

control plots with which each treatment was directly paired. It may be observed in these tables that frequent decreases as well as occasional small increases in yield occurred in the various treated lots, but neither are significant.

In addition to the above trials 20 165-pound bags of potatoes were treated with corrosive sublimate according to the standard formula and planted in alternate rows throughout the field in a cooperative project between a grower and the writer. Eighty percent of this lot showed a medium amount of sclerotia. When the plants were about 3 inches high 1,300 stems in each of the portions of the field planted with treated and untreated seed stock were examined and the former showed 2.6 percent, and the latter 5.7 percent stem lesions. No differences in stand, which was perfect, or relative vigor could be observed. Ten representative 50-foot sample plots were dug in the treated portions and compared with 10 similar plots in the untreated parts of the field. The yields obtained are as follows:

	Barrels per acre.	
	Treated.	Untreated.
Primes	93.0	93.7
Seconds	15.2	13.9
Marketable	108.2	107.6

THE EXPERIMENTS IN 1927

Semesan bel and dipdust were the only two treatments used in comparison with the standard corrosive sublimate formula in 1927. As in 1926 the plots were planted at different places and times in order to obtain information under different environmental conditions.

The earliest plot, where semesan bel and corrosive sublimate were the only treatments used, was planted December 5 in a rather moist portion of a Federal Point field. This particular spot was selected because rhizoctonosis attacks the stems more seriously there than elsewhere in the potato area. Perfect stands resulted in this plot in all treatments. When the plants were about 5 inches tall about one-third of them were frozen to the ground, and all were again frozen January 11. The plot was undisturbed until time for harvest and observations were then made. It was discovered that the untreated rows had an average stand of 72 percent, while the rows treated with semesan bel and corrosive sublimate each had 52 percent stand. The average percentages of sound seed pieces were 51.9, 26.2, and 23.8 percent for the untreated, corrosive sublimate and semesan bel treated lots respec-