

in two days, they may destroy the whole crop. I spray pear trees just as soon as the blossom is off. Before I treated the pears, they were very knotty, but since I have taken to spraying, they have been perfectly smooth and I have had no trouble.

Mr. WILLARD.—What varieties of plums did you spray?

Mr. CLINE.—I have about thirty-five varieties that are bearing, including the Bradshaw, Niagara, Lombard, Golden Drop, Smith's Early, Quackenbos, Yellow Egg, Pond's Seedling, Golden Gage, Imperial Gage, Washington, General Hand, Jefferson, German Prune, Moyer, and others.

Mr. BEALL.—If you were going to set out another orchard, would you plant as many varieties?

Mr. CLINE.—No; if I did not want them for any other purpose than marketing, I would not plant more than ten varieties.

Mr. E. D. SMITH (Winona).—I have had some injurious effects from Paris green, but only when I did not use the right proportions. The danger is in using the strong solution at the bottom of the barrel. I think three ounces of Paris green to forty-five gallon of water is sufficient for pears and plums; but there is considerable variation in the strength of Paris green. It would be a good thing if this Association could secure a uniform strength in some way.

Mr. M. PETTIT (Winona).—My experience with plums has been pretty much confined to Lombards. There is one portion of the orchard to which we were unable to drive a wagon, so that it has not been sprayed for the last five years; yet it yields as good crops as the other portion which has been sprayed. The cultivation has been pretty clean, and I am of the opinion that, where that is the case, the curculio will not do much damage. I have tested spraying against the codling moth, and I never could see a particle of difference between those trees which were sprayed and those which were not.

The PRESIDENT.—Perhaps I can explain the apparent contradictions in the use of these arsenites. Some years ago my attention was directed to their use, and I took occasion to ascertain which of the two mentioned contained the greatest amount of soluble arsenic, which I considered would be most detrimental. A fairly good sample of Paris green contains little or none, but London purple contains a considerable proportion. Experiments were instituted a short time ago at Cornell University, under the direction of Professor Bailey, the results of which showed that the use of London purple upon thin leaved plants was attended with a great deal of danger, while the use of the same proportion of Paris green was attended with comparatively little danger; that London purple should not be recommended where Paris green could be obtained; and that the use of Paris green in moderate quantities would be effective in preventing the attacks of the curculio, and would not injure the foliage of the plum. That is the result of the experiments made at Cornell University, and I simply give it to show you that even on this point good authorities will differ.

Mr. PATTISON.—In preparing the solution, do not fill the barrel with water and then put the Paris green in. It will mix much better if you first stir it up with half a pail full of water, and then put it into the barrel.

Mr. P. C. DEMPSEY.—I have had a good deal of experience in spraying with Paris green. I do not grow many plums, but I have found that those trees, which were not sprayed, did not yield any fruit, whereas, those which were sprayed yielded a fair crop. For apples and pears we used a quarter of a pound of Paris green to seventy gallons of water, but for plums we only used about half that quantity. I have found that when the mixture is forced on the under side of the leaves it destroys them, but where it is dropped on the top the foliage does not suffer.

WOOD ASHES FOR ORCHARDS.

QUESTION.—Where can wood ashes be obtained, and what is their probable value? What is the best mode of applying them to orchards?

Mr. E. D. SMITH.—I have used a good many ashes with beneficial results, but what is the best method of applying them I am not prepared to say. I always scatter them