

THE DAIRY.

CARE OF MILK COWS IN WINTER.

From the care that many farmers bestow upon their milk cows during winter they are an expense rather than a profit. In the summer, when herbage is fresh and abundant, cows can supply themselves with material for milk production, but in the winter they have to depend on the skill of their owners for this material, which is often illy provided.

I have heard farmers say they had to keep three or four cows to get milk and butter enough to do their family, when to follow them to feed these cows you would find them sheltered by the fence or the side of their barn, shivering with cold, icicles hanging all over their body, and if sheltered she had been forced to lie in her own filth all night. Her feed consisted of a few rotten nubbins of corn and an armful of husks or a little fodder. This they claimed was all they could afford to give, and even at this it looked as if they would run out before spring.

To winter a milk cow at a profit the first requirement is a warm dry stable, in which there is abundant ventilation, and where perfect cleanliness can be observed; for comfort is as necessary to profitable milking as feed or water. It is interesting to trace the ill effects of bad keeping upon the milk-pail, and how neglect leads to diminished profits. The skin is a very important secretory organ. Generally it is considered solely as the hide which covers and protects the flesh and bones. But there is continually passing through the numberless pores of the skin a vast quantity of watery vapour mingled with much effete animal matter, which escapes with the vapour that passes off as insensible perspiration. For the healthful action of the skin it should be kept clean and well carded. The feed should be nutritious, easily digested and abundant. As milk contains a large proportion of albuminoids and phosphates, any food that contains enough of these substances to meet the demand for milk in addition to what is required to supply the wastes of the body, will keep up the flow of milk. If the food does not contain enough of these substances or a sufficient quantity is not given, the flow of milk will be diminished, or else the cow must use her own tissues for its production. In either case the farmer is wintering at a loss. There is one fact that the farmer should remember, that the cow cannot give milk unless the raw material be given her to manufacture it from; he also should remember that heat and wastes of the body must be kept up. But the farmer has been taught through the papers so much that the cow was an engine, so to speak, that required constant care, good fuel to keep it in good running order, that many of them are like the little boy said he was when told to go and wash his face, if he did wash his face it would not stay washed. So it is if they are told they won't stay told.

But we have seen that heat has to be kept up in the body by feed or through good housing; and the importance of a clean healthy skin; that the farmer should provide for his cows warm, dry quarters, that he may save food, also provide nice, clean straw for bedding, that his cows may be warm and clean.

The feed for milk cows should consist of nice, well-cured hay; well-cured fodder is a good feed for milk cows; clover hay is an excellent feed. Sweet corn fodder sown in drills three feet apart and with stalks six inches apart, grown to maturity and carefully cured, will make more milk than an equal weight of fair clover hay.

Sorghum fodder, if well cured, makes a good feed. Some farmers object to it and think it will kill cows to eat it, but I have fed it to stock for

several years with no serious effect, but on the contrary a good nutritious food. I have observed wheat bran to be one of the best feeds for milk cows. A gallon at each milking with a little salt mixed with it is fine to keep the flavour of milk. Salt of itself given at milking time will aid in keeping up the quantity of milk. Potatoes when chopped and mixed with meal add to the yield of milk and the quality produced by them is good as might be expected from the large proportion of starch they contain.

Cabbage furnishes another resource for milk not sufficiently appreciated by the average farmer. There are few vegetables that contain as much nutrition, pound for pound, as a cabbage-head. So rich a milk producer is cabbage that it pays to raise this vegetable solely to feed to milk cows. Where cabbage is worth ten cents a head in market the true economy is to feed the waste leaves. Some may object to the flavour that cabbage imparts to milk, but feed in small quantities at first, and after milking.

Whatever food is given it is best to divide it with at least three feeds. If large quantities of food is crowded into the stomach the digestive organs are too severely taxed and the ease and comfort of the cow is interfered with. I have observed to get a good flow of milk that the cow must be at ease in every respect. An uncomfortable cow or a wearied or frightened cow will not give a good flow of milk. The most perfect digestion goes on when the cow is at perfect ease and quietude. Although the cow's stomach is capacious, yet one bushel of loose hay or fodder, or a half bushel of moist feed or roots at once is sufficient.

