# THE GLEANER:

## AND NORTHUMBERLAND, KENT, GLOUCESTER AND RESTIGOUCHE COMMERCIAL AND AGRICULTURAL JOURNAL.

OLD SERIES] *Nec aranearum sane textus ideo melior, quia ex se fila gignunt, nec noster vilior quia ex alienis libamus ut apes.* [COMPRISED 13 VOLUMES.

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## Agricultural Journal.

From the London Farmer's Journal.

### THE POTATO DISEASE.

Our readers will recollect, that at the period when the potato disease was first discovered, we recommended Autumn planting of sets, cut from the affected tubers, in order to prove whether, in the first place, they would vegetate; and, in the second, whether, in the event of their vegetating, the produce would be infected. The suggestion has fortunately been acted upon, and the result was made public at the meeting of the Horticultural Society, on Tuesday last, when young potatoes were produced, grown by Mr. Barnes, gardener to Lady Rolle, at Bicton, in which the disease had manifested itself in a manner not to be mistaken; first by the appearance of a brown gangrene on the haulm underground, and in the neighbourhood of the old tuber, and next by rotting blotches on the leaves. These Potatoes had been planted in the autumn. In the month of January "they were as strongly and evenly above ground as I ever saw a field of potatoes in May," are Mr. Barnes's words. The disease was remarked by taking up a portion for transplanting to a hotbed for forcing. Of the samples produced to the meeting of the Horticultural Society, one, and much the worst were the produce of "rather badly affected tubers;" in these the whole of the under-ground haulm was already gangrened and brittle. Another sample, from tubers *supposed to have been sound*, also manifested the symptoms in putrifying blotches on the leaves, accompanied by the underground gangrene.

It appears, also, that plants in the garden of the Horticultural Society, examined on Monday afternoon, were found in the same state, the underground haulm having already begun to decay in blotches. It was added, that these plants were also obtained from diseased tubers, planted for the express purpose of watching the progress of growth. No trace of fungi could in their instance be discovered on the decaying spaces after the most careful examination of some hours' duration; but a white moldiness had manifested itself on the stems sent up from Bicton. It is a singular fact that some of Mr. Barnes's potatoes had formed tubers and roots, without haulm or leaves; they are of the sort known in the West of England as "Bob and Joan's," and one of them although at a first view apparently sound, become black throughout, after a days exposure to the air, whilst others when taken out of the ground, were decaying on the surface, and a few had quite rotted away.

Several communications to the same effect have reached us from correspondents, and, therefore, although we think it probable that liming the sets before planting might prevent the mischief, we caution our agricultural friends to be most careful in the selection of their seed potatoes, rejecting all that have grown in districts and fields where the disease had extensively prevailed, and planting in light soils such as have been produced in clay lands, and *vice versa*. The wisest plan, however, is to adopt means to render the country independent of the root. Land in a fit state to give a full crop of potatoes will surely yield a large return of wheat; with wheat, therefore, let it be sown, or even with rye, barley, or oats; anything, in short, fit for the food of man, rather than risk losing the produce of it altogether.

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*Soot as Manure for Potatoes.*—In reference to the disease which has affected potatoes, it is stated that, whilst dung, guano, lime, and other manures produced many diseased potatoes, almost all were sound in each case where the soot was employed, and the quantities were among the highest of all. This is not surprising because soot is both stimulant and antiseptic; and it is, therefore, particularly suitable to the present emergency, when there is reason to fear that we may be putting fungus or putrefaction into the ground with the seed. The quantity of soot may be ten double bushels an acre, mixed with ashes, charred turf, or refuse, and, if far from the sea, salt may be added.

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*The Potato Disease.*—The *Gardeners' Chronicle* states that the potato disease has shown itself extensively amongst the growing crop, both forced and in the open ground. We believe the fact to be so, but are glad to find, by a communication from Mr. Stephen Barnes, gardener at Apsley Park, which appears in the United Gardeners' and Land Stewards' Journal, that the very simple application of a little newly-slacked lime strewed over the growing crops is a perfect remedy for the evil. Still, however, we repeat our advice of last week—not to trust to this root for the food of the people. Rye, oats, and barley afford much more sustenance, and can be depended upon.

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From the Quarterly Journal of Agriculture.

