

of which were sent to several of the leading newspapers for publication early in July.

There are some facts which should be kept constantly in mind. 1. The Potato-blight of the leaves and the Potato-rot of the tubers are both due to the same cause. 2. This cause is a fungus which can be controlled. 3. The dry-rot seen in potatoes when they are planted in the spring as seed, produces both the blight on the leaves in August and the wet-rot of the tubers in autumn. 4. No potatoes containing patches of dry-rot should be planted as seed.

REMEDY FOR POTATO-ROT.

"OTTAWA, July 7th, 1892."

"To the Editor of—"

"SIR,—There are few diseases of field crops which are the direct cause of more loss to the farmers of Canada than that which is known under the different names of 'Potato-rot,' 'Potato-blight' or 'Potato-rust.' My object in writing this letter is to draw the attention of your readers to the fact that a practical and simple remedy has been discovered, and that the best time for applying it is during the latter half of this month.

"This disease of the potato is due to the attacks of a parasitic fungus, known by the name of *Phytophthora infestans*. The life history of this fungus is briefly as follows: The fungus passes the winter inside the potato tuber and is planted with it in the spring. As soon as the potato throws out its shoots, the parasite grows with it, running up through the tissues of the stems, and from about the end of July produces beneath the leaves an abundance of spores, or seed-like bodies. These are exceedingly minute, but are produced in such numbers that they frequently give a frost-like appearance to the under sides of the leaves. When these spores are produced on the leaves the appearance known as 'rust' shows itself in the shape of dark brown spots, which are caused by the drying up of the tissues, from the parasite having used up their contents. From the rust stage all future infection takes place. Some of the spores are carried by the wind and falling upon the leaves of other adjacent plants, produce more rust spots, while others falling to the ground are washed beneath the surface, and reaching the forming tubers produce the rot stage. The wet-rot, as seen in autumn in the tubers, is the form of this disease which is best known, but Potato-rot is really a dry rot which kills the tubers, and in autumn the wet-rot follows as a result of decay. In winter the disease occurs in the tubers, as patches of hard, whitish, diseased tissue.

"In this district the rust stage does not generally appear until about the first of August and this is the first evidence that blight is present in the field. As a rule the dark spots appear only on a few leaves at first, but if the weather be favourable the disease spreads rapidly from spores carried by the wind from these centres of infection, so that a large field may become diseased in a few days, and as a result the crop of potatoes ruined.

REMEDY.

"Careful experiments have shown that by spraying the potato haulms at the time the rust first appears, with the mixture of sulphate of copper and lime, known as the 'Bordeaux mixture,' the rust or blight on the leaves can be stopped, and as a consequence a large proportion of the rot in the tubers can be prevented.

BORDEAUX MIXTURE.

Copper sulphate	6 pounds.
Lime, fresh	4 pounds.
Water	45 gallons.

"To make Bordeaux mixture—Take six pounds of copper sulphate (blue vitriol) powdered, and dissolve it in one gallon of hot water in a wooden tub (iron must not be used, as the vitriol would attack it.) Slake four pounds of lime in sufficient water