a portion of the muriatic acid in the salt to unite with the lime, thereby rendering it more soluble, while the soda left is then free to combine with any acids in the muck, and form soluble salts, thus making the composted material more quickly available as plant food for the crops to which it is applied. It is worth experimenting whether salt, if applied to barn-yard manure by throwing a little over the compost heap or yard once in a while, would make it more valuable and quickly available by the union promoted between the different materials in the manure heap.

Norway Spruce as Hedge Shelter.

Some weeks since I had occasion to visit the nursery gardens at Leslieville, and whilst there carefully examined the various hedges that are planted out, as proof of the efficiency of the various sorts.

The Buckthorn certainly makes a very handsome hedge, but it affords no shelter when most required in winter, and as a farm fence many years must elapse before it will afford protection against cattle; and one great fault all the Thorn tribe have, is that it is almost impossible to mend a gap in an old hedge, caused by accident or otherwise, by planting young quicks, as it is a well known fact that the old plants rob the young ones to such an extent as to seriously dwarf their growth, if not to kill them outright.

Hemlock hedges have a more serious objection; the plants are very difficult to be made to grow, and although the hedge when grown affords good shelter, yet it becomes hollow and bare at bottom in a few years.

Norway Spruce, on the contrary, grows freely, and, from some cause, old plants do not prevent young ones from growing when planted in their vicinity. The expense, however, of Spruce plants at present prices will, it is feared, prevent its general introduction as farm shelter; but for lawn and garden ornamental hedges, fences and shelter, it is altogether unsurpassed. The growth is rapid. If the peculiar growth of the Norway Silver or Black Spruce is noticed, it will be observed that when any one of the end shoots is cut off, two or three will sprout at the next joint to supply the want. Another great excellence is that the growth is only in the spring, so that you need not be pruning several times during the year, as is the case with some ornamental garden hedges, if you would have them look well.

If, when first establishing a homestead, we were to appropriate a few rods of ground for the purpose of growing these plants, together with Horse and Buckeye Chestnuts, Mountain Ash, Locust, and several more of the ornamental trees, the cost would be quite nominal, and in a few years we should have an abundance of the various kinds, to embellish our homes and defend them from the cold winds and frosts, as nothing will defend a garden border from early frost so much as a thick evergreen hedge close to it. The above seeds can readily be procured, but do not on any account trust to the Canadian variety of Spruce; they are worthless for the purpose of hedges, as they will not bear cutting, and get hollow and bare at bottom directly. No other kind will answer so well as the Norway variety.

C.

Selection of Seed.

One of the most important items of farm economy that calls just now for special consideration is the proper selection of seed wheat. Repeatedly during the last two years has the attention of farmers been called to this subject. The results of carefully selected seed have been very forcibly exemplified by the prodigious yields of certain new varieties of grain and roots, such as the Norway oats and Early Rose potatoes. The productiveness of these novelties has not been due to any particular quality of manure used, or any remarkably extra good land, but chiefly to renewed seed. I have myself seen Early Rose potatoes yielding fifteen to twenty good marketable potatoes from one single eye or set, and these potatoes were as large as eggs on the 8th day of June last, and were grown as ordinary potatoes in the open ground, and without extra culture in any way. There are many similar examples that might be cited, but these familiar cases will serve the present purpose.

The principle involved is further illustrated in the case of wild animals. These do not deteriorate or degenerate, notwithstanding the constant intercourse between relations, in fact re-sowing again and again the same seed; and why is this? Simply because the largest, strongest and most vigorous males are always masters, and the poor weakly members are driven away and not allowed to procreate the species. Were it not for this, wild animals would have become dwarfs long since. The law of nature which thus secures the perpetuation of the species in undiminished vigour and perfection is exemplified among the comparatively solitary beasts of prey, such as the lion, as well as among the gregarious tribes which multiply more rapidly, such as the wild deer of our own forests. These all have retained from time immemorial their original proportions and physical development. The only cause that has been found practically to influence size and power is scarcity of food, and occasionally this has exerted a deteriorating effect where civilization has encroached on the natural resources of the wild animal. Now, we may follow out the same train of thought, and apply it to the vegetable kingdom as well as to the animal. But in the case of vegetables there is no passion that compels the weaker to retire. The poor dwindled seed, therefore, so long as it retains its vegetative power, will produce its kind in abundance, but in constantly deteriorating quality. Hence it follows that, in our artificial husbandry, we should select all our best and finest productions for propagation, and reject all inferior specimens as utterly unfit for the purpose of reproduction.

The idea of changing seed is no doubt excellent, and the practice has often been found beneficial; but it may be questioned whether in these cases the benefit is not due to the superior quality of the new seed rather than the mere change. The selection has probably been carefully made from a farm of noted excellence, and more than usual careful culture has been adopted, so that a product of improved quality is secured. The benefit is, however, soon lost by the farmer who trusts alone to such a way of keeping up his supply. No doubt "like produces like," and a fine crop is often due to this course, though generally somewhat inferior to the sample sown; the succeeding crop will probably be reduced in quality and quantity, and ultimately all the original excellence will have disappeared. We need, then, some system, in order to keep up the good qualities of any sample. Admitting the benefit of a change of seed, admitting also that new varieties of seed from hybridization are often valuable, still the most important means at our command is the selecting the finest and best of the crop for the coming season.

Last harvest I carefully examined a crop of wheat, and with a pair of scissors cut off the upper portion of a great many ears. These were threshed out and put by. The middle parts were next cut off, and also threshed and preserved separately. The lower ends were then threshed out, and the samples compared. There was a manifest difference. The product of the top was equally plump, but much smaller, and moreover only contained two corns in a chest. The middle were full and plump, and contained three corns in a chest. The lower was a medium between the middle and top, better in sample than the top, but not as good as the middle; and also many of them had only two corns in a chest. Now, on counting the number of chests used and the number of corns produced, I found that the yield of the top was not only smaller in the size of the grain, but more than one-third less in number, and a proportionate decrease followed the lower parts of the ears compared with the middle.

Now, we cannot suppose that wheat grown during a succession of seasons from ears, or parts of ears, that contained two corns in a chest, would have the same tendency to produce three corns in a chest as that which had previously always grown the largest number. And it hence follows, that it is of great importance to grow that portion of the wheat ear for seed that had previously produced the best quality of grain and the greatest number of kernels. The true way to accomplish these very desirable ends is to follow the course I adopted; but this would involve so much labour that no field of wheat could