

"It is in this point of view that thorough drainage has most important bearings upon the question of acclimatization; because, although it appears impossible to adapt the constitution of a plant to the unfitness of climate, it does not seem impossible to improve climate till it suits a crop which, in its unimproved condition, it would refuse to sustain. By attention to this important fact, a variety of plants have been cultivated in the open air at Bield, in East Lothian, although, in the absence of such precautions, they could not be preserved without protection, even as far to the south as the neighbourhood of London."

"To what extent exotic field crops can be introduced into English cultivation, depends entirely upon such considerations as these. So far as climate is capable of amelioration by thorough drainage, success may be looked for; but all the plans for acclimating plants by mere seed-sowing must, we fear, result in failure. The amount to which climate may be so improved will serve as a guide to the probability of cultivating advantageously a new crop; and may show how little probability there is of any advantage following the introduction of the products of countries much warmer than this. Our summer temperature may be made high enough for certain annual crops which come quickly to hand, such as millet, chick peas, and salla or French honey-suckle; but the small extent to which our climate can be improved, entirely forbids the hope of ever cultivating such plants as yams, arracacha, tuberous cannae, or the like."

We may just observe, in conclusion, that the first part of this Cyclopædia, in addition to a number of articles on plants, insects, and subjects of a practical nature in the business of agriculture, contains a simple and lucid treatise on Farm Accounts, a matter too much neglected, we fear, by many farmers; and another on Chemical Analysis, by Dr. Lyon Playfair. We like the latter, because it is concise and does not mislead farmers, by holding out to them expectations of advantages from the study and practice of chemistry, which they have, as yet, but a very slender probability of realizing. This part contains an Introductory Essay, on the history and progress of agriculture, from the earliest ages to the present time; a piece of writing, which we do not recollect having seen equalled in the happily increasing range of agricultural literature.

WHEAT CULTURE.

We copy the following report of a discussion on wheat, which will be found highly interesting.—[Ed.]

The discussion in relation to the culture of wheat, which took place at Albany, at one of the weekly meetings held during the past winter, brought out some useful facts which we think are not generally known, and their insertion in our pages may interest and benefit our readers.

Mr. Brewer, of Tomkins county, said he had cultivated wheat for more than twenty years, and would give some of the results of his experience. A part

of his farm, which in 1830 was an open common, has been wholly devoted to wheat and clover since that time—having produced thirteen crops of wheat and eight of clover. The soil is rather a gravelly loam. His farm is on one of the hills, towards the head of Cayuga Lake, which it is said were burned over by the Indians every year. He had made various experiments in ploughing at different depths—from three inches to seven inches—and has always had the best crops where the furrows have been the shallowest. Usually ploughs but once for wheat; has sometimes ploughed in May, but had no better crops than when he ploughed in September, just before sowing. The yields he had obtained were from sixteen to twenty-six bushels per acre. On new lands—stiff soils for instance, it might be necessary to plough more than once for a wheat crop, and in such cases it might be better to plough deep the first time.

Mr. L. stated that he had made some trials with various quantities of seed per acre, as $1\frac{1}{2}$, $1\frac{3}{4}$, 2 and $2\frac{1}{2}$ bushels, and had usually got the best returns from the latter quantity; that is $2\frac{1}{2}$ bushels of seed had given from two to three bushels more yield per acre than two bushels of seed, and six bushels more than $1\frac{1}{2}$ bushels seed. He had not been plagued with rust but once in twenty years. Was seldom annoyed with the Hessian fly or with the wheat midge; but the wheat has often been much injured by these insects in valleys, when it was not noticed on the hills. Has commenced sowing wheat in drills; sowed a part of his crop in this way last fall; the drilled portion looked much the best at the setting in of winter. Saw two fields of wheat last year, adjoining each other, on one of which the seed was drilled in, and on the other sown broadcast; the drilled yielded much the best. Drilled wheat stands the winter best; the small ridges between the rows are constantly working down, and keep the roots of the wheat covered.

Mr. B. spoke of the Etrurian wheat, which had lately been introduced, and had so far done well—it weighed sixty-four pounds to the bushel.

Mr. Lawrence, of Yates county, differed from the preceding speaker in regard to the proper depth of ploughing. The remarks in favour of shallow ploughing, seemed strange to his ear. The farmers of Yates improve their land by deep ploughing. The farm which he occupied had been rented for many years previously to its coming into his possession, and had been ploughed about four inches deep, and produced twelve to fifteen bushels of wheat per acre. He at once ploughed it six to seven inches deep, and raised the first season thirty bushels of wheat to the acre. It was the general expression, in his county, that deep tillage was the best for all crops.

He had tried sub-soiling, first ploughed with a common plough, seven inches, then run the sub-soil plough the same depth—cross-ploughed before sowing wheat; has invariably had the best crops where he has sub-soiled; has sometimes sub-soiled a portion of a field and left the remainder ploughed only in the ordinary way, and the yield is always in favor of the sub-soiled part. His is a strong lime-stone