

in some fields, from one-quarter to one-third of the plants were cut off and it is not too much to say that this disease has been one of the most prolific causes of "poor stands" in the potato fields.

The rotting of the potato stems immediately follows the starting of the seed into growth, for the conditions which favor the developments of the potato plant, favor as well the growth of the fungus. The diseased spots (lesions) on the young stems occur just at the tuber and some distance above. It was at first suspected that another fungus might be present, but a critical microscopical examination usually revealed the presence of the fungal threads of *Rhizoctonia*.

As a result of the attacks of the fungus upon the tender tissues of the young stems many of them fail to develop. They wilt, droop and die. Numerous specimens in this stage have been received from different sections of Florida and from Georgia as well. As a result of these attacks large numbers of the growing stems are destroyed. This stage of the disease is most apparent just as the shoots are pushing through the ground.

The stems of many plants are not sufficiently injured to destroy them. Only the outer tissues are affected and the tops still continue to grow. In such cases the downward flow of sap is interfered with. Starch, of which the potato is largely composed, is manufactured in the leaves, is dissolved, passes downward and is stored in the tubers. The attacks of the fungus on the stems, cut off this downward flow, and the formation of small potatoes in the axils of the leaves along the stem, is the result. Such potatoes as do develop underground are very small and unsalable.

Frequently as a result of the attacks of the fungus, the tops of the potatoes develop in a peculiar manner. The leaves are peculiarly twisted, the veins stand out prominently and altogether