

4. Tubers showing Common Scab should, preferably, be all removed. The chances are that scabby seed will produce a scabby crop. (See Note 2.)

5. After the first two applications have been made, we continue spraying regularly. Seed should be soaked in bags or bulk for three hours in a solution of bichloride of mercury, 1 part in 2,000 parts of water. After treatment, spread out and dry. (See Note 1.)

6. When dry, cutting the potatoes for "sets" will commence. Provide each person engaged with a potato knife, and keep a number of knives in a wooden pail containing a solution of 1: 1000 bichloride of mercury.

7. The stem end of the tuber is the seat of several internal diseases. Cut a thin slice off the stem end of each potato; if perfectly sound and free from brown streaks, rings or spots, continue cutting it up to required size.

8. Discard at once all tubers showing discolouration, when cut as above, at the stem end, and throw out those showing any kind of spotting inside, though the stem end itself may have shown no disease.

9. Having used the knife on a tuber showing any kind of discolouration inside, throw it at once into the disinfecting solution, and take out another knife before cutting up a new tuber. A knife that has cut through a diseased tuber conveys certain diseases to the new tuber, hence it is very important to change the knife after having thrown out a diseased tuber. It is waste of time to cut out brown spots and use the rest of the tuber.

After following these precautions, everything has been done to eliminate diseases conveyed by unsound seed potatoes. The sets are now ready for planting.

B. Disease-infected Land.

In the case of Powdery Scab and a number of other potato diseases, the causal organism persists in the soil for a number of years; it is, therefore, necessary to avoid too frequent succession of potato crops. Ordinarily potatoes should not be grown oftener on the same land than every fourth year. Where Powdery Scab has existed, it is advisable to change to land that has not previously produced a diseased crop of potatoes. The infected land may be used for any other crop with the exception of potatoes. (See Note 2).

C. The Diseases of the Growing Plant.

The recognition of diseases noticeable only in the growing plant will invariably be most difficult. Where doubt exists, a specimen showing the suspected trouble should be mailed to the Dominion Botanist for his advice, but, generally speaking, careful attention to the elimination of disease in the seed tubers will have largely reduced the disease affecting the growing plant. Farmers should make it a rule to immediately remove any individual hill that may show signs of yellowing, curling-up of leaves or otherwise feeble growth, as well as any individual plant with flowers of a different colour from the rest, in order to keep varieties pure.

D. Spraying (See Note 5).

1. Spraying is practised for two main reasons: First, to control the Colorado Beetle; and, second, to control Late Blight. There are other minor reasons.

2. Experiments have shown that several solutions will destroy the Colorado Beetle, but the solution acting most rapidly is the one to use.

3. Spraying must be done thoroughly. All plants, and all parts thereof, must be well covered. A plant with one half sprayed and the other half missed will have the unsprayed part eaten off by the beetles very quickly. This will leave enough beetles to continue the pest. One spray thoroughly applied is better than several carelessly applied.