

A little consideration of the life-history of this parasite will enable the reader to see how readily the disease may be spread, through ignorance. When a crop of potatoes affected by it has been dug, it is obvious that, in the process, many of the scab spots will have been broken open and countless numbers of spore-balls scattered in the soil, on the implements, on the shoes, hands and clothing of the workmen, and in this way may be spread from field to field. We have not, as yet, all the knowledge we desire regarding the behaviour of these spores, in particular as to the length of time for which they may remain dormant in the soil and then produce infection of a potato crop planted therein. Probably, however, considering what we know of similar diseases, they retain this power for a number of years. Until, therefore, we are in a position to say definitely how many years the disease may persist in the soil, it will be found necessary to avoid growing potatoes again on any land which has once shown this disease.

Although the disease is only known to attack the underground parts, the vines and any refuse from an infected crop should be raked together and burned. This will get rid of any adhering spores of this disease and, incidentally, of certain other pests.

The implements, containers, etc., used for such a crop should be disinfected according to instructions given at the end of this circular, before being taken to other fields, or used for other purposes.

Since no other crop is known to be liable to attack, the infected land may be put into any crop thought suitable. However, when the disease is very bad, and spores are correspondingly numerous in the soil, it is conceivable that the wind blowing over the surface of the field may catch up quantities of the spores and deposit them on land previously uncontaminated.

Where a crop is put in, there is also more danger of the germs of the disease being spread on implements if care is not taken to clean them thoroughly before taking them from one field to another. For these reasons we strongly recommend that, wherever possible, the land should be seeded down with grass or clover—a "nurse" grain crop may be used—and left in meadow or pasture for a term of years.

Still bearing in mind what has been said regarding the power of the spores to spread the disease, we must next consider the proper method of disposing of the affected crop. The worst possible means of so doing is to sell it for seed purposes to other growers. This is the most effective way of spreading the disease.

The affected crop is not injured for consumption except, according to our experience in Canada, in very rare instances. If the crop affected is a small one it may be used for domestic purposes; if larger, a part of it may be fed to stock, and it may be desirable to add a number of pigs to the live stock kept, if the quantity to be consumed is large. No potatoes from an infected crop should be fed to stock without being cooked, for there is danger that the spores may pass through the digestive organs of an animal and still retain their vitality, thus rendering the manure a means of spreading the disease.

The affected crop should be stored in pits or on the field, or, if brought indoors, should be placed in a cellar separate from the sound potatoes, with which it should not be allowed to come in contact. Similarly, any container used for the handling of infected potatoes should be kept for this purpose only. To carry a quantity of infected potatoes in a basket, and then to put sound potatoes, perhaps subsequently used for seed, in the same basket, would be to undo the effects of previous care.

If the potatoes are peeled for cooking purposes, the parings should be burned or boiled, and on no account thrown out raw to the manure-heap. If it is intended to bake infected potatoes, and they are washed first in a bucket or barrel of water, and this water then emptied out in the barnyard where it can drain away to the manure-heap, or be carried about on the feet of poultry, the seeds of a fresh crop of disease are being distributed.