WEBER SCIENTIFIC

Memorandum

Using the Gerber Method for Testing Low-Fat Ice Creams

Standard Methods for the Examination of Dairy Products, 12th edition, details the procedures to be followed in testing all dairy product by the Gerber method. Appendix C itemizes the procedure for ice cream mix using a 20% bottle. However, when it comes to testing a **lower-fat ice cream mix** many laboratories have experienced a high degree of success using the following modification:

1. Reading percent of fat directly using milk bottle:

   a) Into a Gerber 8% milk bottle (catalog #1011), add 10 ml of specially diluted Gerber ice cream acid (specific gravity of 1.800-1.805, catalog #1083-00).

   b) Weigh 11.125 grams of sample.

   c) add 1 ml of iso amyl alcohol.

   d) Insert lock stopper.

   e) Shake well, extra shaking may be required (see attached memo).

   f) Invert bottles 4 times.

   g) Centrifuge for 4 minutes.

   h) Temper at 140 - 145°F for 5 minutes.

   i) Read percentage of fat directly to nearest 0.05% (½ of smallest graduation).

   j) Re-centrifuge, re-temper and re-read. This duplicate procedure should match your initial reading. If the second reading is higher than the first reading, this indicates that additional shaking is required initially.

If you are not satisfied with the above procedure, you may want to adopt the following technique:

2. Dilution method using milk bottle:

   a) Into a Gerber 8% milk bottle (catalog #1011), add 10 ml of specially diluted Gerber ice cream acid (specific gravity of 1.800-1.805, catalog #1083-00).

b) Weigh 5 grams of sample. Then add 6 ml of distilled water.

c) Add 1 ml of iso amyl alcohol.

d) Insert lock stopper.

e) Shake well.

f) Invert bottles 4 times.

g) Centrifuge for 4 minutes.

h) Temperature at 140-145°F for 5 minutes.

i) Multiply the reading obtained by 11.125/5 - the dilution factor. (Keep in mind that the scale precision error of this Gerber bottle - ±0.05 - will also increase by this same factor.)

j) Re-centrifuge, re-temper and re-read.