

## PREPARATION OF BORDEAUX MIXTURE.

The ingredients are copper sulphate, lime and water. A good quality of copper sulphate should be secured. As pointed out by Mr. Fairchild, a brand which contains a large amount of iron and zinc sulphate should not be used, although it has not been proved that these ingredients actually injure the mixture. He further states that lime which is made from stone containing a large amount of clay is likely to be what is known as "dead" lime, and to contain small insoluble granules. This kind of lime may be used, but is likely to give trouble unless the resulting milk be well strained before adding it to the copper sulphate. Lime which is air-slaked should not be employed in any case, since its use results in injury to the foliage. The method of preparing the mixture has so often been described that I need not again repeat the directions.

Where large orchard areas are under treatment, the work of preparing Bordeaux mixture may be greatly lessened by making at the beginning of the season stock solutions of copper sulphate and lime, which may be diluted as needed. Dissolve 200 pounds of copper sulphate in 50 gallons of water, and each gallon when stirred will contain 4 pounds of the salt. In another barrel, slake 200 pounds of lime and make up to a milk by adding 50 gallons of water. Each gallon should contain 4 pounds of lime. Where it is desired to make a barrel of Bordeaux mixture, take 4 gallons of the stock solution of copper sulphate, and add a sufficient quantity of the milk of lime to neutralize it completely, as shown by the ferrocyanide test. If the lime is deficient, a drop of the ferrocyanide of potassium added to the mixture will turn brown. Add lime water till the ferrocyanide remains colourless.

Spraying with Bordeaux mixture has come to stay, at least till a more effective agent is discovered. The work of the season demonstrates the fact that it is efficacious and profitable in proportion as it is thoroughly and perseveringly practised.