ciate Lecturer in the Department of Geography at Massey University, and as such is free of any possible professional forestry bias.

For those who are unfamiliar with events leading up to the creation of the independent State Forest Service in 1921 it is a very readable account of the varying attitudes towards "forestry" in a country where the land settlement ethos was paramount and where the dominance of farming as a form of land use remained unchallenged, with few exceptions, until recent times. Foresters and administrators will enjoy reading of the antagonism between the professional exponents of sustained yield management, founded mainly on overseas experience, and politicians who saw the problems as peculiar to New Zealand. For example, the lack of tact and diplomacy displayed by David Hutchins, an eminent forester of the day, brought in as an adviser in 1915, is evident in William Massey's plaint to Sir Francis Bell, wanting to know if Hutchins objected to him as Prime Minister.

The book is in six parts, beginning with an introduction that sets the scene by observing that the historical dimension of many contemporary concerns has not been appreciated or thoroughly investigated, and that such a perspective reveals that some of the issues of the moment (i.e. during the controversy prior to the restructuring of the Forest Service) have been raised by earlier generations. Moreover, to some extent, present events were locked into constraints inherited from the past. The author then sets about achieving his twin objectives – "firstly to explore the antecedents of the contemporary forestry scene, thereby to reveal enduring concerns and impacts, and secondly to examine the place of forest policy and management in the nineteenth century through to about 1919 in order to better understand New Zealand's past".

This he does in four succeeding chapters: –

- Regulation Without Control: Forest Management during the Colonial Period, 1840 – 1876.
- Private and State Tree Planting 1850 – 1919.
- Scientific Forestry and State Management of Indigenous Forests.
- Restoring State Forestry: The Early Years 1896 – 1919.

The last two chapters have their own summaries, and the book is rounded off by a thoughtful Conclusion which relates the past to the near present and implies some sympathy for the Forest Service, "for so long a lone advocate of regulated resource use" being accused of "wanton destruction by public groups who advocated differing conservation goals".

Though short, the book is well structured and to the point. It is well presented with lists of contents and tables, a comprehensive bibliography and a useful index. A higher standard of proofreading would have eliminated several spelling errors.

The approach by the author has been to differentiate the official, popular, and scientific viewpoints in the development of forestry policy and to show how these were reconciled, or more correctly, resolved, not always to the satisfaction of the protagonists of a particular line. A future generation would be well served in the year 2000 by an equally diligent researcher adopting a similar technique in analysing the influences at work and what will have been achieved in the second 80 years of forestry in New Zealand.

M.J. Conway

In our Contemporaries

N.Z. Journal of Forestry Science

GROWTH OF *PINUS RADIATA* ON RIPPED AND UNRIPPED TAUPO PUMICE SOIL.

By E.G. Moscow and A.W.J. Cullen
Vol. 16 (1): 1986

Studies in Kaingaroa Forest showed that the extra soil volume provided by ripping led to extra tree growth on Kaingaroa gravelly sand, but not on Kaingaroa loamy sand. It was also demonstrated that root growth ceases when soil resistance to penetration exceeds 3 MPa.

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GROWTH RESPONSE OF *PINUS RADIATA* TO FERTILIZER AND HERBICIDE TREATMENT IN A CLEARFELLED LOGGED AND A CLEARFELLED LOGGED AND BURNED *NOTHOFAGUS* FOREST

By K.M. Phillips and K.M. Goh
Vol. 16 (1): 1986

Seedlings in the burned treatments showed less mortality and better height and diameter growth than those in the unburned treatments. Fertilizer did not affect growth rates but herbicide application induced a small increase.

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WHAT SITE FACTORS DETERMINE 4-YEAR BASAL AREA RESPONSE OF *PINUS RADIATA* TO NITROGEN FERTILIZER?

