The beets were grown as the usual practice is for growing mangels; season, from late April to early May; cost, much the same as for mangels, except that the lifting and cleaning of the roots were more costly; 8 to 10 pounds of seed to the acre was sown, and the were either hand-pulled, forked, or spade-dug.

In the year in question, the average yield in England of the mangel-crop was 17½ tons to the acre, and the yield of the beets on the plots mentioned in the report 16⅓ tons.

But the 65 growers of the beets on the experimental plots state that in only 3 cases did their mangel-crop fall below 20 tons to the acre, running from that to 40, and, in one case, to 60 tons, the average being 26⅔ tons, by the side of which the 16⅓ tons look but a mean result.

The average quantity of sugar per cent of the juice is given as 15.65; the average quotient of of purity as 85.19; and the average quantity of sugar in 100 parts of the roots as 14.48. Still, somehow or other, we do not think that the general opinion among farmers in England seems to be in favour of the cultivation of the sugar-beet.

Charlock again.—Heaps of experiments, on the destruction of wild-mustard by spraying with sulphate of copper solutions, continue to be reported in the English papers. Some, though a minority, of the experimenters say that it has failed on their land; that although the charlock was checked it afterwards received and even grew with greater vigour after the spraying.

But the majority, comprising members of the agricultural schools, colleges, and societies, who are experimenting on a large scale, report highly in favour of the method.

In Staffordshire, on farms placed by their occupants at the disposal of the "Agricultural side" of the Grammar school, at Brewood, the spraying was carried out in different plots while the charlock was at various stages of growth, as follows:

FARM A.—June 1st.—Charlock about 2 in. high in late sown barley was sprayed, with the result that after a week had elapsed scarcely a charlock plant was to be seen on the infested plot, though later a few fresh seeds germinated, causing the growth of some few charlock plants. The field shows a green strip where the spray was applied, while on either side of this the field is yellow all over, the charlock showing as thick as possible. The farmer himself said no damage was done to the barley, and was so much pleased with the result that he decided to spray all his spring corn.

FARM B.—June 5th.—A field was selected where the charlock plants were very strong, just in full flower in barley, and considerably higher than the corn. In four days afterwards the weed was noticed to be dying, but to make doubly sure the plot was again sprayed five days after the first application (though we know now as the result of later experiments this was totally unnecessary). For some time this field was yellow over with that "pretty" flower, excepting a clearly defined green band representing the sprayed plot. Here the leaves of the charlock succumbed first, and the flowers thus deprived of their nourishment withered away.

FARM C.—June 8th.—On this farm the charlock was very strong, with larges leaves and thick stems; the oats among which they were growing were fully 18 inches high, and very much sheltered the weeds. After about five days I met the tenant of the farm, who told me that the charlock was dying wholesale; and later he has told me that it is completely killed where sprayed. He wishes that the whole field had been similarly treated at the same time.

FARM D.—June 9th.—Here the charlock was not quite so thick in the oats, though the plants were far advanced, small seed-pods being formed in many of the flower heads. In this plot, however, in less than a week afterwards, the weed was looking very sickly, and, a little later, in the place of the healthy charlock, were darkened stalks with withered dry leaves and dead flowers.

FARM E.—June 14th.—On this farm the charlock was stronger and thicker than in the former cases, while it was forming seed, and very much smothered the oats among which it was growing. In four days after the treatment, the difference between the sprayed and unsprayed plots was ostensibly apparent, and though drenching rain fell three days after this plot was sprayed the charlock is all disappearing. Even where the pods were formed, the latter did not mature, so that all the half-formed seed is dying.

FARM F.—This was sprayed June 23rd, during a fine drizzling rain, though there was not sufficient fall of rain to wash off the spray. After being dressed four days, the farmer wrote me as follows: "Kelloch quite past expectation so soon.