

FORMULA FOR KEROSENE EMULSION.

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| Cheap kerosene..... | pints | 8 |
| Water..... | " | 4 |
| Soap..... | pounds | 1 |

Dissolve the soap in the water and add, boiling hot, to the kerosene. Churn the mixture by means of a force pump and spray nozzle for five or ten minutes. The emulsion, if perfect, forms a cream which thickens on cooling, and should adhere without oiliness to the surface of glass. Dilute one part of the emulsion with twenty-five parts of water. A common grade of kerosene, which is good enough for this work, can be bought in most localities at eight cents per gallon by the barrel, and the soap used can be made for one cent per pound. This would make the batch given above cost eight and one-half cents, and diluted with twenty-five gallons of water to one of the emulsion would make thirty-eight and one-half gallons of wash. At this rate one hundred gallons would cost twenty cents.

FORMULA FOR TWENTY-FIVE POUNDS FISH-OIL SOAP.

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| Crystal potash lye..... | pounds | 1 |
| Fish-oil..... | pints | 2 |
| Soft water..... | gallons | 3 |

A strong suds made at the rate of one pound of this soap to eight gallons of water will also be found a uniformly safe and satisfactory wash to use, killing the lice and not harming the vines. After standing three days, however, the suds will lose its efficacy.

The Board also recommends the Quassia Chips solution which has been used with great efficiency in the hop yards of the Puyallup valley. Formula as follows:

QUASSIA CHIPS SOLUTION.

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| 8 pounds of Quassia Chips. |
| 7 " " Whale-oil soap. |

The quassia chips are boiled in about one gallon of water to each pound of chips, for one hour. The soap is added while hot, and allowed to dissolve. This solution is then diluted with 100 gallons of water. Use with sprayer.

TOMATO BLIGHT—GENERAL CAUSES AND REMEDY.

This disease of the tomato has made its appearance in the eastern part of the state, to such an extent in some localities as to cause growers to cease cultivating the tomato, which is a loss of many thousands of dollars to the state, as tomato growing for the markets is an important industry. The disease makes its appearance while the tomato is making its most vigorous growth during the month of July. The first sign of it is noticed by the leaves of the top of the plant beginning to turn yellow, this discoloration extending toward the roots until the plant perishes.

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