

of prime tubers over the untreated lots of 23.8, 10.3 and 16.1 per cent respectively, as shown in Table XII. Increases, the first for this entire series of experiments as consistent as these, are considered ideal from the viewpoint of the advocate of seed potato treatment with organic mercury compounds. However, since no disease was observed it would have been interesting to have the comparisons of an untreated control with a sample dipped in water only.

THE EXPERIMENTS IN 1928

Experimental plots, consisting of rows 50 feet long, were conducted in the Federal Point, Hastings, and Elkton sections as in 1927. The tubers used were taken directly from a commercial shipment, unsorted, and they showed only mild symptoms of rhizoctonosis. Plot No. 1, planted December 15, consisted of 10 direct comparisons each of Bayer special 181, 1:40 dip; dipdust, 1:20 dip; and untreated controls.

The percentage stands, seed-piece decay, and relative vigor, for this plot are as follows:

	Bayer Special	Dipdust	Untreated
Stand	181	86	97
Decaying in seed piece	83	21	0
Relative vigor	18	85	100

This is the first injury which the writer has observed from the use of organic mercury compounds, although several instances had been reported in 1927 from other sections of the state where the manufacturers and guarantors of semesan bel paid for large losses because of complete seed-piece decay following planting with seed stock given this treatment.

In plot No. 2 at Hastings, 7 direct comparisons were made with semesan bel, 1:20 dip; dipdust, 1:20 dip; "samenkraft" 1:25 soak 45 minutes; corrosive sublimate, and untreated controls. In plot No. 3 at Elkton, 8 comparisons similar to those in plot No. 2 were made, with the exception of corrosive sublimate which was not used. Samenkraft was a secret preparation manufactured at Green Cove Springs, Florida, and touted as a "powerful pest destroyer and plant stimulant". It was somewhat quickly accepted by a number of planters but proved to have no special value. It was manufactured one year only.

Careful observations throughout the season revealed practically perfect stands, and no differences in relative vigor of the plants in the differently treated samples. There was no seed-piece decay,