

McMurtrie, formerly chemist of the United States Department of Agriculture, has shown that even when they were used in such large quantities as to kill the plants themselves, yet the most rigorous chemical analysis could not detect any arsenic in the plants. These results were confirmed at the Michigan Agricultural College. Experiments made at the Colorado Agricultural Experiment Station showed that even when dusted upon cabbages in such quantities as would kill all worms within a day or two; an adult would need to eat some twenty-eight head of cabbage in order to consume a poisonous dose of arsenic, provided none of the arsenic was removed in the process of cooking.

As usually used for spraying apple-trees for the codling moth, of the strength of one pound in 200 gallons of water, one would need to consume several barrels of apples at a single meal in order to absorb a fatal dose. This would need to be done very soon after the spraying, and before it had been washed off by rain. When examined fifteen days after spraying hardly the minutest trace could be discovered.

Likewise of the four copper compounds used, the Bordeaux mixture, the ammoniacal solution of copper sulphate, the eau céleste, and its modified form, many vague and misleading statements as to their danger have appeared. Every one, however, who is familiar with the situation understands that they are simply efforts on the part of selfish competitors to cripple the legitimate trade of more wide-awake rivals. Not a single authentic case of poisoning, so far as the United States Department of Agriculture can learn, has been brought to light. It is true that a few individuals have claimed that they were made sick from eating sprayed fruit, but in all such cases careful investigations have revealed that claims of this kind were absolutely without foundation. Analyses which have been made of grapes intelligently sprayed in France, Germany, America, and other countries have shown that they rarely contain more than five parts of copper in a million, the average being 2.5 to 3 parts. On this basis one might eat from 300 to 500 pounds of sprayed grapes per day without fear of ill effects from the copper. Grapes which had never been sprayed at all were sometimes found to contain two parts of copper in a million parts, these but slightly