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SEDIMENT TEST FOR CREAM

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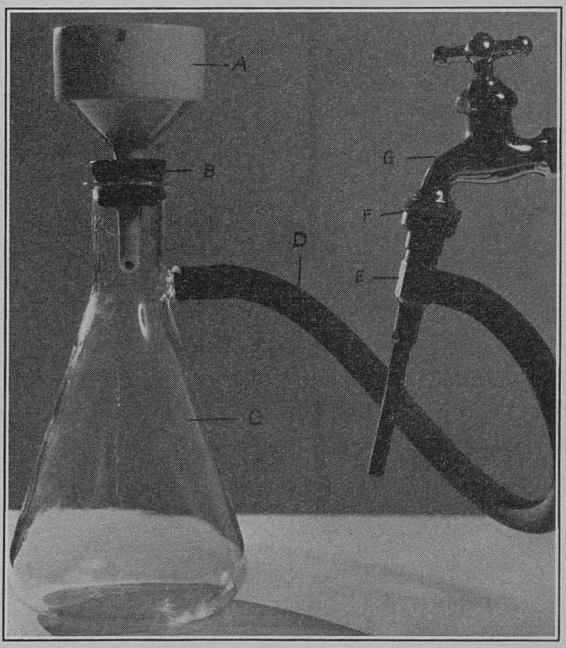
A Sediment Test for Cream

The Federal Food and Drug Administration has been making critical inspections of cream and butter sold on American markets. This has been to eliminate inferior, unclean, and unwholesome products. The butter industry has recognized the value of such activities and is doing everything in its power to assure a decent, wholesome product for the consumer.

One of the first steps in quality control is the production and delivery of clean, wholesome cream. The test described in this folder is designed to determine the amount of sediment or extraneous matter present in cream received at a creamery or at any time previous to churning. The apparatus is identical with that used by the federal government to test butter for extraneous matter and can be used in testing butter as well as cream.



Sediment Tester

A—Büchner funnel, holding filter paper, B—Rubber stopper, C—Filtering flask, D—Heavy-walled rubber tubing, E—Filter pump, F—Filter pump coupling, G—Cold water line.

Operation of Tester

(1) The funnel A is inserted through rubber stopper B, then the combination is fitted into the neck of flask C. (Both connections must be tight.) (2) The filter paper is placed in funnel A so that it lies flat on the perforated plate. (3) The filter pump E is attached to the cold water line G and acts as a suction tee. When the water is turned on, a partial vacuum is drawn on flask C through the rubber tubing connection D. (4) The hot cream and water or hot cream and borax solution mixture is poured over the filter paper, carefully at first so that the paper adheres tightly to the perforated plate in the funnel, after which the funnel may be filled to capacity. The suction draws the cream mixture through the filter and leaves any sediment that may be present on the white paper.

Performing Sediment Test for Cream

Sampling

Stir can of cream thoroly. Take a representative 2- or 4-ounce sample of cream by means of a dipper. Place the sample in a 6- to 12-ounce glass, crockery, or tin container.

Preparation of sample for testing

A. *Sweet cream:* Add to the sample of cream a quantity of hot, filtered water (180° F. or higher) equal to the volume of cream sample and mix thoroly.

B. *Sour cream:* Add to the sample of cream a quantity of hot, filtered, 4 per cent solution of borax (180° F. or higher) equal to, or twice as great as, the volume of the cream sample and mix thoroly.

Filtering

Turn on the cold water through the filter pump to draw a vacuum on the filter flask. Pour the hot, diluted cream carefully over the filter paper, as mentioned on the preceding page.

NOTE: The sweet cream and water mixtures may be recovered from the flask from time to time after the filtering and returned to the vat. The sour cream and borax solution mixtures must be discarded and should not be mixed with the filtered sweet cream.

Observation of sediment

After the sample has been drawn through the filter, remove the filter paper from the funnel and examine it carefully, if possible with a magnifying lens or a microscope. Show the result to the patron immediately, if convenient. It may be desirable to file the papers for future reference or to mail them to patrons.

Test for Extraneous Matter in Butter

Weigh out 100 grams of butter in a 400-cubic-centimeter beaker. To this add 150 to 200 c.c. of a 4 per cent borax solution. Heat to boiling, and filter at once. Additional boiling water may be used, as needed, to facilitate filtration.

Special Apparatus Required

	Approximate cost
1 Filter pump. (Central Scientific Co. No. 5476-C or equivalent)	$1.80 each
1 Filter pump coupling. (Central Scientific Co. No. 5480-C or equivalent)	.40 each
1 Flask, filtering, Pyrex glass, capacity 1 liter. (Central Scientific Co. No. 5670 or equivalent)	1.45 each
1 Funnel, porcelain, Büchner, inside diameter 71 mm. (Central Scientific Co. No. 6145-C or equivalent)	1.00 each
1 Rubber stopper No. 8, with hole for funnel. (Central Scientific Co. No. 11572-A or equivalent)	.25 each
Filter papers, 7 centimeter, Max Dreverhoff No. 86. (Henry Heil Corporation, St. Louis, Mo.)	3.50 per M.
Rubber tubing, heavy wall, 5/16" ID × 3/16" wall. (Garlock Packing Co., Chicago, Ill. or equivalent)	.08 per ft.

This equipment may be purchased from most laboratory supply houses. A few of these in this vicinity are Central Scientific Co., 460 East Ohio St., Chicago, Ill.; Wilkens-Anderson Co., 4223 West Lake St., Chicago, Ill.; G. T. Walker & Co., 324 5th Ave. So., Minneapolis, Minnesota.

Creamery supply houses in the northwest have signified their intention to assemble sets of this equipment for the convenience of their customers.

Other equipment and material required. (Usually available in creamery.)

Dipper (2- or 4-ounce) for taking samples.

Containers (6- to 12-ounce) glass, crockery or tin, in which samples may be mixed with hot water or hot borax solutions.

Hot plate, alcohol lamp, or other source of heat for maintaining water or borax solution at the proper temperature.

Borax solution—a 4 per cent solution prepared by adding 40 grams of borax to 1000 cubic centimeters of hot water. Brought to boil and filtered. Borax may be purchased in any grocery or drug store.