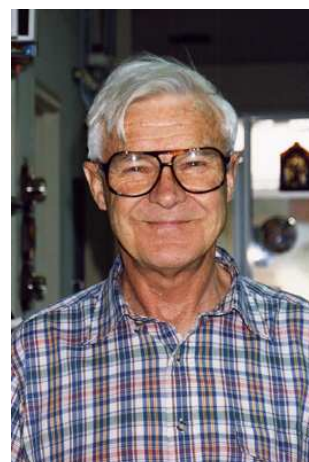


IFA Remembers – Bill McKenzie

14 October 1923 to 5 July 2008

William Moore McKenzie was born on October 14, 1923 at Colac, Victoria, and died at Caulfield on July 5, 2008. Throughout his life he was respected by those who got to know him through work or other shared interests.



In 1940, soon after the Great Depression had been replaced by war, he gained a traineeship to the Victorian School of Forestry, Creswick, from which he emerged as Dux with the Diploma of Forestry at the end of 1942. After two years of forestry field work he was selected to undertake the new forestry course for BSc(For) at the University of Melbourne and was one of the first three graduates.

He and Merna Clemenger married on March 31 in 1947, the first of the two years he was occupied with field work in myrtle beech forests for Associated Pulp and Paper Mills Ltd, at Burnie. Bill was awarded the Hedges Prize in 1949 for his essay on "Methods of stocktaking for hardwood forests which might be applicable to a general survey of Australian hardwood resources".

In 1949 he returned to Victoria to join the staff of the Division of Forest Products, CSIR, in South Melbourne, where his research career began in earnest. Until 1973 he was engaged in research into wood anatomy, wood utilisation and wood cutting, including chain sawing and the reduction and efficient utilisation of waste products, such as sawdust. In 1957 his thesis "Fragmented wood as a soil improver", dealing with basic wood cutting, particularly the mechanics of sawtooth action, earned him the degree of Master of Science in Forestry.

His overseas experience began in 1958, when he enrolled in the University of Michigan to expand his work on wood cutting, for which he was awarded a PhD in Wood Science in 1960. The Forest Products Research Society presented Bill with its Wood Award for 1960 for a paper "Fundamental Aspects of the Wood Cutting Process" based on his research. At Michigan he also taught a course in wood identification for undergraduates.

The next decade was notably productive. As a Principal Research Officer at DFP his work on basic wood machining was expressed in more than fifty papers published in international journals. In 1970 he received the International Film Society's prize for the best scientific film, "Rupture patterns in cutting wood".

The McKenzie family spent 18 months at Berkeley in 1965–1966, when Bill was seconded from CSIRO to work on basic sawing at the Forests Products Research Laboratory, University of California. He also did some teaching. One child was in primary school, two in junior high and one in senior high school. Desegregation issues at the time resulted in various forms of violence; sometimes the two junior

high students would be sent home when the knives were out. Bill was offered a permanent position at the Laboratory, but decided Australia was a better place for adolescents.

With four children in the State education system, it was not unexpected that a father of Bill's calibre was active as a member of school councils, and became a member and Vice-President of the Victorian Council of School Organisations. Further, he was a delegate, and successively Secretary/Treasurer and Vice-President of the Australian Council of State School Organisations.

In 1974 the scene changed drastically, as CSIRO re-assessed the importance of various fields of work in meeting its objectives. Basic sawing research was given a very low priority. Bill was transferred to the Division of Building Research, to work on the psychological aspects of decision-making in the built environment. This included questions of public participation, of moving house and choice of a new residence, and measurement of residential and transport utilities. Based then at Highett, he responded to the challenges of his new situation with fortitude and energy, and equipped himself for it through studies at Monash University at Clayton. These culminated in 1978 with a Master of Science degree, for which the title of his thesis was "Factors motivating citizen participation in environmental decision making". His research into decision processes and theory focused Bill's attention particularly on housing and energy use. On the home front, their family grown and living independently, Bill used his skills to design an energy-efficient north-facing house with solar collectors for retirement years, which began in 1985.

In 1986 Bill was a consultant to the Australian wood technology program which was proposed to meet the need for industry-focused university courses in wood processing and products, and in 1987 the Department of Conservation and Land Management engaged him to advise on sawing performance in Western Australian sawmills.

Retirement brought opportunities for further research in his major, long-term interest, all of them overseas. The invitations which Bill received during a dozen or so years to collaborate in research and teaching must have brought recurrent quiet satisfaction to this rigorous scientist who had provided much practical help and advice to younger workers in Australia and overseas.

Hearing of Bill's retirement from CSIRO, the head of research in the California Cedar Products Company invited him to Stockton to supervise research into narrow-kerf sawing of slats for wood-cased pencils, resulting in improved yield when sawing pencil cedar, which was becoming scarce, and in added product value. From 1986 until 1996 he spent about six months of the year at Stockton, sometimes for six months straight and sometimes in two stretches of three months. In 1994 Bill presented a paper "Narrow-kerf sawing – recent research and development" at The First International Conference on the Development of Wood Science/Technology and Forestry, held in England.

Bill also participated in research at North Carolina State University (in 1995, 1996, 1997, 1998), where he also taught a graduate course in the physical properties of

wood. In Vancouver he investigated friction and wear of tools for cutting fibre and particle boards for the Tribology Group of the National Research Council of Canada (in 1996, 1997, 1998).

In 2007 he presented his last paper, at an international seminar in Vancouver: "A computer program for deriving peripheral loading on rotary tools from edge forces". Until his illness, he kept up his overseas contacts, which included Dr Eric L Ellwood, whom he first met at Creswick in 1940. Eric had become Dean of the School of Forest Resources, NCSU, in 1971. They and their families enjoyed happy times in North Carolina, and Eric and Bill's paths crossed often over the years.

Bill had commenced work on producing a book on wood machining research, and steps are being taken to make his material available to other workers in the field.

Organisations to which he belonged included the Institute of Foresters of Australia, The Institute of Wood Science (UK) of which he was a Fellow, the Forest Products Society (USA), Sigma Xi The Scientific Research Society of America, and the Australian Institute of Urban Studies. He served on committees of the International Union of Forestry Research Organizations, and of FAO. He was a member of the Forests Commission Retired Personnel Association, a Victorian social and affinity group. Other interests included the Humanist Society, music, opera and theatre.

Bill was an adventurous camper and hiker. Friends who accompanied him were sometimes challenged by his activities. He and Merna hiked the Grand Canyon from the south side (twice) and from the north side (once), when snow lay at the top of the trail and temperatures at the bottom reached 32 degrees.

Bill is survived by his wife of 61 years, three daughters (an artist, an economist, and a lawyer), and a son who is a lawyer.

Internationally, Dr W M McKenzie is regarded as one of the fathers of wood machining research.

(Alan Eddy)

Obituary for *The Forester*