

THE DAIRY.

TREATMENT OF MILCH COWS IN EARLY WINTER.

At no season of the year do milch cows need better and more generous diet than in early winter. The change from grass to dry fodder is of itself sufficient cause to produce more or less derangement of health. But when the animal's tone and vigour have been lowered by a long period of milking, and she is then subjected at the same time to the rigours of winter and a change of food from nutritious herbage to dry, coarse, and often innutritious fodder, a severe tax is laid on her system. Yet on many farms it is the practice to feed to cattle in early winter only coarse and inferior fodder and the poorest hay, because these articles have been stored last in the barn or on the tops of the mows, and must, therefore, be disposed of before the better portions of the supply can be reached. This, however, is a great mistake, as the best food should be given when the cows first go into winter quarters. Afterward, when they have been dried of their milk and have grown accustomed to the change of diet, the poorer food may be used; or, better still, as animals, like men, are fond of variety in their diet, the coarser and less nutritious fodder may be advantageously used in conjunction with that of a better quality.

Through neglect of this precaution, however, it frequently happens that cows in milk loose flesh during November and December, and sink into a bad condition to endure the still more severe weather yet to be expected. To avoid this misfortune, in cases where poor or damaged fodder has necessarily to be given out first, the feed should be supplemented with rations of ground grain, oat and cornmeal mixed, bran, or ship-stuff, to add a proper amount of nutriment to a given bulk of fodder. Compelling cows to consume an excessive bulk of inferior food in order to enable them to support life and yield milk overcrows the stomach, tends to derange health, and is by no means a rare cause of serious ailments. Among these, not the least disastrous is a serious liability to abortion, caused by an undue pressure of the food upon the parts. Moreover, on the score of self-interest, as well as of humanity, cows should not be allowed to lose flesh in early winter; for it would require much more food to restore them to good condition in cold weather than in summer. Besides this, as lean animals are more susceptible of cold than those in flesh, and a proportionately larger amount of the food they consume is, therefore, expended in generating a sufficiency of animal heat, it would require considerably more food to carry a poor beast through winter than a fat one, even though nothing may be added to the animal's condition.

The necessity of shelter for all kinds of stock from the storms, frosts, and inclemency of this bleak season has been frequently dwelt upon in these pages, and its economy, as well as its humanity, fully demonstrated.

Another cause of injury to cows is that they are often milked too long in the season. Every cow that drops a calf annually should go dry, for the purpose of rest and recuperation, not less than six weeks before calving; and in many instances this time should be extended to ten or twelve weeks. If the animal is in full flesh and about to come in during the pasturing season, she may, as a rule, be milked ten and a half months in the year; whereas, when the same cow is expected to calve during the foddering season she ought to go dry at least for two months, and an animal in thin flesh should have three months for recuperation and rest. This interval allows her time to make up the wastes of the system, so

as to produce a healthy offspring and be in a condition to yield a full supply of milk the following season. Cows that do not readily dry of their milk will, of course, require to be milked somewhat later; but these are exceptional cases. If a cow in poor condition is milked during most of the winter months, more will be lost in the production of butter and cheese the following summer than was gained by milking her through the winter.

In drying cows care should be taken that all the milk should be drawn at each milking. The habit which some have of only partially emptying the udder, from time to time, when drying cows, is highly objectionable, as the milk left in the bag becomes thick and putrid, causing irritation and inflammation, and not infrequently resulting in the loss of a teat or a portion of the bag the next season. When cows are being dried off, they should be examined at intervals of a few days, and every drop of the accumulated milk should be drawn from the udder. Indeed, with cows that are supposed to be dry, it is advisable to try their teats at least once a week, to see if there be any accumulations of milk.—*Rural New Yorker*.

FOOD FOR DAIRY COWS.

Rich old grass is the most natural and best of all cattle foods for producing milk of good quality. It is a grave mistake, practised by many intelligent farmers, to keep cows on poor, bare pasture, without any assistance in the way of house-feeding. Many seem to imagine that land which has been tilled for many years without recuperation, until it has become useless for grain growing, is quite good enough for pasture purposes, and therefore stint their cows of a proper quantity of nourishment. Nothing could be more shortsighted and unprofitable. It requires, in the first place, a large proportion of food to keep the animal in a strong, healthy condition, and it is the surplus assimilated after making good the natural wastes that goes to increase the animal or for the production of milk. An animal of sound constitution, healthy digestion, and well-developed lacteal organs will prove a good milker.

