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## Kentucky Agricultural Experiment Station

UNIVERSITY OF KENTUCKY

### THE CREAMERY AND TESTER'S LICENSE LAW

The purpose of this circular is to inform the dairy interests of Kentucky of the steps necessary to be taken in order to comply with the law passed at the last session of the Kentucky Legislature, Chapter 74, Acts of 1918, referring to the licensing of creameries, etc., and testers, and with the rules and regulations concerning the enforcement of the law by the Kentucky Agricultural Experiment Station.

#### Scope and Purpose of the Law.

The purpose of the law is to insure fair dealing between the producer and buyer of milk and cream by providing a means to prevent the use of unfair weights and to require the use of accurate testing glassware by trained and competent licensed operators of the Babcock test for milk and cream. Requiring correct and honest weights, tests and records of milk and cream delivered by the producer to the manufacturer and the elimination of unfair methods of competition, will make for greater confidence between the producer and the manufacturer and the consequent prosperity of both concerned.

Under the act it is unlawful for any hauler of milk or cream, or other person or creamery, or other milk plant or agent receiving milk or cream from any patron, to take unfair

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samples thereof, or to fraudulently manipulate such samples; and such samples shall be weighed and accurately and correctly reported to the factory.

Every creamery, shipping station, milk factory, cheese factory, ice cream factory or milk condensery, or person or agent, firm, company, association or corporation receiving, buying and paying for milk or cream on the basis of the butter fat contained therein, shall be required to hold a license, and shall be required to have in his or its employ a licensed tester, and to use standard Babcock test bottles, pipettes and weights and scales which shall have been inspected and tested for accuracy by the Kentucky Agricultural Experiment Station.

It is further stipulated that it is unlawful for any person, firm or corporation buying milk or cream on the basis of its butter-fat content to use any other test than the Babcock test, or to under-read, over-read or otherwise fraudulently manipulate the Babcock test, or to falsify the record thereof, or to read the test at any other temperature than at 135 to 140 degrees Fahrenheit.

#### Creamery License

Every person or firm buying milk or cream on the butter-fat basis shall hold a license. The license may be secured by complying with the provisions of the law and upon filling out an application blank furnished upon application to Thomas Cooper, Director, Kentucky Agricultural Experiment Station, and sending it, together with the annual license fee of \$6.00, to him.

Creamery licenses are valid for one year, from July first, unless issued to firms not in business at the time this law went into effect, in which case the license will be issued on the basis of \$1.50 for each quarter, up to the following July first. Such license may be renewed for a period of one year by filling out and signing an application blank for renewal, upon payment of the annual license fee of \$6.00. Application for license and renewal thereof must be sworn to before a notary public.

**Tester's License**

The law provides that every buyer of milk or cream shall have in his employ a licensed tester who shall make all tests for butter fat on milk and cream bought from the producer. All persons holding a certificate of proficiency from the examining board provided for under this law, are eligible to a tester's license upon the payment of an annual license fee of \$2.00.

The testers' licenses are valid for one year, and should be renewed on or before July first of each year. Renewal may be made by filling out an application blank and sending it, together with the annual license fee of \$2.00, to Thomas Cooper, Director, Kentucky Agricultural Experiment Station, Lexington, Ky.

**Inspection of Testing Glassware**

All milk and cream bought from the producer on the basis of its butter-fat content must be tested by the Babcock test, and the use of tested glassware is required by the law.

The law requires that all glassware used in the test be inspected for accuracy by the Kentucky Agricultural Experiment Station and marked by the letters "S. G. K." (Standard Glassware, Kentucky.) By the term, standard glassware, is meant: 8 per cent. milk test bottles graduated to one-tenth; 6 and 9 inch 50 per cent. cream test bottles, graduated to one-half per cent.; and 17.6 cc. pipettes conforming with the specifications as set forth in section 12 of the act, a copy of which will be found in this circular.

Glassware now in use by the creameries, etc., in Kentucky, and not so inspected, must be sent in to the Kentucky Agricultural Experiment Station, Lexington, Ky., for inspection, and if found to be accurate, must be marked with the letters "S. G. K." before its use is legal.

