

SUMMARY.

Although the potato is a very important food product of Canada the methods of culture 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 was about 123 bushels when the last census was taken in 1901.

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.

The twelve most productive varieties grown at the Central Farm for five years are Dalmeny Beauty, Hard-to-Beat, Carman No. 1, Gold Coin, Late Puritan, Empire State, Ashleaf Kidney, Rochester Rose, Sharp's Victor, Dewey, Early Hero, Holborn Abundance. Factor and Sutton's Prolific, tested for four years, are very productive varieties.

The six most productive early varieties for five years are Rochester Rose, Extra Early Hero, Reeves' Rose, Irish Cobbler, Vick's Extra Early, Crine's Lightning.

Some of the earliest varieties are Early Petoskey, New Early Standard, Eureka Extra Early, Burpee's Extra Early, Early Trumbull, Bliss Triumph, Early Ohio, Rochester Rose, Bovee.

Some productive varieties most free from blight are: King Edward, Dalmeny Beauty, Factor, Hard-to-Beat, Highlander, Duchess of Cornwall.

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.

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 lbs. nitrogen, 20 lbs. phosphoric acid, and 70 lbs. 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 lbs. or more per acre in the proportion of 250 lbs. nitrate of soda, 350 lbs. superphosphate, and 200 lbs. 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