*How to Raise Good Seed Potatoes.*—It is a well ascertained fact, that potatoes grown on highly cultivated land for a number of years, without change of seed, became weaker each successive year, and, if continned, would probably become at last quite unproductive; hence the necessity and advantage of change of seed from mosland, or rather land recently brought into cultivation, and new to the growth of the potatoe. Farmers in districts long cultivated, proceeding on this principle for more than twenty years, required only to get a few bolls of potatoes grown on such land for seed, with which to raise on their own farms seed for this succeeding year; and from the then comparatively small quantity required there was no difficulty in procuring the necessary change. Now, however, it very different—farmers have to bring their whole seed each year from such land, and the demand for it is, therefore, now so much increased, and the growing of it has become so profitable, that instead of being raised on new land, it is produced where the soil, by the progress of improvement in husbandry, has fast become highly cultivated as early districts; and it must, therefore be obvious to the practical farmer, that potatoes grown on such soil, which though new twenty years ago, being not so now, will be generally deteriorated as seed, and more fit as an article of food. This circumstance, I consider, satisfactory explains the cause of the failure in one field and the success in another, as plants, from such seed as has had its productive powers weakened by being repeatedly grown on improved land, are more liable to injury during all the stages of its growth than those from seed grown only on new land. Farther, I think this circumstance, considered in connection with the state of the weather throughout this season, may explain the recent more general failure. The continued damp dull weather continued during a large portion of summer was succeeded by clear sunshine and heat, and shortly after by cold and continued rains, all which, acting alternately on the refined and therefore weak seed materially affected the functions of the stem, and brought on premature ripeness in the tuber, which was immediatly followed by the disease or decay; for it is known that in those fields where the stem had strength to withstand the sudden and trying changes of the weather, and remained green and healthy till the usual period of lifting, the crop was comparatively uninjured. The weaknes of the seed, however, is, I think, to be attributed not so much to being raised on too highly cultivated land, as to the erroneous manner raising it. It is usual to plant potatoes four or five inches deep, and earth up the plants as they grow, to prevent the tubers being exposed to light and air. This process certainly improves the potato as an article of food, but, according to my experience, it weakens its productive powers too much to continue its species vigorously; and plants from seeds so grown are very susceptible of injury in unfavourable seasons or soils.

The remedy I venture to suggest is simple and practical and within the reach of almost every farmer, and of such a character that it may be easily tried to a greater or less extent, according to circumstances. I propose that a portion of land most suitable to the raising of seed potatoes should be selected, and if it requires manure, let it be applied, and ploughed in during the autumn or winter months. In the spring, let the ground be wrought into a friable condition, and plant the seed the depth of two inches, but no more. During the summer, let the ground be kept loose and free of weeds, but do not earth up the plants, and in autumn lift the crop as soon as the shaw or stem begins to lose its greenness. By this method the crop will be as large as by the ordinary one; but what is of more importance, the germinating powers of the potatoe will be found greatly improved and invigorated; for the greater number of the potatoes, having grown above ground, will have the advantage of the light and air, to form and strengthen the "buds" or "eyes," and, therefore, will be much hardier, and not so easily injured by either rain or frost as those grown in the ordinary way. This plan approximates in some respects to the state in which all tuberous plants grow naturally, and in questions of this kind it is both usual and wise to inquire how nature will find that, in natural plants, tubers are not buried four or five inches deep, and then have two or three more inches earth drawn over them as they grow; this is the work of art, and quite necessary in the case of the potato to make it fit for food, but highly injurious to it for seed, which I will further prove by the following account of my own experience:—

Before I adopted the above method, I had, for several years, failures in my crops of early potatoes, more especially in the ashleaf kidney and the Adelphi early; but observing that such potatoes as were accidentally grown above ground, exposed to the light and air, had well formed "buds" or "eyes," which were strong and vigorous I resolved to adopt the said method of growing my seed, and have done so for the last four years, and the result is, that my crops are considerably larger, and have no blanks.

