

Mulching with straw is too expensive and results do not justify its use.

Potatoes can be forced by some days and the yield increased by sprouting the potatoes before planting.

The crop of marketable potatoes can be almost doubled by having three weeks' growth in September.

Potato tops should be protected from insects and diseases as the yield will be in proportion to the leaves uninjured.

The Colorado Potato Beetle and Cucumber Flea Beetle are the most injurious insects. The former can be killed by using Paris green or arsenate of lead, and the latter can be prevented from doing injury by Bordeaux mixture and Paris green or arsenate of lead.

The principal disease affecting the potato is the Late Blight, which can be prevented by spraying thoroughly with Bordeaux mixture, beginning before the disease appears and keeping the vines covered. From three to four sprayings are sufficient. In a three years' test the increase in yield by spraying with Bordeaux mixture was 94 bushels. The total cost per acre will be from six to eight dollars on large areas and about thirteen dollars on small areas, although good results will be obtained in some seasons with less expenditure.

The spores of potato scab may be destroyed on the potato before planting by soaking the tubers for three hours in a solution of corrosive sublimate, or for two hours in a solution of formalin.

Spraying mixtures should be applied at the proper time and thoroughly if good results are to be expected.

It is important to success to have a good spray pump and pure spraying materials.

Good potato diggers are now on the market by which potatoes can be dug more economically than with the plough or fork. Potatoes should be dug in dry weather so that they will be dry when taken to the cellar.

If potatoes are diseased it is best to leave them in the ground as long as possible.

Tubers should be stored in a dry, cool, well ventilated cellar and kept at a temperature between 33° and 35° F. if possible.

It is usually more profitable to market potatoes in the autumn than to store them.

Good machines for sorting potatoes can now be obtained.

The cost of growing potatoes varies, much depending on the care given the crop and the kind of machinery used.

The number of varieties of potatoes tested at the Central Experimental Farm from 1887 to 1917 is about 1,100.

ACKNOWLEDGMENTS.

As it seemed desirable to include in this bulletin results obtained in growing potatoes at the branch farms and stations, tables giving the cost per acre of growing potatoes at a number of them have been used; the average yield of the most productive varieties for five years are also given with the varieties recommended. While much of this information has already appeared in the annual reports of the branch farms and stations, I desire to gratefully acknowledge the co-operation of the superintendents by furnishing additional matter.

I desire also to express my appreciation of having available Bulletin 176 of the Bureau of Plant Industry, Washington, on "Group Classification and Varietal Descriptions of Some American Potatoes" by Prof. Wm. Stuart, and of being able to use in this bulletin the classification of potatoes described in that bulletin, thus helping to make the classification uniform for both Canada and the United States. The origins of varieties have also been taken from that bulletin.

Bulletin 239 of the Department of Agriculture, Ontario, on Potatoes, by Dr. C. E. Zavitz has also been consulted and some information taken from it.

I desire, also, to thankfully acknowledge my indebtedness to Dr. Frank T. Shutt, Assistant Director, Experimental Farms, for taking most of the photographs which illustrate this bulletin, and which help to make it more useful and interesting.