

Obituary

Scientist Pioneered Growth Indices

Bob Jackson 1923-2011

Desmond (Bob) Sidney Jackson died on 31st July 2011 aged 88 years, in Nelson.

Bob's early childhood years were spent enjoying the outdoor life in Rhodesia on a cattle ranch. Following the death of his father the family moved home to England where Bob's mother started a dairy farm. Bob joined the RAF at age 17, got his wings, and trained military pilots. In 1945 he was offered an ex serviceman's place at Keble College, Oxford University where he obtained an undergraduate degree. Bob married Betty in 1948 and decided to immigrate to New Zealand, arriving on the Mataroa in 1950. Bob worked first at Rotoehu and then Hawkes Bay with the New Zealand Forest Service. They bought an old villa at Puketapu, and established fruit trees and a small stand of eucalyptus on their 2 acre lot. Bob applied his acute powers of observation to identifying exotic and native trees, and revelled in testing his newly acquired knowledge using colleagues as sounding boards. Bob was awarded a Harkness Fellowship, and completed his PhD at Duke University. During his two years of study his young family stayed in Cambridge, UK. While Bob enjoyed his work at Napier immensely, he was considered to be over-qualified for that position and joined The Forest Research Institute in Rotorua. An accomplished writer, Bob was Editor of 14 issues of the New Zealand Journal of Forestry from 1961 to 1969, which was published by the Institute of Foresters. He also published on a wide range of topics, including the value of trees as shelterbelts, site and climatic factors influencing productivity of radiata pine, and tree water use.

His PhD thesis on site factors that influence the growth of slash pine underpinned much of Bob's research plans while working in the Soils and Site Productivity section at FRI, as reflected in his paper to the N.Z. Science Congress in Auckland in 1965. Bob's primary focus was on establishing relationships between stand productivity, climate, and soil factors, to aid in growth prediction. The S90 national productivity survey provided information on periodic stem volume increment (which he considered to be a practical surrogate for dry matter production), foliar nutrient concentrations, soil physical and chemical properties, and rooting depth. Climate data were compiled from Forest records. He recognized the need to develop and test a range of climate and soil indices related to growth, and undertook research on the effects of factors such as seasonal drought and soil fertility to aid in developing these indices. His analysis showed that mean annual precipitation, seasonal rainfall distribution, effective soil depth, soil nutrient status, and seasonal departures of temperature from postulated night and day optima explained 66%

