

"The Institute is yet young and we may also say that its members are young. We have to set our mark and build up the Institute by our own efforts.

"If we each, individually, set a high personal standard not for the other fellow, but for ourselves, then we may meet here again some day when our whiskers are grey and the day is fading, and say, 'We have done it, and it is well'."

J.S.H.

John Wilson Gilmour, 1923-1981

The Forest Research Institute has lost one of its foundation members with the death of John Gilmour last year.

John graduated from Canterbury with an M.Sc. in mycology and came to FRI in 1949 when the total staff numbered a few dozen. He and Joe Rawlings and Margaret Lancaster (now Mrs Orman) built on much of the earlier work that had been done in the 1930s by Birch. At that time the main need was to find out what diseases were affecting the forests and what degree of threat they posed.

His work in the 1950s included investigation of a number of difficult and little-understood conditions that needed sorting out. He laboured for years to track down the identity and assess the significance of a previously unknown pathogen he labelled "the Glenbervie fungus" (from its first location at Glenbervie by Ranger Des Ogle). It was certainly a killer but, as it turned out, was no match for the vigour of radiata pine once it was more than a few years old and also lacked the ability to distribute itself widely. In time the Glenbervie fungus became *Peniophora sacrata*, correctly named, understood, and put into perspective.

His work in the early 1950s included a "panic stations" alert when dozens of groups of dead trees appeared in Kaingaroa Forest just as it was coming into the utilisation era. Painstaking detective work showed that it was the result of lightning strike, although there was little to point to that. Contrary to popular belief the lightning discharged over, and killed, areas of up to half an acre each, and seldom struck a single tree. Typically of John and Joe they found that those trees which were struck and damaged but lived on laid down a narrow ring of abnormal tissue that could be seen under the microscope and which they called a "lightning ring". This feature was diagnostic for lightning strike and, presuming the tree continued to live, gave a means of finding out, years later, when the lightning had struck. And

so another at first mysterious mortality of radiata was put into perspective.

In the early days of tending pine plantations when practice was less standardised than it is now, John showed that the alarming-looking deaths of young pruned pine was directly related to the severity of pruning and the tool that was used to do it (axes bad, pruners good). The final cause of death was infection of the wounds by *Diplodia* but it was clear that the practice was at fault and could be remedied.

There was other notable work: his evaluation of *Armillaria*; work on the fungal associate of *Sirex*; "terminal crook" of seedlings, caused by *Colletotrichum acutatum*; cypress canker; and the mycorrhizal deficiency of Douglas fir grown in poorly-drained nurseries. Most of these things are so much a part of the body of knowledge now that it is uncommon for anyone to recall that it was John who clarified many aspects of them.

His technical paper, "The Pathology of Forest Trees in New Zealand" (1966), drew together our knowledge at that stage and gave a well-researched and practical account of what was known.

When *Dothistroma* hit us in the mid-1960s John rose to the occasion magnificently. Always a practical person, he built on the Kenya finding that "Dothi" was susceptible to copper sprays to come up with a well-timed, cheap regime that effectively controlled the disease. It was typical of him that he got right out into the operational side of it and quickly became knowledgeable on the technical aspects of aerial application. When aerial trials were needed in the calm of early morning he was out in the forest at 5 a.m. seeing that they were done correctly. Few appreciated the detailed research that went into establishing the best formulation, the best method and the best time to spray. When the plane delivers a well-timed, minimum volume, maximum effect spray to an infected stand, the forest manager ought to remember John Gilmour.

John was totally honest. His intellectual integrity and enquiring mind were the hallmarks of a good scientist and were typified in all his work. Despite not being formally qualified in forestry he was not satisfied until he had a thorough grasp of the theoretical and practical aspects of forest management. To talk forestry with him one would never have dreamt that his knowledge was self-taught.

Independent and versatile (he and his wife built their home themselves), he bore with courage and determination poor health in his last years.

C.B.