

vantage, but they prefer to import their grass seeds from year to year, as required, from the best English houses in the trade, rather than grow any themselves, for they have no land nor time to spare in growing a few bushels of seed, when they can buy to much more advantage in Britain. The average cost of the best grass seed in Britain seldom goes beyond 1s. to 1s. 6d. sterling per pound at retail, and for our dealers to charge 75c. to \$1 per pound for the same seed is simply prohibitory.

Drying Hay and Grain by Artificial Means.

In our last issue we published extracts from a letter which had been written by Mr. Robert Neilson, of Halewood, Liverpool, England, on this subject. It is a very interesting one, and will bear further discussion, not so much because it is likely to be much used in Canada, as because it opens a new field for enquiry in agricultural matters. We all know that when hay is put together in the stack in too green or too wet a state it will heat greatly, and in some cases burn or char all the centre of the stack black. Most of our old country readers will recollect hayricks in this state, which shows so plainly when the stack is cut down in halves by the cutting knife used for that purpose in the old country. All must have remarked, too, that the outside portions of such ricks are perfectly good. It used to be said that when the hay was not actually reduced to charcoal or a cinder that it was excellent food for fattening cattle. When the dampness has not been sufficient to cause this combustion, but has been too great, the hay is mouldy and dusty, but it is always dry.

All prudent farmers in England, in a damp or catching time construct their ricks and stacks, and even the mows in the barn, with one or more chimney holes made by embedding a large basket—here called a "Willy"—in the stack, building the hay in tight round it, and lifting it as often as the hay came near the top. Others use large sacks stuffed with straw to make the holes or chimneys, as Mr. Neilson did, and where these precautions were taken the stacks and mows were considered as safe from over-heating.

It is, therefore, clear that there is a point up to which the natural heating of the hay, straw, &c., is of good service, and is most useful in drying the hay, &c. Beyond that point, over-dampness produces mischief. If, therefore, in packing wet or green wheat-sheaves into the stack or barn, care is taken to leave interstices between the sheaves by packing them across in several places so as to leave chimneys, no harm would happen from over-heating, particularly if in building the stack or mow proper channels were left at the bottom to these chimneys so as to ensure a good supply of air below. The heated

air in the chimneys would then rise, and be replaced by the fresh air coming in under and through the passages left for that purpose, and a thorough ventilation would be secured.

The same principle is made use of in the storing of grain in large elevators—the grain becomes slightly warm, and considerable evaporation takes place—the bins of grain are at this point let down through the spouts to the elevating machinery and elevated, and a new bin filled. By the time this is accomplished another bin is ready to be operated upon, and thus the entire grain is dried with its own natural heat, and finally rendered fit for shipment, while the same grain, if shipped before this process had taken place, would have been totally spoiled. Everything put together in large masses heats more or less, and in hay, &c., this natural phenomenon can, with judgment, be turned to a most useful account.

Experiments with Superphosphate of Lime.

Mr. Lyman Call, of East Durham, sends a short account of some experiments with superphosphate of lime on various crops. He applied this manure to portions of a field of potatoes, leaving rows unmanured to note the difference. The quantity used was about one barrel to an acre, and it was applied in the hills, about a table-spoonful to each hill. The manured portion exhibited a marked superiority over the other in vigour of stalk during the period of growth, and at harvest yielded one-third more than the unmanured rows. In experimenting with the same fertilizer on meadows, he comes to the conclusion that a barrel of superphosphate will increase the hay crop by as much as a ton to the acre. On wheat he found less marked advantages, and believes that salt is preferable in this case, using about two and a half bushels of salt to the acre.

Early Rose Rotting.

(To the Editor.)

SIR,—A great deal has appeared in the public papers, in those devoted to general news as well as those confined to agriculture, and cognate topics, concerning the good quality and great productiveness of the Early Rose potato. It is therefore all the more necessary that information of a different character concerning the new variety should not be withheld. It has not appeared from any public statement which I have seen that this potato was liable to rot. My experience, therefore, as it bears on this point, may not be without value. I planted this spring four pounds of these potatoes, which I treated in all respects the same as some Early Goodrich planted alongside of them. When taken up about a month ago, I roughly estimated the quantity at four bushels, and on trial

found them to be of first rate quality. The Early Goodrich yielded, I thought, a little better, but were not so good in quality. When first dug I found a very few rotten ones amongst the Early Rose, which were left on the ground, and only those apparently sound were put in the cellar, on a large shelf, spread out so that they were not more than six inches deep. After a time I discovered that there were more showing signs of rotting, and about a week since I had them picked over, when there were about three bushels found to be more or less decayed and putrid. The Early Goodrich were not taken up till some time after the Early Rose; more were found to be rotten at the time of digging, but fewer have decayed in the cellar. Both varieties have rotted much worse than the Garnet Chili. Indeed, I cannot say that I have seen a single one of that variety rotten out of about ten bushels.

To those who may be desirous of trying their luck in an attempt to produce new and improved varieties from the seed, it may be of use to know that very nice plants may often be found in the spring on ground where potatoes have dropped their seed-balls the previous fall, and that these can readily be transplanted. I have this season raised from such plants a number of potatoes three inches in length, and a few even larger. Some were allowed to remain between the rows of field carrots, where they came up, and even under these unfavourable conditions produced tubers of a fair size.

W. O. K.

Whitby, Oct. 21, 1869.

Frosty Lands.

One of the greatest peculiarities about Canadian lands is the liability to local frosts, and these frosts are so exceedingly local as to be puzzling in the extreme. If a farm, after being cleared up, proves to be frosty, the sooner the owner sells it and goes to another, the better. It may, and most likely will, amend in a few years, but in the meantime the owner will have spent and wasted time on it to a poor purpose, which, if spent on a good place, would pay for the freehold. It is doubtless hard for any man, after he has gone through the hard labour of clearing up a place, to abandon it; but he had better do so than remain, if it proves to be frosty.

There are many reasons given for this scourge, and an endless diversity of opinion, but all agree that the only profitable use which can be made of a frosty place is to get it down into pasture, and depend on the dairy and grazing for returns.

Some persons blame the black mucky soil which is so predominant in some places; others say that it is owing to the place being too flat and level and in the neighbourhood of swamps. But whatever the reason is, it is clear that it is only a matter of one or two degrees of heat by the thermometer which makes the difference between a place that is frosty and one that is not. Perhaps the most