



Experiment showing importance of change of seed—Taller plants from Indian Head seed; shorter plants of the same varieties from Ottawa seed.

#### WHEN TO CHANGE SEED.

When a grower has found that it pays him to obtain seed of a certain variety from a certain source, he should endeavour by experiment and calculation to learn whether it will pay him to change his seed every year, every two years, or every three years.

The cause or causes of the very low yields at the Experimental Farm, Ottawa, during recent years from seed grown at Ottawa the previous year, are not yet clearly understood. The low yields began in the very dry seasons of 1906, 1907, and 1908, and there have been few good years for potatoes since, and, since that time, the diseases such as Leaf Roll, late blight and Rhizoctonia all have been found affecting the potato plants at Ottawa. How far these are the primary cause of the low yields and how much should be attributed to climate, is not yet certain, but the fact remains that by getting new seed every year from certain places, good yields can be obtained. While such marked results might not be obtained elsewhere, as at Ottawa, a change of seed is recommended where satisfactory yields are not being obtained. It has been the writer's observation that wherever potatoes grow vigorously, as a rule, until the tops are cut down by frost in the autumn, there will good seed potatoes be obtained, provided they are free from disease. Such sources of seed potatoes can be found in all the provinces of Canada and particularly in those parts of the provinces where the days and nights, during the growing season, are relatively cool, and where there is usually a good supply of moisture in the soil.

It has been shown by the experiments at Ottawa that the best results were obtained from the most immature seed, and while, doubtless, there is some other factor or factors than immaturity which ensure such good results from seed from the cooler parts of Canada, and which for the present may be called "vitality," it would seem, with our present knowledge, that the best seed will come from those parts of Canada