

PROBLEMS OF POTATO GROWING

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seen till late in the season and such plants are removed at the earliest possible moment.

Seed from the outside plots is available for farmers and seed-producers and should be used for raising further seed under similar conditions of isolation. In this way we have raised in the neighbourhood of Cambridge and Barley, stocks of potatoes which have left the protection of the glasshouse two, three and four years. The stocks acquire some virus disease in the second and subsequent years, but very little, if any, in the first year. A large number of statistically planned yield tests of the material grown outside have been made as against best Scotch seed, and in nearly every case the Cambridge stocks, even in their third year from the glasshouse, have proved themselves superior.

There is no doubt that seed which is virus-free gives a healthier stand and a far higher yield than ordinary commercial seed. If seed raisers were to avail themselves of the material that the Potato Virus Research Station can offer them, and use it in the manner advised, they would most certainly raise larger and better crops. The ideal which is being aimed at is that the best seed-growing area, whether in Scotland or elsewhere, should be planted with the best available seed, and such seed we possess in Cambridge. It should not be difficult to effect a co-operative arrangement of this nature but, in fact, few if any raisers appear ready to take the trouble to renew their stock seed and work it up to the necessary bulk in the manner advocated.

POTATO GROWING IN LINCOLNSHIRE

BY T. O. MAWBY
(*Spalding Marsh, Lincs.*)

THE first thing to consider in planning an acreage of potatoes is the crop after which the potatoes are to be grown. There are various rotations of cropping, here are some of them :

Wheat—Sugar Beet—*Potatoes*. Wheat—Peas—*Potatoes*. Oats—Wheat—Sugar Beet—*Potatoes*. Wheat—Mustard—Winter Tares—*Potatoes*. Wheat—Winter Beans—*Potatoes*.

The land has now to be cultivated. As soon as the corn crop is in the stack it is usual to work the stubble in order to destroy any weeds. The land is left in this state until the middle of November. (In some cases where the field needs it a dressing of about 12 loads of farmyard manure is applied per acre.) The field is now deep ploughed to a depth of between 10 in. and 12 in. and sub-soiled a further 6 in. to 8 in.

The land is then left in this form until the spring. If the winter has been mild or wet, it is probably necessary to drag the land before levelling with the harrows, but usually and particularly after a severe winter, it is only necessary to use heavy harrows before

ridging. The field is now ridged or drawn out for the potatoes. The distance between the ridges varies between 26 in. and 30 in. It is usual in most cases, however, to have the ridges 29 in. apart.

Next comes the sowing of the artificial manures. These are mixed according to the type of land and a certain quantity is applied ranging between 5 cwt. and 15 cwt. per acre. This is sown by machinery down 3 rows at a time. The seed is then planted out of chitting boxes. First earlies are usually planted from 10 in. to 12 in. apart and late varieties from 12 in. to 15 in. apart. The rows are then split or covered.

Cultivation now begins almost immediately. The drags are fitted with spuds and drawn through the field between the rows taking 3 rows at once. It is necessary to get as close to the potatoes as possible the first time for, as soon as the tuber takes root, considerable damage can be done by cutting off the small fibres.

After various cultivations the shoots begin to show above the ridges and when far enough out the ridges are half-hilled. Later these are pulled down again and the process of hilling the potatoes is carried out.

Lifting is done by various methods. For early varieties the spinner is used and in some cases the Hoover digger. For late varieties the single plough is used. The potatoes are then clamped or graved, covered with straw and a thin coat of earth put on the straw leaving about 6 in. of straw on each side at the top of the clamp for air. Later in the winter the whole clamp is covered with about 12 in. of earth and left until dressing commences.

The figure of the cost of producing the crop up to the time of clamping varies according to the type of land, the cost of seed, the season and labour. On silt land the cost is high and varies between £26 and £32 per acre. Usual varieties grown are Eclipse, Majestic and King Edward.