THE CREAMERY AND TESTER'S LICENSE LAW, CHAPTER 74,  
ACTS OF THE KENTUCKY LEGISLATURE, 1918.

Chapter 74.

AN ACT to regulate the weighing and sampling of milk and cream and to provide for the examination of the glassware used for testing milk and cream for butter fat with the Babcock test; to prohibit the use of inaccurate testing glassware, weights and measures and glassware not conforming with the specifications of standard Babcock glassware; to define the term standard Babcock glassware, to prohibit the fraudulent manipulation of the Babcock test and the falsifying of the records thereof; to require the testing of milk and cream to be done or supervised by a licensed tester, to provide for the collection of license fees for operators or supervisors of the Babcock test, and from creameries and other milk factories, and of fees for inspecting Babcock testing glassware from individuals and firms buying and paying for milk and cream on the butter fat basis; to fix penalties for the violation of the provisions of this act, and to authorize the expenditure of the funds received from the license fees and of additional funds provided for the execution of the provisions of this act.

Weights and Samples of Milk and Cream

Section 1.

*Be it enacted by the General Assembly of the Commonwealth of Kentucky:*

That it shall be unlawful for any hauler of milk or cream or other person, or creamery, or other milk plant or agent, receiving milk or cream by weight or test or by weight and test, to fraudulently manipulate the weights of milk or cream of

any patron or to take unfair samples thereof, or to fraudulently manipulate such samples. The hauler shall weigh the milk or cream of each patron accurately and correctly and shall report such weights accurately and correctly to the factory. He shall thoroughly mix the milk or cream of each patron by pouring and stirring until such milk or cream is uniform and homogeneous in richness, before the sample is taken from such milk or cream. When the weighing or sampling of the milk or cream of each patron is done at the creamery, shipping station or other factory, firm, corporation or individual buying and paying for milk or cream on the basis of the butter fat contained therein the same rule shall apply.

**Glassware for Testing Milk and Cream for Butter Fat**

Section 2. Every person, firm, company, association, corporation or agent thereof, buying and paying for milk or cream on the basis of amount of butter fat contained therein as determined by the Babcock test, shall use standard Babcock test bottles, pipettes, and weights and accurate scales, as defined in Section 12 of this act, and all Babcock test bottles, pipettes and weights shall have been inspected for accuracy by the Kentucky Agricultural Experiment Station, or its deputy, and shall be legibly and indelibly marked by the said Kentucky Agricultural Experiment Station or its deputy with the letters "S. G. K." (Standard Glassware, Kentucky.) No bottle, pipette or weight shall be used for such test unless so examined and marked by said Kentucky Agricultural Experiment Station. It shall be unlawful for any person, firm, company, association, corporation, or any of their agents to use any other than standard test bottles, pipettes, and weights which have been examined and marked as provided in this section, to determine the amount of fat in the milk or cream bought and paid for on the butter fat basis.

**Unlawful Tests**

Section 3. It shall be unlawful for any person, firm or corporation, by himself or as the officer, servant, agent or employee of any person, firm or corporation, buying and paying for milk or cream on the basis of the amount of fat contained therein to under-read, over-read or otherwise fraudulently manipulate the Babcock test used for determining the per cent. of fat in milk or cream, or to falsify the record thereof or to read the test at any temperature except the correct temperature which is 135 degrees to 140 degrees Fahrenheit, or to pay on the basis of any measurement or weight except the true measurement or weight which is seventeen and six-tenths (17.6) cubic centimeters for milk and nine (9) grams for cream. This section further provides that in all tests the cream shall be weighed into the test bottles.

**License for the Tester**

Section 4. Every creamery, shipping station or other factory, or person, or agent, receiving, buying and paying for milk or cream on the basis of the amount of butter fat contained therein shall have in its employ a licensed tester who shall supervise and be responsible for the operation of the Babcock test of milk and cream. The license shall be issued to such person by the Kentucky Agricultural Experiment Station upon presentation by the applicant of a certificate of proficiency properly filled out and signed by the chairman of the examining board and upon payment of a license fee as provided in section seven. This license shall be valid for the term of one year and shall be revoked by the said Kentucky Agricultural Experiment Station upon recommendation of the examining board if the licensee has failed to comply with the rules and regulations under which the license was granted.

