

Diel, Winter Bartlett, Emile de Heyst, and Howell showed no scorching of foliage. Poire de Berriays, Harrington's Victoria, Richmond Beauty, Beurre Bosc, and Marie Louise D'Uccle were varieties badly scorched, Harrington's Victoria suffering to the greatest extent. Russeting of fruit occurred on P. Barry and Directeur Hardy. A weaker strength than 1 in 80 should therefore be applied to those more tender varieties, and a strength of 1 in 100 may be recommended instead. The strength at which the lime-sulphur should be used is certainly a very important point to the orchardist, for the stronger the solution is applied without being detrimental to the fruit or tree the more completely will fungoid and insect pests be controlled.

It may be stated that the initial experiments with lime-sulphur at Ruakura gave anything but satisfactory results. The first season's trials were conducted at too great a strength. Repeated experiments, covering a wide field of variations, are the only means of gaining definite information on subjects of this nature. One experiment must follow another if anything of real value is to be achieved. Suggestions for future trials must have for their foundation data emanating from the results of former trials. Results are in most instances neither glaring nor conspicuous, and can only be arrived at after careful observation and study.

Since lime-sulphur has become one of the principal sprays in the Ruakura orchard powdery mildew has been practically wiped out. This disease was very prevalent in 1913, and, according to past records, was then on the increase, though all trees received regular sprayings of Bordeaux mixture. Exactly the same results as regards red mite followed the introduction of lime-sulphur. This pest is one that can do an immense amount of damage, and the extent to which it may rob a tree of its vitality is seldom fully recognized by the orchardist.

There can be but one conclusion from the above facts—namely, that lime-sulphur as a summer spray must command precedence over Bordeaux mixture.

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Chatting recently with an officer of the Department a Marlborough farmer put in a good word for the small birds. He mentioned that many years ago, when the birds had not multiplied to their present numbers in his district, the barley crops were frequently ravaged by caterpillars. As showing the severity of the pest, he told of a case in which a neighbour's barley had been wiped out by the caterpillar. The insects then began to cross a road dividing the destroyed crop from a paddock of barley on the opposite side. The owner of the threatened field successfully met the invasion by driving a roller up and down the road, crushing the caterpillars in masses. Of late years (presumably owing to the increase in the numbers of birds) Marlborough has been free of the pest.