

3. The trees do not need to be drenched, but must be completely moistened with the mixture.

4. Reliable pumps are manufactured by the Field Force Pump Co., Lockport, N.Y., Gould Manufacturing Co., and Rumsey & Co., both of Seneca, N.Y., and the Nixon Nozzle and Machine Co. of Dayton, Ohio.

I am not aware that these pumps are manufactured in Canada.

MILDEW OF THE GRAPE.

The disease particularly referred to in the following is known among viticulturists as "downy mildew," "brown" or "gray rot" of the grape, and to scientists as *Peronospora viticola*, was very severe last year in many grape growing districts. It has been particularly destructive in the Eastern and Central States, and also in Western Ontario. Last year it was prevalent in vineyards in the Province of Quebec, and also in the Ottawa Valley.

As a rule it is first noticed on the fruit—when about half formed—presenting a downy and frosted appearance, which gives place to a grayish brown in the later stages. The berries shrivel and fall to the ground when slightly shaken. Beginning with one or two varieties in the vineyard, the disease if allowed to run its course will spread rapidly, attacking other kinds which were at first entirely exempt.

It usually affects the leaves and wood later in the season, sometimes in the case of early varieties after the fruit has been gathered. This stage of the disease was prominent as affecting the Roger Hybrids in the Experimental Farm vineyard last season.

At first it is seen on the upper surface of the leaf showing in brown spots, while the lower surface presents the frosted appearance resembling that form of the disease affecting the fruit. This particular leaf form is not easily detected on grapes having the thick pubescent leaves characteristic of the Concord family.

TREATMENT.

Carbonate of copper.....	2 oz.
Ammonia.....	1½ pint.
Water.....	25 gals.