

obtained. The results obtained were inconclusive, as in one plot the treated samples outyielded the untreated in prime tubers by almost one-third, and in the other plot the treated stock yielded about one-fifth less. This difference in behavior was not explained but a larger number of replications would have given more dependable results.

THE EXPERIMENTS IN 1925¹

A small sample of tubers with a slight sprinkling of rhizoetonia sclerotia was treated with the standard corrosive sublimate solution as in 1924 and compared directly in 125 foot rows, in 3 plots, with untreated stock of the same source, as in the previous season. No disease was observed on the stems, plants or tubers. Table III indicates that very small and rather consistent increases in yield were obtained by treating the seed pieces.

On the farm of one grower 14.5 percent of 400 stems from untreated seed potatoes showed stem lesions as compared with 0.285 percent of 700 stems from seed potatoes treated with corrosive sublimate which were examined when the plants were about three inches high. This is the highest percentage of stem lesions which the writer has ever observed in the Hastings section. Late in the season this particular field was again examined and 5.8 percent of the plants in the untreated portion of the field manifested typical rhizoetosis symptoms, particularly aerial tubers, while the plants in the treated section of the field showed no symptoms of the disease. No comparable yield data were obtained.

THE EXPERIMENTS IN 1926

The experimental work in 1926 was conducted on a more extensive scale than during the previous two years. All of the seed tubers were carefully selected from shipments in which 80 percent of the tubers were spotted with sclerotia (black scurf). All of the tubers on which no sclerotia were seen after they had been wetted with water to make the sclerotia more distinct, were picked out and considered "clean controls," and those which were not sclerotia-free were used for the various treatments. The experimental plots were planted in two different sections and at different times, the first in Federal Point, which is considered the earliest section in the potato area, and the other in the later Elkton section. In the former, planting usually starts December 20, and in the latter about a month later. In all of these trial plots the

¹See also "Literature Cited," No. 33.