

eventually come to that, before a really fine article of cheese can be made. It is a very hard thing to make some people believe such little things can produce such great results. The prevalent idea is that, if they can only succeed in getting the milk off their hands, it is all right, although it may injure others, and ruin the reputation of the factory. The man who runs the private dairy has not these difficulties to contend with, at least, not to the same extent, as he has the manipulating of the milk under his own care and supervision. And as soon as the cows are milked he can commence to cool his milk, which is very little trouble if he has the proper appliances for it, which are very simple and easy procured. A day or two in winter will put away ice sufficient for the summer use; and then a wooden tub to set the milk-can in with ice and cold water, and your milk is quickly cooled in hot weather. It should remain there all night, and in the morning pour into the vat; and cool the mornings milk the same way. And with a good cheese-maker you can scarcely fail to make a good article of cheese. But the dairyman has other difficulties to contend with, and a powerful influence to overcome in the marketing of his cheese, although he may have as good, or even a better article of cheese; the buyers are averse to handling small lots of cheese, as they generally get a commission of so much per pound for buying. It is to their interest to buy large quantities at one place. And if they do consent to look at private dairies, they generally want it for about one cent per pound less than they have paid, perhaps, for a factory cheese close by. The home market would probably use all and more than the private dairies can produce. But here again they have to contend against culled factory cheese, that the shippers have refused as not being fit to ship, and are generally offered at a very low rate. As an instance of this, I know a grocery man who purchased a number of cheeses at 10½ cents per pound, when the market price of good cheese was twelve to thirteen cents per pound. And when questioned how he purchased them so cheap? the answer was: the cheeses were shipped to Montreal, and, on examination, they were found too full of skippers and were returned, and consequently had to be sold at a reduced rate. The difficulty of finding ready market for dairy cheese has caused many dairymen to close their dairies and send their milk to the factories. There are other reasons against the private dairies. There are but few farmers, comparatively speaking, that can keep a sufficient number of cows to make one cheese per day of shipping size, and here the factories confer a boon on small patrons. The man who keeps only two or three cows can send his milk in and get his proportionate return equal to the man who keeps forty or sixty cows has. He gets his milk hauled and made up at the same rate per pound. The next thing to be considered is which produces the best financial results, and in order to draw a comparison we will assume A keeps forty cows and B keeps the same number. Each cow is computed to produce during the season 300 lbs. cheese. A sends his milk to the factory, for which he pays \$2.25 per 100 lbs. for hauling the milk and manufacturing it into cheese. 1,200 lbs. at \$2.25 amounts to \$270. B makes his milk at home, and we will suppose he has already a building in which to make his cheese, as most farmers have; he can get his furnishings, everything complete to start with, for \$200; cloth, rennet, salt, wood and coloring for \$40.00; boxes, scale boards and teck \$36; cheese maker for six months, at \$12 per month, \$72; then add eight per cent. on the \$200 for interest, \$16; and ten per cent. for wear and tear of furnishings \$30; now you have a total cost of \$164, leaving a balance in favor of the dairy of \$160. If a building has to be erected \$300 would be sufficient; in that case the profits of three years would clear the building.

The above calculations have been made from my own actual experience. I have, of course, assumed that the cheese in both cases has been sold at the same price; but in case the dairy does not sell quite as high there are other advantages that will more than counterbalance that which I might give were it not for trespassing too much on your valuable space.

DAIRYMAN, Dorchester.

Water Power.

SIR,—I would like to get some information about water power. What is the weight of perpendicular column thirty feet high and one inch square? How many horse-power would six inches square and thirty feet high of water be? How many pounds in one horse-power. Please give necessary

information, or such information you might have at your command, as I have a creek that I wish to turn to some purpose. It has a fall of sixty feet in a few rods.

P. C., Colpoys Bay.

SIR,—Hundreds of families are moving into Muskoka. The roads are very muddy. Commenced plowing on Saturday last, 9th inst.

G. S. Y.

SIR,—Could you inform me whether it would be profitable to raise the Jerusalem antichoke for feeding in the spring. Is so, what cultivation would you give them?

[Yes, in waste corners, where they would not interfere with other crops. Plant as you do potatoes; manure is unnecessary. When grown, turn hogs into the plot, and let them turn them up for themselves.]

How to Make a Cellar Rat Proof.

For all farm buildings it is quite important to guard against the depredations of rats, and by noting their habits we find that they make their entrance to the cellar under the walls, and if the foundation of the cellar walls are such that they can't penetrate them, the cellar will not be infested by them. To have the walls so made will require the farmers own care and aforethought, and the looking after the masons when commencing the walls, for if they even have the solid rock to start their wall on they are most sure to leave spaces between the bottom stones to let the rats pass out and in easily, but in that case if the bottom stones were laid, and space between them well filled with cement or water lime mortar it would keep them out. But we commonly have an earth or gravel cellar bottom, they will require a different management, when the cellar is dug and squared up, then sink a trench one and a half or two feet deep under where the wall will be, and fill it half full of loose flint stone, if they can be got handy, then, after pounding and breaking them up some, finish filling the trench and break up the stones a little more than before, and it will make one of the best foundations to start a wall on, besides being one that the rats cannot get through if the wall is commenced as it should be on it.

