

"As these chemicals are all extremely poisonous, vessels in which they have been dissolved or mixed should be plainly marked, and not used for any other purpose."

The authors of the above publication claim that Formula A will produce neutral lead arsenate and Formula B acid lead arsenate.

The economy of making home-made lead arsenate will depend on the cost of materials, labour, convenience, ability to secure the chemicals of suitable quality, etc.

#### CALCIUM ARSENITE.

This is a home-made substance and several formulæ have been published for making it. There seems to be no doubt about the insolubility of the compound when it is used immediately after it is prepared, but when allowed to stand for days or weeks before applying there may be some decomposition take place and soluble arsenites be formed which will destroy foliage.

The following method can be followed in making it:

White arsenic ( $As_2O_3$ ) .....	5	pounds.
Washing Soda, crystallized ( $Na_2CO_3 \cdot 10H_2O$ )....	5	pounds.
Water (soft, such as rain water) .....	2½	gallons.

(In place of the crystallized washing soda one can use instead 1½ pounds of the anhydrous washing soda. It is a white powder. The crystallized washing soda changes into it after long exposure to the air, so that it is a common thing, therefore, to find that the crystallized washing soda after bought changes, if kept in an open container, to the anhydrous form. The so-called soda ash, which can be bought and which looks like anhydrous washing soda, is not suitable for making calcium arsenite.)

[The washing soda and white arsenic are added to the water. The mixture is then brought to the boiling point and boiled till everything is dissolved. This takes about five minutes of boiling. When solution is effected, about 8 pounds of good fresh lime are added. When slaking has ceased, continue boiling for 10-15 minutes. This mixture, when diluted with water, will make about 800 gallons of spray. It can be made in smaller quantities if so desired, by reducing the quantity of white arsenic, washing soda and lime given above, but still retaining the same proportions.]

The chief advantages of the calcium arsenite preparation is that it is cheap, the materials are easily procured, it is easily prepared, and that it is a reliable and fairly safe insecticide.

#### CONTACT REMEDIES.

As previously stated, these remedies are employed to destroy sucking insects which must be killed by contact. They will kill by clogging the