**The Examining Board**

Section 5. The examining board shall consist of three members, two to be appointed by the executive committee of the

Kentucky Dairy Cattle Club, and the third member shall be the Chief of the Dairy Department of Agricultural Experiment Station.

**License for the Creamery**

Section 6. Every creamery, shipping station, milk factory, cheese factory, ice cream factory, or milk condensery, or person, or agent, firm, company, association, or corporation, receiving, buying and paying for milk or cream on the basis of the butter fat contained therein, shall be required to hold a license. The license shall be issued to such creamery, shipping station, milk factory, condensery, ice cream factory, cheese factory, or person, or agent, firm, company, association or corporation by the Kentucky Agricultural Experiment Station, upon complying with the provisions of sections 1 to 4 inclusive of this act, and upon payment of a license fee as provided in Section 7. This license shall be valid for the term of one year, but shall be revoked by the said Kentucky Agricultural Experiment Station if the licensee fails to comply with the rules under which the license was granted.

**Fees for Licenses and for Inspection of Testing Glassware**

Section 7. The tester's license shall be issued upon compliance with the provisions under Section 4 of this act and upon payment by the candidate to the Kentucky Agricultural Experiment Station of the sum of two (\$2.00) dollars. The creamery license shall be issued upon compliance with the provisions under Section 6 of this act, and upon payment by the candidate, or his agent, to the said Kentucky Agricultural Experiment Station of the sum of six (\$6.00) dollars. For all testing glassware inspected by the said Kentucky Agricultural Experiment Station, or its deputy, a fee of three (3) cents shall be paid by the owner of said testing glassware to the said Kentucky Agricultural Experiment Station for every piece of glassware so examined.

**Accounting and Use of Funds**

Section 8. The money for license fees and for inspection fees as provided for in Section 7 shall be paid to the Director of the Kentucky Agricultural Experiment Station, by whom it shall be paid to the Treasurer of University of Kentucky, the board of control of which shall expend the same, on proper vouchers to be filed with the Auditor of the State, in meeting all necessary expenses in carrying out the provisions of this act, including the employment of inspectors, chemist, expenses of issuing publications giving the results of glassware and factory inspection, as provided for in this act, and for any other expenses of said Kentucky Agricultural Experiment Station as authorized by law. The Director of the said Experiment Station shall include in his annual report to the Governor a classified report showing the total receipts and expenditures of all fees received under the provisions of this act.

**Prosecuting Attorney—Duties**

Section 9. It shall be the duty of every prosecuting attorney to whom the Kentucky Agricultural Experiment Station shall report any violation of the provisions of this act to cause proceedings to be commenced against the person or persons so violating the provisions of this act, and to prosecute the same to final termination, according to the laws of the State of Kentucky.

**Penalties**

Section 10. Any employee of a firm, company, association, corporation or person, buying and paying for milk or cream on the basis of the amount of butter fat it contains, violating any of the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than \$25.00 nor more than \$500.00 or be imprisoned in the county jail for not less than 60 days nor more than 12 months or both. Any firm, company, association, corporation or person, buying or paying for milk or cream on the basis of the amount of butter fat contained therein, violating any of the

provisions of this act, shall be guilty of a misdemeanor, and upon conviction thereof shall be fined in the sum of \$100.00 for the first offense, and in the sum of not less than \$100.00, nor more than \$1,000.00 for each subsequent offense.

**Provisions**

Section 11. The provisions of this act shall not take effect until July 1st, 1918.

**Standard Babcock Testing Glassware Defined**

Section 12. The term "Standard Babcock Testing Glassware" shall apply to glassware and weights complying with the following specifications:

(a) *Standard Milk Test Bottles.*

Graduation.—The total per cent. graduation shall be 8. The graduated portion of the neck shall have a length of not less than 63.5 millimeters ( $2\frac{1}{2}$  inches). The graduation shall represent whole per cent., five-tenths per cent., and tenths per cent. The tenths per cent. graduations shall not be less than 3 millimeters in length, the five-tenths per cent. graduations shall be 1 millimeter longer than the tenths per cent. graduations, projecting 1 millimeter to the left; the whole per cent. graduations shall extend at least one-half way around the neck to the right and projecting 2 millimeters to the left of the tenths per cent. graduations. Each per cent. graduation shall be numbered, the number being placed on the left of the scale. The error at any point of the scale shall not exceed one-tenth per cent.

