

seasons, and by it turn the earth to the uses for which it is intended, and avoid those evils which the wretched system of a continual growing of wheat is certain to insure, which has reduced the average yield in parts of the neighboring State of New York to 10 bushels per acre, and taking the whole State, the average to under 15 bushels; and even the great State of Ohio, it is said, will soon have to become an importer of food. In Scotland, where turnip husbandry is so much considered, the average yield of wheat in the 32 counties is over 28 bushels per acre, and this includes the northern counties and the Orkney Isles. I allude more particularly to Scotland, as that country, through the Highland Society, affords agriculturists a large and valuable amount of useful information.

The question, can you grow roots in this country, can you harvest them and store them? I shall not discuss. I am fully impressed with the opinion that we can do so, and that turnip husbandry is the sheet anchor or *sine qua non* of the modern alternate or convertible husbandry, that the operations of a farm cannot be conducted with profit without it. For the production of one description of food produces another,—vegetables are converted into mutton and beef to be again returned to the land in the shape of manure. Production and reproduction thus follow each other, ill conditioned farms made to produce waving fields of grain, the cultivated grasses to take the place of those which possess no nutriment and render no return. This is the return that turnip husbandry has wrought in Britain, where great flocks of sheep and improved breeds of cattle are spread over the country, and whose farmers make yearly profits exceeding the rent rolls of some of the Princes of Europe.

In Ireland the increase is most striking with respect to root crops. No longer ago than 1847 the proportion was an acre of green crops to every four acres of corn (wheat). There is now, in 1856, an acre of green crops to every two acres of wheat. The value of live stock in 1841, was computed to be £19,339,000. In 1855, it was computed at £33,508,010. Thus it is where turnip husbandry exists and the culture of roots is considered, the toil of the husbandman receives a return. Where the culture of roots is neglected we descend to 10 bushels per acre of wheat, and the toil of the husbandman receives no return.

A discussion of some length then took place upon the subject of the paper.

Mr. Armstrong observed that the proper preparation of the land, and the selection of the time of sowing turnip seed were very important points. A few days might make all the difference between securing a good crop and a failure. He would also recommend sowing plenty of seed, so that enough of the plants would be able to get away from the fly. As a general rule he found from the 15th to the 20th of June the best time for sow-swedens, if the condition of the ground and weather were favourable. The quantity of seed he used per acre was about 2lbs. He would have been glad if Capt. Beresford had entered a little more minutely into particulars of the mode necessary to cultivate successfully in this country.

Capt. Beresford observed, as to the time of sowing, that the fly was not always regular as to the date of its appearance or disappearance. He generally endeavored to finish sowing by the 20th of June, considering that the most favorable season.

Mr. Denison observed that though only perhaps an amateur farmer, he had cultivated turnips successfully on a small scale. He sowed in drills about 27 inches apart. He thought that farmers should not allow their turnips to be lost for want of rain, but if at the critical point, in danger from the fly, and no rain came, they should water them artificially. This might be done at a trifling expense, by mounting an old wine cask upon wheels, with a proper distributing apparatus attached. He had practised this plan with great success. He had not, however, used simply water, but liquid from a tank in the barn yard, and this he thought better, as it pushed the young turnips forward out of danger.

Mr. Fleming observed, as to the distance of the drills, he had found while judging the crops entered for the Etobicoke sweep stakes last fall, that the turnips sown in drills about 27 inches apart appeared to be the best accommodated with, the amount of space they required. Those a greater or less distance apart, did not appear to be so good.

Professor Buckland observed in reference to the liquid manure cart touched upon a very important point. The getting into the rough leaf as every body knew, was the critical point in the growth of the turnip. If it hangs fire then it will never get over it. If the soil is very dry, so that the extremely minute and delicate roots of the young plant