

required by an old pasture. It is largely a nitrogenous manure that such a crop requires, and nitrate of soda (sodium nitrate) is one of the quickest acting of this class. The barnyard manure, however, is a more complete fertilizer than the artificial article, and should be used quite frequently on pastures and old meadows.

The Sugar-beet Industry.

GROWERS ELATED OVER THIS YEAR'S PROSPECTS.

A propitious season so far has favored the sugar-beet growers of Ontario. The crop is now nearly all thinned, and hoed the second or third time, and in most cases, especially where the seed was sown in good time (before May 15th), the tops almost entirely cover the ground. With favorable weather for ripening and harvesting, the sugar-beet industry should this year become pretty firmly fixed in the agricultural operations of this Province. After three years' experience growers are satisfied that beets can be grown with a high percentage of sugar, that the crop returns in cash are decidedly remunerative, that the cultivation incident to beet-growing is the most effectual method of eradicating weeds, and that land so cultivated is in the best possible condition for succeeding crops, that no crop grown upon the farm is so free from attacks of insects and diseases, and so certain of yielding returns. So forcibly have these advantages impressed some of the growers for the Wallaceburg factory that they now regret not having taken larger acreage, especially as much of the corn sown did not germinate. One feature only of the situation is in doubt and that is the problem of securing labor to handle the crop, but with a crop having the many advantages noted above it is more than assured that help will be available, following the efforts of immigration agents to induce Old Country agriculturists to locate in Ontario.

THE INDUSTRY FIXED.

In Ontario this year there are but two factories operating, viz.: Wallaceburg and Berlin, that at Dresden having been moved away, and the one at Warton having suspended operations. The two companies now operating have proved their utility by their continued progress through an initiative period and unfavorable seasons. For the successful operation of a sugar factory, certain natural advantages must be possessed by the locality. The factory must be surrounded by a good stretch of suitable soil, owned by men who are willing to grow beets, be conveniently reached by railways or boats, and be provided with an abundance of water. These requisites are all well supplied to both the Wallaceburg and Berlin factories.

THE CROP IN WATERLOO COUNTY.

In the course of a visit to a large number of beet fields in Waterloo County, a representative of the "Farmer's Advocate" was agreeably surprised with the splendid growth the beets have made and the clean, well-kept condition of the fields. Comparisons, however, show the advantage of getting the seed in early, just as soon as the land is warm enough, and of cultivating as long as the growth of leaves will permit, which, this year, with early-sown beets, is up till about the last week in July. When beets are sown first thing in the spring, cultivation can be commenced after grain seeding, and the thinning and hoeing well completed before haying time. This also insures the ripening of the beets in the warm September days, and the harvesting before the cold fall weather sets in, or the roots have made a second growth, due to the fall rains. Everywhere are evidences that the growers have well learned the principles of beet-growing, for here and there over the country they point out the fields for next year's crop. This providing early for the following crop cannot be too highly commended. The land, whether it be clover sod, grain stubble or other land, should be well cultivated in early autumn, so that it is not neglected owing to a rush of work in beet harvest. Beet-growing requires the exercise of good management, and the well-kept fields and forward condition of the work of the best farmers in Waterloo County and other beet-growing districts is evidence that, with executive ability, this work can be fitted nicely into operations of the farm.

SUGAR BEETS AND FERTILITY.

Where beets have been grown for two or three years in Waterloo County, and elsewhere, one feature stands out prominently, and that is the uniformly high condition of the grain crops following after beets. In many cases, the added value of the succeeding grain crop will pay for the extra labor of cultivating the roots. The argument advanced by those who would injure the industry that beet-growing is exhaustive of fertility is completely disproved. Beets, being deep feeders, take very little plant food from the surface soil in late summer, while the shallow cultivation given the crop liberates large amounts, which are available for succeeding crops. The tops, also, of the beets return to the soil large amounts of

the mineral substances extracted by the crop. This supply of mineral matter tends to balance up the plant food in the soil, and prevents an excess of nitrogen, to which excess is due the rank, soft growth of straw so frequently seen after summer-fallows, or upon heavily-manured land. The freedom from weeds of those crops following beets is most striking. The early cultivation which beets require seems to kill weeds in their infancy, and the thick shade of the leaves later in the season prevents further growth after cultivation ceases. On such weeds as Canada thistle, mustard, sow thistle, bladder campion,

out into clumps of about two inches in length and nine inches apart. This implement not only makes a wonderful saving of time in thinning, but also mulches the soil much better than can be done with a cultivator and hoes.

THE PRODUCT.

As has been pointed out in these pages lately, the best granulated sugar made from Ontario beets is not surpassed in sweetness, purity or appearance by any other sugar in the world. Its preserving qualities are unexcelled by any other, and its production is not only profitable to the farmer, but is one of the branches of a system of diversified farming we must adopt, either by choice or compulsion. The industry is one that appeals to the producer as sane and remunerative, and he is, to a large extent, the consumer as well as the producer. The beet-sugar industry in Canada, when well established, will mean that we are growing our own sugar, in preference to purchasing it from Germany, Belgium, France and the tropics. It will mean the saving of freight from the sources of supply to the Canadian refineries, the saving of the refiner's profits, and the wresting from the sugar trust the control of the price of one of the most extensively used articles of food. The tangible evidence of the increasing appreciation by growers of the value of the sugar-beet industry is found by reference to some of the statistics of the Berlin company's books. In 1902, the first year of operation, the number of growers supplying beets was eight hundred, in 1903 twelve hundred, and this year seventeen hundred and eighty. This year the indications are that the Berlin factory will increase their receipts of beets by over ten thousand tons, and Wallaceburg will double its last year's receipts. Further encouragement can be given this home industry by demanding from the grocers sugar grown and manufactured at home, and by so doing the best value for the money will be received, the industry will grow, and farming will be more profitable, the fields cleaner, and a larger population will be supported.

Help for the Immigrant.

I must say that your paper beats all I've come across, and that is not a few. My brother and I find it very useful; in fact, cannot well do without it. I would also like that every British immigrant should procure a copy and continue it, for it would help them in a thousand and one ways.

JOHN TAIT.

Essex Co., Ont.



Hoeing Sugar Beets on the Farm of J. C. Hurst, Waterloo Co., Ont.

wild oats, and the many other pests that thrive in such seasons as the present, beet-culture has had a most salutary effect.

On the farms throughout Waterloo County the beet fields run from one to twenty-five acres in size, many of them being ten-acre plots. In this county are grown about one-half the beets used at the Berlin factory, over six hundred growers contributing. The remainder of the supplies are brought from as far east as Bowmanville, north to Barrie, Palmerston and Clinton, and West to about London. This wide distribution of patrons of the factory is one of the surest guarantees of the success of the sugar-beet industry, as the advantages of beet-growing are illustrated in widely different districts, and men who are particularly adapted by reason of taste, location, etc., are afforded an opportunity of engaging in a profitable and highly diversified branch of farming.

The securing of laborers has been more difficult this year than previously, and has been instrumental in encouraging that art, invention, of which necessity is the mother. To get the beets thinned in proper time, Mr. A. S. Shuh, of Waterloo County, enlisted the services of the school children for a few hours each day after school, by which means he handled twelve acres of good growing beets. Another Waterloo resident, Mr. Jacob B. Shantz, invented what is called a blocking machine, which thins the rows



Princess May [5682] and Norval Queen [5689].

Pure-bred Clydesdale mares. Winners of two second prizes for pair of draft mares or geldings at the Canadian Horse Show, Toronto, 1904. Exhibited by J. L. Clark, Norval, Ont.