

mixture were required the following would represent the formula): 4 lb. copper sulphate; 4 lb. unslaked lime; 50 gallons water (rain-water preferred).

In preparing the mixture, proceed as follows: Slake the lime first by adding a little water, and then dilute by using half the whole amount of water to be used (in this case 25 gallons). Dissolve the copper sulphate in a wooden tub or pail by suspending it in a thin sack in the water so that the copper sulphate is just submerged. Dilute this, using the other 25 gallons, and then mix the two solutions together and stir or churn them vigorously. The result is a mixture of a robin's egg blue colour, and giving an alkaline reaction. If by chance the mixture should give an acid reaction, an insufficient amount of the lime was used. In such a case slake some more lime, dilute as before, and add to the mixture until it gives an alkaline reaction. Strain through a cloth before using. This mixture should be put on with a pressure spray-pump which throws a fine mist-like spray. If a shower of rain should come on after spraying, it would be necessary to repeat the treatment. This mixture is also used on potatoes as a preventive against blight. It is first applied when the tops are 10 or 12 inches high and is repeated every two weeks.

The chief objection to the Bordeaux mixture is the fact that it besmears the foliage for a time. The trees or shrubs could, however, be washed off with the spray-pump, using clear water, after a week or ten days. It is better to do this in any case, as the presence of a heavy coating of the mixture on the leaves somewhat impairs their function.

Trees and shrubs that are in a vigorous growing condition may resist the attacks of fungous diseases, whilst the same species in a weak condition would be sure to be affected. This is an additional reason for giving attention to the cultivation and fertilizing of trees and shrubs after planting.

(3.) WATERING, CULTIVATING, AND FERTILIZING.

All trees, but particularly the broad-leaved trees, require a good deal of water. In most parts of British Columbia the summers are dry and warm. In the dry Interior some provision for irrigation is necessary if anything but dry-land vegetation is to be grown. The food which plants take from the soil must be in very dilute solution, so that if there is not sufficient water supplied to the tree it suffers for food as well as for drink.

When it is necessary, then, to use artificial watering, use plenty of it, but not too frequently. A good deal of the soil-water can be conserved for the tree by keeping the soil cultivated around it. This cultivation should be renewed the day following the application of water. Trees are not different from other plants, in that they respond to fertilizing. If, as is so frequently the case on streets and in school-grounds, the soil is coarse in texture and lacking in soluble plant-food, a heavy coating of well-rotted stable manure is spaded in once a year, it will make a great difference in the rate of growth. There are occasionally certain districts met with where the soil is naturally fertile and the rainfall abundant during the growing season, and in such districts no artificial watering or fertilizing would be needed, as