

PAYMENT ACCORDING TO QUALITY.

While in creameries payment according to quality is always made in proportion to the amount of fat furnished by each patron, in cheese factories two different methods of payment exist:

(1) According to the per cent. of fat in the milk, as in creameries.

(2) By taking into consideration the casein, as well as the fat, of milk. As the per cent. of casein in milk is fairly constant, some constant number, as 2, is added to the per cent. of fat to allow for the casein in the milk.

To illustrate the difference between the two methods: If A and B send *equal quantities* of milk to a factory, testing 3 per cent. and 4 per cent. fat respectively, then, according to the first method, their dividends would be in the ratio of 3 to 4; while, according to the second method, taking 2 to represent the per cent. of casein in milk, they would be paid in the ratio of 3 + 2, or 5, to 4 + 2, or 6.

To make a division of money according to the second, or fat-casein method, taking 2 to represent the per cent. of casein in milk:

During a certain month milk is furnished to a cheese factory by three patrons, as follows:

A.... 3,462 pounds milk, testing 3.1 per cent. fat.
 B.... 5,220 " " " 3.6 " "
 C.... 8,371 " " " 4.0 " "

From the above milk are made 1,650 pounds cheese. The cheese sells for $9\frac{1}{2}$ c. a pound and it costs $1\frac{1}{2}$ c. to manufacture it; net value of a pound of cheese ($9\frac{1}{2}$ c. - $1\frac{1}{2}$ c.) = $8\frac{1}{2}$ c.; 1,650 pounds cheese at $8\frac{1}{2}$ c. are worth ($1,650 \times 8\frac{1}{2}$ c.) = \$140.25. As seen below, there are 971 pounds of fat and casein.

971 pounds fat and casein are worth.... \$140.25

1 pound " " is " $\frac{140.25}{971} = 14.443$ c.

Name.	Pounds milk.	Per cent. fat.	Per cent. fat and casein.	Total pounds fat and casein.	Value at 14.443c. per pound.
A	3,462	3.1	5.1	176.5	\$25.49
B	5,220	3.6	5.6	292.3	42.21
C	8,371	4.0	6.0	402.2	72.53
Total				971.0	\$140.23