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*To raise New Sorts of Potatoes.*—A correspondent of a Gloucester journal gives the following instructions for this purpose:—"As it appears that the disease (arising from a cold wet summer) may frequently occur, it is desirable for every grower to keep up a stock for the seed itself, which is not attended with much trouble. When the haulm withers, the potato-apple is ripe; collect them and lay them on boards, exposed to the sun and air, to get soft; mash them gently with the hand in water till the seed seperates from the pulp, drain off the water through a sieve or colander, spread the seeds on a cloth to dry, and put them in paper bags in a dry place till about the middle of May, then sow them like other seed in a bed. When about three or four inches high, remove them into rows with as much earth as will adhere to them, four or five inches apart and to the rows fifteen or sixteen inches apart: mould them as their growth, requires, and as the haulm withers in autumn, collect the young potatoes carefully and set them whole next spring, leaving plenty of room between the rows for the activity of sun and air. The variety, quality, and weight of potatoes thus obtained, will amply repay the grower for the trouble. The early sorts will show themselves by the early withering of the haulm."

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*Soap as a Manure.*—Having seen in some late number of your excellent paper a discussion on the value of soap as a manure, I am inclined to give you my experience in this matter. I am a silk dyer, and use about 15 cwt. of soap weekly, to discharge the gum and oily matter from the silk before dyeing. I also use about 1 cwt. of soda to 3 cwt. of soap, w hich I presume unites with the oily m atter of the silk, forming a species of soap; the result is, that I produce from 4000 to 6000 gallons of strong soap suds per week, and having a small farm, I have latterly applied to the whole of this to my land, and its effect is most extraordinary. My experience in its use has been only one season, and I cannot therefore give any comparative results, but I consider it more powerful than any manure that I am acquainted with. If any of your readers will do me the honour to come and see my land next spring, when vegetation begins to move, they will have ample evidence of the value of soap as a manure; and if farmers were allowed the drawback of the duty on soap used as a manure, in the same way that we manufacturers are allowed it by the government, there is no doubt in my mind that soap would soon supersede the use of guano.

P. S. There is a very large consumption of soap by the manufactures of cloth, linen, silk, and cotton goods, and the duty is remitted to such customers; the farmer has surely an equal claim, as he is the manufacturer of food, and they of raiment. The soap which I use on my land is duty free, because I employ it as a manufacture.—Thomas Dalton, Coventry, Dec. 10.

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From the Albany Cultivator.

*Soil for Gardens.*—Away from cities, the comfort of families depends much on the kitchen garden. The soil ought to be dry, rich, and easily pulverized. In this district, it is generally a heavy loam; and other means besides the plow, spade, or hoe, should be used to subdue its stubborn nature. In all cases it should be well drained. All surplus water, whether on the surface or below, should be led off. Every tendency to poaching or baking should be prevented. Some of you will understand the benefit of ridging the ground in the fall, so that the coming frosts may press in between the particles of every clod, and thrust them asunder; but many persons have yet to learn that the sweepings of the blacksmith's shop, chip dirt, and old plaster from walls and ceilings—too often thrown into the road—are excellent manures, and at the same time keep the soil loose and mellow.

*Carting in sand* is another labor-saving operation. It will last for ages, and prevent many a hard thrust of the spade, or stroke of the hoe. Let me suggest, however, that a stiff soil is broken most by *coarse sand*; and from observation, I incline to believe that one load of this kind will do as much good as several loads where the particles are very fine.

The effect of *blacksmith's cinders* when broken and applied; and *burning the soil*, which I have also tried to some extent, are both remarkable for loosening and fertilizing at the same time, and it may afford some encouragement to reflect that these are permanent improvements—to benefit posterity as much as ourselves. The crops from old coal pits, burnt brush heaps, or the sites of old buildins, will sufficiently illustrate these remarks.

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*Feeding Poultry, &c.*—What do poultry of all kinds, when fatttening, particularly require?

*Ans.* Three things are necessary to perfect success; first *meat* (fat pork cracklings:) second, charcoal, broken very small; third, gravel and water.

What are the best articles of food?

*Ans.* Cornmeal wet with milk and mixed with charcoal; wheat screenings and fat pork, or fresh meat or cracklings.

What is the best cure for the pip in chickins?

*Ans.* A piece of fat pork as large as can be thrust down the throat, is a simple and *certain* cure.

The above is not theory but experience, which any man may easily make his own.

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*Killing Rats.*—Mr. Alex. Leeds, of St. Joseph, Michigan, says:—"I can give your correspondent G. E. J., Binghampton, *one remedy* for killing *rats*, that I know from experience to be ef-