

When he left Proseed in 1990 he moved to a family home in Waikanae which he subsequently developed, while marketing rimu. He kept in touch with forestry through the East Coast Farm Forestry Association and was planning in January, 1994 to go to Sri Lanka on an 18-month consultancy to set up a nursery and seed collection system. It is Sri Lanka's loss that his death prevented this.

Peter is survived by his wife Bonnie and three sons. The forestry sector has been the richer for the presence among us of such a constructive and achievement-oriented visionary. Our sincere sympathy is extended to his wife and family in their loss.

G.B. Sweet

## Membership changes

In the sixth months from April 1, 1993 to September 30, 1993, the Institute Council has processed 40 applications for membership from new and returning members, and nine resignations. These names are listed below.

### Applications

Averes R.R.	O'Neill T.
Bawden R.P.	Perry J.D.
Bigsby H.R.	Perry J.C.H.
Bogiatto G.	Pye J.D.
Broad T.R.M.	Read P.J.
Buchanan G.C.	Reade D.
Cane P.T.	Simpson M.
Cassels R.M.	Stehbens P.M.
Crawley D.J.	Taylor P.J.
Goodall A.M.,	Templeton H.C.
Guy M.C.	Treadwell J.B.
Hill R.J.	Webbin P.E.
Hitchings M.W.	Wheeler W.J.,
Kensington E.	Wiltshire A.G.
Kilvert S.	
Kitchin M.P.	<b>Resignations</b>
Kouwenhoven T.	Barker C.S.
Lamers J.C.J.	Boardman R.
Leith J.	Fitzwilliam G.B.
Marren M.D.	Gibson H.J.
McIvor J.R.	James Ian
McKenzie G.R.	Krippner J.
McPherson A.	Phibbs S.B.
Morice S.D.	Sutton G.J.
Mossman D.H.	Weston K.S.

### CONSULTANT RECOGNITION

The following has applied for a review of recognition as a general forestry consultant.

**Peter Allan, Hokitika.**

The following has applied for a review of recognition as a specialist forestry consultant.

**Graham Will, Rotorua.**

Under the NZIF constitution, any members of the Institute may send objections in writing within 40 days of Journal to the Registrar, NZIF Consultants Committee, P.O. Box 1340, Rotorua.



## PERSONAL PROFILE



# Mary Sutherland 1893-1955

Forestry is not a common career for women in New Zealand. Yet the science of forestry in this country owes much to the first woman to be employed as a forester.

Mary Sutherland came from Britain, where she had obtained her science degree in forestry at the University College of North Wales, served in the Women's Land Army during World War I, worked as a forester on two Scottish estates, and worked as assistant experimental officer with the British Forestry Commission. Emigration to New Zealand in about 1924 gave Mary first-hand experience of the strongly conservative attitudes and male prejudice in the New Zealand Forest Service. In those days 'all forestry [was] subject to camp conditions, and there [was] no place for a woman in a forestry camp'. Mary persevered, despite being merely tolerated at first, and received a permanent appointment in 1925, employed at Wellington and Rotorua offices on investigative work in silviculture.

During field-work Mary often wore her British Forestry Commission kit of off-white leather jacket, leather belt with rings and snaps, riding breeches and high boots. It was rather an unusual outfit for a woman in those days, but no doubt serviceable, and it came to be accepted by her colleagues as an integral part of her personality.

Field-work conditions during the 1920s and 1930s were less comfortable than they are today. During a three-week introductory course for rangers at Whakarewarewa in 1924, Mary was distanced from her colleagues not only by chauvinistic pride but also by the 'practicalities' of accommodation. Although it was mid-winter, all the 20 rangers and senior rangers, except her, camped in tents in a horse-paddock, while Mary's lodgings were at the Geyser Hotel along with the chief inspector, visiting officers, and part-time specialists. It was no doubt more comfortable than tent life, but the message was clear that she was not quickly going to be accepted on grounds of merit. And there was always going to be a financial disincentive for the Forest Service to send Mary into the field under these conditions.

Mary's good grounding in biology, her common sense and quiet unassuming



Mary Sutherland. FRI photo.

character, her intelligence and friendliness, and a strong Scottish doggedness saw her through the difficulties. She could also match her male counterparts in all aspects of their work, including field-work. On the introductory course her knowledge of botany came to the aid of senior foresters in their lectures and by the end of the three weeks she had won the respect and friendship of her peers.

The Depression years of 1933-36 led the Forest Service to make severe cut-backs, including in Mary's speciality area of research. She was laid off and spent these years working at the Dominion Museum in Wellington. 1937 saw her back with the Forest Service again, this time as a botanist. She began her pioneering work in agricultural forestry in 1946 when she was seconded to the new position of Farm Forestry Officer with the Department of Agriculture. The New Zealand Journal of Agriculture published many of her articles relating to the use of and improvement in trees grown for shelter-belts, weed control, and timber on farms. Her foresight and talent have benefited farmers across the country. She also had to make field inspections of the department's many land holdings, deal

with a large volume of correspondence, and write several bulletins dealing mainly with farm forestry plantations.

The New Zealand Institute of Foresters (NZIF), established in 1927, lists Mary among its inaugural members. She firmly supported the Institute's aims and activities, serving as a councillor in 1935 and as vice-president in 1940-41. Her design of a sprig of fruiting rimu was voted into the NZIF official seal. Shy as she was, she needed some encouragement before she showed the design to members at one of

the early Institute meetings. She was also appointed a Fellow of the Society of Foresters in Great Britain in 1928.

