PARIS GREEN WITH THE BORDEAUX MIXTURE AND AMMONIACAL COPPER CARBONATE.



HE efficacy of certain spraying fluids for combating injurious insects and fungus diseases of plants is now well established and recognized. Of the insecticides, Paris Green in water is perhaps the most important; of the fungicides, the Bordeaux mixture and the Ammoniacal Copper Carbonate are the most widely known and used.

At times, more especially in orchard work, both an insecticide and a fungicide are required. Consequently, there have been efforts made for several years past to prepare a fluid which would combine these functions. The application of such a fluid, if efficaceous, would result in a considerable saving of time and labor. The simplest method, and one that at once occurs to those using spraying fluids, is to add the Paris Green, in the proper proportion to the fungicide. Such fluids or mixtures using Bordeaux and Ammoniacal Copper Carbonate, have been tried for several seasons, and, as might have been expected, various results have been reported. In some instances, failure to protect from the ravages of insects and fungous foes is said to have attended these trials, and further that the failure is to be attributed to a solution or decomposition of the Paris Green in the fungicide fluid. To ascertain if such a decomposition or solution actually occurred, the following experiments were made :

I. Diluted Bordeaux mixture with Paris Green was prepared from the formula

Copper Sulphate	4 lbs.
Lime	4 lbs.
Paris Green	4 oz.
Water	50 gallons

The freshly burnt lime was slaked and stirred with water until the whole was of the consistency of cream. This was then stirred into a vessel containing the dissolved Copper Sulphate and made up to the required volume. The Paris Green was then added and the mixture thoroughly stirred.

(a) After keeping the mixture thoroughly agitated for two days, a portion was withdrawn and filtered. The clear filtrate was then submitted to careful chemical analysis, but not a trace of arsenic could be detected.

(δ) For a further period of a week, the mixture was kept agitated and then another portion withdrawn and filled. Analysis did not reveal the presence of arsenic in the filtrate.³

We are therefore justified in concluding that under the conditions here stated no decomposition or solution of the Paris Green takes place in the Bordeaux mixture, and therefore that the efficacy of this arsenical poison, as an insecticide, is not thereby lessened.