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## THE SPRAYING DEMONSTRATIONS

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**A**LTHOUGH the results of the experiments conducted this season in the Niagara district, spraying grapes, have not been conclusive, yet the careful and impartial observer has been shown that those vines which were sprayed are freer from disease than those which were unsprayed. The main object of the experiments was to test the efficiency of the preparations which had been recommended for the control of the chief insect and fungous diseases of the vineyard and orchard, especially for the control of the grape rots and San Jose scale.

The work was begun and charted by myself, but was carried on in my absence by Mr. P. W. Hodgetts, Department of Agriculture, Toronto; Mr. T. D. Jarvis, O. A. C., Guelph, and Mr. Andrew Haynes, St. Catharines. Experiments were carried on at the following points: Mr. Murray Pettit's, Winona; Mr. Ambrose Pettit's, Grimsby; Mr. R. Kelly's, Beamsville; Mr. Bartlett's, Beamsville; Mr. J. Fretz's, Jordan; Mr. S. Overholt's, Jordan; Mr. Geo. Robertson's, St. Catharines; Industrial Home, St. Catharines; Mr. S. Shearer's, Niagara-on-the-Lake; Mr. Porter Adams', Queens-ton, and Mr. Berriman's, Stamford.

The first experiments began at Winona, April 13, while the trees and vines were still dormant. Applications of lime-sulphur were applied in some orchards for the control of the San Jose scale. In most cases

this mixture was made without the application of steam. In the vineyards a one per cent. solution (4 pounds in a barrel of water) of copper sulphate was applied to certain check rows. Later applications of Bordeaux mixture were made in the vineyards about the second week in June, the first and third weeks in July, and the first and second weeks in August. A chart of the different experimental vineyards was carefully prepared at the outset and the plan was adhered to as nearly as possible throughout the season. The object of the chart was to determine what sprayings were absolutely essential and what sprayings were unessential for the control of the grape rots. Rows, or portions of rows, were left unsprayed as checks in every vineyard.

During September I visited the different experimental vineyards. The season has been a most favorable one for the grape grower. Even the most careless grower has had very little rot to contend with. For this very reason the season has been an unfavorable one for experimentation. Practically no difference was noticed as to the effects of the different applications. At Winona the check vines, which were left unsprayed, had considerable mildew, but the grapes will not be injured to any extent. In a season, such as that of last year, these mildewed grapes would have been totally destroyed. The color of the foliage was