times the usual number of turnips left standing for the crop, and assuming that every seed produces a plant, about thirteen plants will require singling to each one that is allowed to remain. On this calculation, the turnips will stand a moderate distance apart. Wide spaces and large roots are very undesirable on account of the inferior quality of big roots of all kinds compared with small ones, and because a greater weight can be obtained by a larger number of lesser roots per acre. An experiment was tried upon three lengths of swedes sown in the same row, all conditions as to soil, treatment, and manure being alike. A length of 60 ft. was singled 12 in. apart, a similar length 9 in., and a third length 6 in. The three sets of swedes weighed respectively when mature, 2.50 lb. each, 1.95 lb., and 1.54 lb. the wider singling giving, of course, the greatest weight. As the drills were 27 inches apart, the acre would extend to a length of 19,360 feet, and the number of swedes per acre at 12 inches, 9 inches, and 6 inches apart, would be 19,360, 25,813, and 25,720. If these numbers be multiplied by the weights just mentioned, the largest swedes will be found to yield the lightest crop. At 12 inches by 27 inches the crop will weigh 21.61 tons; at 9 inches, 22.47 tons; and at 6 inches, 26.62 tons per acre. Our figures are theoretical, and in practice disease, or accident, rooks, fly, or club-root, for example, would be tolerably certain to reduce the number of plants to some extent. In such cases, and in all cases of occasional blanks occurring by the removal of a certain percentage of the plants, the effect of a such losses will be in proportion to the spacing of the crops It will be greater with wide spacing than with narrow.

In an interesting *brochure*, "Agricultural Botany," by Mr. A. S. Wilson, the differences of productiveness of different kinds of turnips is recognised; and this is a point which must be taken into account in the spacing of the plants. At six-inch intervals the respective weights of the bulbs of several varieties were are follows:—Green top yellow, 1.66 lb.; imperial green globe, 2.23 lb.; purple-top mammoth, 2.51 lb., and Lincolnshire red globe, 2.90 lb. At 27 inches from row to row the first-named turnip produced 28.69 tons per acre, and the last-named, 50.04 tons.

It is quite possible that the analysis of these two varieties might be different, and that the heaviest cropper might be the less nutritious of the two. But it can hardly be conceived that 28½ tons could prove as valuable to the feeder as 50 tons. This point, however, is outside our subject of singling. We have endeavoured to show by what method the heaviest crops can be obtained. Our remarks will, of course, apply to mangolds as well as turnips, and our typical width of 27 in. from row to row, will, in most cases, prove suitable to that crop. In the case of swedes and turnips we prefer 20 in. or 22 in. from row to row, and singling at 9 in. apart, though greater widths are desirable if the land is foul. Our object is profit, and the production of the heaviest and best crop in a given area. The big roots at the agricultural shows are grown as examples of the greatest weights which the different varieties are capable of attaining, just as monster cattle are brought to their greatest weight without regard to cost. We do not deny that such exhibitions are instructive. The mammoth long red mangold, weighing 73 lb., and exhibited by Messrs. Sutton as the largest specimen ever grown, seemed to us a very interesting proof of gigantic growth under pampered treatment. But only a few of the largest mangolds in one of the heaviest crops on record—63½ tons per acre—reached as much as half the weight of the monster in question. A practical farmer should avoid growing giants on account of the wide spaces they occupy, and in judging roots at shows, if the cost of the crop were taken into account, it would be found that those of moderate size, grown with such singling as we have just recommended, would carry off the palm for profit. *Eng. Ag. Ga.*

Some people appear to be of opinion that wheat can be grown anywhere except in this country, or, at least, in any new country, at a profit. Evidence, however, has been offered lately to prove that wheatgrowing at recent prices has not paid in any country, as a whole, unless in India. It is worthy of notice that such evidence accumulates as time goes on, many Consular reports having supplied a great deal of it. The latest addition is contained in the Annual Report of the Ontario Bureau of Industries for 1887, which gives estimates of the cost and returns of the several crops of the Province, as follows:—

Crop.	Cost per acre. dols.	cents.	Returns per acre in 1887. dols.	cents.
Winter wheat	19	43	17	8
Spring wheat	15	50	13	61
Barley	14	83	18	63
Oats	14	78	16	59
Peas	15	47	13	87
Maize	21	70	25	80
Potatoes	34	64	54	43
Turnips	33	41	41	27

In the return for the corn crops the value of the straw is included. It will be noticed that the cost of growing an acre of winter wheat is nearly £4, and that there was a loss of 10s. an acre in 1887. Spring wheat costs less to grow, and gives a smaller return, the loss being nearly 8s. an acre. For all the other crops, except peas—which usually pay well in Canada—a profit is shown. It is not surprising to see that the wheat area has decreased, as shown in a table given in another column. *Ag. Gazette.*

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