WEBER SCIENTIFIC

Memorandum

SUGGESTED PROCEDURE FOR TESTING SEMI-SOFT CHEESES BY THE GERBER METHOD

A) A representative sample of cheese should be brought to a smooth mixture in a blender. (Note: examine the jar, if any cheese is impacted in a corner, swirl the jar to dislodge it, and continue blending.) This initial preparation should bring the viscosity of the product down to a point where you can push it through the cream syringe (Weber item #1046-00). 10 ml of standard Gerber sulfuric acid is metered into an appropriate cream bottle based upon the presumptive fat content of the product (50, 25, 20 and 15 percent bottles are available). 5.00 grams of the blended cheese is weighed into the bottle followed with five ml of distilled water; 1 ml of iso amyl alcohol is added; the bottle stoppered and the test carried out as for cream. The reading will give percentage of fat directly.

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

B) Transfer the representative sample to a container in which the sample may be handled readily, and mix it thoroughly. Weigh out 100 grams into a blender jar. Add 100 grams of distilled water. Blend the mixture into a fairly fluid dispersion. Pour the dispersion from the jar into a beaker, and back, to check that it is properly homogenous. Now weigh 5.00 grams of the blended sample into an appropriate test bottle (keeping in mind that your results will be half of the total fat) and proceed as above. Multiply the reading obtained by 2 - the dilution factor.

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A key in performing either of the above tests is that a somewhat longer shaking is needed to digest the product. If shaking is stopped when the curd formed initially, first appears to have become solubilized, the materials absorbed on fat globules will not have been completely removed, and the lower fat portion of the fat which rises into the column, after centrifuging, will not be properly clear and straw colored light yellow. It may be white, whitish or cloudy - all signs of inadequate shaking.

Because the solids contained in a 5.00 gram sample of cheese, by always giving all bottles 45 to 60 seconds of vigorous shaking, after the curd is fully solubilized, you insure that all of any sample's fat will always rise properly into the column. The amount of shaking needed to solubilize the initially formed curd will vary slightly, among samples of the same type, or to a greater degree, when samples of different types are shaken in the same rack, by hand or by machine. If, when shaken bottles of the same type of sample show much difference in the time taken to reach curd solubilization, the energy received by individual bottles may differ. This is of no particular importance, since the bottle cannot be over-shaken. What is important is that only after the last bottle shaken has fully reached visible solubilization, is the time for extra shaking to begin.

From a practical aspect: if 45 seconds is the longest time taken to solubilize the initial curd, give the bottles 90 seconds of shaking.