

THE FARMERS DEPARTMENT.

SPEED THE PLOUGH.

Speed the plough! O, speed the plough!
The sun is up, the time is now,
Drive on my boys, God speed the plough.
Now the green blade, peeping low
From the fast dissolving snow,
Tells the gladdened farmer how
Heaven's aid can speed the plough.
Harvest home! O, hear the sound,
And each jocund tale you round;
The proudest Lord might envy now
The merry man who guides the plough.
The merchant's gold, the miser's hoard,
The sailor's helm, the soldier's sword,
The pop's rattling iron, and his bow
To the affected loom, and gliding plough.

From the Transactions of the London Horticultural Society.

ON THE CULTURE OF THE POTATO.

By Thomas Andrew Knight, Esq. F.R.S. &c. President.

Whatever may have been the amount of the advantages, or injury which the British Empire has sustained by the very widely extended culture of the Potato, it is obvious that under present existing circumstances it must continue to be very extensively cultivated; for though it is a calamity to have a numerous population who are compelled by poverty to live chiefly on potatoes, it would certainly be a much greater calamity to have the same population without their having them to eat.

Under this view of the subject, I have been led to endeavour to ascertain by a course of experiments, the mode of culture by which the largest and most regular produce of potatoes, and of the best quality may be obtained from the least extent and value of ground, and having succeeded best by deviating rather widely from ordinary rules of culture, I send the following account of the results of my experiments. These were made upon different varieties of potatoes; but as the results were in all cases nearly the same, I think that I shall most readily cause the practice I recommend to be understood by describing minutely the treatment of a single variety only which I received from the Horticultural Society, under the name of Lanckman's Potato.

The soil in which I proposed to plant being very shallow, and lying upon a rock, I collected it with a plough into high ridges of four feet wide, to give it an artificial depth. A deep furrow was made along the centre and highest part of each ridge, and in the bottom of this whole potatoes, the lightest of which did not weigh less than four ounces were deposited, at only six inches distant from the centre of one to another. Manure, in the ordinary quantity was introduced, and mould was added, sufficient to cover the potatoes more deeply than is generally done.

The stems of the potatoes, as of other plants, rise perpendicularly, under the influence of their urtering guide, gravitation, so long as they continue to be concealed beneath the soil; but as soon as they rise above it they are to be considered as extending under the control of another agent, light. Each incline in whatever direction it receives the greatest quantity of that fluid, and consequently each avoids and appears to shun the shade of every contiguous plant. The old tubers being large, and under the mode of culture recommended, rather deeply buried in the ground, the young plants, in

the early part of summer, never suffer from want of moisture, and being abundantly nourished, they soon extend themselves in every direction till they meet those of the contiguous rows which they do not overshadow on account of the width of the intervals.

The stems being abundantly fed, owing to the size of the old tubers, rise from the ground with great strength and luxuriance, support well their foliage, and a larger breadth of this is thus, I think, exposed to the light during the whole season, than under any other mode of culture which I have seen; and the plants acquire a very large size early in the summer, the tubers of even very late varieties arrive at a state of perfect maturity early in the autumn.

Having found my crops of potatoes to be in the last three years, during which alone I have accurately adopted the mode of culture above described, much greater than they had ever previously been, as well as of excellent quality, I was led to ascertain the amount in weight, which an acre of ground such as I have described, the soil of which was naturally poor and shallow would produce. A Colony of Rabbits had, however, in the last year done a good deal of damage, and Pheasants had eaten many of the tubers which the Rabbits had exposed to view; but the remaining produce per acre exceeded five hundred and thirty-nine bushels of eighty-two pounds each, two pounds being allowed in every bushel on account of a very small quantity of earth which adhered to each of them.

