

dually to the valley. On the low land along the river, first rate Cheddar-cheese—formerly Double Gloucester—is made; on the hill, the young stock, &c., are pastured; and just below the hill, half way down, runs a belt of land, not certainly more than one hundred and fifty yards wide, which is the only part of the whole 2,000 acres that will fatten a beast so as to finish it off for the butcher.

Roots.—Topping and tailing the root-crop here seems an expensive job. In England, it costs \$1.36 cents an acre, which, allowing for difference of wages, would be equal to, say, \$2.00, here. The machine for doing the work by horse-power is not yet sufficiently perfected to be trusted in all soils, but it is pretty near the mark, and a great boon it will be to the large graziers on heavy land. Figure to yourself, oh reader, that on the farms of Sam. Jonas, at Ickleton, Cambridgeshire, there used to be, annually, 400 acres of roots grown!

Guernseys.—I was glad to see that at the exhibition of the county of Argenteuil the Guernseys were shown by no fewer than four different breeders; but I was not glad to see that prizes were offered at the same show for Grade-bulls! I fancied that the Council of Agriculture had refused to allow any public money to pass to those societies that encouraged the exhibition of any but thoroughbred sires. If it is not so, the sooner the Council takes some such step, the better for the country.

Harvest in England.—After all said and done, the harvest in England is a fair one. The latter part of the in-gathering was carried on in very beautiful weather, and consequently a large proportion of the wheat-crop is fit for immediate threshing, instead of its having to wait in stack until the wind and frost of winter seasoned it. The average yield of wheat will be about 28 imperial bushels an acre, only one bushel less than the normal quantity. There is little doubt that in the wonderful season of 1887, the yield was 34 bushels all over, or three and a-quarter times as much as that of the United States! The yield of this crop in Scotland is, on an average, five bushels an acre more than in England, and the reason is clear: in Scotland, wheat is only sown on the best land in the best condition, whereas, in England, it is sown every fourth year on all soils, good and bad, invariably, I may say, following the one-year clover-ley, oats taking its place in the Northern kingdom. In 1854, the county of Norfolk alone produced 1,290,373 bushels of wheat more than all the land north of the Tweed, and out of 1,005,135, the total number of acres under tillage in the county, there were 202,971 acres in wheat: more than one fifth of the whole acreage. By the bye, in the same year, there were grown in Norfolk 178,000 acres of mangels and turnips, which, at the rate the root-crop costs here to single, would have necessitated an outlay on the part of the farmers of the county of \$2,136,000. Of course, this is not a fair statement, as wages in England are about 30% lower than in Canada. The real cost of the singling of the above number of acres of root-crop was, probably about \$240,000. Norfolk has always been a well-farmed county since Mr. Coke began the well-known "Norfolk-course" of roots, barley, seeds, wheat, and it has not fallen behind of late years as the averages below will show.

Wheat per acre.....	30	bs.	1	pk.
Barley.....	38	"	2	"
Oats.....	46	"	0	"

Creditable work for a county the greater part of which is a barren soil. A yield of 30 bushels an acre of wheat over an extent of more than 200,000 acres—including the chalks,

hungry gravels, and blowing sands—is a decent crop and shows what good farming has done for the district. There is but a small portion of Norfolk that can be considered as naturally adapted for wheat, and it is therefore the more creditable that the farmers have produced such a yield. In 1805, there were only 200,000 bushels of wheat sold in the Norwich market, and in 1868, the number of bushels disposed of there had been raised to 1,360,000. In fact, the change of cultivation and the use of linseed-oak as a cattle-food and of rape-cake as a manure, had converted a rye-growing district into one producing an abundance of the finest wheat and barley in the world. Mr. Barnard astonishes people sometimes by saying that the agricultural produce of the Province of Quebec may be tripled. I see no reason to doubt the statement, considering what has been done before in other parts, even on the "vile sands of Sorel," as they are called by those who know nothing about them.

Basic Slag.—Several experiments have lately been tried in England with basic-slag as a source of phosphoric acid. In 1886, it was compared with superphosphate—26% soluble in the proportion of 560 lbs. of slag to 448 lbs. of superphosphate, on a piece of swedes, with the annexed results:

5 cwt. basic-slag....	15	tons	2	cwt.	per	acre.
4 " superphosphate.	12	"	5	"	"	"

On a pasture-field in Cheshire, 5 tons were applied, at the rate of 5 cwt. per acre, in early spring. The field was not mown, but the beneficial effects of the slag were most clearly seen in the different appearance of the grass where the slag was applied, and in the marked partiality which the cattle showed for that part of the pasture which had been so manured. Professor Kinch, at Cirencester, Mr. Warrington, at Sir John Lawes', and Professor Wrightson, at Salisbury, have nothing but good to say about this waste-product of the smelting furnace, as supplying phosphoric acid for the use of plants. As the acid in the slag is of course in an insoluble state, it should be ground very fine—the whole should pass through a sieve with 100 wires to the linear inch, that is, 10,000 meshes to the square inch. I am writing to Messrs. Downes & Co., Liverpool, to find out all about this new manure, as up to the present time I have had no information concerning the state of acid, whether crystalline or not. It ought to be very cheap, as the supply must be practically unlimited. I should feel inclined to apply it in autumn.

French experiments.—Some simple, but very satisfactory experiments have been tried lately in the "fields of demonstration" of the Department of Vienna, France. At St. Julien Lars, the wheat generally grown in the district was tried against Hallett's pedigree wheat, both with and without manure, the result being very much in favour of the native kind in both cases. The manure used was as follows: 12% of phosphoric acid (no quantity per acre mentioned) and 5% of potash, applied in the autumn, and 200 kilos. of nitrate of soda per hectare, = about 170 lbs. per acre, put on in spring. The whole cost not quite 94 francs, and the extra yield of the native wheat was worth 166 francs = 67 francs or rather more than \$13, an acre.

In the Canton of Charroux, Shireff's wheat was tried against the native sort. The soil being clay, no potash was used, an agreeable confirmation of my idea on the subject, but otherwise the same manure as before was applied. The Shireff wheat yield considerably more on both manured and unmanured plots than the native. The increased yield due to the 91 francs' worth of manure being 294 francs for the native and 314 francs for the Shireff's. Our old English