

Boil the quassa-chips in 1 gallon of water for an hour. Dissolve the soap in hot water. Strain and mix both solutions together and dilute with water to make $12\frac{1}{2}$ gallons of mixture.

FUNGICIDAL SPRAYS.

(1.) *Lime-sulphur*.—This spray, both for summer and winter spraying, is becoming very popular. It is an efficient fungicide, and also is useful in the control of many insect pests. It can be manufactured by the grower without infringement on any patent, but it is found at present prices of manufacture to be more economical to buy the commercial mixture. Most brands on the market have been giving good satisfaction, among which are some manufactured in our own Province. It is a good plan to have on hand a hydrometer (specific gravity and Beaume scale attached) to test the commercial mixture before using. The reading as given by the hydrometer is not always a sure indication of the strength of the commercial mixture, as something might be added which would raise the hydrometer test without increasing the fungicidal strength of the spray. With most commercial mixtures it can be used to advantage.

Dilutions.—The following is a table showing dilutions of different strengths of commercial lime-sulphur. This shows the dilutions which are giving the best results.

TABLE FOR DILUTING CONCENTRATED LIME-SULPHUR SOLUTIONS.

Reading on Degrees Beaume.	Hydrometer Specific Gravity.	AMOUNT OF DILUTION.	
		Number of gallons of water to one gallon of lime-sulphur solution.	For dormant spray.
30.....	1.310.....	1 gallon lime-sulphur.....	9.3 gallons water.
35.....	1.290.....	1 gallon lime-sulphur.....	9.0 gallons water.
34.....	1.288.....	1 gallon lime-sulphur.....	8.6 gallons water.
33.....	1.288.....	1 gallon lime-sulphur.....	8.2 gallons water.
32.....	1.267.....	1 gallon lime-sulphur.....	7.9 gallons water.
31.....	1.256.....	1 gallon lime-sulphur.....	7.5 gallons water.
30.....	1.246.....	1 gallon lime-sulphur.....	7.2 gallons water.
29.....	1.236.....	1 gallon lime-sulphur.....	6.9 gallons water.
28.....	1.226.....	1 gallon lime-sulphur.....	6.5 gallons water.
27.....	1.216.....	1 gallon lime-sulphur.....	6.2 gallons water.
26.....	1.206.....	1 gallon lime-sulphur.....	5.9 gallons water.
6.....	1.041.....	1 gallon lime-sulphur.....	0.4 gallon water.
5.....	1.034.....	1 gallon lime-sulphur.....	0.1 gallon water.

Some growers think it better to add some lime. This is not necessary, as it does not strengthen the spray, but in some cases it is supposed to have the opposite effect. When it is added, it is advisable to use the spray within a few hours after mixing or it will deteriorate.

For sprays following the dormant spray the following dilutions are recommended: Lime-sulphur, spring strength, for apples and pears; dilute the commercial preparation, 1 gallon to 30 of water. Lime-sulphur, summer strength, for apples and pears; dilute the commercial preparation, 1 gallon to 40 of water, and for plums, cherries, etc., dilute the commercial preparation, 1 gallon to 60 or 65 of water. As the use of lime-sulphur sprays on plums and cherries during the growing season is still in the experimental stage, a few trees should be tried first to see the effect.

In storing commercial lime-sulphur, it should be kept in a tight container, as it deteriorates when exposed to the air for some time.

Self-boiled Lime-sulphur.—For the summer spraying of peaches, apricots, and plums for peach-scab, peach-mildew, apricot-scab, and brown-rot of plums this mixture is to be recommended. It may be prepared as follows:—

Fresh stone-lime	8 lb.
Sulphur (flour, or flowers)	8 lb.
Water	40 gals.