

ped amongst them, the one a red kind, and the other is known in this locality as the Early White.

This potato was brought from Scotland, and first planted at Côte de Neiges, over 20 years ago; from that day to this it never produced a single seed. I have planted it every year since. The time for to bring up was very wet—much resembling the spring time for planting; these being the first planted in this field, were the last to being taken up, and so were exposed to all kinds of bad weather—yet when gathered we did not find a single diseased potato in either of the new kinds, but of the old ones there was not a sound one to be found.

Who can reconcile the atmospheric, or insect theory, with these facts—all being alike exposed? It is true the atmosphere has a powerful effect on everything that lives, in certain conditions. It levels in death, frail and consumptive animals and men; while the the vigorous and sound of lung scarcely perceives the difference, and lives on. Why should not the atmosphere have an analogous effect on vegetable as well as animal life? The attacks of insects theory I believe to be rather an effect than the cause of the disease; and though a microscopic fungus is usually found in the diseased potato, yet it is not the less certain that an enfeebled condition of the plants must predispose to the ravages of the fungus. I had two other fields with potatoes—upon one of them I planted the new kind alone; it was only small, but from it we gathered 17 cart loads, and all sound. On the other field I planted a portion on one side with the new kind, and the rest of the field with the Early Whites, except except ten rows in the middle of those which were planted with the new kind. This I did with the intention of observing whether the disease would affect the sound kinds if they came in contact with those already infected. I had some suspicion that it might happen from the few I found in the first year's planting, as also from the way I have seen it always commence. It never strikes the whole field at once, but commences on a small spot, or spots, where the plants are perhaps more predisposed to the disease; and from thence it spreads like wildfire over the whole field, and kills where it goes, except there is something sound and strong to resist it. About the end of August the black spots made their appearance in the Early Whites, and the whole of them, in a few days, were black enough;

the other kind kept their green colour, untill nipped by frost. When taken up we found a few in the rows contiguous to the Whites that were evidently infected—but very few; perhaps not one in one hundred, out of 500 bushels of the White. We could not save over 36 bushels that were fit for planting. I have still a portion of the Early Whites which I intend to plant in spring; but I shall keep them apart from the others, or have them taken up at once should the disease show itself. In 1865, I planted very few of the early sort, and it was only in them that the rot has been seen; our general crop was Garnet Chillies, and the other new kind. We raised one hundred cart loads of them, or 2000 bushels, and have not seen the sign of rot in them as yet. I doubt not that the disease may be communicated by contact, just as cholera and other infectious diseases are communicated to men and animals.

The field in which my first crop of the new potatoes were planted was cleared of the tops, and plowed in the fall, and sown with barley. In the spring of 1864, I visited and examined that part of the field on which the potatoes grew that produced the balls, and found that the seed in the balls that were plowed down in the fall had vegetated, and come up in clusters all over the ground—many of the balls having produced from ten to twenty or thirty individual plants; of course these plants were very small—their leaves were not more than one-eighth of an inch broad, and the root and stem as fine as hairs. No person would have suspected they would produce potatoes except some one that was looking for them: I removed several of those from under the shade of the barley, and planted them on open ground, without separating the cluster, except a single plant which I set by itself. The stalks of those that grew in clusters were very slender, and produced tubers not much larger than beans—the separated plant produced several larger tubers, one of them fully as large as a pigeon's egg.

In the spring of 1865 I planted the seedlings all in one row—the small ones uncut, the largest one cut into seven sets; they were very small—but all come up, cut and uncut. About the same time they came through the ground very small but thrived; by the 1st of September their tops covered a drill $3\frac{1}{2}$ feet wide. I never before saw such foliage on any potatoes whatever;