

There seems no doubt, therefore, that this fungus is the cause of one form of the disease. The fungus is not present in the leaves themselves, but in the wood of the trunk or limbs, and the effect is presumably due to some toxic substance produced by the fungus and carried to the leaves in the ascending sap-stream. It is apparently only a saprophyte or wound-parasite and obtains entrance through some injury, such as certain forms of winter injury. The fruiting-bodies only appear when the part attacked is dead or dying. They are in the form of small brackets, half an inch or less across, white above, smooth and crimson to purple in colour on the under-side, and often massed together one above another for a space of several inches. It is generally stated that where one limb is affected, that limb ultimately dies, while in the meantime the disease may have spread so as to have involved the whole of the tree. Where the whole tree is affected the tree dies. Cases of spontaneous recovery have, however, been noticed. Treatment is only possible where one or more limbs are affected without involving the rest of the tree. In such cases the affected limbs should be cut out and burned. Since the fruit-bodies are produced only on dead or dying wood, such as old stumps, it is important that all such material be destroyed and not left to provide a medium for the development of this and other potential parasites.

While the above outline of the nature and cause of the disease may be correct in many instances, there is evidence that much of the silver-leaf in British Columbia is due to other causes. In particular, a mite working on the leaves has been found to produce a similar effect. In the earlier stages this can be distinguished by the "silvering" occurring in patches where the mite is working, thus producing a mottled effect. In old cases, however, the leaf tends to become uniformly silvered and apparently identical with typical *Stereum* silver-leaf. This may explain the absence of silver-leaf from trees reported previously as badly affected. In view of the statement that true silver-leaf cannot be successfully treated, the following experiment may be of interest: Two five-year-old apricot-trees in an orchard at Naramata showed silver-leaf slightly in 1913. In May, 1914, they showed it very badly, every leaf being uniformly and strongly silvered, and the symptoms apparently those of typical *Stereum* silver-leaf. Late in May these trees were treated by applying $7\frac{1}{2}$ lb. of sulphate of iron to each, the dry crystals being scattered over the surface of the soil up to a radius of 10 feet from the tree, and then worked in. According to the account of the experimenter, "By the middle of June there was a marked improvement in the new growth; it showed more vigour and the new foliage was perfectly clean. The trees matured a heavy crop of first-class fruit." This year the owner states the trees are free from disease and have borne a heavy crop. This treatment is, we believe, based upon recommendations issued by the Department of Agriculture of New Zealand. Whether it is really curative or merely postpones the final result cannot as yet be stated, but it is worthy of further trial. It has already been stated that the *Stereum* fruiting-bodies only appear on dead or dying wood, and so long as this is removed as it appears there is no danger of other trees being infected, and consequently no danger in making such an experiment.

COLLAR-ROT.

It not infrequently happens that a tree dies or appears unhealthy without apparent cause. Examination of the trunk at or below the ground-level may show, however, that the tissues of the trunk and probably of the main roots are dead, the dead areas being of variable extent and often extending right around the tree. Complete girdling is, of course, followed by the death of the tree. The cause of the trouble may in some cases have been fire-blight which has spread down to the crown or roots by infection of water-sprouts or suckers. The blight-infection may then have died out and given place to various rot-fungi. In most cases, however, this "collar" injury is due to freezing or alternate freezing and thawing, and is a form of winter injury. While fungus mycelium is commonly present in the dead tissues, very few