By I.R. Hunter, J.D. Graham, J.M. Prince, and G.M. Nicholson
Vol. 16 (1): 1986

Large positive responses in basal area growth tended to occur in stands less than 10 years old, particularly on nitrogen-poor soils and if they had recently been pruned or thinned, with smaller positive responses in older stands and those on soil with total-N>0.2% and negative responses on soils with *Bray-P<10 ppm.*

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CHANGES IN *PINUS RADIATA* STEM FORM IN RESPONSE TO NITROGEN AND PHOSPHORUS FERTILIZER

By A. Gordon and J.D. Graham
Vol. 16 (1): 1986

Application of phosphorus leads to thinner bark and a small improvement in form, while nitrogen alone results in a slight deterioration in form. A weak negative relationship between change in form and basal area response suggests that only when basal area response exceeds 35% will average form improve by more than 2.5%.

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GROWTH DECLINE AND PHOSPHORUS RESPONSE BY DOUGLAS FIR ON A DEGRADED HIGH-COUNTRY YELLOW-BROWN EARTH

By M.C. Belton and M.R. Davis
Vol. 16 (1): 1986

Superphosphate increased needle nitrogen content, but no response was obtained to nitrogen applied as urea either alone or in combination with other nutrients. Immobilization of urea-nitrogen in soil organic matter may have contributed to the failure of trees in the field trial to respond to nitrogen.

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SOIL DEVELOPMENT UNDER *PINUS RADIATA* AND *EUYCALYPTUS REGNANS* PLANTATIONS

By M.F. Jurgensen, D.J. Frederick, H.A.I. Madgwick and G.R. Oliver
Vol. 16 (1): 1986

Up to age 17 years the weight of the forest floor and the concentrations of nitrogen, phosphorus, and potassium in the forest floor were higher under *P. radiata* than *E. regnans,* and the concentration of calcium was lower.

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NZ Journal of Botany

HARD BEECH *(NOTHOFAGUS TRUNCATA)* DECLINE ON THE MAMAKU PLATEAU

By G.P. Hosking and J.A. Hutcheson
Vol. 24: 263-269

An investigation into the decline of hard beech on the Mamaku Plateau showed tree death to be due to a loss of new foliage over successive seasons. Severely affected trees shed more than 30% of newly flushed foliage as a result of attack by the leaf-mining weevil *Neomycta pulicaris* with further losses from attack by the tineid moth *Heliostibes vibratrix.* Growth and climatic data suggest decline was initiated by drought, with worst affected stands on sites with lowest soil moisture retention capability.

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ETIOLOGY OF FOREST DIEBACK AREAS WITHIN THE KAIMAI RANGE

G.T. Jane and T.G.A. Green
Vol. 24: 513-527

Severe forest decline exists in upland areas of the Kaimai Range. Stand structure of major affected vegetation types is described. As stand dominants are well represented in induced seral vegetation, the overall species composition of the upland forests is not likely to change following decline. Within the decline zone a considerable range of forest damage is found. Characteristic damage types are described including effects on seedling vigour, root system development, and shoot phenology. The decline appears to result from a sequence of natural phenomena. High fog occurrence coincides with the decline zone producing soil waterlogging and generally poor growth conditions. This predisposes the forests to periodic drought damage.

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FRI Bulletins

No. 103

BORON, LEAD, AND ZINC AS CONTAMINANTS IN FOREST ECOSYSTEMS: A LITERATURE REVIEW

By R.W. Parker, A.L. Parker 1986

This report reviews published information on the effects of boron, lead, and zinc on tree growth, animal health, and ecosystem processes that influence forest productivity.
$8.50 + GST.

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No. 112

PROPERTIES OF NEW ZEALAND-GROWN POPLAR

By D. Williams, I. Simpson, H. Bier 1986

Sawing, drying, machining, preservative treatment, pulp and paper and ethanol production from poplar have been studied. Properties affecting utilization are described, including mechanical properties, natural durability, anatomical features, and physical properties. The current commercial status of poplar is presented.
$5.00 + GST

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No. 116

COMMERCIAL UTILIZATION STUDY OF RADIATA PINE THINNINGS FOR SAWN TIMBER PRODUCTION

By A.N. Haslett, D.L. McConchie 1986

Thinnings from 14-year-old radiata pine in the Taupo area were sawn without problem to produce reasonable visual

grade recoveries, although productivity was significantly reduced, machine stress grade recoveries were poor, and the timber was prone to severe warp during drying.
$5.00 + GST

