

The Dairy.

Essay on the Management of the Dairy in Respect to Butter.

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I find in the management of the butter dairy three things requisite to success. These are: coolness, cleanliness and care. To insure the first, in my experience, a large cellar was used. During the day the door and windows were kept closed, but at night the windows were opened to procure the circulation of pure, cool air. The milk was set in ordinary pans on shelves suspended from the ceiling, and in the warmest weather these were filled only part full. By these means I have been able to keep the milk at a low temperature through the warmest weather.

As to cleanliness in the dairy, I find that many of our best housekeepers err more in this than they are aware of. Cellars which look neat are not always thoroughly clean. These should not be allowed to contain any bits of decayed vegetables which may have been left from winter. The ground floor should be thoroughly scraped and sprinkled with lime, and the walls should be well whitewashed. Shelves should be washed often, but the greatest care should be taken in cleaning the milk vessels. I generally wash these through two waters, the last containing soap or soda, and then scald with plenty of boiling water. (A little lime-water is good added to the last water.) I then turn in the sun to dry, after which they are taken to the dairy ready for use. Pails, cream-dish and churn should not be neglected, but should undergo a similar process of cleaning.

Care is implied in these processes of cooling and cleansing, but there is much more to be done which might come under the general head of care. When the milk comes into the dairy, care must be exercised in the straining, placing a proper amount of milk in each dish, and in placing the dishes in their proper order upon the shelves, for if these become "mixed up" it makes confusion when skimming time comes. In warm weather care must be taken not to place the pans too closely together. There should always be a dish of milk set separately for family use, so that the dairy milk may not be disturbed, which would cause the milk to sour more quickly.

As regards the length of time to leave the milk before skimming, I generally leave it in warm weather until it thickens, but no longer, and sometimes it is not advisable to leave it that long. I think the best plan is to skim as soon as the cream is done rising, if we can ascertain when that is. Experience has much to do in this matter.

The cream should be well soured before churning, and of a temperature of 62° Fahr. in summer, though in the warmest weather it will be better to have it as low as 60° if it can be obtained. We use dog-power churns and set the big Newfoundland at work as we go to breakfast, and, as soon as we are through, we find our butter waiting to be attended to, and our churner waiting for his drink of buttermilk.

Some try to advocate the plan of working the buttermilk out of the butter, but we could never come to such a conclusion. Plenty of the coldest water available is to my mind indispensable. In fact I don't see how butter can be made to keep well when particles of the milk are *worked into it* instead of being *washed out of it*. When the butter is salted it should not be worked until it becomes oily, as I have seen some do. Nothing can be more hurtful to butter than this *mixing*. While cooling, the butter should be slightly worked up often in order that the salt may act upon each part. This causes the pickle to start more quickly, which, when thoroughly worked out, leaves the

butter ready to pack. When the tubs are filled I cover with cloths and salt, and have no trouble in my butter keeping as long as required.

It is really painful to see the stuff some otherwise good house-keepers sometimes bring upon their table as butter, and all for the want of coolness, cleanliness or care.

Facts about Milk.

Cream cannot rise through a great depth of milk. If milk is, therefore, desired to retain cream for a time, it should be put into a deep, narrow dish; and if it be desired to free it most completely of cream, it should be poured into a broad, flat dish, not much exceeding one inch in depth. The evolution of cream is facilitated by a rise, and retarded by a depression of temperature. In wet and cold weather the milk is less rich than in dry and warm; and on that account more cheese is obtained in cold than in warm, though not in thundery weather. The season has its effects. The milk in the spring is supposed to be the best for calves, in summer it is best suited for cheese, and in autumn the butter keeping better than that of summer. Cows less frequently milked than others give rich milk, and, consequently, much butter. The morning's milk is richer than the evening's. The last drawn milk of each milking, at all times and seasons, is richer than the first drawn, which is the poorest.—[Irish Farmer.]

Good and Bad Milkers.