Such flint cobble stones is the best when the farmers has them handy, but if not he could use other small stones or the chips from a stone yard either answering the purpose very well. And if the cellar should need a drain it should start from the bottom of this trench, thus insuring a dry cellar bottom.

I have been quite successful in using a similar remedy to keep rats out of an old cellar that was quite overrun with them. I made a trench, one foot in width and depth, just inside the cellar wall, filled it with broken stones, and put into them enough cement mortar to smooth over them on a level with the bottom, and well up unto the bottom of the cellar wall.

This will effectually close up their passage ways, and as they can't enter through this body of small stones, or if they go to dig under them the broken stones will so fill in and obstruct their passage that they have to abandon it and keep out of the cellar.

Batavia, N. Y.

H. I.

SIR,—How much lime is it necessary to put on lime stone soil per acre.

J. L., Garafaxa.

[We have known lime to be applied profitably to lime-stone soil, as the lime in it is not available for the purposes for which lime is applied. Food for plants as well as for man should not only exist, but be in a prepared state, in order to confer the required useful purposes. Sixty bushels of lime per acre would be a good dressing, as lime is used in America.]

Butter.

SIR,—As the season for the manufacture, handling, sale and shipping of this article will soon be on hand again, a few remarks on this subject may not be out of place in your columns. No doubt the experience of last year is still fresh in the memory of nearly all, and in fact, those who are clear of this article may consider themselves fortunate, and if they got out with a small loss they have only shifted the loss from their shoulders to those of some one else. The question is asked me every day what is the cause of this state of affairs? There has been a combination of causes, and this combination of causes might not occur again in many years. Yet in my opinion we should try and get at the causes and apply a remedy. In the

first place the season was unusually favourable to a large make of butter all over the whole of the butter producing countries of the world. The make of Irish, English and continental butter was unusually large. To which has to be added Canadian and American, which were also unusually large. Whenever there is a heavy make there is always a larger proportion of poor butter, and this seems to have been the case especially in Canada. In my experience I never saw as much poor butter nor so large a proportion of white. Another thing too, which has affected the price of our butter, especially the medium is the large amount of butterine which is being manufactured in the States, and shipped to the English markets. This article is taking, to a large extent, the place of our medium and fair butter. I have seen letters from English dealers, who say that they prefer handling it to our butter; that it is better value and more money in it. One dealer who has been in the habit of handling a good deal of Canadian butter did not touch a package last year. The reason he assigned was that he preferred to handle the butterine, and that there was more satisfaction and paid him better. Another thing, too, is that whenever anything is very abundant and cheap, dealers and importers are always very much harder to please, and will find fault, and, in many instances, refuse goods that, were they a little scarce and an upward instead of a downward tendency of the market, they would pass as all right without a word of complaint.

In my opinion, there is a remedy, at least to a great extent, for all this loss, annoyance and trouble. That remedy lies chiefly with the manufacturer and country dealer or store keeper. Let the manufacturer set herself to work to make nothing but a first-class article, and if she is not thoroughly master of her business she had better get posted in some way or other, either by reading and study, or by going to some farmer or dairyman that she knows does make good butter, and learn.

One simple ingredient that is used in the manufacture of butter is sadly abused and misused. I refer to salt. I have seen scores of packages that, it seemed to me, as though the packer of that butter was anything but honest, for, at least, there was four times too much salt. I have drawn scores of packages that I could feel the salt with the troyer, and hundreds that I could grit it between my teeth. Now, to my mind, the packer of that butter could not help but know that he or she was using entirely too much salt, and that of the coarsest and the commonest kind. There is not sufficient importance attached to the quality or kind of salt used. Quantities of butter being packed with our common barrel salt, and often with the common coarse Liverpool. Nothing but the purest and finest salt it is possible to get should be used, and even then that should be thoroughly ground down and pulverized.

Country dealers and store keepers would find it to their advantage to keep the proper article and see that their customers used it, even if they had to give it away. Another trouble with our country dealers is that they do not discriminate in the quality of the butter they buy, nor in the price they pay. This should not be. Butter must and will have to be bought on its merits sooner or later, and the sooner we get down to this basis the better it will be for all parties. Another thing a large proportion of our country dealers are wanting in is a proper place for the handling and storing of their butter.

Let every manufacturer or dealer commence this season with the full determination to improve the quality and appearance of the butter he handles. There has been so much written on how, when and where to make good butter that every one should be familiar with the process.

I have thrown out these few remarks in the hope that they may elicit others from some one else, and perhaps set the ball rolling towards a reformation in this very important branch of Canadian product for I cannot but think that every candid man will admit the necessity of such.

J. SEABURY.

Good for Nova Scotia.

SIR,—I find in the March No. that 'W. P.' of East Zorra, boasts of a pig he killed—ten months old—weighing 390 lbs., and wishes to know if any of your subscribers can beat that. I think I can. I had two pigs of the same litter killed; one at the age of six months weighed, after dressed, 322 lbs.; the other I kept till she was one and a half years old; then killed and dressed her, and she weighed 507 lbs. She had a litter of eleven pigs when she was twelve months old.

S. A., Truro, N. S.