

FORMULAE FOR INSECTICIDES

I.—POISONS (for biting insects only).

- 1.—**ARSENATE OF LEAD**—Two lbs. to 40 gallons liquid spray; 3 lbs. for potato beetles.
- 2.—**PARIS GREEN**—(a) $\frac{1}{4}$ to $\frac{1}{2}$ lb. to 40 gals.; 1 lb. for potato beetles. If used with water alone, add 1 or 2 lbs. fresh lime. (b) 1 lb. mixed with 50 lbs. land plaster, air-slaked lime or some similar substance, for dusting on plants. (c) Poisoned bran, mix 1 lb. Paris Green with 50 lbs. bran moistened with sweetened water. Scatter in evening on soil by plants for cutworms.
- 3.—**ARSENITE OF LIME**—Boil 1 lb. white arsenic and 1 lb. sal soda (crystals) with stirring for about 15 minutes in 1 gal. water till all the arsenic is dissolved, then add 2 lbs. stone lime and let slake in boiling liquid. Add water to make up for what has evaporated. One quart of this when well stirred is sufficient for 40 gals. spray liquid. Arsenite of lime can be made in large quantities and stored. Label barrel "poison," and be careful to keep white arsenic itself labelled "poison." Keep barrel covered to prevent evaporation. Stir well before using. N.B.—With Bordeaux, 1, 2 or 3 may be used; with commercial lime-sulphur, 1; the others cause burning.
- 4.—**WHITE HELLEBORE**—One oz. to 2 gals. water, or dust undiluted over the plants. For root maggot dust close to plants, or pour around roots.

II.—CONTACT POISONS (chiefly for sucking insects).

1.—KEROSENE EMULSION.

Kerosene (Coal Oil)	2 gals.
Rain Water	1 gal.
Soap	$\frac{1}{2}$ lb.

Dissolve the soap in water by slicing and boiling; take from fire, and while hot pour in kerosene and churn vigorously for five minutes. For use dilute with 9 parts of water, so that the above 3 gals. of stock emulsion will make 30 gals. of spray mixture.

- 2.—**WHALE OIL SOAP**—For brown or black aphids, 1 lb. in 4 gals. For green aphids, thrip and leaf-hopper, 1 lb. in 6 gals.
- 3.—**TOBACCO WATER**—Boil 1 lb. refuse tobacco in 2 gals. of water for 1 hour, make up for water that evaporates.
- 4.—**Black Leaf 40**, made by Tobacco Product Co., Louisville, Kentucky.
- 5.—**PYRETHRUM** (or insect powder).

Pyrethrum Powder	1 oz
Water	2 to 3 gals.

Dry mixture, mix thoroughly 1 part by weight of pyrethrum with 4 of cheap flour, and keep in air-tight vessel for 24 hours before dusting over plants.

Note: Pyrethrum is useless if left exposed to the air.

- 6.—**LIME SULPHUR WASH**. (See under fungicides.)