



THE GERBER TEST FOR FRESH MILK

We will be glad to suggest the GERBER TEST supplies you might need for the most efficient yet economical installation possible. Simply list the number and types of samples in your daily work load, and the equipment already in your laboratory.

By way of review, this is the Gerber procedure for testing milk:

Into a Gerber 8% milk bottle, add 10 ml sulfuric acid (1.820-1.825 sp. gr. at 60° F.).

Fill the 11 ml Gerber pipet with the prepared milk sample. Discharge slowly at first (to pre-vent "local action"), then allow to drain. After free flow stops, wait 3 seconds and blow out last drop.

Add 1 ml iso amyl alcohol (128-131° C. boiling point). This reagent insures that all available fat is released during centrifuging. A special property of this specific alcohol, when added to the sulfuric acid-milk mixture, decreases the interfacial tension of the fat, to permit it to rise completely.

Firmly insert self-sealing lock stopper into the bottle using a hand-held key. Bottles are sealed and leakproof -- they can be shaken rapidly and safely with no spillage or spatter.

Shake bottle without allowing terminal bulb to empty. After curd which first forms is completely dissolved, invert four times to permit acid entrapped in terminal bulb and stem to mix thoroughly with balance of the contents. When properly standardized acid is used, the contents are colored lavender-purple; too strong acid yields a purple-black, while too weak acid tints the mixture a pale lavender.

Balance bottles in centrifuge, terminal bulbs towards center. Spin only once for four minutes at 1100 RPM.

Immerse to bulb in a water bath at 140° F. for five minutes.

Remove bottles. By applying gentle pressure to the lock stopper, bring bottom line of the fat column to coincide with a unit graduation. Read the bottom of upper meniscus on scale to nearest 0.05%; subtract bottom percentage line and record. The bottom of the fat column remains a straight line at all times.

Return bottle to water bath. When all tests are read, invert bottle; remove stopper and follow washing instructions.

THE GERBER TEST FOR OTHER FLUID MILK PRODUCTS

Cream is tested by the same procedure, except that a 5.00 gram portion is weighed followed with 5 ml of water. 50%, 25%, 20% or 15% bottles are available. Flavored (sugar sweetened) milks and drinks, if not viscous, are measured out by milk pipet; if viscous, 11.125 grams are to be weighed out. Because of the high sugar content, the acid must be modified: 94 parts by volume of standard Gerber acid to six parts water.

THE GERBER TEST FOR FROZEN DESSERTS

For in-plant production control:

Frozen desserts and mix are tested identically to cream except that the dilute acid is utilized, the centrifuging period is increased to five minutes and a recentrifuging, retempering and rereading is required. With ice cream mix, an experienced technician should consistently match Mojonnier within two-tenths of one percent.

GERBER EQUIPMENT

Weber Scientific sells all Gerber equipment as mentioned in the current edition of Standard Methods for the Examination of Dairy Products, American Public Health Association, in accordance with those specifications. Gerber equipment to the specifications of the British, German, Dutch, Belgian, Swiss, Irish, French and many other Governments' Bureau of Standards is also available upon request.