

## INSECTICIDES FOR SUCKING INSECTS ONLY.

### 1. LIME-SULPHUR.

For scale insects, Blister Mites and Red Spider.

### 2. TOBACCO EXTRACTS.

For Aphids, Leaf-Hoppers, Peyllas, etc.

(a) BLACK-LEAF 40, strength to use is indicated on the cans.

(b) NICOTINE-SULPHATE 40%. Strength is indicated on the cans. (Practically same as Black Leaf 40).

(c) HOME-MADE EXTRACT. Soak 1 lb. tobacco refuse in 1 gal. water for 24 hrs. with occasional stirring, or steep 1 lb. in 1 gal. water for 1 hr. Make up for water that evaporates. Use at once without dilution: spoils in a few days if not used.

### 3. KEROSENE EMULSION.

Kerosene (Coal Oil) ..... 2 gals.  
Rain Water ..... 1 gal.  
Soap ..... ½ 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.

### 4. WHALE OIL SOAP.

For brown or black aphids, 1 lb. in 4 gals. rain water. For green aphids, thrip and leaf-hopper, 1 lb. in 6 gals. rain water.

tion of a little water. Boil vigorously, with stirring, for 1 hour. Dilute to 40 gals. with cold or hot water. Strain and apply as once.

### 2. COMMERCIAL LIME-SULPHUR. (Factory-made concentrated lime-sulphur).

This as purchased is usually about 1.290 specific gravity strength or 33° Baume.

### 3. HOME-MADE CONCENTRATED LIME-SULPHUR.

This may be used as a substitute for commercial lime-sulphur, but is only about % as strong as a rule.

Sulphur (a fine grade).....100 lbs.

Fresh stone lime, high in

percentage of calcium... 50 lbs.

Water.....40 or 50 gals.

Put about 10 gals. water in the boiling outfit, start fire, add sulphur, stir to make paste and break lumps, then add remaining water, and when near boiling put in lime. Stir frequently while slaking and until all the sulphur and lime are dissolved. Add water from time to time to keep up to 40 or 50 gal. mark. Boil 1 hour, then strain through a screen of 20 meshes to inch into storage barrels. Make enough at once for season's work. Cover well to keep out air, or pour oil of any kind over surface to depth of ¼ inch for same purpose.

To determine how much to dilute for different applications use a hydrometer with specific gravity readings, and apply the following rule:

Put the hydrometer in the clear liquid when it is cold and the sediment has all been settled for a day or two. Note the number to which it sinks. Suppose this is 1:240. The strength for use before the buds burst should be 1:030 or stronger. To determine how much to dilute a strength of 1:240 to get 1:030, divide the three figures to the right in 1:240 by 30, that is

### 1. SELF-BOILED (chiefly for use on peach foliage).

Fresh stone lime ..... 8 lbs.

Sulphur (flour or flowers)..... 8 lbs.

Water ..... 40 gals.

Best prepared in quantities of 24 lbs. at a time to get sufficient heat. Place 24 lbs. lime in a half barrel, add enough cold water to start it slaking well and to keep the sulphur off the bottom. Dust the 24 lbs. sulphur over the lime, having first worked the sulphur through a screen to break lumps, then add whatever further amount of water is necessary to complete the slaking. Stir well with a hoe to prevent the lime caking on the bottom. As soon as the slaking is over, add enough cold water to cool the whole mass and prevent further combination. Strain into spray tank. Keep well agitated while spraying.

### 5. DUST.

For biting insects and fungus diseases the substances used now are 85 to 90% of sulphur and 10 to 15% of arsenate of lead powder. Dusting at this date (1917) is only in experimental stage.

### III.—DISINFECTANTS (for pruning tools and for wounds on trees):—

#### 1. CORROSIVE SUBLIMATE, 1 part to 1,000 by weight=1 tablet to 1 pint of water.

Apply with a swab on end of a stick. *Caution.*—Corrosive sublimate is a deadly poison to man or beast if taken internally. It will also corrode iron or metal, so use in a glass or wooden vessel and be sure to wash these out very thoroughly when through using them.

#### 2. LIME-SULPHUR about twice strength, or bluestone, 1 lb. dissolved in about 14 gals. water, may be used to disinfect wounds or cankers, but is not satisfactory in case of Pear Blight.