

The experimental grounds at the Ontario Agricultural College consist of about seventy-five acres, and are under the control of the Department of Field Husbandry. The grounds are divided into fully two thousand plots, on which experiments are being conducted annually with varieties of potatoes and other farm crops; with artificial, green and barnyard manures; with methods of cultivation, selections of seed and dates of seeding; with treatments for insects and diseases detrimental to the potato; etc.

The plots vary in size according to the requirements of the different experiments, and the yields per acre are determined from the actual yields of the plots in all cases. In the potato tests the general plan is to plant in rows three and one-third links ($26\frac{2}{3}$ inches) apart with the sets twelve inches apart in the rows. The same distance is allowed between two plots as between two rows of the same plot. In some cases check rows of potatoes are grown between the plots. It will, therefore, be seen that there are no paths left between the plots of potatoes. In most cases a plot consists of three rows each four rods long. Generally the experiments are conducted in two or three places each season. All of the experiments are conducted with the greatest of care and for several years in succession in order to secure results of the highest possible value. An immense amount of thought and care is required in planning, supervising, and examining these plots, and in studying, comparing and summarizing the results for publication.

SOILS.

A portion of the experimental grounds at the College has a gentle slope towards the south, another portion towards the north, and a part of the land is comparatively level. The most of the soil is what might be termed an average clay loam. The bottom lands are tile drained and contain rather more vegetable matter than the higher portions which have a natural drainage. The potato experiments have been rotated over the different sections of the grounds from year to year. Great care has been taken to secure uniformity of soil for all the plots used for each experiment in any season. The grounds are considered to be exceptionally well adapted to experimental work for Ontario.

Potatoes can be grown satisfactorily on almost any fertile and friable soil which is either naturally or artificially well underdrained. Good soils, whether loams, sandy loams, or friable clay loams might be mentioned as particularly well suited for the potato crop. Sandy loams are especially favorable for the production of potatoes for early use. On light sands, heavy clays, and black muck soils the growing of potatoes is usually more difficult, although good results are sometimes obtained from even these soils. The most of the soils of Ontario are very well adapted to potato production providing they are properly underdrained either naturally or artificially. Some sections are particularly well suited to potato growing on a large commercial basis.

ROTATIONS.

The usual four years' rotation in the experimental grounds at the College is as follows: potatoes, grain, pasture and grain. Of the land under rotation the grain plots require one-half, the cultivated crops one-quarter, and the pasture one-quarter each year. The four years' rotation in the Farm Department at the College is potatoes, grain, and two years of clover and grass. A favorite three years' rotation in some sections of the country is potatoes, grain and clover.

A large number of Ontario farmers were written to from the College and asked the following question: "After what crops do you prefer to plant potatoes?" Three hundred and seventy-five answers were received. The crops selected were