

kerosene emulsion alone for those insects that suck the juices of plants, such as aphids, thrip, red spider, clover mite, oyster shell bark louse, San Jose scale, etc.

4. A stock solution for the preparation of Bordeaux mixture may be prepared as follows: Dissolve 25 pounds of copper sulphate in 25 gallons of water. One gallon of this contains one pound of the copper sulphate. In another barrel slake 25 pounds of good lime, and add 12½ gallons of water. One gallon of this contains two pounds of lime. To make the mixture, take four gallons of the copper sulphate solution and two of the lime. If there is any doubt about there not being sufficient lime try the test already referred to under Bordeaux mixture. Now fill up the amount to 40 gallons with water.

5. Prepare the mixture well, apply them at the proper time, and be as thorough as possible in the work. Three fourths of the so called spraying done is not spraying at all. The trees are only drenched. When spraying is properly done, the mixture is broken up like a mist and settles on every part of the plant. A great deal more of the mixture will remain on the plant when applied in this way, and there is also a saving of material, as every drop which falls to the ground is lost.

6. No mixture should be left in the pump or barrel, and, after using, clean water should be pumped so as to clean the outfit. This is important, as some of the mixtures act chemically on the metal of the pump.

7. Use a Y and two nozzles, or a triple head and three nozzles. The work can be done just as well and much more expeditiously.

8. To keep Bordeaux mixture off horses and harness use coarse linen or other cover.

9. As most of the spraying mixtures are poisonous, care should be taken in working with them. They should not be used when there is any wound or abrasion of the skin exposed, and care should be taken not to allow the spray to settle on the hands or face, or to be inhaled. Arsenites taken into the system by absorption or inhalation produce symptoms of poisoning. In mild cases they resemble the symptoms produced by poisoning; in severe cases, headaches, nausea, eruptions, boils and ulcers are said to result. The danger from arsenites, which are soluble in water, such as London purple, are much greater than from Paris green, which contains very little water soluble arsenic. There is more danger of poisoning by absorption when perspiring freely. However, by taking proper precaution, there need be little fear. A leather washer about four inches in diameter should be fitted just below the nozzle which will prevent the drip from reaching the hands. As far as possible keep to windward of the nozzle. When much work is to be done, rubber gloves should be worn. The face and exposed parts should be washed immediately after spraying.

10. The cost of spraying with Bordeaux mixture is not very great. Copper sulphate of the best quality (which is the only kind which should be used) can be had at from 4½c. to 5c. per lb. by the barrel, and Paris green at from 15c. to 20c. per lb. The cost for material to properly spray an average apple tree for the entire season should not exceed from 4c. to 5c.

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