

Our recent experiments comprise trials on apples, cherries and plums with the following mixtures:

"A"—Soda-Bordeaux (Burgundy mixture):

Copper sulphate (bluestone)	4 lbs.
Washing soda	5 lbs.
Water	40 gals.

The bluestone and washing soda were dissolved separately in half the total volume of water and the resultant solutions mixed. This mixture, it will be observed, contains no paris green or arsenic in any form.

"B"—Soda-Bordeaux, as above, to which was added 4 ounces of paris green.

"C"—Soda-Bordeaux, as above, to which was added a solution made by boiling together 8 ounces of white arsenic and 2 pounds of washing soda with 1 gallon of water.

RESULTS AND CONCLUSIONS.

"A"—No apparent injury to the foliage of apples, plums and cherries.

"B"—Apples: A few leaves slightly scorched at the edges. The probabilities are it will be found that the varieties differ somewhat in their ability to resist the corrosive action of this spray, but the results obtained so far indicate that its use would

be attended with a considerable degree of danger in the apple orchard.

Plums: Scorching of the leaves quite evident, though injury not very serious.

Cherries: Results rather similar to those obtained on apple foliage. It is extremely doubtful if this spray could be used for this crop with safety.

"C"—Apples, Plums and Cherries: In every instance in which this spray was used excessive injury resulted. The foliage was badly scorched, subsequently becoming crisp and falling. The damage was such as to show conclusively that this spray is quite unsuitable and dangerous in the highest degree for all classes of fruit trees.

In a word, Burgundy mixture, pure and simple, has shown itself, as far as our experiments have gone, to be non-injurious to foliage. When, however, paris green is added the spray becomes more or less corrosive to foliage and its use is attended with danger. The addition of soluble arsenical compounds, as in "C," renders the spray extremely injurious to foliage, entirely prohibiting its use."

When it is desired to use paris green as an insecticide in the spray, Bordeaux mixture made with lime only should be used.

BURGUNDY MIXTURE HARMFUL

THE Burgundy mixture, used in many orchards during the past season, has given poor results in several cases. Growers in the Winona and Grimsby districts have destroyed a great percentage of their trees as a result of its use.

"The total damage to my trees amounts to about \$1,000," said Mr. E. D. Smith, to *The Horticulturist* a few days ago. "Nearly 2,000 plum trees and 500 cherry trees have been injured. Some trees were so badly scorched that I do not think they can recover. Smaller trees received a heavier spray than larger ones, so that the younger stock was damaged the most.

"We used the proportions recommended by the leading authorities, but did not test every time with litmus. With the ordinary Bordeaux mixture an excess of copper sulphate is all that has to be guarded against. An excess of lime makes no difference. In the Burgundy mixture, however, the proportions must be just right. An excess of sal soda seems to be just as injurious as an excess of copper sulphate. It is easy to prepare, but just as easy to make a mistake in the preparation of it. The nozzles never clog, and the mixture being colorless does not discolor the fruit, but I do not think I shall ever use it again."