

The provisions of this § 144.4 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.4 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237846) to (237847).

Cross References

This section cited in 7 Pa. Code § 144.1 (relating to electronic methods—general); 7 Pa. Code § 144.1a (relating to definitions); and 7 Pa. Code § 144.3 (relating to laboratory facilities and supplies).

§ 144.5. Instrument calibration.

(a) *Calculation of calibration results.* An instrument shall be considered to be calibrated properly when the average difference between the instrument results for butterfat and protein and the reference method results for at least ten different control samples, called mean average, is +/-0.04 and the standard deviation of the difference between the instrument and reference methods, called standard deviation, is 0.04 or less. For all solids the mean average is +/-0.09 and the standard deviation of the differences between the instrument and reference methods is 0.12 or less for those same ten samples.

(b) *Conditions requiring calibration.*

(1) The instrument shall be calibrated when initially installed.

- (2) The instrument shall be calibrated when the accuracy check is confirmed to have failed.
- (3) The instrument shall be calibrated if a part which may affect proper operation of the instrument is replaced, rebuilt or adjusted.
- (4) The instrument shall be calibrated upon the occurrence of the specific circumstances which require calibration for that instrument, as determined by the manufacturer.
- (5) The instrument shall be calibrated when new controls are available.

Authority

The provisions of this § 144.5 amended under section 307 of the Milk Marketing Law (31 P. S. § 700-307).

Source

The provisions of this § 144.5 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237847) to (237851).

§ 144.6. Required records.

- (a) The certified tester and testing facility or laboratory shall maintain the records listed in this section for at least 2 years. Records may be maintained in paper or electronic formats. Records must denote the record date. The name and license number of the certified tester who created or maintained the records must be included in the records or be readily available upon request.
- (b) Records of calibrations, accuracy checks, mean average and standard deviation computations and other instrument use are required.
- (c) Records of the operation and maintenance of each electronic testing instrument and records of test results by electronic method are required.
- (d) Certified testers shall record standard deviation of the calibration verification as follows:
 - (1) The results of individual samples by reference method (average only for reference method) and electronic method.
 - (2) The date of computation, name and license number of certified tester.
- (e) Certified testers operating electronic testing equipment shall perform a daily accuracy check and record the following:
 - (1) Reference method used, sample identification, individual test results and average test.
 - (2) Electronic method used, time, sample identification, individual test results and average test results.

Authority

The provisions of this § 144.6 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.6 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237851).

§ 144.7. Summary record required.

(a) The certified tester and the testing facility or laboratory shall compile summary records of component tests performed for producers for the first and second half of each month containing results for at least two evenly spaced representative samples in each half month for each producer. The record must contain the farm sampling date, the laboratory testing date, the laboratory or testing site, the tester identification, the producer identification and the test result for each sample. The record shall be known as the original record or laboratory record and shall be maintained by the tester for at least 2 years. If the tests are performed by a milk dealer licensed by the Board, the milk dealer shall maintain the records of the component content of producers' milk samples for at least 2 years.

(b) If tests are performed in a commercial laboratory which is not an integral part of the milk plant where the samples were delivered, the licensed dealer or plant shall make available to the Board a copy of the final laboratory records of the component tests in computerized or written form for at least 2 years.

Authority

The provisions of this § 144.7 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.7 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237851).

§ 144.8. [Reserved].**Authority**

The provisions of this § 144.8 reserved under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.8 reserved January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237851) to (237852).

§ 144.9. [Reserved].**Authority**

The provisions of this § 144.9 reserved under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.9 reserved January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237852).

§ 144.10. [Reserved].**Authority**

The provisions of this § 144.10 reserved under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.10 reserved January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237852).

§ 144.11. [Reserved].**Authority**

The provisions of this § 144.11 reserved under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.11 reserved January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237852).

§ 144.12. Credit producers with actual component test.

(a) No individual producers delivering milk or cream, or both, to a milk or cream-receiving or purchasing plant, where the milk or cream is purchased on the basis of the milk components contained therein, may be credited with a greater or lesser percentage or average percentage of milk components than is actually contained in the milk or cream delivered.

(b) No report on a test to determine the milk component content of milk or cream may be of a greater or lesser percentage of milk components than is actually contained in the milk or cream from which the sample was taken. To be a basis of payment to an individual producer, a recheck of a producer's milk component test shall be made from the next available sample taken after the original test. Rechecks of a producer's milk component test shall be made when the butterfat varies 0.5% or more or the protein varies 0.3% or more from the most recent test.

Authority

The provisions of this § 144.12 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.12 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial pages (237852) to (237853).

§ 144.13. Availability of records.

Laboratory, cooperative or plant records shall be open to examination by the Board or its authorized representative. Upon request of a producer, the purchaser or receiver of milk or cream, or both, shall permit the producer to examine the part of the record containing information concerning the samples of milk or cream representing the milk or cream delivered by the producer. A purchaser or receiver of milk or cream from the producer thereof shall, on written request, at least once each month mail or deliver to the producer a written statement, unless the producer agrees to accept a verbal statement, of the percentage of milk components found to have been contained in the sample or samples representing the milk or cream delivered by the producer.

Authority

The provisions of this § 144.13 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.13 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237853).

§ 144.14. Responsibility for violations.

A certified tester at a laboratory or plant is responsible for a violation of the act or this chapter, including the keeping of the reports and records required under the act and this chapter. The purchaser or receiver, or both, of the milk or cream, or both, or the licensed manager of a milk-gathering station, manufactory or plant receiving or purchasing milk or cream from producers for sale or resale or for manufacture, where the payment or settlement for the milk or cream is based in whole or in part on the milk component content thereof, is responsible for a violation of the act or this chapter by a person working under his direction or subject to his orders or the act or this chapter, including the keeping of the reports and records required by the act and this chapter.

Authority

The provisions of this § 144.14 amended under section 307 of the Milk Marketing Law (31 P. S. § 700j-307).

Source

The provisions of this § 144.14 amended January 11, 2013, effective January 12, 2013, 43 Pa.B. 216. Immediately preceding text appears at serial page (237853).

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