

saprophytic species were also investigated. Although this study will take many years to complete, the results so far achieved mean a very real advance in our knowledge of the pathology of this species.

Advantage was taken of research on the genus *Poria*, carried out by the Plant Diseases Division of the Department of Scientific and Industrial Research, to have specimens in the State Forest herbarium named. The lack of authentic names has been a great handicap in the past and the completion of an up-to-date work on the Polyporaceae would be a great boon to forest mycology.

As with entomology, the transfer to the new laboratory at Rotorua will facilitate research work in mycology.

51. *Damage from Natural Causes.*—As compared with the preceding year, the year 1946-47 provided climatic conditions unmarked by extremes. The mild, hazardous autumn weather described in the last report carried on well into the winter months, which in most districts provided neither hail, nor rain, nor snow. The winter in the extreme South was remarkable for its mild and sunny weather; there are neither flood losses nor wind losses to record for that period. The late winter and spring, however, were very wet and inclement and nursery work was impeded, principally because of the impossibility of working the soil for timeous seed-sowing. Milton and Ashley, two southerly nurseries, suffered particularly in this respect, fine weather being delayed until mid-January. About this date, Ashley again experienced a hailstorm of some severity, although it did not lie as directly in the path of the main storm as it did those of the two Decembers referred to in the two previous reports.

Ashley Forest appears to be in a belt particularly prone to experience occasional violent hailstorms, and the evil effect is not confined, as was previously thought, to destruction of nursery stock. Young compartments of insignis pine still show the marks of stem and foliage damage from the storm of three years ago. On the windward side the bark has not completely reformed over the countless small cicatrices caused by hailstones on young leaders, and deformities and foliage stripping are still in evidence. This is a type of minor damage which, while not lethal, is very unsightly and retardant of growth.

In the North, Waipoua State Forest maintained its steady place of nearly the minimum for hours of recorded sunshine. This situation has never recorded the fewest hours of sunshine for the Dominion; but it is frequently the lowest but one, and there can be little doubt that this seldom-considered factor is one of some significance in the ecology of this forest.

The fire season of early 1947 came and went without weather of extreme hazard. From mid-January to late March there was certainly a period of rainless weather which caused in the Dominion generally much inconvenience through scarcity of water and low levels in both rivers and lakes; but nowhere did it create the conditions of fire hazard which characterized the corresponding period of the previous year. This was largely due to the fact that winds of even medium velocity were markedly absent from most districts during the autumn period; and the relative humidity of the atmosphere, though frequently lower during the days, always rose from late afternoon onwards. The conditions this year, therefore, were truly temperate, though with a very few periods of localized extremes of almost catastrophic intensity.

The principal extreme phenomenon, apart from the southern hailstorm in January, was a violent southerly gale that traversed the southern portion of the North Island late in February. This caused damage in places on a scale comparable with that caused by the similar gale of February, 1936. As is usual with wind damage, the path of the gale was quite erratic and comparatively narrow, or, rather, it appeared to have several narrow paths of maximum incidence. In State forest its greatest damage was caused in Gwavas Nursery where a whole crop of Douglas fir seedlings just opened up from coverings for hardening off was ruined by the sudden violent wind and cold. Curiously