

obtained by chemical analysis, we have found the following results in the milk from six cows, the average of the trials of each cow being given :

	Cow No. 2	No. 4	A. No. 2	H. No. 2	No. 13	A. No. 3	Average
No. of trials.....	5	7	7	7	6	7	39
Lactometer reading.....	30.6	33.3	32.62	31.96	31.76	33.10	32.22
Fat according to Babcock test.....	4.14	3.86	3.34	2.89	3.22	3.86	3.55
Solids not fat by formula.....	8.77	9.48	9.20	8.94	8.83	9.41	9.11
Solids not fat by chem. analysis.....	8.29	9.37	9.10	8.72	8.53	8.98	8.83
Total solids by formula.....	12.91	13.34	12.34	11.83	12.05	13.27	12.66
Total solids by chem. analysis.....	12.43	13.23	12.24	11.61	11.75	12.84	12.38
Difference between formula and analysis.....	0.48	0.11	0.10	0.22	0.30	0.43	0.26

The average difference in the thirty-nine samples between the total solids as determined by the formula and by chemical analysis was only 0.26 of one per cent., almost within the limits of error. This method promises to prove of value in ordinary experimental work or in the rapid analysis of milk, as thereby we may obtain approximately the per cent. of water, of fat, of solids not fat, and of total solids, in a few minutes and at small cost.

PAY FOR MILK ACCORDING TO PER CENT. OF FAT.

Quality is of more importance than quantity in nearly everything. Quality or per cent. of fat is what the butter-maker desires most of all in the milk designed for the manufacture of butter, because butter is largely composed of fat—about 84 per cent. Therefore the fat in milk is an index of its value for butter.

It is also a proper basis on which to value milk for cheese-making, because—

1. The serum or pure skim-milk is worth only from 15 to 20 cents per 100 pounds, while the fat is worth from 15 to 30 cents per pound whether in cheese or in butter.
2. The casein or curd is fairly constant in all milk, while the fat varies widely in different samples.
3. The richer the milk in fat up to a certain limit the more pounds of cheese may be made from a given number of pounds of milk.
4. This method will give to each patron more nearly what is just than any other system that has yet been tried, besides taking away all temptation to tamper with milk designed for the manufacture of cheese or butter.