Neck.—The neck shall be cylindrical and the cylindrical shape extend for at least 9 millimeters below the lowest and above the highest graduation mark. The top of the neck shall be flared to a diameter of not less than 10 millimeters.

Bulb.—The capacity of the bulb up to the junction of the neck shall not be less than 45 cubic centimeters. The shape of the bulb may be either cylindrical or conical with the smallest

diameter at the bottom. If cylindrical, the outside diameter shall be between 34 and 36 millimeters; if conical, the outside diameter of the base shall be between 31 and 33 millimeters, and the maximum diameter between 35 and 37 millimeters.

The charge of the bottle shall be 18 grams. .

The total height of the bottle shall be between 150 and 165 millimeters ( $5\frac{7}{8}$  and  $6\frac{1}{2}$  inches).

(b) *Standard Cream Test Bottles.*

Two types of bottles shall be accepted as standard cream test bottles, a 50 per cent., 9 gram short-neck bottle and a 50 per cent. 9 gram long-neck bottle.

Fifty per cent. 9 gram short-neck bottles—Graduation.—The total per cent. graduation shall be 50. The graduated portion of the neck shall have a length of not less than 63.5 millimeters ( $2\frac{1}{2}$  inches). The graduation shall represent five per cent., one per cent., and five-tenths per cent. The five per cent. graduation shall extend at least half way around the neck (to the right). The five-tenths per cent. graduations shall be at least 3 millimeters in length, and the one per cent. graduations shall have a length intermediate between the five per cent. and the five-tenths per cent. graduations. Each five per cent. graduation shall be numbered, the number being placed on the left of the scale. The error at any point of the scale shall not exceed five-tenths per cent.

Neck.—The neck shall be cylindrical and the cylindrical shape shall extend at least 9 millimeters below the lowest and 9 millimeters above the highest graduation mark. The top of the neck shall be flared to a diameter of not less than 10 millimeters.

Bulb.—The capacity of the bulb up to the junction of the neck shall not be less than 45 cubic centimeters. The shape of the bulb may be either cylindrical or conical with the smallest diameter at the bottom. If cylindrical the outside diameter shall be between 34 and 36 millimeters; if conical, the outside diameter of the base shall be between 31 and 33 millimeters and the maximum diameter between 35 and 37 millimeters.

The charge of the bottle shall be 9 grams. All bottles shall bear on top of the neck above the graduations, in plain legible characters, the mark defining the weight of the charge to be used (9 grams).

The total height of the bottle shall be between 150 and 165 millimeters ( $5\frac{7}{8}$  and  $6\frac{1}{2}$  inches), same as standard milk test bottles.

Fifty per cent. 9 gram long neck bottles.—The same specifications in every detail as specified for the 50 per cent. 9 gram short neck bottles shall apply for the long neck bottle with the exception, however, that the total height of this bottle shall be between 210 and 235 millimeters ( $8\frac{1}{4}$  and  $8\frac{7}{8}$  inches) and the total length of the graduation shall not be less than 120 millimeters.

#### The Standard Babcock Pipette

Total length of pipette not more than 330 millimeters ( $13\frac{1}{4}$  inches). Outside diameter of suction tube 6 to 8 millimeters. Length of suction tube 130 millimeters. Outside diameter of delivery tube 4.5 to 5.5 millimeters. Length of delivery tube 100 to 120 millimeters. Distance of graduation mark above bulb 30 to 60 millimeters. Nozzle straight. Delivery 17.6 cubic centimeters of water at 20 degrees C. in five to eight seconds.

#### Standard Weights

The standard weight shall be nine grams.

