

1 GEORGE V, A. 1911

causing a complete healing where the cut has been properly made. Always cut all dead wood out of the tree. A properly pruned tree renders spraying more effective.

Fertilizing.—It is just as necessary that a tree should be properly fed to produce fruit as it is to feed an animal to produce fat. Barnyard manure has been used more extensively than any other fertilizer, which should be put on in the winter or the early spring. We have a lot to learn as to the value of commercial fertilizers.

Cultivation.—Ploughing should be done as early in the spring as possible, not when the owner is ready, but as soon as the frost will permit, and the working of the soil should follow, and continued in Southern Ontario until 10th to 15th of June. The date to stop cultivation will depend on climatic conditions and location. The aim should be to cultivate to a period that will bring the harvest with matured fruit in plenty of time before severe freezing weather.

Cover crop.—This again depends on location. In Southern Ontario I would recommend the sowing of half a bushel of buckwheat to the acre at the time of the last cultivation. Constant sowing of clover crop is apt to make poor coloured fruit.

Spraying.—No part of the care for orchard work is more unsettled than that of spraying. This is especially due to the large number of manufacturers who are preparing spray mixtures, all of whom have according to their advertisements the *best*. My opinion is that both the growers and the manufacturers will all see nearer alike within the next five years.

SPRAYS FOR APPLE TREES.

The members of the Norfolk Fruit Growers' Association will for 1911 principally all use the following spray card for apples:—

First spray when buds begin to swell with lime sulphur 32 degrees baume or 1.2831 specific gravity. Test and dilute to 8 parts water and one part concentrated lime sulphur. In diluting, when trees are dormant divide the baume test by four.

The growers who wish to prepare their own concentrated lime sulphur should write to L. Caesar, B.A., B.S.A., Department of Entomology, Ontario Agricultural College, Guelph.

Second spraying.—Just before fruit buds break open, with bordeaux mixture, consisting of 16 lbs. blue vitriol, 1 lb. paris green, 12 oz. white arsenic and 2½ lbs. sal soda (prepared as below) 70 lbs. lime, 200 gallons water.

Third spraying.—(Very important.) Just as quickly as blossoms fall, with 12 lbs. blue vitriol, 1 lb. paris green, 12 oz. white arsenic 2½ lbs. sal soda (prepared as below) 70 lbs. lime 200 gallons water.

Fourth spraying.—If troubled with Tussock Moth, when the young begin to feed on the new foliage, with same formula as third spray.

Always use 10 lbs. water to the gallon. We also prefer to use granular blue vitriol, as it dissolves easier. Also get a high grade lime.

Always prepare the arsenic by boiling 12 ozs. arsenic with 2½ lbs. sal soda in 2 gallons water for 45 minutes; if you have a kettle large enough you can make up a stock solution. Keep this kettle away from stock as it is poison. Also, do not boil where stock may be running, as if any boils over on the ground, the stock will eat the earth and it will poison them.

We will now make up 200 gallons for 2nd spraying; Put 16 lbs vitriol in a hopper with Burlap bottom, which place over the hole in your tank, pump or pour 150 gallons of water on this vitriol straining in the tank. Then slack 70 lbs. good lump lime (none air-slacked) in 50 gallons of water and strain through a hopper with a wire bottom into 150 gallons already in the tank. Then add of your boiled arsenic solution an amount equivalent to 12 ozs. White Arsenic and 2½ lbs. sal soda. Then add one pound paris green by dissolving in a small pail of water. Each time in adding lime