

fall, which makes a dense mat of vegetation, which keeps the apples clean. In order to obtain high-class apples and especially of such varieties as Snows, Macintosh Red, Duchess, Spy, it is absolutely necessary to thin them. It is of no use to grow culls and the fruit grower might as well pick the fruit off through the summer as to let it go until fall. In short in order to obtain good apples it is necessary to prune and spray thoroughly, plow early in the season, cultivate regularly until the first of July, then seed to cover crop, and thin out the apples.

#### OSHAWA FRUIT GROWERS, LIMITED

The above association, of which I am secretary, has had a very successful season, last year having shipped 7,500 barrels of apples, of which the farmers received for the apples alone an average of \$2.69 for No. 1, and \$1.75 for No. 2. These high prices were largely due, in addition to the efficient work done by the secretary and manager, to the thorough work in spraying as done by the members of the Association. This success has had its effect upon adjoining farmers as many of those who a few years ago would not think of spraying, are waking up to its necessity, and buying spray pumps and material. Up to the present the Association has sold one hundred and fifty barrels of Niagara lime-sulphur, three tons of arsenate of lead, seventy-five bags of sulphur and thirty spray pumps to its members.

### Pruning at Planting Time

J. H. Here, B. S. A., Whitby

In this district many of our best growers have an erroneous idea of letting the young trees grow a couple of years without pruning. In planting, trees should be selected that have the head formed from two to two and one-half feet above the ground; the new growth should be cut off from six to eight inches from the trunk, and the trees thoroughly cultivated for five or six feet from the trunk during the summer.

In order to prove the benefit of pruning the trees at the time of planting, an experiment was conducted, in which part of the trees were planted just as they came from the nursery while the limbs of the others were cut back to six or eight inches from the trunk. On the unpruned trees there was almost no growth of wood, the leaves were small and had a dried up appearance and were only about one-half the usual size. The trees appeared to suffer greatly from drought, and did not look healthy. In fact, the owner feared that he would lose them entirely, and the greater number of them were pruned about the middle of August. This seemed to revive the trees to a considerable extent as they put forth new growth. This growth, however, was very soft, not ripening up well and it is doubtful if it will stand the winter.



A Well cared for Orchard in the Grimsby Fruit District

The trees which were cut back made a vigorous growth of fifteen to eighteen inches, did not appear to suffer from drought and went into winter quarters with the wood well ripened up. From one-half to one-third the growth should be taken off each year in order to make a good stout vigorous foundation for the trees.

### Spraying in British Columbia

W. J. L. Hamilton, South Salt Spring, B.C.

The spring season is on us again with all the work it entails. Disagreeable work, too, for of all unpleasant things to handle, lime-sulphur spray of winter strength (one to ten) is the worst. Hence it is well to see that it is effectively done, so as not to require repeating.

Before spraying the trees should be thoroughly pruned, and the prunings, together with as many leaves as possible, should at once be raked up and burned, whereby a great deal of scab and other fungous infection, together with many insect enemies, and their eggs, are destroyed. Then each tree should be sprayed from four different points, the spray being first directed against the small twigs, and then against the branches and stem. No portion of the tree, however small, should escape a thorough dose of spray, and then the ground under the tree should receive its share, to kill fungous spores.

After the trees are all thoroughly sprayed, the orchard will take care of itself until spring when the spraying should be repeated just before growth commences.

The ground should then be thoroughly disked and a few days afterwards re-

disked crossways. From this on until time for the summer growth to ripen, constant cultivation should be given, the different summer sprays being used from time to time as directed.

In using the ready manufactured lime-sulphur spray it should be used with nine or ten times its bulk of water, and this spray is rendered much more efficient, and at the same time more visible, if twelve pounds of quick lime are added to, and well stirred up in each barrel of forty gallons of mixed spray.

A really efficient pump and nozzle are imperative, for the spray should not be applied as a douche, but as a very fine, misty spray, with force enough to penetrate everywhere.

### Buy a Spray Pump

Even if you have no more than a dozen trees it will pay you to buy a spray pump. The barrel spray pump is what the average small fruit grower needs. It will be cheaper to buy the pump and then mount it on a good molasses or vinegar barrel, than to buy one already mounted. Any man handy with tools can easily mount the pump on the barrel himself.

It is poor economy to select a cheap pump. Get one with all the working parts made of brass, for if made of iron they corrode rapidly with the spray material. A pump with the working parts made of brass will cost more in the beginning, but will be cheaper in the end.

Any time after the leaves have fallen and before the sap begins to flow, pruning may be done. By making the pruning an annual task the labor is lightened and its efficiency increased.