*Neither approved nor disapproved.*

## RULES AND REGULATIONS

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Creamery licenses shall be issued to creameries, shipping stations, milk condensing factories, market milk plants, pasteurizing plants and such other concerns buying milk or cream on a basis of butter fat as are within the scope of the Kentucky Creamery and Tester's License Law, complying with Sections 1, 2, 3, 4, 6, 7 and 12 of Chapter 74 of the Acts of the Kentucky Legislature of 1918, and with the following Rules and Regulations:

Rule I. On or before July first, of each year, a creamery report and application blank must be filled out, duly sworn to and sent, together with remittance of the license fee of six (\$6.00) dollars, to Thomas Cooper, Director of the Kentucky Agricultural Experiment Station, University of Kentucky, Lexington, Ky.

On receipt of the license the same must be posted in plain view in the office of the place of business. Creamery licenses are valid for one year from July first, and must be renewed on or before July first, of each year.

Rule II. *Examination of Weights and Measures Used in Testing Milk and Cream.*

All testing glassware shall be sent, securely packed and plainly marked with the sender's name and address, to the Kentucky Agricultural Experiment Station, Lexington, Ky.

Glassware may be sent either by parcel post, express or freight. All transportation charges must be PREPAID by the sender.

The Kentucky Agricultural Experiment Station will not be responsible for breakage of glassware either to or from sender. Glassware after testing will be securely packed and returned at owner's risk.

All shipments of glassware must be accompanied by a check, draft or money order, made out to Thomas Cooper, Director, covering charges of examination of such glassware, on the basis of three (3) cents for each piece of glassware sent.

Shipments of glassware arriving collect, or without remittance covering charges of examination, will be held until payment for transportation and examination fees are made. Postage stamps will not be accepted as payment for such charges except in amounts less than one (\$1.00) dollar.

Testing glassware sent direct from the manufacturer or dealer of glassware is subject to the same rule.

When shipping glassware for examination, state clearly how it should be returned, whether by express or freight collect. In the absence of such instructions, glassware after examination will be returned by express collect.

When ordering Babcock testing glassware from the manufacturer or dealer, specify that standard glassware, in accordance with the requirements of the Kentucky Act (Chapter 74, Acts of 1918) is wanted. Glassware not conforming to the specifications of standard glassware will be rejected and returned at the sender's expense.

After examination of the glassware, every piece found correct will be marked with the letters "S. G. K." (Standard Glassware, Kentucky) and promptly returned to the owner. Inaccurate glassware with an error, plus or minus, greater than one-tenth of one per cent. for milk bottles, and one-half per cent. in case of cream bottles, will be confiscated and destroyed unless the owner demands return, in which event it will be so branded as will indicate its use as illegal.

The use of glassware not bearing the letters "S. G. K." is in violation of the laws of Kentucky under which creamery licenses are granted.

#### LICENSES FOR TESTERS

A tester's license will be issued to each and every person complying with Sections 2, 3, 4, and 7 of Chapter 74 of the Acts

of the Kentucky Legislature of 1918, and with the following rules and regulations:

Rule III. *Date and Place of Examination.* The candidate for a tester's license must take and successfully pass a tester's license examination at such place and date as may hereafter be designated and announced by the Chairman of the Examining Board. The announcements of such examinations will be issued in special circulars and in the dairy and State press not less than one month in advance of the date set for such examination.

Rule IV. *License Fees.* The candidate who has successfully passed the examination for the tester's license shall pay to Thomas Cooper, Director, Kentucky Agricultural Experiment Station, Lexington, Kentucky, the sum of two (\$2.00) dollars on or before July first, of each year, and shall hold a certificate of proficiency properly filled out and signed by the Chairman of the Examining Board.

A tester's license is valid for one year, from July first, and may be renewed annually without examination, provided the applicant has carried out the provisions under which the license was granted, and upon payment of the annual license fee on or before July first, of each year.

A license will be issued to testers, not now employed, who may successfully pass the examination during the year, for the period up to the following July first, on the basis of fifty (50) cents for each quarter.

Creamery license will be issued to firms not now in business for the period up to the following July first on the basis of one dollar and fifty cents (\$1.50) for each quarter.

The tester's license must be posted in plain view in the testing room of the place of business in which the tester is employed. The license will be revoked if the licensee has failed to comply with the rules and regulations under which it is granted.

Approved, August 1, 1918.

Thomas Cooper, Director.