

Other industries have been helped by the Dominion department of agriculture, and many of them have been put on a paying basis. The fruit industry with all its possibilities is being neglected as is shown by the action of the Minister in refusing to give the fruit interests a special commissioner. I am in favor of fruit growers uniting and demanding that the government give them a commissioner of their own and thereby recognize the great possibilities of the fruit industry.

Soot as a Fertilizer

PROF. R. HARCOURT, O. A. C., GUELPH.

What is the best way of using soot as a fertilizer? Should it be scattered on the ground or mixed with water and applied as a liquid?—(J. G. Goble, Woodstock, Ont.)

Soot owes its value to the presence of a small and variable quantity of ammonia salts. The best house soots do not contain more than about 3.5 per cent. of nitrogen. They do not contain any appreciable quantity of potash or phosphoric acid. As there is such a small amount of fertilizing constituent in the soot, it would not pay to mix it with water and use it as a liquid.

All that is necessary is to sow it broadcast on the ground as a top dressing. It would possibly give its best results on grains, sown after the growth commences in the spring. I do not think it is rich enough in nitrogen to be an efficient manure for the horticulturist.

Direct Shipments

A LEADING Canadian fruit grower of the Hamilton district, who has recently returned from Great Britain, states that a number of the large wholesale commission firms in Great Britain are becoming disgusted with the auction sale method of purchasing their supplies of fruit, which is now followed in Great Britain. Several of these firms are anxious to get in touch with leading Canadian growers and with

our cooperative apple growers' associations, that they may arrange for direct shipments of apples and other fruit. Two of the firms mentioned are those of Veitch, Moyer and Erskine, of Edinburgh, and Watson & Co., of Aberdeen, Scotland.

Firms like these claim that when they buy their fruit by auction they are unable often to select the kind of fruit they want or fruit that is packed in the way they would like. They believe that if they can arrange with large Canadian shippers they will be able to obtain the fruit they would like. Some of these firms intend to send buyers to Canada.

Insects on Larch and Honeysuckle

TENNISON D. JARVIS, B.S.A., O.A.C., GUELPH.

My larch trees are being attacked by some greenish caterpillar. These caterpillars are very numerous and in clusters. Many of the needles have a white downy substance on them. Some small insects, some of which have wings and some without wings, appear in white clusters on my bush honeysuckle. What are the insects which cause the trouble and the best methods of combatting them?—(D. M., Peel County.)

The larvae that is attacking the larch trees is the Larch Saw Fly (*Nematus erichsonii*). I would advise spraying the trees with Paris green solution (Paris green four ounces and water 40 gallons). The white sticky substance to which you refer is likely the Larch Chermes, a very small insect common on the larch. This insect has a sucking mouth, and should be sprayed with kerosene emulsion. The clusters of insects on your honeysuckles are plant lice. These insects have sucking mouths and should also be sprayed with kerosene emulsion.

Spraying is an absolute necessity in order to attain success, and is very remunerative in return for the outlay required to make a thorough job of it. The question is how to get it done with the help at hand and keep up with other work. Power sprayers have appeared on the scene to solve this problem.—(W. H. Brand, Vinemount, Ont.)