

we thus have an individual as well as a breed variation, but as far as I have determined, within defined limits. Should milk be desired for the supply of families, the Jersey milk, from these qualities, which give it value for butter, is unfitted. The cream finding its way to the surface so speedily and completely, allows a different quality of product to be furnished to consumers of the same can. If each consumer received the same quality each day, this would make less difference, but he who receives a quart of cream to-day, is dissatisfied with the quart of blue milk received at another time, and is apt to talk mysteriously about "trout" and "presumptive evidence." This feature of delivery, perhaps, can be obviated by increasing care on the part of the man who delivers, but the trouble is present, and is a necessity.

Again, this quality would seem to render the milk of the Jersey cows unsuited for the cheese manufacturer. As I gather from the conversations and writings of these people, there is difficulty experienced in retaining the cream in the cheese. A certain quantity rising to the surface in the intervals of manipulation, will not again mix with milk in the ordinary process of making, and is accordingly lost to the cheese. A milk whose globule rises quickly and completely, would seem to aggravate this trouble whenever used.

For butter the Jersey milk is well suited. The cream rises quickly to the surface, and churns with great facility under favorable circumstances, and little of the butter remains in the skim milk. The size of the globule, however, allows a large amount of nitrogenous matter to remain entangled with the butter, and theoretically would effect its keeping qualities, as ordinarily made. The butter is usually of an orange color, and a judgment can be formed of the depth of color the cow will give to her butter, by examining the wax secretion of the ear. This secretion, it will be remembered, like the butter, changes color by exposure to the air, and is probably affected by the "feed" of the cow. Some experience, and a knowledge of physiological reasons, is required to interpret this indication correctly.

AYRSHIRE MILK.

The milk of the Ayrshire cow is habitually used in Scotland for the manufacture of either butter or cheese, or both.—The effect of this on her breeding has been to build up one class of cows which are excellent butter makers, and another class better suited to the production of cheese.—The cow which occupies a place between these two extremes, is valuable both for the production of butter and cheese, although not equal to the typical

extremes for the production of either product alone. This division is not only indicated by experimental practice, but also by the appearance of milk globules under the microscope. The butter family of Ayrshires are large milkers, and their milk shows a globule not equal in size to that from the Jersey milk, yet large enough to indicate excellent butter qualities. The butter is of yellow color, often deep, yet not possessing that peculiar orange color which is often characteristic of the product of the Jersey cow. Its quantity is large at the period of greatest flow, and, as far as our facts indicate, the cow of this division yields a large annual product.

The cheese family of Ayrshires furnish a large secretion of milk, containing a small globule and more numerous granules than does the milk from the butter family. The cream rises to the surface less completely, and mixes again more readily. A practical difference between the milk of the families is the greater uniformity of constitution of the milk after standing in one case than in the other.

The predominant feature of the Ayrshire milk from that of all other breeds, is the occurrence of abundant granules or extremely small globules which gives a white rather than a blue appearance to the milk.

HOLSTEIN MILK.

The Dutch milk has small globules, smaller than the Ayrshire, more uniform in their sizes, and a far less number so small as to be called granules. The cream accordingly rises somewhat slower than the Ayrshire cream, and leaves a blue skim milk. The cream seems to mix with the skim milk quite readily by agitation.

Our statements in regard to this milk may seem paradoxical. The cream rises quicker than does the Ayrshire cream, when considered with reference to the whole amount; for there is always a larger number of granules left in the Ayrshire milk, because there is not time between the setting and coagulation for gaining the surface. On the other hand, a certain amount of cream rises to the surface quicker than does the Dutch cream. When the two milks are placed in percentage glasses, side by side, the Ayrshire milk will throw up five per cent., while the Dutch milk is throwing up four; and the Dutch milk will have thrown up ten per cent. while the Ayrshire milk has thrown up eight; but perhaps if both are left to the last moment before coagulation, the Dutch milk will show ten per cent., while the Ayrshire may show twelve. This statement is not exact, but a suppositious one, for the purpose of illustration, being founded on impressions of mine, rather than on

proof. The butter family of Ayrshires will throw up the same percentage of cream quicker than will the Dutch milk I have used in my trials.

For a single experiment, the butter made from this milk was of a pale yellow, deficient in orange. It was of a firm, yet not waxy texture, and displays great keeping qualities. The milk was a long time in churning, as would be expected from the size of the globule. The quality of the globule fits this milk well for the cheese-maker, yet the absence of the granule in numbers, as is indicated by the blue skim milk, renders it inferior to the Ayrshire for this purpose.

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—Rural Home.

A WESTERN AMERICAN DAIRY CONVENTION.

CHICAGO, Feb. 19.—The 10th annual meeting of the North-Western Dairymen's Association was held last week, and perhaps a brief account may be of interest to your readers. This Association has its membership mainly in Northern Illinois and different parts of Wisconsin. It holds an annual meeting, which continues two or three days, and at which addresses are delivered and discussions held on matters pertaining to the dairy. The members are mainly proprietors of butter or cheese factories, and persons employed in such factories, although there is a good number of the dairy farmers among those who attend the meetings. It will be remembered, also, that the factories are generally owned by a dairy farmer, or a company of such farmers. The region indicated produced, in 1875, perhaps 25,000,000 lb. of cheese. The amount of butter produced can not be stated. There are not far from 100 factories giving attention to butter-making—generally in connection with skim-cheese. In addition there are a considerable number of butter dairies of good size. The cheese interest has been almost entirely developed since the Association in question was organized.

The recent meeting was held at Fort Atkinson, in Central Wisconsin. The residents of the village and the dairymen living near, took those in attendance to their homes. Another pleasant feature was that during the session there were frequently 100 wives and daughters of dairymen and other representatives of the gentler sex in attendance. A dairy farmer's wife read an excellent paper on "The Children of the Farm." Still another was, that one evening was devoted to a public supper, with appropriate toasts, pledged in—milk.

There was a general recognition that last year had been a less prosperous one for Western dairymen than its predecessor.