

OIL TEST.

This is a churning process for the purpose of ascertaining the richness of cream in butter-fat, and is used mostly in cream-gathering creameries. To make the test: About half fill the glass tubes or bottles with cream, cork them tightly and place in the tin case to receive them.

Next place the bottles in water at from eighty five to ninety degrees to heat the cream to this temperature. Then place in the oil test churn and begin the churning process. Should the cream at any time cool and thicken, place the bottles in warm water again to reheat it to the churning temperature. Continue churning until there is evidence of a clear separation of the fat; then place the bottles in hot water at from 160 to 170 degrees for from fifteen to twenty minutes.

If the separation is complete, the fat will be clear and yellow, and there will be three distinct columns with sharp lines of division between them, viz., a column of oily fat on top and one of whey next, with the casein at the bottom. If there be not a clear separation, cool down to about ninety degrees, churn again, and proceed as before.

To Take a Reading. There is a chart prepared for the purpose. Placing the bottle in an upright position on the "base line" of the chart, move it along until, looking by the right side of the bottle, the top of the column of fat comes even with the top slanting line on the chart. Next, still looking by the right side of the bottle, observe the line to which the bottom of the fat comes; the number on this line gives the reading.

Meaning of the Reading. Cream that gives a reading of 100 in the oil test will make one pound of butter for every inch of such cream in a cream pail twelve inches in diameter; an inch of cream testing 120 will make 1.20 pounds of butter, etc.

Notes. 1. Be sure that the cream for this purpose is well ripened, placing some in a warm place over night, if necessary, to ripen it.

2. It is advisable to pull the corks and let the gas out of the bottles a few minutes after beginning to churn.

3. Sometimes the fat, though clear, is somewhat open. In such cases, allow the fat to become cold, and then place in water at about 120 degrees before taking a reading. About 120 degrees is perhaps the best temperature at which to take all oil test readings.

4. An inch of cream testing 100 (or its equivalent of cream of another grade) in a pail twelve inches in diameter is what is known as a *creamery inch*.