

## SUMMARY.

Although the potato is a very important food product in Canada, the methods of cultivation can be much improved.

The potato succeeds well in Canada almost everywhere where the season is long enough for the tubers to develop before the tops are killed by frost.

There is no farm crop the yield of which can be increased so much by one season's work as the potato.

Potatoes have been grown at the rate of over 700 bushels per acre in small plots at the Central Experimental Farm. The average yield for the whole of Canada for the years 1905-14 is estimated at 161.34 bushels per acre.

The potato is a native of South America and Mexico and was introduced into Ireland in 1585 or 1586, and from there to England.

New varieties of potatoes may be originated from seed, by bud variation, or changed by selection.

Varieties may be affected either favourably or unfavourably by change of seed. If seed is obtained from a comparatively cool, moist climate it will give a much larger yield, as a rule, than seed from a drier and warmer climate.

Strong vitality and freedom from disease in seed potatoes are of great importance.

Potatoes succeed best in a moist, somewhat cloudy and temperate climate and in a rich, deep, friable, warm, sandy loam soil with good natural drainage, a constant though not too great a supply of moisture and well supplied with decayed or decaying vegetable matter.

A crop of 200 bushels of potatoes, exclusive of the potato tops, removes from the soil approximately 40 pounds nitrogen, 20 pounds phosphoric acid, and 70 pounds potash.

Potatoes succeed well after clover, there being an average increase in a three-years' test of 37 bushels per acre where clover was used than where it was not.

Heavy manuring with barnyard manure is not recommended, but the use of a moderate quantity is advised applied on the clover in the autumn. If used in the spring the manure should be well rotted.

Chemical fertilizers, if used, should be applied at the rate of 500 to 800 pounds or more per acre in the proportion of 250 pounds nitrate of soda, 350 pounds superphosphate, and 200 pounds sulphate of potash or muriate of potash.

The soil should be very thoroughly prepared; the better the preparation, the better the crop is likely to be.

The best time to plant varies: it depends largely on the condition of the ground and spring frosts. As a rule, the best time is as soon as possible after danger from frost is past.

Sets should be cut from medium or large potatoes and planted, and covered as soon as possible after planting. If allowed to wither the crop will be less. An increased yield will be obtained by coating the sets with land plaster, gypsum or lime, especially if potatoes are cut a few days before planting. A set should have a large amount of flesh and about three eyes.

The best depth to plant is from four to five inches.

Potatoes should be planted in rows 30 inches apart with a set from 12 to 14 inches apart in the rows.

Potato planters are very satisfactory.

The crop of potatoes will usually increase in proportion to the number of times the potatoes are cultivated during the growing season. There was found to be an increase of 40 bushels per acre in a crop of potatoes cultivated six times over those cultivated three times.

Level cultivation will sometimes give better results than ridging, and vice versa. Where the soil is stiff, ridging is advisable. Where the soil is loose and liable to suffer from drought in a dry time, level culture is recommended. Where the soil is both loose and moist, ridging will usually give best results.