

dominant in a crop. Leader and Scotia are two rogues which have caused trouble in the Dakota variety. The former is distinctly yellow-fleshed, and the latter turns dark on cooking, two very undesirable characteristics.

Rogues (foreign varieties) may be introduced into a line in a number of ways, and the greatest care in handling the seed is desirable. The accidental mixture of two varieties is always possible. Growing a crop on ground already carrying self-sown potatoes is perhaps the most common practice leading to mixing, and for this reason potatoes should not follow too closely after potatoes in the cropping rotation. Land in the vicinity of old potato-pits is always likely to carry self-sown tubers, and this should be kept in mind when growing for seed. Where two varieties are being grown in the one paddock, a break of some other crop should intervene. Even the differential effects of disease on two varieties may allow a rogue in a stock to multiply more quickly than the variety.

Rogueing should commence before the seed is planted. Apart from the beneficial effects on the succeeding crop, sprouting of the seed is one means of identifying rogues. Thus the pink sprouts of Northern Star contrast plainly with the purple sprouts of Arran Chief. The next rogueing for purity will probably take place at flowering-time. It is not necessary for the grower to be able to name all the rogues. He should have, however, in his mind a definite picture of the variety he is growing, and remove any plant that does not agree in all characteristics with this standard. Flower-colour, or even absence of flowers, is a definite means of locating some rogues, and at the flowering stage the general habit of growth of the plants also is clearly distinguishable. Unless influenced by disease, time of maturity is a very definite varietal characteristic and affords a useful guide for rogueing. Thus all plants of late maturity should be removed from the early variety, and *vice versa*. In all cases examination of the immature tubers leads to a more certain conclusion than inspection of the mature tubers, especially after pitting. In the former case the skin-colour and characteristics of the eyes are more readily distinguishable.

Variations known as "bolters" and "wildings" are to be found in many varieties. Bolters may be observed commonly in Up-to-Date and Epicure, and are recognized very easily in the latter. The plants are tall and of later maturity, produce a relatively large number of flowers, and may be more resistant to such diseases as late blight. The stolons are long and the tubers generally large and coarse. Such plants should be rogued, for they represent an undesirable variation from the normal, more especially in an early variety such as Epicure. Wildings are short in growth and produce an abundance of stems bearing no flowers. As might be expected, such plants produce a large number of tubers of seed-size with few table potatoes, and if they are not removed the stock deteriorates very rapidly.

THE MAINTENANCE OF HEALTHY SEED-STOCKS.

While it is a relatively simple matter to keep a variety pure, the maintenance of a vigorous, disease-free stock is a much more difficult matter. Degeneracy or "running out" of a line is mainly brought about by a group of diseases known collectively as virus diseases.