Those who wish proper returns from their cows should, therefore, see that they are properly supplied with healthy food and plenty of good, pure water. The quality of milk varies with the different breeds of cattle, their age, the food eaten, and at different periods of the year. The milk of old cows is much thinner than that of young ones of the same breed.

SALTING BUTTER.

Butter is usually salted in accordance with the demands of the market to which it is to be sent. American butter is generally salted at the rate of about one ounce to the pound. Perhaps the greater part of the sweet-cream butter has half or less than half that quantity. In the south of Europe, indeed all Latin countries, oil is in more general use than butter, and unsalted butter is preferred. The Parisian custom of serving butter entirely unsalted is sometimes aped in England and some of our American cities, but, as a rule the markets demand that the butter shall carry more than half an ounce of salt.

Unsalted butter will keep forever—provided it is butter and only butter. But the butter of commerce is never pure. It retains more or less of the other properties of the milk, and it is these which, while they add very much to its value, are subject to almost immediate deterioration, and in turn tend to injure the butter itself. Even salt will not long preserve them. Unsalted butter does not "keep." The use of salt in butter is more for flavouring than for preservative purposes.

The protection and preservation of butter are due far more to the package than to the salt which is put in it.—*Dairyman*.

FEEDING COWS.

The *Live Stock Journal*, in regard to feeding cows well, says:—"There is less excuse for feeding a good milch cow stingily than any other farm animal. She does not ask any credit, she makes prompt daily payment, and her produce is a cash article. If he has not the food at hand, prudence and good judgment, as well as humanity, require him to furnish her full rations at all times, without regard to a favourable or unfavourable season. We always counsel dairymen to make an earnest effort to produce all the food for their herds upon their own farms, but the first principle of profitable dairying requires that they give abundant food to keep up an even flow of milk, whether they produce or purchase the food."

It is well for the practical dairyman, when selecting animals for dairy use, to consider well the merits of the Ayrshires. Holsteins are noted for the great yield of milk, and Jerseys are equally noted for quality, while the milk of the Ayrshire cow may be said to be between these two extremes—that is, a fair yield and a good quality.

The highest bred cows, it must be remembered, are not often the best milkers, and often the ugliest looking cow in the herd yields the most milk. Good milkers invariably show very angular outlines, for it cannot be expected the cow should be yielding a large quantity of milk and putting plenty of flesh upon her bones at the same time.

Fine butter can only be obtained by churning at a favourable temperature. If the temperature of the cream is too low, the butter will be long in coming and will be hard in texture. If the temperature is too high, the butter will come very speedily, but the product will be greasy, destitute of grain, and deficient in quantity.—*Farm, Herd and Home*.

A writer in the *New York Times* emphasizes the fact that the profit of the dairyman comes wholly from his good cows, and that many a dairy might be reduced one-half in number of its cows and the dairyman make more profit than he may have done from the whole original number; because one poor cow will not only "eat off its own head," but will eat off that of another and a better one, too, before it has equalized the profit and loss of the keep of the two.

An exchange says: "Were we proposing to build a new dairy-room on an extended scale, we would, with our present views, have a large work-room where the milk could be skimmed, the cream churned, and the butter worked and packed. In this room we would have a chance for a fire, and plenty of water, both hot and cold; also plenty of light from large windows, protected in summer by blinds and screens. Trees and climbing vines should keep off the direct rays of the summer sun, so that cream could be churned and butter worked in summer without being carried to the cellar."

HON. X. A. WILLARD, of Little Falls, N.Y., is afraid that United States dairymen will be injured by Canadian competition in the British markets, if Canadian butter and cheese-makers continue to progress as they have done in the past few years. In a letter to the *American Agriculturist*, he says: "Canada has become a formidable competitor with us in export of dairy produce. Canada now makes goods of the finest quality, and cheese-dairying is rapidly developing in the Dominion. At the present rate of increase she will be able, at no distant date, to supply England with all the cheese needed, provided the dairy industry of Britain is kept up."