A regular and ample supply of water is as necessary as the supply of food. Few farmers consider water to be food. The majority look upon it very differently, but it supplies an important part of the animal nutrition. It is said that seventy-five per cent. of the blood and flesh and ninety per cent. of the secretions consist of water. Every one of course considers water a necessity, but that it should be pure and not so cold as to lower the temperature of the body when taken freely is not thought of. The health of the animal depends perhaps more upon the purity of the water consumed than upon the character of the food, because the water enters very rapidly into the circulation and carries with it any impurities which may be held in solution; these at once affect the blood. Besides when an animal is not regularly and frequently watered a large quantity will be swallowed at times. If this quantity should be one-tenth part of her own weight and it given cold the reduction of temperature of the stomach is very great and a serious shock is given to the vitality which requires the consumption of extra food to restore.

If the farmers would study their best interests more they would see the great utility in feeding and watering abundantly and in a proper manner. There is more profit to be gained from two cows properly cared for than three cows with the care of two cows divided between them, besides there is a third more risk to run from disease and death.

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THE FLY SEASON AND THE DAIRY.

The hard frosts have already put an end to the annoyance of dairy stock by flies for this season. But it is timely to look at this subject at this time with a view to measures to be taken hereafter for saving the stock from the annoyance to which it is subjected from this source, and also saving the owner from the loss experienced, which is by no means inconsiderable in a herd of milk cows. From the middle of July to the

first of October the flies are a great annoyance to live stock running at large. The more sensitive and delicately organized they are, the greater discomfort and torment they experience. No class of live stock is more sensitive to this torment than the milk cow, and none should be less exposed to it if her own comfort and the interests of her owner are to be taken into account. The demands upon her are large. Not only must she take food enough to supply the waste of her system and maintain her condition, but a liberal supply to be converted into milk, if her owner is to realize a profit from her. Now a cow cannot do her best, if, throughout the day she is tormented with flies, countless as the swarms that troubled old Pharaoh, and besides they come at just the time when the pastures are the shortest. For several years the writer has practised keeping his dairy stock (never exceeding two cows however,) in the stable during the day, from morning to evening milking, giving a feed of green clover or fodder corn, and turning them out to grass at night. The stable is sufficiently darkened so that they suffer little or no annoyance from the flies and it is no small satisfaction to see them lying down and placidly chewing the cud, when cows in the pastures are tormented almost to distraction by the flies, and his experience is that by far the best results are obtained at the pail by this method. The plan of soiling or partial soiling in place of pasture wholly, or in part, has attracted a good deal of attention of late years among dairymen, and some of the best dairymen have adopted it.

It would not be a difficult matter for any farmer to so arrange matters that next summer he can adopt this plan of stabling the cows during the day. If he commences early in the season a field of clover supplies the necessary food. This can be followed by green oats, sown at intervals, so as to last till fodder corn is in season, which will last till the fly season is over. To be sure caring for a herd of cows in this manner involves a certain amount of labour above that required where they are pastured, but it will more than pay in the increased product, and the manure saved instead of being scattered over the fields, defiling the grass so that the cows will not eat it, is no small item. When turned out at evening they will quickly fill themselves and then lie down for the night. The ground required for growing crops for day feeding will more than be saved in the less amount required for pasture, and leaving out all considerations of humanity to the animals, the farmer who pursues this course will be better off in pocket than under the old system of grazing.

One cause of the bad butter in market is the unclean condition of many farmers' cellars. Decaying vegetables taint the air, and their odours are absorbed by the milk, to re-appear in whatever is made from it. If the meat barrel becomes at all tainted, it should be at once removed. In fact, wherever milk and cream are kept in cellars they should be kept in different rooms from the pork barrels. Readers of the Rural, see that your cellars are clean.

The *Medical Record* makes the startling statement, that looking-glasses are responsible for mercurial poisoning. In two cases given, of a man and his wife, the cause of the trouble was in a looking-glass hanging in the bedroom, the wooden back of which was dotted with thousands of minute globules of mercury. The apartment was heated during the night. In another instance the source of the poisoning was a mirror, forty years old, whose back had become weak, and from whose face the quicksilver freshness was fading. The aged culprits having been summarily removed, their victims speedily recovered.