

Galloways Mixture No. 5. Equal parts ammoniated copper sulphate and ammonia carbonate, used at the rate of 8 to 12 ounces in 25 gals. of water.

Potassium Sulphide. Consists of 1 oz. potassium sulphide to 2 gals. of water.

INSECTICIDES.

These are compounds or mixtures used to destroy insects injurious to vegetation.

Paris Green. (Arsenite of copper, containing 50-60 per cent. of arsenic.) This is applied dry or in solution. In the dry form it should be mixed with 50 to 100 parts of plaster, wood ashes, flour or air-slacked lime, and dusted upon the affected plants. The form in solution is usually 1 lb. of Paris green to 200 gals. of water, but if the foliage is tender 250 to 300 gals. of water may be used. This is the usual strength applied upon the plum and peach. As the green powder does not dissolve it requires to be kept thoroughly mixed by constant stirring.

London Purple. This is an arsenite of lime obtained as a by-product in manufacturing dyes. It is largely used instead of Paris green; but being more soluble in water it is apt to injure the foliage, and, besides, its composition varies considerably so that when used it is not likely to give as uniform results as Paris green.

These arsenites are excellent against all leaf-eating insects.

Kerosene Emulsion. This is a mixture of coal oil and water. There are three formulas used to a considerable extent:

(1) *Riley-Hubbard Emulsion.* Consists of $\frac{1}{2}$ lb. of hard soap in 1 gal. of water. Boil till dissolved, and then add 2 gals. of coal oil, and mix thoroughly for about five minutes. When properly mixed it will adhere to glass without oiliness. This can be done by forcing it through the nozzle of a force-pump repeatedly until the mixture appears complete. It will then form a creamy mass which thickens into a jelly-like substance on cooling. In using, dilute with 9 parts of soft water.

(2) *Cook's Emulsion (soft soap).* Take 1 quart of soft soap and 2 quarts of boiling water, and while hot add 1 pint of coal oil; mix thoroughly as above. In using dilute with an equal amount of water, either hard or soft.

(3) *Cook's Emulsion (hard soap).* Take $\frac{1}{2}$ lb. of hard soap, 2 quarts of hot water and 1 pint of coal oil; thoroughly mix while hot. In using dilute with twice the amount of either hard or soft water.

Emulsions are successful against plant lice and scale insects. *Hellebore.* This is the powdered root of a plant (*Veratrum album*). It may be applied dry, or in solution at the rate of 1 oz. to 3 gals. of water.

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