

THE CANADA FARMER



VOL. I. No. 2.

TORONTO, CANADA, FEBRUARY 15, 1869.

NEW SERIES.

The Field.

Sugar and the Sugar Beet.

Sugar has become one of the necessities of civilized life, and the problem of how to produce it in sufficient quantity to supply the increasing demand and yet keep the price at a figure that will bring it within the reach of the poor as well as the rich, has engaged the attention of many inquiring minds. Until within the past few years the great dependence for the production of sugar has been upon the sugar cane (*Saccharum Officinatum*), a plant that can be grown to perfection only in tropical climes under a burning sun that precludes the use of civilized labour, and the crop is one of the most exhausting to the soil of any that can be grown. No wonder then that the once rich soils of the West India Islands and Brazil, the alluvial flats of Louisiana and Alabama, and to some extent the rich plains of India, have become exhausted, and no longer yield large and profitable crops of cane, even with cheap enforced labour.

But another plant has been discovered to possess all the requisites for the successful production of sugar, and one, too, that is not dependent on a great amount of heat and moisture for its successful growth, and can therefore be grown in temperate climates by civilized labour. We allude to the Sugar Beet, which is now extensively grown in Europe for the manufacture of sugar. France was the first to introduce the culture of the Sugar Beet, and it has now become a staple crop of that country, which not only manufactures enough sugar to supply the entire home demand for that article, but also exports a considerable quantity, which is yearly increasing. Belgium and Holland also grow it extensively, though rather as food for milch cows in winter than for the manufacture of sugar. It has been grown to a considerable extent by German settlers in Illinois, and they have found it profitable to

manufacture sugar from it. England also is now awakening to the importance to be derived from the growth of the Sugar Beet, as a means of bringing cheap sugar within the reach of her vast hives of working labourers; and capitalists there are turning their attention to the erection of suitable sugar manufactories, preparatory to the introduction of the Sugar Beet as one of the staple crops of the country. In the *Gardener's Chronicle* of November 7, 1868, we find a very interesting account of a trial of the sugar beet culture, from which we make some extracts:—

Mr. Duncan, of Mincing Lane, last winter invited the farmers around Lavenham, Suffolk, to grow for him a supply of Sugar Beet at 18s per ton, to be delivered at his new factory close to the railway station there. The proposal excited much local and general interest, and the prospects of the new industry were discussed by many of the daily papers and agricultural journals. The result was, that many of the Suffolk farmers undertook to grow so many acres apiece, and Mr. Duncan began his works, and the farmers to sow their Beets, almost simultaneously. Mr. Duncan offered £50 in prizes this year for the encouragement of the new industry. Five silver cups are allotted in the following manner:—Two to be given to the growers who obtain the largest percentage of sugar from a given weight of roots, and three for the greatest weight of roots of the proper quality per acre.

The extraordinary weather of the past year first claims our notice. The drought of 1868 was unparalleled in its character and intensity. Week after week, month after month, a cloudless sky and a tropical sun baked the earth into a mass of impenetrable hardness, and all young and tender vegetation was either scorched up or arrested. Thus nearly all green crops are failures, and for a circuit of five or six miles around Lavenham we have not seen a single field of Swede turnips in tolerable condition. The Mangel crop has stood the trying weather better, but

it, too, has suffered severely; and there are we believe, but two instances of fair crops around Lavenham. Compared with all other green crops, the Sugar Beet is by far the best. This speaks well both for the endurance of the plant, and for the quality of the seed supplied by Mr. Duncan. Of course in a season like the past, the first difficulty with any green crop was to get a good plant. This difficulty was, however, overcome, and in many instances a regular "plant" was obtained.

The crops were spread over a rather wide area, in six or seven parishes, and six or more miles distant from each other. Twenty farmers undertook to grow the crop, and, although the farming is mostly good around Lavenham, of course among so many a considerable variety of practice and of skill was found. The soil, again, was even more varied than the cultivation. It covered the whole range, from a stiff brick earth to a light gravel. In a summer like the past, there was no possibility of growing a green crop upon stubborn clay, and it was almost as sure to be withered up on dry soils of a light sandy character. To these natural and seasonal difficulties, in the way of Beet culture, must be added one or two more, which may be termed accidental; the first of these was the lateness of the season before it was determined to grow the plant at all, so that no opportunity was left to make any special preparation. The two things most essential to Beet culture are, a deep-till and a fine texture; but neither of these could be provided. Land that was meant to be fallow, some that had borne a green crop the year before, several other fields that had been cross-cropped in various ways, and in one instance a field of tares ploughed in—had to be pressed into the service of the Beet growers; and just as the lateness of the time of year prevented the usual preparations, so the peculiar character of the season hindered the usual cultivation. While one farmer's crop was up, his neighbour was actually completing the drainage of his field,