

of the blossoms, as they have been seen to feed on the drops of a gummy excretion, containing multitudes of bacteria, which ooze from ruptures in affected twigs, and then to visit soon afterwards the blossoms.

Treatment. Cut off and burn affected twigs and branches whenever they appear. The limbs should be cut off 4 to 6 inches below the diseased part.

PREPARATION OF THE BEST INSECTICIDES AND FUNGICIDES.

I. *Bordeaux Mixture.*

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| Copper sulphate (blue stone) | 4 pounds. |
| Fresh stone lime | 4 pounds. |
| Water | 40 gallons. |

(1) Make a stock solution of bluestone by dissolving 25 pounds in warm water in a barrel and add water to make up to 25 gallons. Every gallon of this solution in first barrel contains one pound of blue stone.

(2) Into a second barrel put 25 pounds of fresh stone lime, and add with stirring small quantities of water to slake it. When fully slaked make up to 25 gallons by adding water. Every gallon of milk of lime in this second barrel contains one pound of lime.

To prepare the Bordeaux, empty 4 gallons of blue stone solution into the spray tank or barrel, which already have 25 or 30 gallons of water in it; stir the milk of lime thoroughly; then empty 4 gallons of it through the strainer into the spray barrel, stirring constantly; then add water to make up to 40 gallons.

Any one of several arsenical compounds may be used along with the Bordeaux to form a combination insecticide and fungicide. The following are among the best :

- (a) *Paris Green.* Add 4 to 6 ounces to 40 gallons of Bordeaux.
- (b) *Arsenite of Soda.* Boil together for 15 minutes one pound white arsenic, 4 pounds sal soda, and 2 gallons water, until a clear solution is obtained. Add 1 to 1½ quarts to 40 gallons of Bordeaux.
- (c) *Arsenite of Lime.* Boil together for 45 minutes 1 pound arsenic, 2 pounds fresh lime, and 1 gallon of water. Add one quart of this solution to 40 gallons of Bordeaux.

II. *The Lime-Sulphur Wash.*

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| Fresh Stone Lime | 20 pounds. |
| Sulphur (flowers) | 15 pounds. |
| Water | 40 gallons. |

With warm water make the sulphur into a paste; put in the lime and add about 15 gallons warm water with stirring. The Sulphur made into