

Manufacture of Arsenate of Lime.

Arsenate of lime when it is to be used with Bordeaux mixture may be manufactured at home by dissolving nine-tenths of a pound of arsenate of soda (65 per cent arsenic oxide) in water and using all the solution, which would be about two quarts, to slake enough lime for forty gallons of Bordeaux mixture. Whether this material has any advantages over that made by adding the arsenate of soda solution to the completed Bordeaux mixture is questionable.

The home manufacture of arsenate of lime for use with sulphide sprays is not advised at the present time as the difference in cost between the home and factory made material is usually slight and is not always in favour of the home-made.

A first-class arsenate of lime is rather a hard material to make, even in a well equipped laboratory or factory, as is shown by the fact that there are now on the market some brands of arsenate of lime that are very low in arsenic, are coarse and gritty and in which the percentage of soluble arsenic is too high for safety when used with sulphide sprays. These materials are being sold for only a few cents less than well-manufactured articles containing twice the amount of arsenic. It is feared that all makes of arsenate of lime will suffer from the trouble that must follow the use of this material when combined with other sprays than Bordeaux mixture.

We have used and found satisfactory arsenate of lime manufactured by the following firms:—

The Sherwin-Williams Co., Montreal, Can.
 The Canada Paint Co., Montreal, Can.
 The Canada Rex Spray Co., Brighton, Ont.
 The Riches-Piver Co., New York, U.S.A.
 The General Chemical Co., New York, U.S.A.

Buyers, in order to protect themselves, can ask a guarantee of less than one per cent of water soluble arsenic in addition to a guarantee of the arsenic content and the form of the arsenic content, which should be tri-calcium arsenate. Also, if they desire a guarantee of fineness, they may stipulate that one pound of arsenate of lime shall occupy not less than 70 to 90 cubic inches of space. We would advise buyers to be most careful in ordering arsenate of lime for use with sulphide solutions. And again we would impress upon growers the fact that it is important to distinguish between arsenate of lime or calcium arsenate, to which material this circular refers, and arsenite of lime or calcium arsenite which is a different material requiring further investigation.

We shall be pleased to hear from any one concerning damage or trouble of any kind due to insect pests. No postage is required on such letters of inquiry when addressed:—

DOMINION ENTOMOLOGIST,
 Department of Agriculture,
 OTTAWA, ONT

Such inquiries should be accompanied in all cases where it is possible by specimens of the insects. The insect should be sent packed with their food plant in a strong wooden or tin box to prevent loss in transit. Packages up to 12 ounces in weight may be mailed free and every package should bear or contain the sender's name and address and be accompanied by a letter.