Mary's career was cut short when ill health suffered during field-work in Central Otago during 1954 led to her death on March 11, 1955. Mary's contribution to forestry is remembered each year in the Mary Sutherland Award granted to a student member of the New Zealand Institute of Forestry.

Mary Sutherland broke new ground for all women in forestry. She was not only

the first woman forester in New Zealand, but the first in the British Empire and possibly the world.

**Pip Lynch**

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## NEW INFORMATION

### **NATIONAL EXOTIC FOREST DESCRIPTION:**

(A) "YIELD TABLES AS AT 1 APRIL 1991", by A. Neumann and C. Perley, November 1992, Ministry of Forestry.

(B) "1992 NATIONAL AND REGIONAL WOOD SUPPLY FORECASTS", by J. Turland, S. Wakelin and P. Lane, April 1993, Ministry of Forestry.

Both these Ministry of Forestry publications are very valuable documents for people involved in wood supply planning regionally and nationally within New Zealand. The first of these provides information on crop-type yields by species, broad silvicultural regime and locality, while the second makes use of the crop yields provided in the first, together with area data, to examine five regional and national wood supply scenarios. The two publications are closely linked, and so they are described briefly and their contents discussed together, rather than individually.

The two publications differ in the areas of plantation forest that have been directly captured. The "Yield Tables" publication quotes a total area of 1,167,546 ha as at April 1, 1991. The corresponding figure given in the 1992 Wood Supply Forecasts publication is 1,158,427 ha, based on the 1990 net stocked areas which were then updated to April 1, 1992 with new planting and restocking estimates. Curiously, the former is probably more accurate, even though the second study was the later one to be published. As pointed out in the May 1993 journal, basic forest description data for New Zealand are becoming increasingly outdated because of the ever faster pace of harvesting in the last one or two years. An update of areas to April 1, 1993 should be a very high priority project, so that a study of the impacts of harvests in 1991-92 and 1992-93 on the

residual forest estate can be evaluated. The areas listed in the two publications both refer only to the statistics that are directly captured from major forest owners. It is believed that they contribute more than 90% of the area. As the tempo of planting by smaller owners continues to escalate, it becomes more and more vital to document their contribution. Reliable ways to do so need to be implemented urgently.

## **BOOK REVIEWS**

The yield tables are based largely on what individual owners perceive to be representative crop-type averages in their holdings. Sometimes these are extrapolated to other crop types that are adjudged to be similar. This would be perfectly acceptable, and in line with the errors associated with yield tables, provided that all contributors extended their yield forecasts out to at least 60 years. But several cut them off earlier (e.g. Auckland radiata pine at 40; Central North Island, Hawkes Bay, Nelson/Marlborough radiata pine at age 44; East Coast Douglas fir at 42; and so on). This has some repercussions on the weighted national and regional yield tables as well as on the individual crop-type ones; consequently, most of the m.a.i. curves are quite unrealistic beyond 40 years of age. This in turn affects the reliability of wood supply forecasts from the 32,000 hectares or more that are already over 40 years of age, unless the national yield tables discussed here were adjusted for the FOLPI runs. If they were, then that undermines the value of releasing information that all planners should start from.

Let me illustrate this further with an apparent inconsistency in the wood supply forecasts: The maximum m.a.i.'s are  $20 \text{ m}^3 \text{ ha}^{-1} \text{ an}^{-1}$  for radiata pine at ages 38 or 39 years, 16.9 at 50 for Douglas fir, 10.8 at 35 for other softwoods and 16.0 at 20 for hardwoods. The base cut scenario in the wood supply forecasts publication has a target rotation of 30 years for radiata pine, at which age the average m.a.i. is quoted as being  $19.2 \text{ m}^3 \text{ ha}^{-1} \text{ an}^{-1}$ . Theoretically then, even if the whole area of 1,158,427 ha was in radiata pine, the maximum possible sustainable yield could only be  $1,158,427 \times 20 = 23.17 \text{ Mm}^3/\text{annum}$  for a 38-year rotation and  $1,158,427 \times 19.2 = 22.24 \text{ Mm}^3/\text{an}$  on the specified 30-year target rotation. But the FOLPI wood supply forecasts give 23.3  $\text{Mm}^3$  in year 2006, rising slowly to 23.7  $\text{Mm}^3$  in 2021.

This inconsistency may well arise because of the influence of thinnings, but I cannot check that source of contribution properly, because the yield tables do not deal with this aspect well either. The yield tables are smoothed out net of thinning, which leads to anomalies and some confusion: for example, the Auckland intensively tended radiata pine yield table has a thinnings yield of  $110 \text{ m}^3/\text{ha}$  at age 10 but a clear felling recoverable volume of  $32 \text{ m}^3/\text{ha}$  at age nine and  $40 \text{ m}^3/\text{ha}$  at age 10, while the minimum tended regime has a production thinning of  $150 \text{ m}^3/\text{ha}$  at age 14 but a clearfell recoverable volume of  $65 \text{ m}^3/\text{ha}$  at age 13 and  $75 \text{ m}^3/\text{ha}$  at age 14. This may be a form of representation that is needed for analysis with FOLPI, the tool used in the Ministry's wood supply analysis, but it is not suited to other planning tools, nor does it make much sense biologically.

A better way to present these yield tables in the future would be as follows: