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UnITED STATES DEFRRTMENE OF AOWCULTU思思
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March 3， 1916.

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& \text { Brief Information on }
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Its Preparation and Use．

Materials and Amounts 8 \＆S bock Minute．
（a）Kerosene ．．．．．．．．．．． 2 gallons
（b）Laundry or fish oil soap．．．．．．．I／2 pound
（c）Water．．．．．．．．．．．．．I gallon
Preparation．
（I）Dissolve the soap in boiling water．
（2）Remove the solution from fire，promptly add the kerosene and thoroughly wat bate the mixture for about 5 minutes until it becomes creamy－an emulsion．Where a pump is used the agitation is most effectively done by pumping the mixture through the nozzle back into the original container for severer minutes．
Note，To aroid boiling，a mayhthe sop may be used，but the quantity of soap must be doubled and the water must be souse（rain mater）。

To each two gallons be wear add emulsion：
In Fall and Tinter－ 1 gallon．
In Summer－1／3 gallon．
Application．
AIm 40 cover every Insert．
Use any spraying device at hand：a tin atomizer is not too crude for small plants and power sprayers with fine nozzles are a necessity for extensive operations．Potash soaps and warm solutions，well strained，prevent clogging of nozzles．

For Spraying Tres Acumen Borers：
There is some evidence that the addition of sodium arsenate to the solution，applied at the proper time，kills young borers in the bark．It may，therefore，be well to try it on a limited scale．Hence，in connection with the above，dissolve one pound of sodium arsenate in the 2 gallons of water for the winter solution，and 10 ounces－ for the sumer solution．

A．D．HOPKINS，