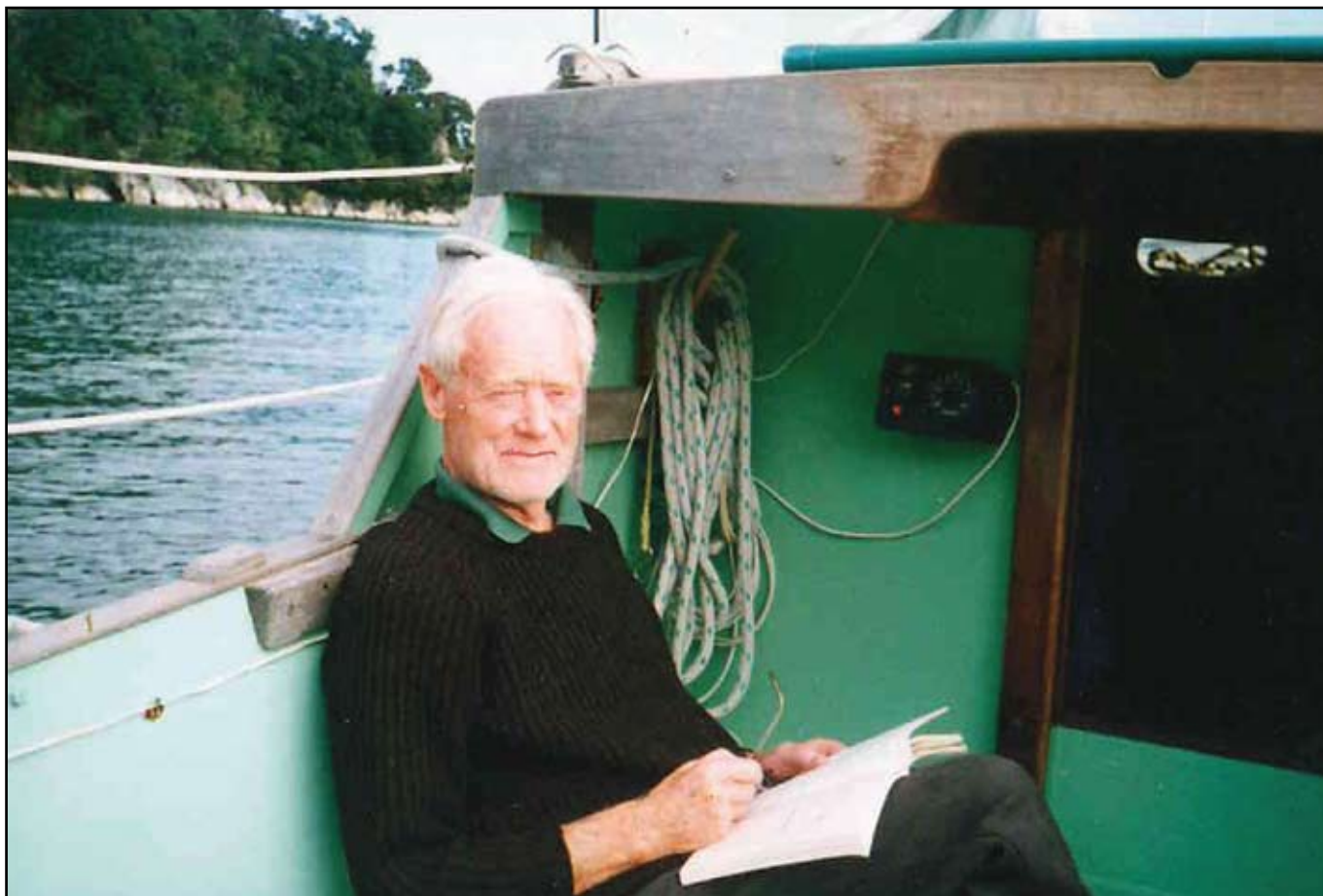


Bob and Betty Jackson.

of the variation in stem volume increment. All the while Bob recognized the importance of species susceptibility to diseases and pests, and the need to quantify the impacts of periodic hazards on yield, as a basis for species siting.

His use of a comprehensive factorial trial design on raw sand dunes at Woodhill Forest (AK287), and adoption of what was often state of art technologies were instrumental in successfully elucidating the effects of tree lupin, nitrogenous fertiliser, and stocking on dry matter production and water use of these experimentally treated stands. Neutron probe data from AK287 were dutifully collected on a monthly basis, ably assisted by his technicians (and by his wife, Betty, who co-authored the resulting manuscript). His studies on water use of radiata pine were underpinned by weighing-lysimeter studies and seasonal drought experiments at the Long Mile, followed by field studies at Puruki Forest. This experimental site was set up as an IHD Basin to determine the effects of land-use and land-use change on productivity and hydrology - an inter-agency cooperative study by the then Ministry of Works, the Forest Service, and various other agencies. Bob set up a meteorological tower at Puruki which was covered with an array of instruments for measuring solar radiation, albedo, wind speed, and evapotranspiration. His productivity studies were likewise underpinned by biomass studies undertaken at the Long Mile, including root trenches planted with radiata pine clones to determine the effects of age on root/shoot ratios. All the while, databases were being set up, computer software for processing the data was being written, and data analysis programs were developed, at a time when computing at FRI was in its infancy.

His meticulous approach, research



accomplishments, and high expectations he had of himself and his colleagues are well remembered. Bob never sought the limelight for himself, but was always willing to share his ideas and research sites with his contemporaries and later researchers, who benefited greatly from his insight.

Following his retirement Bob and his wife Betty moved to Tairua in 1982, where he built an ocean-going yacht, *Elkirit* (preceded by a *Sunburst* and trailer sailor, *Patiently* at Waiteti). Bob and Betty

sailed *Elkirit* to Nelson, where they enjoyed their retirement. In the fullness of time, Bob's love of trees was reflected in a diverse range of specimen trees being established successively at Puketapu, Waiteti, Pumpkin Hill, and Nelson. Bob and Betty were both loving generous people who contributed immensely to their local community. Both will be sadly missed by their children Jon and Jenny, and their wider family and friends.

Peter Beets

A Quietly Spoken but Fastidious Boss

R.G.(Bob) Lawn 1921-2011

On Saturday 27 August Bob Lawn died peacefully at Ziman House Reefton Hospital at the grand old age of 91 years. He was one of that now dwindling band of N.Z. Forest Service field officers who formed the backbone of the Service during the forty years between the end of World War II and its demise in the mid 80's.

Bob's forestry career began in 1939 when he joined the Forest Service as a Junior Labourer on eight shillings (80c) per day and spent the next three years on timber cruising and general forestry work. In late 1939 when many of the older employees were drafted into

the Army Forestry Companies, those younger members left had to assume responsibilities that would not normally have been the case.

On reaching 21 in 1942 Bob entered the Army and spent the next two years with 36th. Infantry Battalion, 3rd. Division on active Service in the Pacific. On his return in 1944 he was released from the Army and resumed his forestry career. He was posted to Invercargill but was there