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No. 119

PROPERTIES AND UTILIZATION OF EXOTIC SPECIALITY TIMBERS GROWN IN NEW ZEALAND

By A.N. Haslett 1986

Part I: Notes on timber properties and test methods.
This explanatory booklet leads a series of booklets which detail the wood properties and utilization of exotic, speciality species grown in New Zealand. It describes the wood tests conducted, the properties evaluated, and the commercial significance of these properties to timber uses.
$5.00 + GST

Part II: Australian blackwood.
This booklet summarizes the properties and recommended utilization procedures for New Zealand-grown blackwood. Blackwood timber is easy to process. The wood is similar to that of Australian-grown material, with its attractive colour, and medium density and texture, making it suitable for a range of high-quality uses including furniture, cabinets, veneers, and others.
$5.00 + GST

Part III: Cypresses.
This booklet summarizes the properties and recommended utilization procedures for the major cypress species grown in New Zealand. It includes information on macrocarpa, lusitanica, Lawson cypress, and Leyland cypress. Apart from difficulties with drying, particularly for macrocarpa, these species are relatively easy to process. The species have similar wood, characterized by an attractive grain, a medium to low density, and more importantly natural durability, low shrinkage, and excellent stability. Cypress wood is highly suitable for use in exterior joinery, weatherboards, and boat-building. Although it is currently used in furniture, the low surface hardness of cypress wood detracts from this use.
$5.00 + GST

Part IV: Black walnut.
This booklet summarizes the properties and recommended uses for New Zealand-grown black walnut. The wood has very similar properties to that of black walnut grown in America, thereby making it suitable for a range of high-quality uses including veneer, furniture, gun stocks, and turnery.
$5.00 + GST

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No. 121

SILVICULTURAL MANAGEMENT OF THE RIMU FORESTS OF SOUTH WESTLAND

By I.L. James 1987

The silvicultural history, including selective logging and coupe-felling trials, of the rimu forests of South Westland is documented. A more passive approach by which only trees near the end of their natural lifespan and windthrown trees are harvested is recommended. To minimize forest damage, bush milling and heavy-lift helicopters are recommended.
$8.00 + GST

No. 123

THE EASTERN USSR: FOREST RESOURCES AND FOREST PRODUCTS EXPORTS TO JAPAN

By R.T. Fenton, F.M. Maplesden 1986

The forest resource in the Eastern USSR; the species, volume, size, and timber quality; transport and infrastructural developments over the last decade; and the export performance of Soviet forest products since 1955 are evaluated.
$200.00 + GST.

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No. 124

INTRODUCED FOREST TREES IN NEW ZEALAND: RECOGNITION, ROLE, AND SEED SOURCE

By J.T. Miller, F.B. Knowles 1986

Part 1: *Pinus nigra* Arn. – European black pine.
This first booklet in a bulletin series provides a brief account of *Pinus nigra* Arn. in New Zealand, referring to its introduction, history, and role as an exotic forest species, its recognition in the field, and the location and quality of current local seed sources.
$7.00 + GST.

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No. 125

A KEY TO THE IDENTIFICATION OF 92 SPECIES OF *EUCALYPTUS* FOUND IN NEW ZEALAND

By C.E. Ecroyd 1986

This punched card key with explanatory notes has been designed to assist in the identification of eucalypts. It consists of 78 cards coded for 92 species, and is a poly-clave (multiple entry) key employing one card per character state. The characters used are clearly illustrated on the cards.
$20.00 + GST.

FELLOWSHIP OF THE INSTITUTE

Members will be aware that the Constitution was altered in May 1987 to provide for the institution of a fellowship. Copies of the amended Constitution should now be in the hands of all members. Council has now determined the procedure by which the initial members of the Fellowship will be identified.

(a) It will be Institute policy that the fellowship will generally include not more than 100 members.
(b) Council have invited four distinguished members to become the initial Fellows. These four, together with the President and Vice President, will invite not more than a further 50 members to apply for Fellow status.
(c) A committee comprising the President and three Fellows will consider any applications for fellowship made in accordance with the constitution, beginning after the 1988 Annual General Meeting.

J.S. Holloway
HONORARY SECRETARY