

The Dairy.

Dairy Maxims.

Milk will sour quicker if the cows are fed sour milk. This is not objectionable for butter making, but it is objectionable for cheese making.

Cream from a farrow cow's milk will not all come if churned with cream from new milk cows. The mixed cream will make more butter than the cream from new milk cows alone, but not so much as if the cream is churned separately.

If I were receiving milk from low, swampy grounds, or from pastures filled with weeds, or from prairies, I would scald it. By heating to 150 deg. I would drive away the taint, but the scalding would also drive away the aroma of the timothy, clover, or June grass.

Cream can be raised by freezing, but this is not practised in this country.

If milk is kept at a low temperature, the cream rises slowly.

The effect of a sudden change in milk or cream is to injure the keeping quality of butter.

Whey, as it comes from the factory, invariably has a bad effect when fed to cows. It fed while fresh and sweet, it is not objectionable.

Raising cream by freezing does not expel the animal odor, neither does it destroy germs in milk.

The cream which rises first makes a better quality of butter than that which rises last.

The more aroma in butter, the less time it will keep. So with cheese.

In the spring I would work all the cream into the cheese, to ripen it sooner and make it better, and work it off at spring prices. Later in the season I would skim more.

The cream from ordinary cows can nearly all be worked into cheese. It could not be done with milk from the Jerseys or other cows whose cream rises slowly.

To avoid greasy butter, churn with pressure instead of friction. The dash churn brings butter by pressure and makes better butter than most other kinds of churns. Butter should also be worked by pressure instead of friction. The ladle or worker should not be drawn across the butter, but pressed down upon it.

Milk, while being scalded for taint, should be stirred.

Results favor shallow setting instead of deep setting. The amount of cream seems larger sometimes from deep setting, but it is owing to the fact that in deep setting the large globules carry with them considerable milk. The amount of butter from deep setting will be less than from shallow setting.—*Prof. L. B. Arnold.*

Soiling Cattle.

By the term soiling is meant the feeding of green feed in a stall. Turning cattle into pasture is only practicable where land is cheap and plenty. It takes about two acres of good grass land to feed a cow or steer in the usual way, because a good deal of the grass is tramped over and out, because cattle will not feed near their droppings. The same amount of land will produce food enough for three head of stock if it is mowed and fed to them in the yard or stall. Of course pastures in or near a city, where lands are worth from \$500 to \$1,000, will not pay.

Men who feed a great deal of stock, as well as those who have only one horse and a cow, can arrange for summer feed in the following manner, which will not only be found economical, but will also afford that change of feed so desirable for all kinds of domestic animals. Rye may be sown about the last of August or first of September. It sown thick—1½ bushels per acre, and on good soil,—it will afford some pasturage late in autumn for young stock (it ought not to be mown), but no horses or sheep should be allowed to crop it, because these bite too close. As soon as spring opens, and the ground—which has been ploughed the autumn preceding—is in condition, oats and barley mixed ought to be sown. By the 20th of April at farthest, if the season will at all allow, corn ought to be planted in drills, two feet apart and from six to ten kernels to the foot in the row. In addition to this there should be a good meadow of mixed grasses, say timothy, clover, red-top or herd grass, &c., in quantities according to the amount of stock to be fed.

Now, we commence by cutting rye as the first green feed, then perhaps the meadow grasses, next the oats and barley, and again meadow, and then we

commence by feeding the corn. Thus we have a succession all through the season and also a change.

It is worthy of notice that all these grasses are the better for being allowed to wilt before they are fed. If there is barn-room sufficient they may be cut and spread on the floor in thin layers a few hours before they are fed. This process evaporates part at least of the watery particles, and makes the feed more nutritious according to bulk, and avoids the danger to the stock of bloating and excessive flatulency.

Cattle that are soiled should be allowed exercise in a yard or lot affording ample room for all therein confined. As part of farm economy the manure—which should be gathered frequently and composed with turf and refuse—will form no inconsiderable item. And where it is at all practicable, the liquid manure should be saved also, and put upon the compost heap and spread in the autumn or early spring on that portion of the farm where it is most needed.

The writer knows full well that this plan of feeding stock requires more labor, but it will require but little knowledge of mathematics to show conclusively that near large cities, and in places where land is valuable for other purposes than pasturage, it is not only the best but the cheapest.

Long and quick drives to pasture and home again are very injurious to dairy stock; these will also be avoided. A dairyman should ever bear in mind that a cow in his business is simply a machine to convert provender into milk and cream and butter. He should study not only with how little feed he can extract the greatest amount of milk, but how much the cow can consume and convert into the richest of milk without injury to her constitution and general health. A cow is very much like a pantry or bread-basket; if you put nothing in, you cannot expect to take anything out.—*St. Louis Democrat.*

Apples for Milk Cows.

We learned when a young man, in our earliest attempts at farming for ourself, when we kept three or four cows, did the greater part of the milking, and marketed our surplus butter, that when we began to feed the cows fallen apples, they soon began to increase their yield of milk, and soon after there was an increased amount of butter to carry to market.

Ever since then, whenever we have had cows and cheap apples, we have not hesitated to give them a regular allowance, night and morning, undeterred by the cry that it would dry them up, for experience oft repeated had taught us to the contrary. Of course we always commenced with a small allowance, gradually increased until we reached the quantity that we thought best for them, and the results were always satisfactory.