The preceding experiments were made with large and productive variety of potatoes only, but I am much inclined to think that I have raised, and shall raise in the present year, 1828, nearly as large a produce per acre with a well known small early variety, the Ashleaved Kidney Potatoes. Of this variety, I selected in the present spring the largest tubers which I could cause to be produced in the past year; and I have planted them nearly in contact with each other in the rows, and with intervals, on account of the shortness of their stems, of only two feet between the rows. The plants at present display an unrivalled degree of strength and vigor of growth, arising from the very large size (for that variety) of the planted tubers; and as large a breadth of foliage is exposed to light by the small as could be exposed by a large variety; and as I have always found the amount of the produce under any given external circumstances to be regulated by the extent of foliage, which was exposed to light, I think it possible that I shall obtain as large or nearly as large a crop from the small variety the present year as I obtained from the large variety in the last. I have uniformly found that to obtain crops of potatoes of great weight and excellence, the period of planting should never be later than the beginning of March, in [England.]

Postscript.

March, 23, 1829.—Somewhat contrary to my expectations, the produce of the small early potatoes exceeded very considerably that of the large one above mentioned, being per acre, 665 bushels of 82 pounds. It is usually calculated by farmers that eighty pounds of potatoes though eaten raw after they have begun to germinate, will afford two pounds of Pork; and I doubt much if the haulm and the whole of the manure, made by the tubers, are not stored in the ground, which it would be in any degree impoverished. I am not satisfied that it would not be enriched, an important subject for consideration in a country of which the produce is at present unequal to the support of its inhabitants,

and which produce I confidently believe and fear is growing gradually less while the number of its inhabitants is rapidly increasing.

USES OF THE POTATO.

The different uses to which the potato may be applied are the thirty-one following.

1. 2, 3. Its scum in a green state is good food for cattle and sheep, dried and burned the ashes afford potash or will form artificial nitre beds.
4. The tubers in a frozen state afford starch.
5. Potatoes young or old, may be eaten roasted, steamed or boiled.
6. They may be made into bread, with one third part of flour.
7. Soups may be made of them, they may be roasted or fried.
8. With the flour of potatoes every description of pastry may be formed.
9. Converted into fecula or starch or cut into slices, and dried by steam, they may be preserved for any length of time.
10. Vermicelli, and tapioca, articles which may be made of the flour or starch of any plant may of course be formed from them.
- 11, 12, 13. They are mixed with gray; they are made into paste and starch.
14. Mixed with stucco they form an improved plaster.
15. They nourish every description of domestic animal, and during the winter are eaten by hares and rabbits.
16. Cut into slices, and thrown in a certain proportion into caldrons of boiling water, they prevent the sediment of water from adhering to the sides and bottom of such vessels.
17. They form a wash, or tinct plaster for building, which may be colored by soot, ochre, or other colors, as washes of lime are colored in this country.
18. Roasted to a brown state, and ground to powder, they make a very good coffee.
19. Crushed they are employed for whitening linen and other cloth.
20. The water expressed from bruised potatoes is a rapid promoter of the germination of seeds.
- 21, 22. The fecula or starch, with sulphuric acid, is converted into syrup, from which a species of sugar may be obtained, analogous to cassonade (moist sugar.)
23. With soot and other mixtures this syrup makes an excellent blacking.
24. Crushed potatoes, or their fecula will afford spirit by distillation.
25. Potatoes may be cultivated in caves and cellars, which resource might have saved Missolonghi. We are rather surprised at this remark of Messrs. Payen and Chevalier, as every gardener knows that the young potatoes formed in cellars are merely a remodification or transfer of the nutriment contained in the old potatoes, and as this transfer is always made with great loss of nutriment, if the besieged at Missolonghi had enough of potatoes to plant their cellars, it would have been more profitable for them to have eaten them as they were, than to have encouraged them to form new tubers.
- 26, 27. The water contained in the tubers of the young potatoes may be employed in drying gray, and the blossom forms a beautiful yellow.
- 28, 29. The water of potato blossoms cleansed, of cotton wool or silk, and assists in the manufacture of artificial soda.
30. A potato die cures the scurvy.