

roots producing first-class marketable potatoes, in the growing of which there is little waste of plant-food. The true breed characteristics of a variety can be maintained by selection.

When selecting potatoes it is as well to know something about the quantity required to plant an acre. If the rows are 28 in. apart there will be 28 rows in 22 yards, and 280 chains of rows in one acre—that is, 6,160 yards to plant. Spaced at 18 in. apart, it will require 12,320 tubers to plant 1 acre; if the tubers weigh 2 oz. each, 14 cwt. of seed is required. The same weight of seed is required if large tubers (4 oz.) are cut in half.

In my opinion it is better to plant cut tubers at once and to place the cut surface uppermost when planting. The set is not so likely to decay before rooting, and if there are sprouts they are not knocked off in the covering. According to tests recorded in the *Journal of the Royal Horticultural Society*, covering the cut surface with plaster-of-paris gave the best results as to weight of crop, sulphur being also good. Lime was found to be injurious. It was also found that the sets that were cut immediately before planting gave a better return than those which were cut some time previously. Where the seed of the variety is limited a larger yield will be obtained if the sets are cut, but the average return per plant will not be so large.

Quoting the same authority, as regards the size of seed it was found that tubers weighing between 2 oz. and 3 oz. were the most economical and reliable. It was also found that the greater the space given to the individual plant the greater the yield of that plant would be, but the greater number of plants on a given area the greater the total yield of that area would be. In my own experiments I have found that the greatest yield per acre is obtained when the sets are planted 12 in. apart. As the distance increases between the sets the total yield decreases.

If early crops are required it is good practice to sprout the tubers, being careful to get short sturdy sprouts, which are not knocked off by planting. Another advantage to be gained by sprouting potatoes is that all the tubers affected with spindle-sprout disease may be picked out, as when these are planted blanks will be found. Light and air are necessary to get short sturdy sprouts. When there is no fear of spindle-sprout disease it is better to put unsprouted potatoes in for the main crop. Potatoes will not sprout if stored at a low temperature.

The practice of greening seed-potatoes is resorted to as a rule when crops intended for seed purposes are lifted when the skins slip—that is, before they are ripe, and the skin is not set. If tubers are greened they should be on the ground, and not be turned to green on both sides. There is no harm done in greening seed-potatoes if the potato-moth is not about; that point must be considered. For my part, I think that the practice of greening sometimes receives the credit which is more properly due to the immature condition in which the sets for planting were saved in the previous summer or autumn. The maturity of the seed seems to have an important bearing on productiveness. Potatoes not quite mature frequently give the larger yield. The potatoes in Scotland practically never fully mature, being often cut down by frost in the autumn; yet Scotland is at the present time the