A writer in the *Country Gentleman* gives his experience as follows:—

Every other year I have a large crop of apples, but as my orchard hardly has two trees of the same variety, the fruit is useless for market, and insects are so numerous that I have very few fair and perfect apples, but an abundance of cider apples, which will bring, after being picked and decayed ones thrown out, from twelve to twenty cents a bushel. For several years, against the remonstrance of my men, and of others who remember the old saying of "apples will dry up a cow," I have had them fed out to my milk cows, beginning with the early apple and continuing as long as they lasted. Several times I have dumped them from the wagon as gathered from under the trees, on a small piece of grass ground where the water will not stand, and on the approach of cold weather covered them with a thick coating of seaweed, so that they could not freeze, and have fed them nearly all winter to cows in milk. I have concluded from my observation, that the butter made from cows in winter, fed on apples, with good sweet hay, will be as good flavored and as high colored as June or September butter, and that the flow of milk is kept up, if not increased, at least as much so as from feeding meal to the same extent in value. For young cows they seem to me preferable to meal. Perhaps I should say that our winter milk room is so situated that its temperature seldom falls below 55°. Care should be taken, as in feeding other green stuff, not to feed enough to loosen the bowels of the animal much, but a bushel a day, or even more of ripe apples after the first few days, will not be too many. In a former number Mr. Levi Bartlett detailed his careful experiment of feeding apples to milk cows, with much the same result. I was glad to be confirmed in my impressions by so careful and accurate an observer.—*Rural Home.*

Keep up the Supply of Milk.

The season has been a very growing one for grass, and pasture during June and July has afforded a good return. During the latter part of July and up to the present, grass has shot up and become hard. This causes a general complaint; there is a serious shrinking in milk. The remedy is green, tender feed, such as corn and the second growth of clover. We just had a talk on the subject with Irving Moyer, of Dutchtown, who is a careful farmer and dairyman, who says his cows, owing to mature growth of his grass, shrink considerably, though there seemed to be no loss of flesh. He gave them a full feed of cut corn at night, and an increase in the weight of cheese became at once apparent.

This is a clear case, and is the experience of many. What is wanted for milk is green, tender feed, relished and easy of digestion. A good hay crop for winter feed has been secured. Much of it has been cut early, especially clover, the second crop of which is, in not a few instances, well grown up, and is just the thing to cut and place before milk cows, or, what some prefer, turn into the clover field. Almost anything to prevent shrinking of the milk. There is authority for saying that the loss in milk cannot again be restored the same season. At least there should be a stop made if possible to further shrinking. Another important point: As it is not unlikely we shall have some hot weather during August and September, the cut feed or bating should be done at noon or in the greatest heat of the day, sheltering the cows from the sun at the time, so as to avoid the injurious effect of the heat, which gets up a feverish condition of the system, and is communicated to the milk, and hence the cheese and butter are affected. All suffering, whether from the heat, lack of food or water, or any other way should be avoided, as it tells on the milk. Good treatment all round, making the animal comfortable and satisfied in all respects, is the way to reach the highest returns in the dairy. The time for this now is most urgent.—*Utica Herald.*

BUTTERMILK AND SCURVY.—The *Colorado Agriculturist* says: A correspondent informs us that he finds buttermilk to be an almost untailing cure for scurvy in hogs. To prove the fact, among other cases which have come under his notice, he says he owns several pigs which, a few weeks since, were suffering terribly from the effects of the disease, and that a speedy cure was effected by merely pouring the buttermilk over them a few times in the pen. Readers will do well to remember this simple remedy.

SALT AS AN AID TO MANURE.—About five o'clock one fine summer's morning, I noticed that where the salt had been sown the previous day, every grain of salt had attached to itself the dew, and formed on its surface a wet spot about the size of a sixpence, the ground being generally very dry. On our light lands it consolidates them and makes them especially firm and acceptable to the wheat plant, whose straw will stand firm and erect, although four and a half to five feet long. It is also unfavorable to certain weeds by this consideration. It prevents the ravages of the wire worm. It is especially favorable to saline plants, such as mangolds, whose ashes contain fifty per cent. of salt. I never sow guano, except mixed with its own weight of salt. Like everything else, it has, I am sorry to say, greatly risen in price. I observe that all crops seem to thrive well on land near salt water, especially where the land is drained.—*Western Rural.*

THE CAUSE OF THE POTATO DISEASE, AND THE MEANS OF ITS PREVENTION.—In the Biological Section of the British Association recently, Mr. J. Torbitt read a paper on "The Cause of the Potato Disease, and the Means of its Prevention." He contended that potatoes could not be cultivated for ever from the "set" or "cut," because the "set" or "cut" was merely a cutting from the subterranean stem; but they might be cultivated from the "set" until the expiration of the term of life allotted to the seed from which they were obtained—that was, provided they were not cut off by disease or other accident when they became old and approached the term of their existence. Upon this theory, therefore, the remedy was to revert to the operation of the laws of sexuality, and grow the plant from the seed so soon as the potato under cultivation from the "set" became unable to yield a full crop of seed, a result which would be found to occur in about, say ten years. Mr. Carruthers, of the British Museum, dissented entirely from the views propounded by the reader of the paper, and said that plants propagated from seed were just as liable to disease as those propagated from "set." He also mentioned that the disease threatened to be on a very extensive scale in Ireland in the present season.