

with water, stirring all the while, and the spray is ready to use. Never pour the undiluted bluestone water into the undiluted milk of lime, or a poor chemical union will result. Such a mixture has poor fungicidal value, settles rapidly and clogs the nozzles.

STOCK SOLUTIONS.

Where more than a barrel or two of Bordeaux is to be made, it saves time to make what are called stock solutions:—

Weigh out and put into a long, deep trough like a "feed trough" enough lime to make a definite number of barrels or tanks of spray. If the barrel holds 50 gallons, or the tank 100 or 150 gallons, use some multiple of four pounds of lime, say 40 pounds. Bring to milk of lime by adding just the number of gallons of water that you use pounds of lime, here 40 gallons. The lime slacks best if warm or hot water be used as a starter. Dissolve in a very large tub or wooden tank 40 pounds of bluestone in 20 or 40 gallons of water. Never use less water than 1 gallon to each 2 pounds of bluestone, or the material will recrystallise in the bottom and on the sides of the container.

Then all you have to do is to measure out 4 gallons of the milk of lime, 2 or 4 gallons of the bluestone water, dilute to about 15 gallons each and pour together into the barrel. If the spray-tank holds 2 or 3 barrels, you have to measure out two or three times as much and dilute two or three times as much as for the barrel.

TESTING SPRAY.

If the lime used is a fine lime, neither air-slaked, improperly burned, nor having much "rock" in it, I have found 4 pounds sufficient to each 4 pounds of bluestone. However, many stations now recommend using 6 pounds of lime to 4 pounds of bluestone, and this should certainly be done if the lime is not first-class. The best way to assure one self that he has lime enough is to test the mixture. There are three ways of testing:—

1st. Dip a perfectly clean, bright blade of a pocket-knife into the Bordeaux and leave it in it for about one minute. If there is not lime enough, a thin, reddish stain of copper will be left upon the blade.

2nd. Fill a small bowl with the Bordeaux, and, holding it level with the eye, breathe gently upon and across the liquid. If it is properly made, and there is any excess of lime, the carbonic acid of the breath will cause a thin pellicle to form on top.

3rd. Dissolve in six ounces of water one ounce of ferro-cyanide of potassium. Pour some of the Bordeaux into a bowl and add a little of the solution to it, drop by drop. If a brownish discolouration takes place, you must add more lime to the stock solution and tank.

USES OF THIS SPRAY.

Apple Scab.—Use once before flowers open, best just as buds are bursting, and two or three times after fruit has set, according to the prevalence of rain and cloudy weather. In ordinarily pleasant seasons three sprayings are enough. When applying the last two sprayings the insecticide can be added to the spray, thus scab and insects being combated at the same time.