A few poor cows are quite apt, in one way or another, to work into a dairy, and by their diminutive yield barely pay for their keeping, and perhaps not even that, but cause an actual loss. A dairyman of our acquaintance, having forty cows, found, by measuring the milk, that he had five in his herd, which did not give milk enough in the whole season to pay for their keeping, by \$25 apiece. He had five others that paid their keeping and \$25 a head more. The profit and loss on these cows just balanced each other; he kept the ten cows a year for nothing, losing the whole of his time and labour in caring for them and their milk, besides the depreciation of stock and the interest on the cost, which were not taken into the reckoning. When I was collecting cows for the first dairy I set up, an aged and observing dairyman said to me: "Look out for good cows; there is a great deal of money made in this country by dairying, but it is all made from the good cows." The difference between a good cow and a poor one is not generally appreciated. Oftener than otherwise the price at which cows are bought and sold is made to accord with the amount of milk they will give. But this is not a sound way of estimating their value. Beef cattle may be estimated by the pounds of beef they will make. A bullock that will make 500 lbs. of beef may be worth half as much as one that will make 1,000 lbs.; but the cow that produces only 100 lbs. of butter a year, is not worth half as much as one that will make 200 lbs. in the same time. As it will take the former cow two years to make as much butter as the latter will in one, she will cost the owner a year's keeping more than the other cow will to get the same amount. The butter from the poor cow costs double what it does from the good one, and is produced at a ruinous rate to the farmer. Such a cow will not pay the cost of keeping, and is only fit for the shambles. She ought certainly never to occupy a place in the dairy. But the loss sustained by a small yield of milk is not all occasioned by a bad selection of cows. Many cows which otherwise might be classed as profitable milkers are made unprofitable by the treatment they receive at the hands of the dairyman. Careless milking, harsh treatment, worrying, and exposure to severe storms and to extremes of heat and cold, abate the flow of milk, and occasion much needless loss. Twenty-five per cent. variation in the annual product is easily made by kindness and severity. Comfort and a satisfied quietude are very efficient in promoting a liberal flow of milk. Full feeding is equally important, as the want of it is, perhaps, the most prolific cause of abatement in the returns of the dairy. In a large percentage of dairies the yield of milk is annually made to dwindle down to the limit of profitable production, and sometime below it, from deficiency and irregularity in the food supply. Very few dairymen give their cows as much as they need to eat, except for a short time in the season. In the spring and early summer, when the ground is moist and warm, a vigorous growth of grass is produced, and a flush of food supplies the cows for a time with all they can appropriate, and crowded bags and flowing pails attest their

full supply. But presently, in the long, hot, and dry days of August, the ground becomes parched, and the grass stops growing and dries up. If the cows can fill themselves during the day, they are commonly allowed to run without any additional food. As grass fails in quantity and quality, and more labor is required to get it, less is consumed, and the milk diminishes.—[Irish Farmer.]

An Oleomargarine Bill in Congress.

Hon. Ferris Jacobs, jr., from Delaware county, N. Y., has introduced into the Congress of U. S. A., a bill to regulate the manufacture of oleomargarine. By its provisions oleomargarine is made subject to a tax of one cent per pound, and all packages or parcels of it offered for sale, either at wholesale or retail, must bear the special stamp denoting the payment of the tax thereon. A heavy fine accompanies a failure to comply with the law. The bill can not be reached during the present session, and there will be ample time for discussion of its merits previous to another session. The proposition to tax the article is certainly radical, classifying oleomargarine, as it would, in the same rank with tobacco, spirits, and other deleterious or luxurious manufactures. The tendency of legislation at the present day is toward the abolishment of special taxes, rather than their imposition, and the bill will have to encounter this tendency and overcome it in order to become a law. Mr. Jacobs is from one of the largest butter counties in the state, and is probably following out the desire of his constituents by urging the passage of the bill.

How Fine Butter is Made.

The process of making butter is an important one, for the best butter may be spoiled and poor butter may be improved in the working. When the butter is churned it is taken from the churn and placed on a smooth maple, birch or chestnut table or other butter worker, or put into a bowl. If the churn will admit of it, the buttermilk may be drawn off, and clear, cold water poured into it, and the butter washed in that way in separate waters until it runs off quite clear, and the butter is quite free from milk. This is indispensable if the butter is expected to keep well. It is then salted at the rate of one ounce to the pound of butter. The butter is dressed out with the ladle, and never to be worked by the hand under any circumstances, and the salt is spread over it; it is then doubled and pressed out again and cut and gashed with the ladle, but never rubbed or plastered, but only squeezed and pressed, until the salt is pretty evenly mixed; it is then put away in a cool place for 24 hours at least, as may be convenient. It will then appear streaky and patchy, and is worked over in the same way as before until it becomes free from this streakiness and even in color, by the thorough mixture of the salt. This is done by squeezing it with the ladle, a small piece at a time, and pressing it out in a flat sheet, doubling it, and again squeezing it out, so as to get all the salt and moisture in it evenly through the mass. The color is then alike all over. No more working is then required. The first working requires about 10 minutes for 20 or 25 pounds, the second about 15 minutes. It should then break with a coarse, uneven fracture, much like that of a piece of beeswax, and should appear when cut of a granular texture and quite free from greasiness, and fine drops of clear brine should follow the knife as it is cut. It is not well to try to get all the moisture out of the butter, as this improves its texture and flavor. If the cream has been well kept and the butter well made and churned, this should have a very sweet and fragrant scent, quite free from acidity or pungency. It is a peculiar scent, and belongs only to the best butter, and when this odor is absent, the right flavor is wanting, because the scent and aroma, and the flavor as well, are all attributes of pure fresh butter. The butter should be packed as soon as it is worked the last time; no butter needs a third working; the package should be quite free from all disagreeable scent of impurity; white oak, spruce, or white ash are the best materials for the tub or pail. White oak has an agreeable scent when fresh and stands first for butter packages. The package should first be scalded, then rinsed in cold water, then rubbed with a little salt, then rinsed with a little water, just enough to wash off the salt, but not to freshen the wood, and the butter is packed in the damp pail at once, being pressed down solid so that no air-holes are left. The pail is filled completely full, and may be covered with piece of muslin dipped in brine, or with paraffine paper, and closed up at once tightly and put away in cool place or sold, which is the best plan. [N. Y. Times.]