SUGAR BEET GROWING IN ESSEX.

RESULTS OF EXPERIMENTS.

A report has been prepared in connection with the experiments which have been carried out under the auspices of the County Education Committee to ascertain the best production of sugar from beet roots grown in this county, and a copy has been forwarded to the Board of Agriculture.

The report states that the experiments were carried out in 1903 and 1904 on nine farms, and were planned on the principle of the comparative field system, each experiment being conducted in duplicate. The farms, Dr. Gayth; Messrs. Williams Hall Farms; Mr. Hogg. The varieties of seeds were generally grown at most of the centres special varieties of Mangel and Sugar Beet, which are known to be suitable for the purpose, were also tried. The soils were generally heavy loams, but the subsoil varied considerably, from gravel and sand to clay and chalk, but the latter was not considered suitable for the purpose. The manures used were generally dressings of farmyard manure, with artificials, such as superphosphate, nitrate of soda, and sulphate of potash at the rate of 1 cwt. each per acre. The report points out that the value of the results of the experiments should be remembered that the value of the roots depends chiefly on the percentage of sugar in roots, (2) purity of the juice. As a result of careful investigation carried out in the Laboratory in the Technical College, it has been found that small roots contain the highest percentage of sugar, and roots that have suffered manipulation at the factory. Experience has shown a good crop of small roots, the percentage of sugar was 17.4, and the best Lighter crop of large roots, with 17.3. The percentage at Feldham was 17.1; the average for all centres was being 16.9. The purity of the juice was good at most centres, Stanbridge heads the list with 83.1, and Feldham and Hall Farm, Ingatestone, 82.4, the average for all centres being 81.6. The weight of roots per acre was not considered important, but the highest percentage in the Chelmsford district—9.4, Hall Farm, Ingatestone, and Feldham 9.3, the average being 8.5. Ascertaining the value of the roots, Feldham had the highest percentage of sugar and a good crop, and was given from the seed known as Klein Wanz Lehre.

Interesting statements are given in the report as to the effect of the season upon the results of the beet. Mr. E. H. Brewster, of Maplestead, reckoned that the frost, from October 30, to November, 1903, per acre to be 2½ 2s. per ton, the average yield of sugar per acre. Highland was seen from Klein Wanz Lehre, 17.1, roots not so rich, but the highest percentage of sugar on the acre, 2,400 lbs. Dipper Klein Wanz Lehre, 16.5 purest. Klein Wanz Lehre excelled others in purity and in the other centres, but a fair crop of sugar was fair. Here Mr. Wilson Stitch reports that the sugar beet grown in the Vale of Yallow Globe mangel was cultivated at a cost of £9 15s. 10d., and the total expenditure was £24 to November 30, 1903. At St. Osyth the greatest yield of sugar was 2 tons 6¼cwt., and was produced by the Dipper Klein Wanz Lehre top, the highest percentage of sugar—16.8 and 16.8