

No summer spraying was done in these orchards, but all fallen fruit was gathered up at regular intervals and destroyed. In another orchard which was nearly free from disease no summer spraying was done, but all rejected fruit at picking-time was immediately destroyed. Eight other orchardists who had sprayed with lime-sulphur in the summer from one to three times, but who had not gathered the fallen fruits, had more or less negative results. These growers did not appear to be in any better position than those growers who had done nothing to control the trouble. This investigation suggests that by destroying fallen and infected fruit loss from infection by brown-rot is minimized.

In badly infected orchards the presence of flies on infected fruits was most noticeable—in fact, under one affected tree I estimated that flies were feeding on 75 per cent. of the infected fruit. I formed the opinion, rightly or wrongly, that flies were the main carriers of the disease when puncturing the skin with their beaks to secure the sugary sap or juice. This assumption is also borne out by Mr. Morris's experiments. In these, it will have been noted, infection readily took place when the skin was punctured. Professor H. B. Kirk, of Victoria University College, Wellington, an authority on flies, was good enough to supply some information in reply to a query as to whether flies would puncture the skin of mature and ripening peaches, nectarines, and plums, and thereby infect the fruit. He states, "The biting stable-fly will, in the laboratory, penetrate the wall of bananas, grapes, and pears, and probably also of the fruits you mention. I have not observed it in the open, but should expect it to occur. The same applies to mosquitoes. But, as you know, many other insects will injure fruits, as will birds. To a wound so caused non-biting flies may carry infection from diseased fruit on which they have settled. Blow-flies, house-flies, and the fruit-fly are all well equipped for this purpose and frequent fruit in orchard or shop."

The later peaches and nectarines appear to have a slightly thicker and tougher skin than the earlier varieties. This might possibly be the reason why the later fruits are not nearly so badly attacked, as flies and other insects would certainly be better able to puncture the skin of the thinner-skinned earlier varieties. Norton states that most of the infection takes place through wounds caused by various means, and claims that on peaches all the disease follows insect-bites or other injury. As stated when dealing with the life-history, other authorities are of the opinion that spores germinate on and enter the skin.

SUGGESTIONS FOR CONTROL.

The foregoing knowledge of the life-history of the disease, coupled with Mr. Morris's experiments and my own investigations,